

Appendix E

ACM and LBP Survey Data and Reports



LCA Environmental, Inc.
13221 Bee Street
Farmers Branch, TX 75234
Phone: 972-241-6680
Fax: 972-241-6689
www.LCAenvironmental.com

Limited Asbestos Inspection

July 3, 2013

Client: Mr. Ron Moore
Quaternary Resource Investigations, LLC
3809 Camino Drive
Plano, Texas 75074

Project Site: Unit C102 - Single Family Dwelling
Falcon Village, Texas 78545

LCA Project No.: 130602

Area Sampled: Unit C102 - Single Family Dwelling

TDSHS Inspector and License: Thomas Hale, TDSHS License #602545

Date of Limited Asbestos Inspection: June 18, 2013

Total Samples Collected: 40

This inspection scope of work was limited to building materials which would be impacted by the planned demolition of the building.

On the above-referenced date, LCA Environmental, Inc. (LCA) collected bulk samples of suspect asbestos-containing building material (ACBM) at the above-referenced Project Site. The materials sampled came from areas that were identified by the Client as being subject to proposed renovation and/or demolition. The samples were submitted to a laboratory accredited by the National Voluntary Laboratory Accreditation Program and licensed by the Texas Department of State Health Services (TDSHS) to conduct asbestos analysis. The findings of this limited asbestos inspection are as follows:

Laboratory results are greater than 1% asbestos for one or more of the samples collected and submitted for laboratory analysis. Therefore, at least a portion of the building materials that will be disturbed during renovation and/or demolition are ACBM as defined by the National Emission Standard for Hazardous Air Pollutants (NESHAP 40 CFR 61, Subpart M).

ACBM Summary Table
Unit C102 - Single Family Dwelling
Entire Building.
Falcon Village, Texas 78545

| Identified ACBM | Asbestos Content | Approximate Location | Approximate Quantity |
|---|---|----------------------|-----------------------|
| Gypsum board ceilings with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 1,350 ft ² |
| Gypsum board walls with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 3,320 ft ² |
| Ceramic tile grout and bed walls and floors | 2% Chrysotile (bedding) | Two bathrooms | 355 ft ² |
| Vinyl sheet flooring | 3% Chrysotile (black mastic) and 5% (green floor tile beneath sheet flooring) | Throughout | 1,245 ft ² |
| Exterior stucco | 2% Chrysotile | Exterior of building | 1,450 ft ² |

See attached Figure 1 - Sample Location Plan and Figure 2 - Asbestos Location Plan for further detail regarding sample locations and general extent of identified ACBM

Recommendations

In accordance with the EPA NESHAP regulations, these materials must be removed prior to any activity that might be expected to disturb them. The removal of these materials must be performed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer.

The findings and opinions of this limited asbestos inspection are not scientific certainties but rather opinions based on our professional judgment concerning the significance of the data gathered during the course of the limited asbestos inspection. LCA does not represent that the Project Site contains no hazardous or toxic materials, wastes, or other latent conditions beyond the observations made by LCA during the limited asbestos inspection and the information obtained from the other activities in the scope of work.

LCA is not responsible for any omissions or inaccuracies of any sort that arise as a result of the Client's failure or inability to provide Project Site information or data. LCA makes no warranties or representations, expressed or implied, beyond those expressed in the Standard Contract for Services and this limited asbestos inspection report.

This limited asbestos inspection report has been prepared for the exclusive use of the Client and its direct representatives and associates to assist with their efforts to identify potential environmental concerns connected with the Project Site. LCA does not authorize the use of this limited asbestos inspection report for any purpose other than that for which it is prepared.

Only those suspect ACBM that are specifically discussed in this limited asbestos inspection report were identified or addressed during this project. It is possible that other ACBM may exist at this Project Site in areas that were not seen or were concealed or otherwise inaccessible (e.g., behind walls, above ceilings, inside old air ducts, etc.). It is also possible that other accessible ACBM may exist at this Project Site in areas that were not identified by the Client as subject to proposed renovation and/or demolition. Samples were not collected of typically non-ACBM such as concrete, steel, plastic, glass, and paint. The identification or addressing of other potential ACBM was outside the scope of service of this contract. LCA assumes no responsibility or liability for any ACBM at the Project Site.

LCA represents that the work performed on this project was performed by qualified individuals, trained and licensed to perform their respective duties (see attached licenses). LCA further represents that work performed on this project by LCA or people under LCA's direct control was performed in a manner and fashion consistent with commonly accepted standards and practices within the asbestos industry in this area during the project period.

Prepared By:



Thomas A. Hale
TDSHS AI 602545

Reviewed By:



Edw. B. Barganier,
Building Sciences Program Manager
TDSHS IAC 105519

Attachments:

LCA Certifications

Figure 1 - Sample Location Plan

Figure 2 - Asbestos Location Plan

Steve Moody Micro Services, Report No. 13B-06928



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

LYNN CLARK ASSOCIATES INC DBA

is certified to perform as a

Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

A handwritten signature in dark ink, appearing to read "David Lakey MD".

DAVID LAKEY, M.D.
COMMISSIONER OF HEALTH

License Number: 100285

Control Number: 96450

Expiration Date: 12/15/2013

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



**Texas Department of
State Health Services**

Asbestos Individual Consultant

EDWARD B BARGANIER

License No. 105519

Control No. 96396

Expiration Date: 11/9/2014



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
BPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/11/2013 for the annual update:

**Design of ACBM Abatement Projects
NESHAP Trained Person**


100.000.370.033

6/11/2014

Certificate Number

Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 8/15/2012 for the annual update:


Inspecting Buildings for ACBM

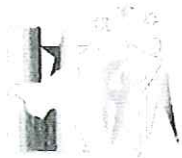
100.000.370.031
Certificate Number

8/15/2013
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379




John M. Barrett, Jr. - Instructor
Director of Training



**Texas Department of
State Health Services**

Asbestos Inspector

THOMAS A HALE

License No. 602545

Control No. 97247

Expiration Date: 4/18/2015



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Thomas Hale

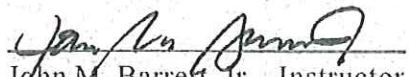
has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/12/2013 for the annual update:

Inspecting Buildings for ACBM

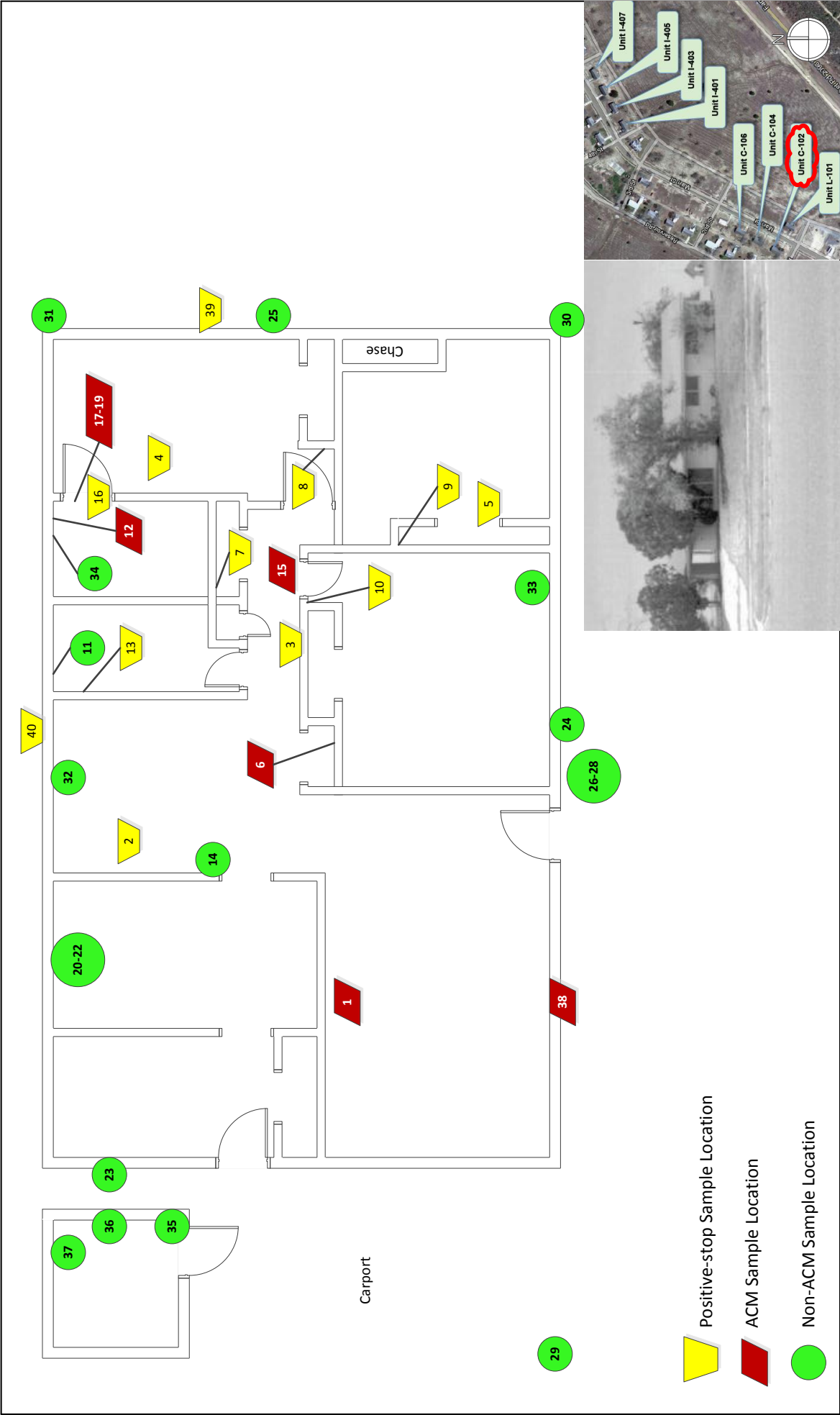
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Certificate Number



6/12/2014
Expiration Date

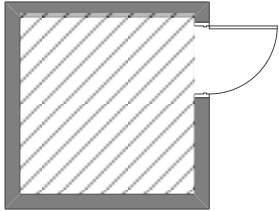
Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training

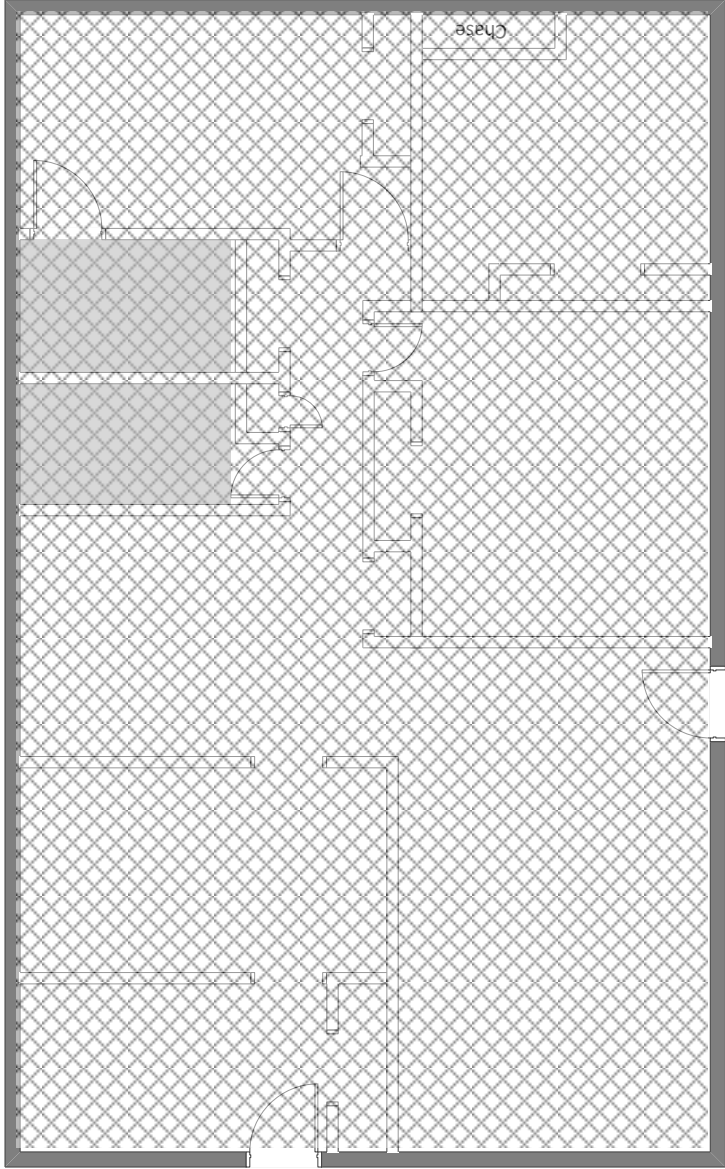




| | | | | |
|---|----------------|---|---|---|
|  | |  NOT TO SCALE | Quanternary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas | Figure 1 Unit C102 Sample Location Plan |
| Drawn By: EBB | Date: 07/02/13 | Location: CBP-Owned Housing, Falcon Village, Texas | | LCA Project No.: 130602 |
| Approved By: TAH | Date: 07/02/13 | Source: LCA Field Sketch | | Filename: Fig1-C102 Sample Location Plan |



Carport



ACM Exterior Stucco



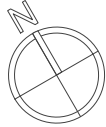
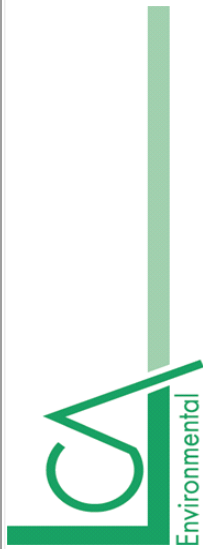
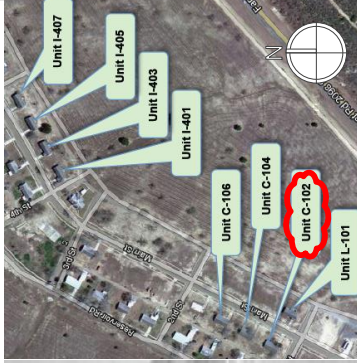
ACM grout and bed associated with ceramic tile walls & floors



ACM text./joint comp. associated with gyp-brd walls and ceilings



ACM vinyl flooring and black mastic



NOT TO SCALE

Quanternary Resource Investigations, LLC
NESHAP Compliance Asbestos Survey
CBP-Owned Housing, Falcon Village, Texas

Figure 2
Unit C102
ACBM Location Plan

Drawn By: EBB

Date: 07/02/13

Location: CBP-Owned Housing, Falcon Village, Texas

LCA Project No.: 130602

Approved By: TAH

Date: 07/02/13

Source: LCA Field Sketch

Filename: Fig2-C102 ACBM Location Plan

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06928

Project : Falcon Village, Unit C102

Report Date : 06/24/2013

Project # : 130602

Sample Date : 06/18/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 1 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|---|
| B1-1A | Gypsum Board Ceiling with Texture and Joint Compound, Living Room | None Detected - Gypsum Board 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| B2-1B | Gypsum Board Ceiling with Texture and Joint Compound, Dining Area | Not Analyzed - Positive Stop |
| B3-1C | Gypsum Board Ceiling with Texture and Joint Compound, Hallway | Not Analyzed - Positive Stop |
| B4-1D | Gypsum Board Ceiling with Texture and Joint Compound, North Bedroom | Not Analyzed - Positive Stop |
| B5-1E | Gypsum Board Ceiling with Texture and Joint Compound, East Bedroom | Not Analyzed - Positive Stop |
| B6-2A | Gypsum Board Walls with Texture and Joint Compound, Hall, Closet | None Detected - Gypsum Board 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| B7-2B | Gypsum Board Walls with Texture and Joint Compound, North Hall, Closet | Not Analyzed - Positive Stop |
| B8-2C | Gypsum Board Walls with Texture and Joint Compound, North Bedroom | Not Analyzed - Positive Stop |
| B9-2D | Gypsum Board Walls with Texture and Joint Compound, East Bedroom, Closet | Not Analyzed - Positive Stop |
| B10-2E | Gypsum Board Walls with Texture and Joint Compound, South Bedroom, at Door | Not Analyzed - Positive Stop |
| B11-3A | Ceramic Tile Grout and Bed Walls, South Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Thinset |
| B12-3B | Ceramic Tile Grout and Bed Walls, North Bathroom | None Detected - Ceramic Tile None Detected - Grout 2% Chrysotile - Thinset |
| B13-3C | Ceramic Tile Grout and Bed Walls, South Bathroom | Not Analyzed - Positive Stop |

PLM Summary Report

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Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06928

Project : Falcon Village, Unit C102

Report Date : 06/24/2013

Project # : 130602

Sample Date : 06/18/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 2 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|---|
| B14-4A | Vinyl Sheet Flooring, Dining Room | None Detected - Sheet Flooring None Detected - Fiber Backing None Detected - Floor Tile None Detected - Yellow Mastic |
| B15-4B | Vinyl Sheet Flooring, at Door to South Bedroom | None Detected - Sheet Flooring None Detected - Fiber Backing None Detected - Yellow Mastic 5% Chrysotile - Black Mastic None Detected - Floor Tile None Detected - Yellow Mastic 3% Chrysotile - Floor Tile |
| B16-4C | Vinyl Sheet Flooring, North Bedroom | Not Analyzed - Positive Stop |
| B17-5A | Ceramic Tile Grout and Bed Floor, North Bathroom | None Detected - Ceramic Tile None Detected - Grout 2% Chrysotile - Thinset |
| B18-5B | Ceramic Tile Grout and Bed Floor, North Bathroom | Not Analyzed - Positive Stop |
| B19-5C | Ceramic Tile Grout and Bed Floor, South Bathroom | Not Analyzed - Positive Stop |
| B20-6A | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| B21-6B | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| B22-6C | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| B23-7A | Window Caulking, Laundry Room, Window | None Detected - Caulking |
| B24-7B | Window Caulking, Front Window | None Detected - Caulking |
| B25-7C | Window Caulking, North Side of House | None Detected - Caulking |
| B26-8A | Brick and Mortar, Front Planter Box | None Detected - Brick None Detected - Mortar |
| B27-8B | Brick and Mortar, Front Planter Box | None Detected - Brick None Detected - Mortar |

PLM Summary Report

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Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 3 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|--|
| B28-8C | Brick and Mortar, Front Planter Box | None Detected - Brick None Detected - Mortar |
| B29-9A | Roofing, South Corner | None Detected - Roofing Material None Detected - Roofing Felt |
| B30-9B | Roofing, East Corner | None Detected - Roofing Material None Detected - Roofing Felt |
| B31-9C | Roofing, North Corner | None Detected - Coating None Detected - Roofing Material None Detected - Roofing Felt |
| B32-10A | Plaster Wall, Perimeter, Dining Room | None Detected - Grey Plaster None Detected - White Plaster |
| B33-10B | Plaster Wall, Perimeter, South Bedroom | None Detected - Grey Plaster None Detected - White Plaster None Detected - Plaster Texture None Detected - Mortar |
| B34-10C | Plaster Wall, Perimeter, East Bedroom | None Detected - Grey Plaster None Detected - White Plaster |
| B35-11A | CMU with Block Filler, Storage Room | None Detected - CMU None Detected - Mortar Filler |
| B36-11B | CMU with Block Filler, Storage Room | None Detected - CMU None Detected - Mortar Filler |
| B37-11C | CMU with Block Filler, Storage Room | None Detected - CMU None Detected - Mortar Filler |
| B38-12A | Exterior Stucco, East Side | 2% Chrysotile - Stucco None Detected - Plaster |
| B39-12B | Exterior Stucco, North Side | Not Analyzed - Positive Stop |
| B40-12C | Exterior Stucco, West Side | Not Analyzed - Positive Stop |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06928

Project : Falcon Village, Unit C102

Report Date : 06/24/2013

Project # : 130602

Sample Date : 06/18/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600 / R-93 / 116

Page 4 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--------------------------------------|------------------|
| | | |

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.



Analyst(s): Tommie Smith

Lab Manager : Bruce Crabb

Lab Director : Steve Moody

Approved Signatory :

Approved Signatory :

Thank you for choosing Steve Moody Micro Services

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C102

Project # : 130602

Lab Job No. : 13B-06928

Report Date : 06/24/2013

Page 1 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-------------------------------|-------------|--------------------------|------------|---------------|---------|
| B1-1A | Gypsum Board (White) | 20% | Cellulose Fibers | 5% | 06/24 | TS |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 30% | Cellulose Fibers | 100% | | |
| | Joint Compound (Tan) | 25% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| | Texture (White) | 25% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| B2-1B | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B3-1C | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B4-1D | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B5-1E | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B6-2A | Gypsum Board (White) | 35% | Cellulose Fibers | 5% | 06/24 | TS |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 35% | Cellulose Fibers | 100% | | |
| | Joint Compound (Tan) | 15% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| | Texture (White) | 15% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| B7-2B | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B8-2C | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B9-2D | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B10-2E | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B11-3A | Ceramic Tile (White) | 75% | Sintered Clays | 100% | 06/24 | TS |
| | Grout (White) | 10% | Calcite / Binders | 100% | | |
| | Thinset (Grey) | 15% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

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Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C102

Project # : 130602

Lab Job No. : 13B-06928

Report Date : 06/24/2013

Page 2 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------------|------------|---------------|---------|
| B12-3B | Ceramic Tile (White) | 80% | Sintered Clays | 100% | 06/24 | TS |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Thinset (Grey) | 15% | Chrysotile | 2% | | |
| | | | Aggregate | 63% | | |
| | | | Cement Binders | 35% | | |
| B13-3C | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B14-4A | Sheet Flooring (Tan) | 25% | Synthetic Foam | 70% | 06/24 | TS |
| | | | Vinyl Binders | 30% | | |
| | Fiber Backing (Light Grey) | 25% | Cellulose Fibers | 50% | | |
| | | | Glass Wool Fibers | 5% | | |
| | | | Calcite / Binders | 45% | | |
| | | | | | | |
| | Floor Tile (Beige) | 45% | Calcite / Vinyl Binders | 100% | | |
| | Yellow Mastic (Yellow) | 5% | Glue Binders | 100% | | |
| B15-4B | Sheet Flooring (Tan) | 25% | Synthetic Foam | 70% | 06/24 | TS |
| | | | Vinyl Binders | 30% | | |
| | Fiber Backing (Light Grey) | 25% | Cellulose Fibers | 50% | | |
| | | | Glass Wool Fibers | 5% | | |
| | | | Calcite / Binders | 45% | | |
| | | | | | | |
| | Yellow Mastic (Yellow) | 1% | Glue Binders | 100% | | |
| | Black Mastic (Black) | 3% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| | Floor Tile (Beige) | 36% | Calcite / Vinyl Binders | 100% | | |
| | Yellow Mastic (Yellow) | 5% | Glue Binders | 100% | | |
| | Floor Tile (Green) | 5% | Chrysotile | 3% | | |
| | | | Calcite / Vinyl Binders | 97% | | |
| B16-4C | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C102

Project # : 130602

Lab Job No. : 13B-06928

Report Date : 06/24/2013

Page 3 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------|------------|---------------|---------|
| B17-5A | Ceramic Tile (Blue) | 65% | Sintered Clays | 100% | 06/24 | TS |
| | Grout (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Thinset (Grey) | 25% | Chrysotile | 2% | | |
| | | | Aggregate | 63% | | |
| | | | Cement Binders | 35% | | |
| B18-5B | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B19-5C | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B20-6A | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/24 | TS |
| | | | Tar Binders | 60% | | |
| B21-6B | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/24 | TS |
| | | | Tar Binders | 60% | | |
| B22-6C | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/24 | TS |
| | | | Tar Binders | 60% | | |
| B23-7A | Caulking (White) | 100% | Calcite | 50% | 06/24 | TS |
| | | | Binders / Fillers | 50% | | |
| B24-7B | Caulking (White) | 100% | Calcite | 50% | 06/24 | TS |
| | | | Binders / Fillers | 50% | | |
| B25-7C | Caulking (White) | 100% | Calcite | 50% | 06/24 | TS |
| | | | Binders / Fillers | 50% | | |
| B26-8A | Brick (Orange) | 90% | Sintered Clays | 100% | 06/24 | TS |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| B27-8B | Brick (Orange) | 90% | Sintered Clays | 100% | 06/24 | TS |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| B28-8C | Brick (Orange) | 85% | Sintered Clays | 100% | 06/24 | TS |
| | Mortar (Grey) | 15% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C102

Project # : 130602

Lab Job No. : 13B-06928

Report Date : 06/24/2013

Page 4 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|--------------------------|-------------|-------------------|------------|---------------|---------|
| B29-9A | Sand Layer (Green) | 10% | Aggregate | 100% | 06/24 | TS |
| | Roofing Material (Black) | 50% | Glass Wool Fibers | 25% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 45% | | |
| | Roofing Felt (Black) | 40% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| B30-9B | Sand Layer (Green) | 10% | Aggregate | 100% | 06/24 | TS |
| | Roofing Material (Black) | 65% | Glass Wool Fibers | 25% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 45% | | |
| | Roofing Felt (Black) | 25% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| B31-9C | Coating (White) | 2% | Calcite | 5% | 06/24 | TS |
| | | | Binders / Fillers | 95% | | |
| | Sand Layer (Green) | 10% | Aggregate | 100% | | |
| | Roofing Material (Black) | 63% | Glass Wool Fibers | 25% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 45% | | |
| | Roofing Felt (Black) | 25% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| B32-10A | Grey Plaster (Grey) | 10% | Aggregate | 65% | 06/24 | TS |
| | | | Calcite / Binders | 35% | | |
| | White Plaster (White) | 90% | Calcite / Binders | 100% | | |
| B33-10B | Grey Plaster (Grey) | 35% | Aggregate | 65% | 06/24 | TS |
| | | | Calcite / Binders | 35% | | |
| | White Plaster (Tan) | 25% | Aggregate | 65% | | |
| | | | Calcite / Binders | 35% | | |
| | Plaster Texture (White) | 35% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 5% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C102

Project # : 130602

Lab Job No. : 13B-06928

Report Date : 06/24/2013

Page 5 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------|------------|---------------|---------|
| B34-10C | Grey Plaster (Grey) | 65% | Aggregate | 65% | 06/24 | TS |
| | | | Calcite / Binders | 35% | | |
| | White Plaster (Tan) | 35% | Aggregate | 65% | | |
| | | | Calcite / Binders | 35% | | |
| B35-11A | CMU (Grey) | 65% | Aggregate | 65% | 06/24 | TS |
| | | | Cement Binders | 35% | | |
| | Mortar Filler (Grey) | 35% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| B36-11B | CMU (Grey) | 65% | Aggregate | 65% | 06/24 | TS |
| | | | Cement Binders | 35% | | |
| | Mortar Filler (Grey) | 35% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| B37-11C | CMU (Grey) | 50% | Aggregate | 65% | 06/24 | TS |
| | | | Cement Binders | 35% | | |
| | Mortar Filler (Grey) | 50% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| B38-12A | Stucco (Tan) | 5% | Chrysotile | 2% | 06/24 | TS |
| | | | Aggregate | 63% | | |
| | Plaster (Grey) | 95% | Binders / Fillers | 35% | | |
| | | | Aggregate | 65% | | |
| B39-12B | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| B40-12C | Not Analyzed - Positive Stop | 100% | | | 06/24 | TS |
| | | | | | | |

Chain of Custody

Page 1 of 2



Lab Job # 13B-06928 PLM 40
 Lab Job # _____
 Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.

Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM

Bulk ☐ 1 day ☐ 2 day ☒ 3 day ☐ 5 day ☐ Immediate
☐ Analyze All ☒ Positive Stop

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate
 TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD

Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile
 Analyze Blanks ☐ Yes ☐ No
 Culture (Swab / Bulk / Plate) ☐ 7-14 day

OTHER:

Billing Company / City: LCA Environmental, Inc.

Submitter's Company: LCA Environmental, Inc.

Submitter's Name: Thomas Hale

Project: FALCON VILLAGE UNIT C102

Contact Information: Name: Thomas Hale

E-mail Results to: hale@lcaenvironmental.com; barganier@lcaenvironmental.com

Invoice Address: _____

ASBESTOS TEM

Air AHERA Method ☐ 6 hr ☐ 12hr ☐ 24 hr
 Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
 Bulk/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
 Water ☐ 1 day ☐ 2 day ☐ 3 day
 Analyze Blanks ☐ Yes ☐ No

BACTERIA

Heterotrophic Plate Count (HPC) ☐ 3 day
 HPC + Gram Stain ☐ 3 day ☐ 5 day
 HPC + 3 Gram Neg ID ☐ 6-8 day
 HPC + 5 Gram Neg ID ☐ 6-8 day
 Fecal Coliform (MPN) ☐ 3 day
 Total Coliform & E Coli (P/A) ☐ 2-3 day

of Samples: 40

Sample Date: 6-18-13

Project #: 130602

Phone #: 972-241-6680

Mobile #: 214-403-8298

Fax #: 972-241-6689

P.O. #: _____

— Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees—

Notes:

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|----------|------------------------------------|---------------------------|--------------------------|
| B1 - 1A | GYP. BED CEILING W/TEXT + J. Comp. | | LIVING ROOM |
| B2 - 1B | | | DINING AREA |
| B3 - 1C | | | HALLWAY |
| B4 - 1D | | | NORTH BEDROOM |
| B5 - 1E | | | EAST BEDROOM |
| B6 - 2A | GYP BED WALLS W/TEXT + J. Comp. | | HALL CLOSET |
| B7 - 2B | | | NORTH HALL CLOSET |
| B8 - 2C | | | NORTH BEDROOM |
| B9 - 2D | | | EAST BEDROOM CLOSET |
| B10 - 2E | | | SOUTH BEDROOM AT DOOR |
| B11 - 3A | CERAMIC TILE GROUT + BED WALLS | | SOUTH BATHROOM |
| B12 - 3B | | | NORTH BATHROOM |
| B13 - 3C | | | SOUTH BATHROOM |
| B14 - 4A | VINYL SHEET FLOORING | | DINING ROOM |
| B15 - 4B | | | AT DOOR TO SOUTH BEDROOM |

| | | | |
|---------------------------------|-----------------------------------|------------------------|------------------------------------|
| Released By: <u>[Signature]</u> | Date / Time: <u>6/24/13 10:58</u> | Received By: <u>AB</u> | Date / Time: <u>6/24/13/10:57A</u> |
| Released By: _____ | Date / Time: _____ | Received By: _____ | Date / Time: _____ |

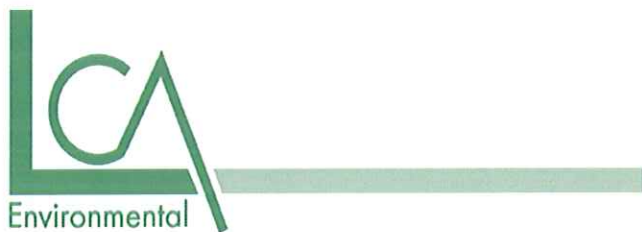
Lab Job # 13B-06928

Lab Job # _____

Lab Job # _____

Project: FALCON VILLAGE UNIT C102Project #: 130602

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|----------|--------------------------------|------------------------------|---------------------|
| B16-4C | VINYL SHEET FLOORING | | NORTH BEDROOM |
| B17-5A | CERAMIC TILE GROUT + BED FLOOR | | NORTH BATHROOM |
| B18-5B | ↓ | | ↓ |
| B19-5C | | | SOUTH BEDROOM |
| B20-6A | SINK UNDER COAT | | KITCHEN SINK |
| B21-6B | ↓ | | ↓ |
| B22-6C | | | |
| B23-7A | WINDOW CAULKING | | LAUNDRY RM WINDOW |
| B24-7B | ↓ | | FRONT WINDOW |
| B25-7C | | | NORTH SIDE OF HOUSE |
| B26-8A | BRICK + MORTAR | | FRONT PLANTER BOX |
| B27-8B | ↓ | | ↓ |
| B28-8C | | | |
| B29-9A | ROOFING | | SOUTH CORNER |
| B30-9B | ↓ | | EAST CORNER |
| B31-9C | | | NORTH CORNER |
| B32-10A | PLASTER WALL (PERIMETER) | | DINING ROOM |
| B33-10B | ↓ | | SOUTH BEDROOM |
| B34-10C | | | EAST BEDROOM |
| B35-11A | CMU w/ BLOCK FILLER | | STORAGE ROOM |
| B36-11B | ↓ | | ↓ |
| B37-11C | | | |
| B38-12A | EXT. STUCCO | | EAST SIDE |
| B39-12B | ↓ | | NORTH SIDE |
| B40-12C | | | WEST SIDE |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |



LCA Environmental, Inc.
13221 Bee Street
Farmers Branch, TX 75234
Phone: 972-241-6680
Fax: 972-241-6689
www.LCAenvironmental.com

Limited Asbestos Inspection

July 3, 2013

Client: Mr. Ron Moore
Quaternary Resource Investigations, LLC
3809 Camino Drive
Plano, Texas 75074

Project Site: Unit C104 - Single Family Dwelling
Falcon Village, Texas 78545

LCA Project No.: 130602

Area Sampled: Unit C104 - Single Family Dwelling

TDSHS Inspector and License: Thomas Hale, TDSHS License #602545

Date of Limited Asbestos Inspection: June 19, 2013

Total Samples Collected: 40

This inspection scope of work was limited to building materials which would be impacted by the planned demolition of the building.

On the above-referenced date, LCA Environmental, Inc. (LCA) collected bulk samples of suspect asbestos-containing building material (ACBM) at the above-referenced Project Site. The materials sampled came from areas that were identified by the Client as being subject to proposed renovation and/or demolition. The samples were submitted to a laboratory accredited by the National Voluntary Laboratory Accreditation Program and licensed by the Texas Department of State Health Services (TDSHS) to conduct asbestos analysis. The findings of this limited asbestos inspection are as follows:

Laboratory results are greater than 1% asbestos for one or more of the samples collected and submitted for laboratory analysis. Therefore, at least a portion of the building materials that will be disturbed during renovation and/or demolition are ACBM as defined by the National Emission Standard for Hazardous Air Pollutants (NESHAP 40 CFR 61, Subpart M).

ACBM Summary Table
Unit C104 - Single Family Dwelling
Entire Building.
Falcon Village, Texas 78545

| Identified ACBM | Asbestos Content | Approximate Location | Approximate Quantity |
|---|--|----------------------|-----------------------|
| Gypsum board ceilings with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 1,350 ft ² |
| Gypsum board walls with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 3,320 ft ² |
| Ceramic tile grout and bed walls | 2% Chrysotile (bedding) | Two bathrooms | 250 ft ² |
| Vinyl sheet flooring | 5% Chrysotile (black mastic) | Throughout | 1,245 ft ² |
| Exterior stucco | 2% Chrysotile | Exterior of building | 1,450 ft ² |

See attached Figure 1 - Sample Location Plan and Figure 2 - Asbestos Location Plan for further detail regarding sample locations and general extent of identified ACBM

Recommendations

In accordance with the EPA NESHAP regulations, these materials must be removed prior to any activity that might be expected to disturb them. The removal of these materials must be performed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer.

The findings and opinions of this limited asbestos inspection are not scientific certainties but rather opinions based on our professional judgment concerning the significance of the data gathered during the course of the limited asbestos inspection. LCA does not represent that the Project Site contains no hazardous or toxic materials, wastes, or other latent conditions beyond the observations made by LCA during the limited asbestos inspection and the information obtained from the other activities in the scope of work.

LCA is not responsible for any omissions or inaccuracies of any sort that arise as a result of the Client's failure or inability to provide Project Site information or data. LCA makes no warranties or representations, expressed or implied, beyond those expressed in the Standard Contract for Services and this limited asbestos inspection report.

This limited asbestos inspection report has been prepared for the exclusive use of the Client and its direct representatives and associates to assist with their efforts to identify potential environmental concerns connected with the Project Site. LCA does not authorize the use of this limited asbestos inspection report for any purpose other than that for which it is prepared.

Only those suspect ACM that are specifically discussed in this limited asbestos inspection report were identified or addressed during this project. It is possible that other ACM may exist at this Project Site in areas that were not seen or were concealed or otherwise inaccessible (e.g., behind walls, above ceilings, inside old air ducts, etc.). It is also possible that other accessible ACM may exist at this Project Site in areas that were not identified by the Client as subject to proposed renovation and/or demolition. Samples were not collected of typically non-ACM such as concrete, steel, plastic, glass, and paint. The identification or addressing of other potential ACM was outside the scope of service of this contract. LCA assumes no responsibility or liability for any ACM at the Project Site.

LCA represents that the work performed on this project was performed by qualified individuals, trained and licensed to perform their respective duties (see attached licenses). LCA further represents that work performed on this project by LCA or people under LCA's direct control was performed in a manner and fashion consistent with commonly accepted standards and practices within the asbestos industry in this area during the project period.

Prepared By:



Thomas A. Hale
TDSHS AI 602545

Reviewed By:



Edw. B. Barganier,
Building Sciences Program Manager
TDSHS IAC 105519

Attachments:

LCA Certifications

Figure 1 - Sample Location Plan

Figure 2 - Asbestos Location Plan

Steve Moody Micro Services, Report No. 13B-06930



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

LYNN CLARK ASSOCIATES INC DBA

is certified to perform as a

Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

A handwritten signature in cursive script, appearing to read "David Lakey MD".

DAVID LAKEY, M.D.
COMMISSIONER OF HEALTH

License Number: 100285

Control Number: 96450

Expiration Date: 12/15/2013

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



**Texas Department of
State Health Services**

Asbestos Individual Consultant

EDWARD B BARGANIER

License No. 105519

Control No. 96396

Expiration Date: 11/9/2014



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
BPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/11/2013 for the annual update:

**Design of ACBM Abatement Projects
NESHAP Trained Person**


100.000.370.033

6/11/2014

Certificate Number

Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 8/15/2012 for the annual update:


Inspecting Buildings for ACBM

100.000.370.031
Certificate Number

8/15/2013
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379




John M. Barrett, Jr. - Instructor
Director of Training



**Texas Department of
State Health Services**

Asbestos Inspector

THOMAS A HALE

License No. 602545

Control No. 97247

Expiration Date: 4/18/2015



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Thomas Hale

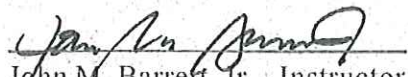
has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/12/2013 for the annual update:

Inspecting Buildings for ACBM

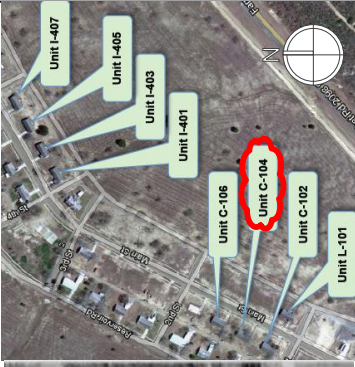
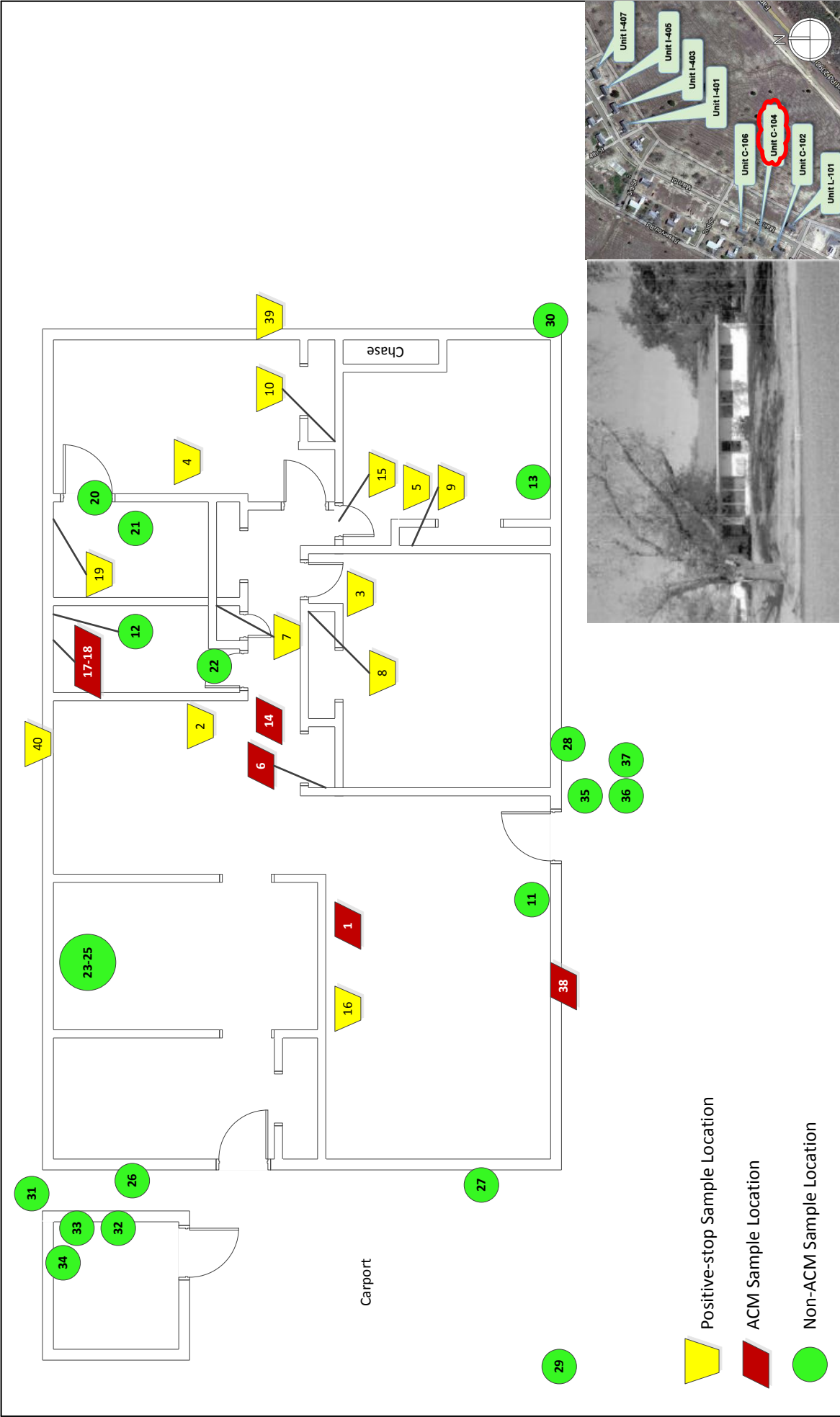
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6/12/2014
Expiration Date

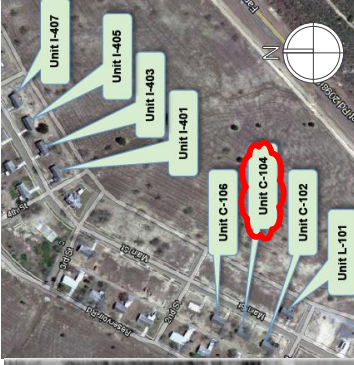
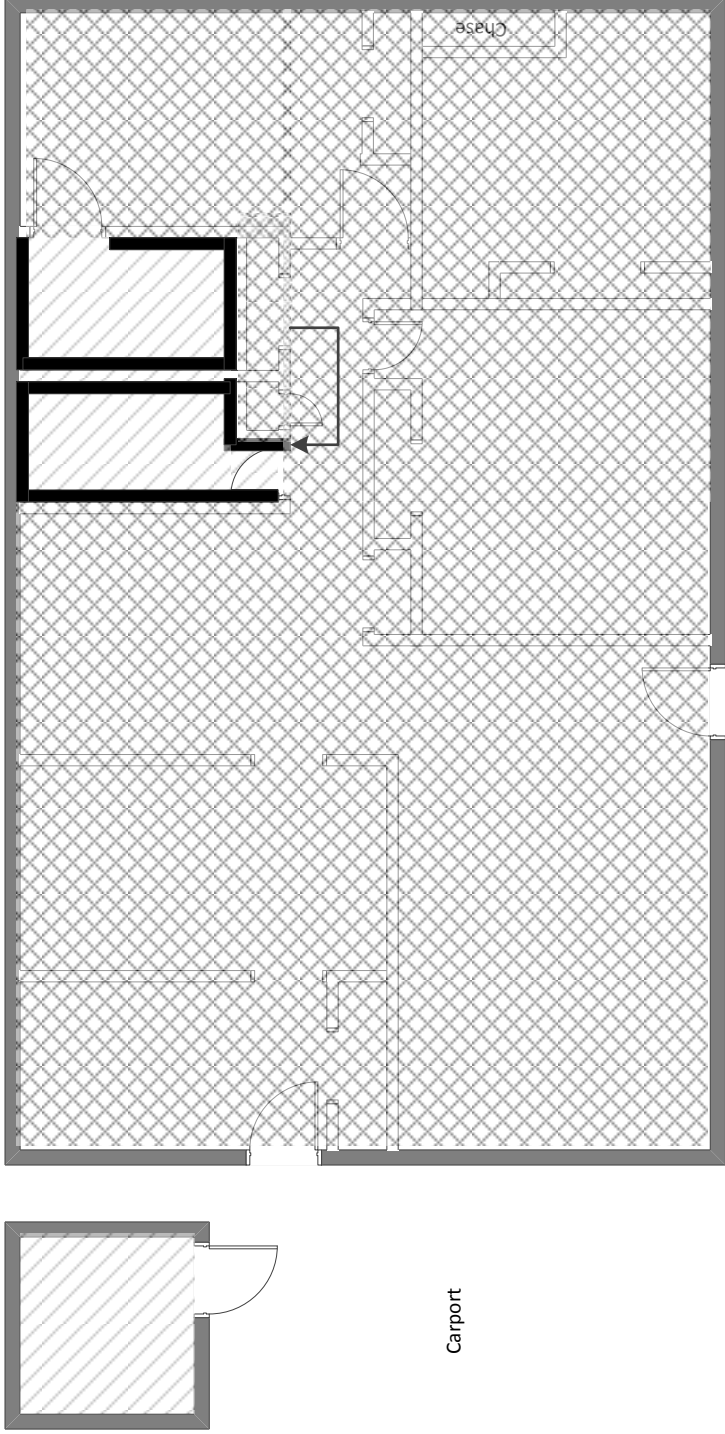
Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379

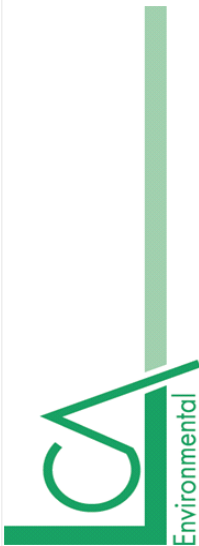


John M. Barrett, Jr. - Instructor
Director of Training





| | | | | |
|---|----------------|---|---|---|
|  | |  NOT TO SCALE | Quanternary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas | Figure 1 Unit C104 Sample Location Plan |
| Drawn By: EBB | Date: 07/02/13 | Location: CBP-Owned Housing, Falcon Village, Texas | | LCA Project No.: 130602 |
| Approved By: TAH | Date: 07/02/13 | Source: LCA Field Sketch | | Filename: Fig1-C104 Sample Location Plan |



| | | | | |
|---|----------------|---|--|--|
|  | |  | <p>Quanternary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas</p> | <p>Figure 2 Unit C104 ACBM Location Plan</p> |
| Drawn By: EBB | Date: 07/02/13 | Location: CBP-Owned Housing, Falcon Village, Texas | | |
| Approved By: TAH | Date: 07/02/13 | Source: LCA Field Sketch | | |
| NOT TO SCALE | | | | |
| | | LCA Project No.: 130602 | | |
| | | Filename: Fig2-C104 ACBM Location Plan | | |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06930

Project : Falcon Village, Unit C104

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/19/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 1 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|---|---|
| C1-1A | Gypsum Board Ceiling with Texture and Joint Compound, Living Room | None Detected - Drywall Material 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| C2-1B | Gypsum Board Ceiling with Texture and Joint Compound, Dining Room | Not Analyzed - Positive Stop |
| C3-1C | Gypsum Board Ceiling with Texture and Joint Compound, South Bedroom | Not Analyzed - Positive Stop |
| C4-1D | Gypsum Board Ceiling with Texture and Joint Compound, North Bedroom | Not Analyzed - Positive Stop |
| C5-1E | Gypsum Board Ceiling with Texture and Joint Compound, East Bedroom | Not Analyzed - Positive Stop |
| C6-2A | Gypsum Board Walls with Texture and Joint Compound, South Hall, Closet | None Detected - Drywall Material 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| C7-2B | Gypsum Board Walls with Texture and Joint Compound, Bathroom, Closet | Not Analyzed - Positive Stop |
| C8-2C | Gypsum Board Walls with Texture and Joint Compound, South Bedroom, Closet | Not Analyzed - Positive Stop |
| C9-2D | Gypsum Board Walls with Texture and Joint Compound, East Bedroom, Closet | Not Analyzed - Positive Stop |
| C10-2E | Gypsum Board Walls with Texture and Joint Compound, North Bedroom, Closet | Not Analyzed - Positive Stop |
| C11-3A | Plaster Walls, Perimeter and Bathrooms, Living Room | None Detected - Base Plaster None Detected - Middle Plaster None Detected - Top Plaster |
| C12-3B | Plaster Walls, Perimeter and Bathrooms, South Bathroom | None Detected - Base Plaster None Detected - Middle Plaster None Detected - Top Plaster |
| C13-3C | Plaster Walls, Perimeter and Bathrooms, East Bedroom | None Detected - Base Plaster None Detected - Top Plaster |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06930

Project : Falcon Village, Unit C104

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/19/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 2 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|---|--|
| C14-4A | Vinyl Sheet Floor with Tile and Mastic, Dining Room | None Detected - Sheet Flooring None Detected - Fiber Backing None Detected - Yellow Mastic None Detected - Floor Tile 5% Chrysotile - Black Mastic |
| C15-4B | Vinyl Sheet Floor with Tile and Mastic, East Bedroom, at Door | Not Analyzed - Positive Stop |
| C16-4C | Vinyl Sheet Floor with Tile and Mastic, Living Room | Not Analyzed - Positive Stop |
| C17-5A | Ceramic Tile Grout and Bed Walls, South Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - New Bed 2% Chrysotile - Old Bed |
| C18-5B | Ceramic Tile Grout and Bed Walls, South Bathroom | Not Analyzed - Positive Stop |
| C19-5C | Ceramic Tile Grout and Bed Walls, North Bathroom | Not Analyzed - Positive Stop |
| C20-6A | Ceramic Tile Grout and Bed Floors, North Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bed |
| C21-6B | Ceramic Tile Grout and Bed Floors, North Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bed |
| C22-6C | Ceramic Tile Grout and Bed Floors, South Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bed |
| C23-7A | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| C24-7B | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| C25-7C | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| C26-8A | Window Caulking, Laundry Room, Window | None Detected - Caulking |
| C27-8B | Window Caulking, South Window | None Detected - Caulking |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06930

Project : Falcon Village, Unit C104

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/19/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 3 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|---|
| C28-8C | Window Caulking, Front Window | None Detected - Caulking |
| C29-9A | Roofing, South Corner | None Detected - Roofing Shingle None Detected - Roofing Felt |
| C30-9B | Roofing, East Corner | None Detected - Roofing Shingle None Detected - Roofing Felt |
| C31-9C | Roofing, West Corner | None Detected - Roofing Shingle None Detected - Roofing Felt |
| C32-10A | CMU with Block Filler, Carport, Storage Room | None Detected - CMU No Block Filler None Detected - Paint |
| C33-10B | CMU with Block Filler, Carport, Storage Room | None Detected - CMU No Block Filler None Detected - Paint |
| C34-10C | CMU with Block Filler, Carport, Storage Room | None Detected - CMU No Block Filler None Detected - Paint |
| C35-11A | Brick and Mortar, Front Planter Box | None Detected - Brick None Detected - Mortar |
| C36-11B | Brick and Mortar, Front Planter Box | None Detected - Brick None Detected - Mortar |
| C37-11C | Brick and Mortar, Front Planter Box | None Detected - Brick None Detected - Mortar |
| C38-12A | Exterior Stucco, Front Side | None Detected - Base Stucco 2% Chrysotile - Top Stucco |
| C39-12B | Exterior Stucco, North End | Not Analyzed - Positive Stop |
| C40-12C | Exterior Stucco, Back Side | Not Analyzed - Positive Stop |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06930

Project : Falcon Village, Unit C104

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/19/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600 / R-93 / 116

Page 4 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--------------------------------------|------------------|
| | | |

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.



Analyst(s): Will Colbert

Lab Manager : Bruce Crabb

Lab Director : Steve Moody

Approved Signatory :

Approved Signatory :

Thank you for choosing Steve Moody Micro Services

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C104

Project # : 130602

Lab Job No. : 13B-06930

Report Date : 06/25/2013

Page 1 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-------------------------------|-------------|--------------------------|------------|---------------|---------|
| C1-1A | Drywall Material (White) | 30% | Cellulose Fibers | 5% | 06/24 | WC |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 25% | Cellulose Fibers | 100% | | |
| | Joint Compound (Off-White) | 10% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| | Texture (Off-White) | 35% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| C2-1B | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| C3-1C | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| C4-1D | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| C5-1E | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| C6-2A | Drywall Material (White) | 70% | Cellulose Fibers | 5% | 06/24 | WC |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 10% | Cellulose Fibers | 100% | | |
| | Joint Compound (Off-White) | 10% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| | Texture (Off-White) | 10% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| C7-2B | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| C8-2C | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| C9-2D | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| C10-2E | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| C11-3A | Base Plaster (Grey) | 65% | Aggregate | 65% | 06/24 | WC |
| | | | Calcite / Binders | 35% | | |
| | Middle Plaster (White) | 25% | Aggregate | 65% | | |
| | | | Calcite / Binders | 35% | | |
| | Top Plaster (White) | 10% | Calcite / Talc / Binders | 100% | | |
| | | | | | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C104

Project # : 130602

Lab Job No. : 13B-06930

Report Date : 06/25/2013

Page 2 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|--------------------------|------------|---------------|---------|
| C12-3B | Base Plaster (Beige) | 10% | Aggregate | 65% | 06/25 | WC |
| | | | Gypsum / Binders | % | | |
| | Middle Plaster (White) | 45% | Calcite / Gypsum Binders | 100% | | |
| | Top Plaster (White) | 45% | Calcite / Talc / Binders | 100% | | |
| C13-3C | Base Plaster (Grey) | 99% | Aggregate | 65% | 06/25 | WC |
| | | | Calcite / Binders | 35% | | |
| | Top Plaster (White) | 1% | Calcite / Talc / Binders | 100% | | |
| C14-4A | Sheet Flooring (Light Grey) | 15% | Synthetic Foam | 70% | 06/25 | WC |
| | | | Vinyl Binders | 30% | | |
| | Fiber Backing (Light Grey) | 25% | Cellulose Fibers | 50% | | |
| | | | Binders / Fillers | 50% | | |
| | Yellow Mastic (Yellow) | 5% | Glue Binders | 100% | | |
| | Floor Tile (Off-White) | 55% | Calcite / Vinyl Binders | 100% | | |
| | Black Mastic (Black) | <1% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| C15-4B | Not Analyzed - Positive Stop | 100% | | | 06/25 | WC |
| C16-4C | Not Analyzed - Positive Stop | 100% | | | 06/25 | WC |
| C17-5A | Ceramic Tile (Beige) | 65% | Sintered Clays | 100% | 06/25 | WC |
| | Grout (White) | 10% | Aggregate | 35% | | |
| | | | Calcite / Binders | 65% | | |
| | New Bed (White) | 20% | Aggregate | 35% | | |
| | | | Calcite / Binders | 65% | | |
| | Old Bed (Grey) | 2% | Chrysotile | 2% | | |
| | | | Aggregate | 65% | | |
| | | | Calcite / Binders | 33% | | |
| | Plaster (Beige) | 3% | Aggregate | 65% | | |
| | | | Gypsum / Binders | 35% | | |
| C18-5B | Not Analyzed - Positive Stop | 100% | | | 06/25 | WC |
| C19-5C | Not Analyzed - Positive Stop | 100% | | | 06/25 | WC |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C104

Project # : 130602

Lab Job No. : 13B-06930

Report Date : 06/25/2013

Page 3 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|---------------------------------|-------------|-----------------------|------------|---------------|---------|
| C20-6A | Ceramic Tile (Light Green) | 40% | Sintered Clays | 100% | 06/25 | WC |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Bed (Grey / Light Beige) | 55% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| C21-6B | Ceramic Tile (Light Green) | 40% | Sintered Clays | 100% | 06/25 | WC |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Bed (Grey / Light Beige) | 55% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| C22-6C | Ceramic Tile (Light Beige) | 80% | Sintered Clays | 100% | 06/25 | WC |
| | Grout (White) | 15% | Calcite / Binders | 100% | | |
| | Bed (Grey) | 5% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| C23-7A | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/25 | WC |
| | | | Tar Binders | 60% | | |
| C24-7B | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/25 | WC |
| | | | Tar Binders | 60% | | |
| C25-7C | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/25 | WC |
| | | | Tar Binders | 60% | | |
| C26-8A | Caulking (White) | 100% | Calcite | 50% | 06/25 | WC |
| | | | Binders / Fillers | 50% | | |
| C27-8B | Caulking (White) | 100% | Calcite | 50% | 06/25 | WC |
| | | | Binders / Fillers | 50% | | |
| C28-8C | Caulking (White) | 100% | Calcite | 50% | 06/25 | WC |
| | | | Binders / Fillers | 50% | | |
| C29-9A | Sand Layer (Blue / Light Green) | 20% | Aggregate | 100% | 06/25 | WC |
| | Roofing Shingle (Black) | 70% | Glass Wool Fibers | 25% | | |
| | | | Calcite / Tar Binders | 75% | | |
| | Roofing Felt (Black) | 10% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C104

Project # : 130602

Lab Job No. : 13B-06930

Report Date : 06/25/2013

Page 4 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-----------------------------------|-------------|-----------------------|------------|---------------|---------|
| C30-9B | Sand Layer (Blue / Light Green) | 20% | Aggregate | 100% | 06/25 | WC |
| | Roofing Shingle (Black) | 70% | Glass Wool Fibers | 25% | | |
| | | | Calcite / Tar Binders | 75% | | |
| | Roofing Felt (Black) | 10% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| C31-9C | Sand Layer (Blue / Light Green) | 20% | Aggregate | 100% | 06/25 | WC |
| | Roofing Shingle (Black) | 70% | Glass Wool Fibers | 25% | | |
| | | | Calcite / Tar Binders | 75% | | |
| | Roofing Felt (Black) | 10% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| C32-10A | CMU (Grey) | 100% | Aggregate | 65% | 06/25 | WC |
| | | | Cement Binders | 35% | | |
| | No Block Filler | | | | | |
| | Paint (Green) | <1% | Pigment / Binders | 100% | | |
| C33-10B | CMU (Grey) | 100% | Aggregate | 65% | 06/25 | WC |
| | | | Cement Binders | 35% | | |
| | No Block Filler | | | | | |
| | Paint (Green) | <1% | Pigment / Binders | 100% | | |
| C34-10C | CMU (Grey) | 100% | Aggregate | 65% | 06/25 | WC |
| | | | Cement Binders | 35% | | |
| | No Block Filler | | | | | |
| | Paint (Green) | <1% | Pigment / Binders | 100% | | |
| C35-11A | Brick (Orange / Off-White Flecks) | 65% | Sintered Clays | 100% | 06/25 | WC |
| | Mortar (Light Grey) | 35% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| C36-11B | Brick (Orange / Off-White Flecks) | 90% | Sintered Clays | 100% | 06/25 | WC |
| | Mortar (Light Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C104

Project # : 130602

Lab Job No. : 13B-06930

Report Date : 06/25/2013

Page 5 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-----------------------------------|-------------|-------------------|------------|---------------|---------|
| C37-11C | Brick (Orange / Off-White Flecks) | 55% | Sintered Clays | 100% | 06/25 | WC |
| | Mortar (Light Grey) | 45% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| C38-12A | Base Stucco (Grey) | 85% | Aggregate | 65% | 06/25 | WC |
| | | | Binders / Fillers | 35% | | |
| | Top Stucco (Beige) | 15% | Chrysotile | 2% | | |
| | | | Aggregate | 65% | | |
| | | | Binders / Fillers | 35% | | |
| C39-12B | Not Analyzed - Positive Stop | 100% | | | 06/25 | WC |
| C40-12C | Not Analyzed - Positive Stop | 100% | | | 06/25 | WC |
| | | | | | | |

Chain of Custody

Page 1 of 2



Lab Job # 138-06930 PLM 40
 Lab Job # _____
 Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.

Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM

Bulk ☐ 1 day ☐ 2 day ☒ 3 day ☐ 5 day ☐ Immediate
☐ Analyze All ☒ Positive Stop

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate

TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD

Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile

Analyze Blanks ☐ Yes ☐ No

Culture (Swab / Bulk / Plate) ☐ 7-14 day

OTHER:

Billing Company / City: LCA Environmental, Inc.

Submitter's Company: LCA Environmental, Inc.

Submitter's Name: Thomas Hale

Project: FALCON VILLAGE UNIT C104

Contact Information: Name: Thomas Hale

E-mail Results to: hale@lcaenvironmental.com; barganier@lcaenvironmental.com

Invoice Address: _____

ASBESTOS TEM

Air AHERA Method ☐ 6 hr ☐ 12hr ☐ 24 hr
 Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
 Bulk/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
 Water ☐ 1 day ☐ 2 day ☐ 3 day
 Analyze Blanks ☐ Yes ☐ No

BACTERIA

Heterotrophic Plate Count (HPC) ☐ 3 day
 HPC + Gram Stain ☐ 3 day ☐ 5 day
 HPC + 3 Gram Neg ID ☐ 6-8 day
 HPC + 5 Gram Neg ID ☐ 6-8 day
 Fecal Coliform (MPN) ☐ 3 day
 Total Coliform & E Coli (P/A) ☐ 2-3 day

of Samples: 40

Sample Date: 6-19-13

Project #: 130602

Phone #: 972-241-6680

Mobile #: 214-403-8298

Fax #: 972-241-6689

P.O. #: _____

— Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees—

Notes: _____

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|-----------------------|--|------------------------------|----------------------|
| C1 - 1A | GYP. BRD. CEILING W/TEXT + J. Compound | | LIVING ROOM |
| C2 - 1B | I | | DINING ROOM |
| C3 - 1C | | | SOUTH BEDROOM |
| C4 - 1D | | | NORTH BEDROOM |
| C5 - 1E | | | EAST BEDROOM |
| C6 C6 - 2A | GYP BRD WALLS W/ TEXT + J. Compound | | SOUTH HALL CLOSET |
| C7 - 2B | I | | BATHROOM CLOSET |
| C8 - 2C | | | SOUTH BEDROOM CLOSET |
| C9 - 2D | | | EAST BEDROOM CLOSET |
| C10 - 2E | | | NORTH BEDROOM CLOSET |
| C11 - 3A | PLASTER WALLS PERIMETER + BATHROOMS | | LIVING ROOM |
| C12 - 3B | I | | SOUTH BATHROOM |
| C13 - 3C | | | EAST BEDROOM |
| C14 - 4A | VINYL SHEET FLOOR W/ TILE + MASTIC | | DINING ROOM |
| C15 - 4B | ↓ | | EAST BEDROOM AT DOOR |

| | | | |
|---------------------------------|-----------------------------------|------------------------|------------------------------------|
| Released By: <u>[Signature]</u> | Date / Time: <u>6/21/13 10:57</u> | Received By: <u>YB</u> | Date / Time: <u>6-24-13/10:57A</u> |
| Released By: _____ | Date / Time: _____ | Received By: _____ | Date / Time: _____ |

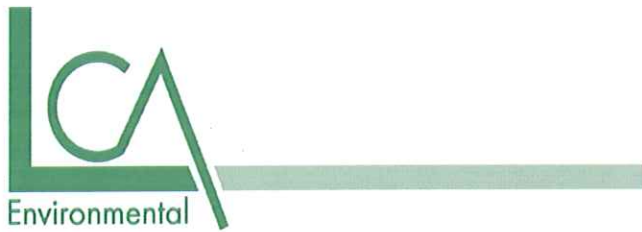
Lab Job # 13B-06930

Lab Job # _____

Lab Job # _____

Project: FALCON VILLAGE UNIT C104Project #: 130602

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|-----------|--------------------------------------|------------------------------|----------------------|
| C16 - 4C | VINYL SHEET FLOORING W/ TILE + MASTE | | LIVING ROOM |
| C17 - 5A | CERAMIC TILE GROUT + BED WALLS | | SOUTH BATHROOM |
| C18 - 5B | ↓ | | ↓ |
| C19 - 5C | ↓ | | NORTH BATHROOM |
| C20 - 6A | CERAMIC TILE GROUT + BED FLOORS | | NORTH BATHROOM |
| C21 - 6B | ↓ | | ↓ |
| C22 - 6C | ↓ | | SOUTH BATHROOM |
| C23 - 7A | SINK UNDER COAT | | KITCHEN SINK |
| C24 - 7B | ↓ | | ↓ |
| C25 - 7C | ↓ | | ↓ |
| C26 - 8A | WINDOW CAULKING | | LAUNDRY ROOM WINDOW |
| C27 - 8B | ↓ | | SOUTH WINDOW |
| C28 - 8C | ↓ | | FRONT WINDOW |
| C29 - 9A | ROOFING | | SOUTH CORNER |
| C30 - 9B | ↓ | | EAST CORNER |
| C31 - 9C | ↓ | | WEST CORNER |
| C32 - 10A | CMU W/ BLOCK FILLER | | CARPORT STORAGE ROOM |
| C33 - 10B | ↓ | | ↓ |
| C34 - 10C | ↓ | | ↓ |
| C35 - 11A | BRICK + MORTAR | | FRONT PLANTER BOX |
| C36 - 11B | ↓ | | ↓ |
| C37 - 11C | ↓ | | ↓ |
| C38 - 12A | EXT. STUCCO | | FRONT SIDE |
| C39 - 12B | ↓ | | NORTH END |
| C40 - 12C | ↓ | | BACK SIDE |
| | | | |
| | | | |
| | | | |
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| | | | |
| | | | |



LCA Environmental, Inc.
13221 Bee Street
Farmers Branch, TX 75234
Phone: 972-241-6680
Fax: 972-241-6689
www.LCAenvironmental.com

Limited Asbestos Inspection

July 3, 2013

Client: Mr. Ron Moore
Quaternary Resource Investigations, LLC
3809 Camino Drive
Plano, Texas 75074

Project Site: Unit C106 - Single Family Dwelling
Falcon Village, Texas 78545

LCA Project No.: 130602

Area Sampled: Unit C106 - Single Family Dwelling

TDSHS Inspector and License: Thomas Hale, TDSHS License #602545

Date of Limited Asbestos Inspection: June 19, 2013

Total Samples Collected: 40

This inspection scope of work was limited to building materials which would be impacted by the planned demolition of the building.

On the above-referenced date, LCA Environmental, Inc. (LCA) collected bulk samples of suspect asbestos-containing building material (ACBM) at the above-referenced Project Site. The materials sampled came from areas that were identified by the Client as being subject to proposed renovation and/or demolition. The samples were submitted to a laboratory accredited by the National Voluntary Laboratory Accreditation Program and licensed by the Texas Department of State Health Services (TDSHS) to conduct asbestos analysis. The findings of this limited asbestos inspection are as follows:

Laboratory results are greater than 1% asbestos for one or more of the samples collected and submitted for laboratory analysis. Therefore, at least a portion of the building materials that will be disturbed during renovation and/or demolition are ACBM as defined by the National Emission Standard for Hazardous Air Pollutants (NESHAP 40 CFR 61, Subpart M).

ACBM Summary Table
Unit C106 - Single Family Dwelling
Entire Building.
Falcon Village, Texas 78545

| Identified ACBM | Asbestos Content | Approximate Location | Approximate Quantity |
|---|---|----------------------|-----------------------|
| Gypsum board ceilings with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 1,350 ft ² |
| Gypsum board walls with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 3,320 ft ² |
| Vinyl tile and sheet flooring | 5% Chrysotile beige vinyl tile and 5% Chrysotile black mastic | Throughout | 1,245 ft ² |
| Exterior stucco | 2% Chrysotile | Exterior of building | 1,450 ft ² |

See attached Figure 1 - Sample Location Plan and Figure 2 - Asbestos Location Plan for further detail regarding sample locations and general extent of identified ACBM

Recommendations

In accordance with the EPA NESHAP regulations, these materials must be removed prior to any activity that might be expected to disturb them. The removal of these materials must be performed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer.

The findings and opinions of this limited asbestos inspection are not scientific certainties but rather opinions based on our professional judgment concerning the significance of the data gathered during the course of the limited asbestos inspection. LCA does not represent that the Project Site contains no hazardous or toxic materials, wastes, or other latent conditions beyond the observations made by LCA during the limited asbestos inspection and the information obtained from the other activities in the scope of work.

LCA is not responsible for any omissions or inaccuracies of any sort that arise as a result of the Client's failure or inability to provide Project Site information or data. LCA makes no warranties or representations, expressed or implied, beyond those expressed in the Standard Contract for Services and this limited asbestos inspection report.

This limited asbestos inspection report has been prepared for the exclusive use of the Client and its direct representatives and associates to assist with their efforts to identify potential environmental concerns connected with the Project Site. LCA does not authorize the use of this limited asbestos inspection report for any purpose other than that for which it is prepared.

Only those suspect ACM that are specifically discussed in this limited asbestos inspection report were identified or addressed during this project. It is possible that other ACM may exist at this Project Site in areas that were not seen or were concealed or otherwise inaccessible (e.g., behind walls, above ceilings, inside old air ducts, etc.). It is also possible that other accessible ACM may exist at this Project Site in areas that were not identified by the Client as subject to proposed renovation and/or demolition. Samples were not collected of typically non-ACM such as concrete, steel, plastic, glass, and paint. The identification or addressing of other potential ACM was outside the scope of service of this contract. LCA assumes no responsibility or liability for any ACM at the Project Site.

LCA represents that the work performed on this project was performed by qualified individuals, trained and licensed to perform their respective duties (see attached licenses). LCA further represents that work performed on this project by LCA or people under LCA's direct control was performed in a manner and fashion consistent with commonly accepted standards and practices within the asbestos industry in this area during the project period.

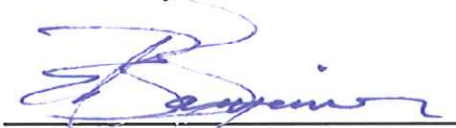
Prepared By:



Thomas A. Hale

TDSHS AI 602545

Reviewed By:



Edw. B. Barganier,

Building Sciences Program Manager

TDSHS IAC 105519

Attachments:

LCA Certifications

Figure 1 - Sample Location Plan

Figure 2 - Asbestos Location Plan

Steve Moody Micro Services, Report No. 13B-06925



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

LYNN CLARK ASSOCIATES INC DBA

is certified to perform as a

Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

A handwritten signature in cursive script, reading "David Lakey MD".

DAVID LAKEY, M.D.
COMMISSIONER OF HEALTH

License Number: 100285

Control Number: 96450

Expiration Date: 12/15/2013

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



**Texas Department of
State Health Services**

Asbestos Individual Consultant

EDWARD B BARGANIER

License No. 105519

Control No. 96396

Expiration Date: 11/9/2014



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/11/2013 for the annual update:

**Design of ACBM Abatement Projects
NESHAP Trained Person**

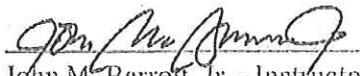
100.000.370.033

6/11/2014

Certificate Number

Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 8/15/2012 for the annual update:

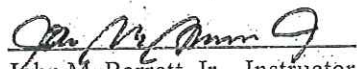
Inspecting Buildings for ACBM

100.000.370.031
Certificate Number

8/15/2013
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379




John M. Barrett, Jr. - Instructor
Director of Training



Texas Department of State Health Services

Asbestos Inspector

THOMAS A HALE

License No. 602545

Control No. 97247

Expiration Date: 4/18/2015



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Thomas Hale

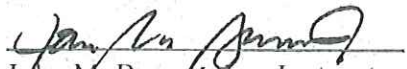
has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/12/2013 for the annual update:

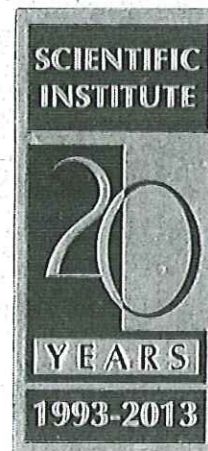
Inspecting Buildings for ACBM

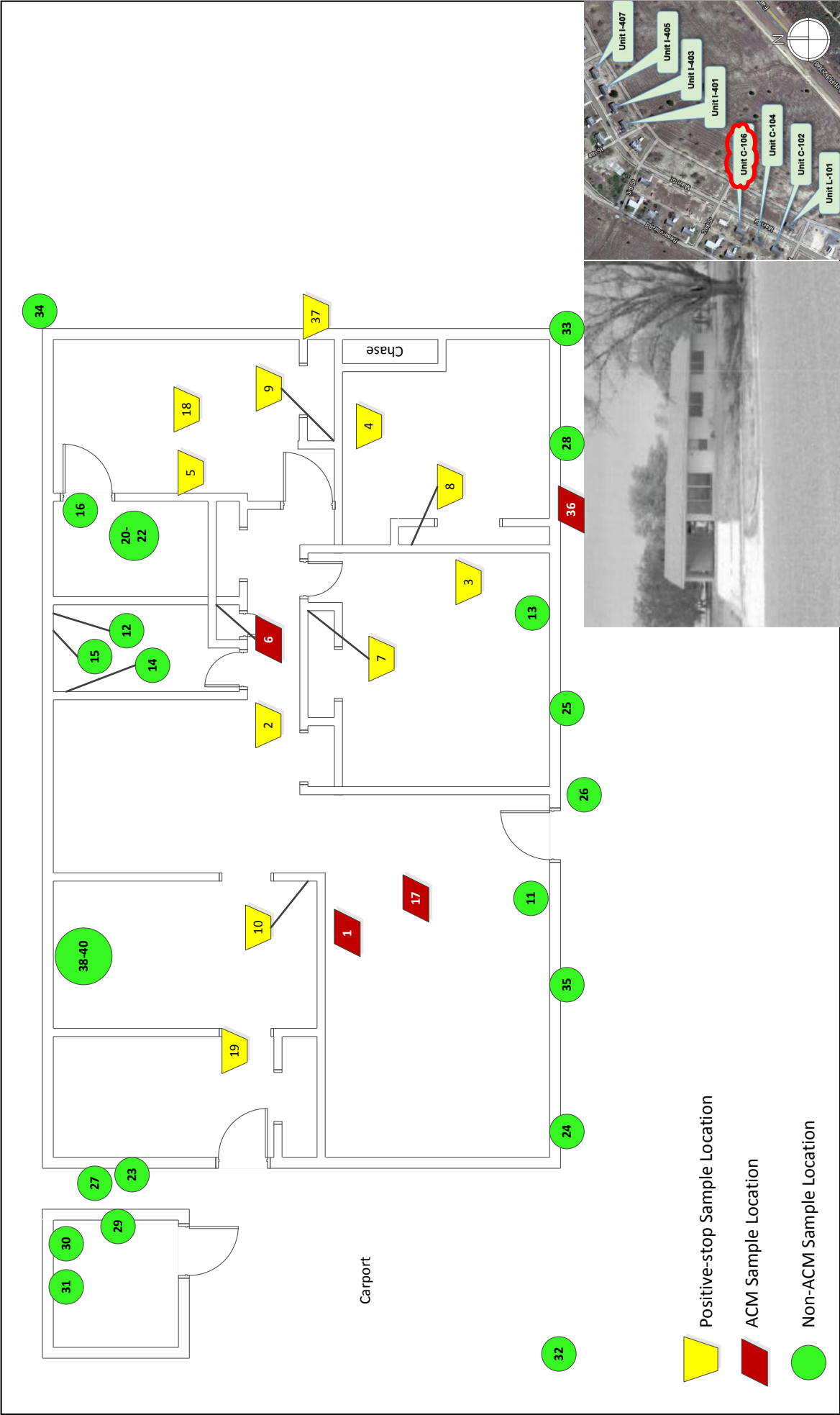
100.001.673 .031
Certificate Number

6/12/2014
Expiration Date

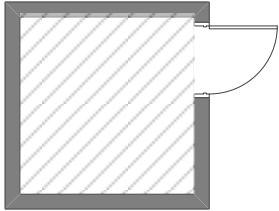
Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training

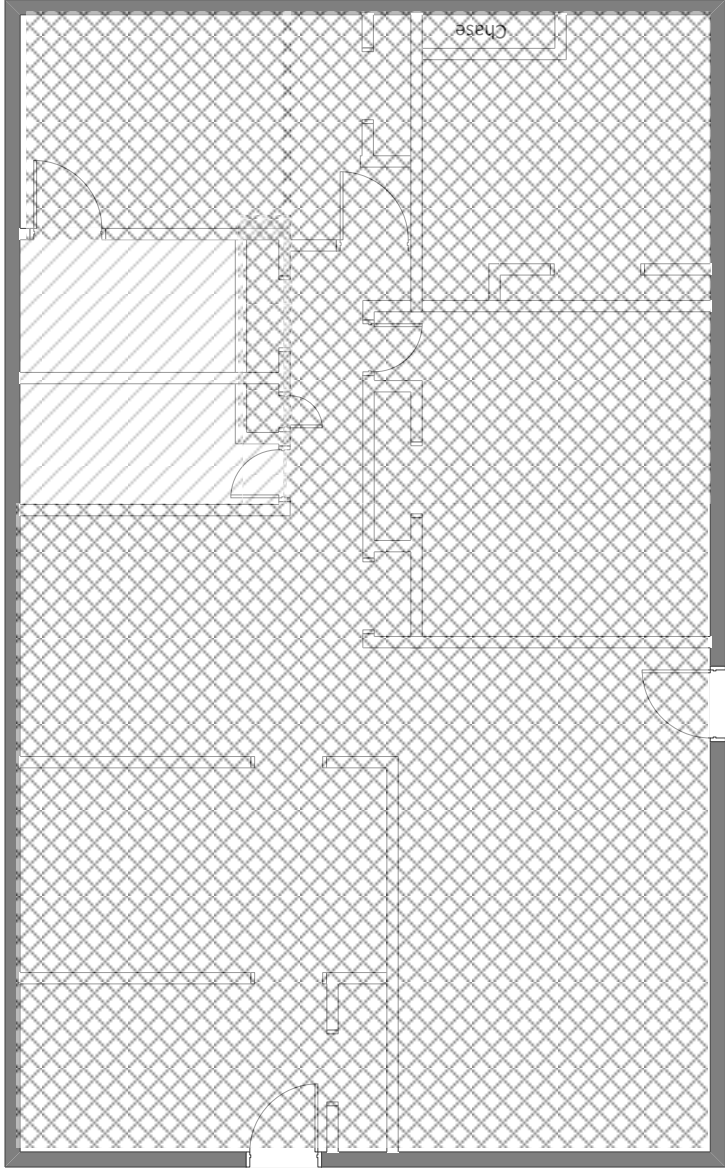




| | | | | | |
|--|---|----------------|--|--|---|
| | Drawn By: EBB | Date: 07/02/13 | Location: CBP-Owned Housing, Falcon Village, Texas | Quantenary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas | Figure 1 Unit C106 Sample Location Plan |
| | Approved By: TAH | Date: 07/02/13 | Source: LCA Field Sketch | NOT TO SCALE | |
| | LCA Project No.: 130602 Filename: Fig1-C106 Sample Location Plan | | | | |



Carport



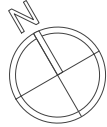
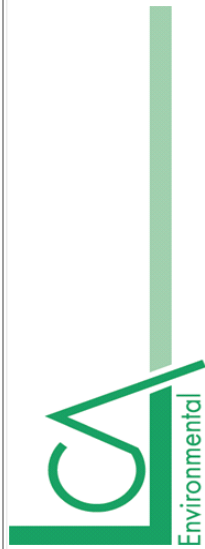
ACM Exterior Stucco



ACM black flooring mastic



ACM text./joint comp. associated with
gyp-brd walls and ceilings



NOT TO SCALE

Quanternary Resource Investigations, LLC
NESHAP Compliance Asbestos Survey
CBP-Owned Housing, Falcon Village, Texas

Figure 2
Unit C106
ACBM Location Plan

Drawn By: EBB

Date: 07/02/13

Location: CBP-Owned Housing, Falcon Village, Texas

LCA Project No.: 130602

Approved By: TAH

Source: LCA Field Sketch

Filename: Fig2-C106 ACBM Location Plan

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06925

Project : Falcon Village, Unit C106

Report Date : 06/24/2013

Project # : 130602

Sample Date : 06/19/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 1 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|---|---|
| D1-1A | Gypsum Board Ceiling with Texture and Joint Compound, Living Room | None Detected - Drywall Material 2% Chrysotile - Texture / Joint Cmpd |
| D2-1B | Gypsum Board Ceiling with Texture and Joint Compound, Hallway | Not Analyzed - Positive Stop |
| D3-1C | Gypsum Board Ceiling with Texture and Joint Compound, South Bedroom | Not Analyzed - Positive Stop |
| D4-1D | Gypsum Board Ceiling with Texture and Joint Compound, East Bedroom | Not Analyzed - Positive Stop |
| D5-1E | Gypsum Board Ceiling with Texture and Joint Compound, North Bedroom | Not Analyzed - Positive Stop |
| D6-2A | Gypsum Board Walls with Texture and Joint Compound, Bathroom, Closet | None Detected - Drywall Material 2% Chrysotile - Texture / Joint Cmpd |
| D7-2B | Gypsum Board Walls with Texture and Joint Compound, South Bedroom, Closet | Not Analyzed - Positive Stop |
| D8-2C | Gypsum Board Walls with Texture and Joint Compound, East Bedroom, Closet | Not Analyzed - Positive Stop |
| D9-2D | Gypsum Board Walls with Texture and Joint Compound, North Bedroom, Closet | Not Analyzed - Positive Stop |
| D10-2E | Gypsum Board Walls with Texture and Joint Compound, Kitchen | Not Analyzed - Positive Stop |
| D11-3A | Plaster Walls, Perimeter, Living Room | None Detected - Plaster |
| D12-3B | Plaster Walls, Perimeter, South Bathroom | None Detected - Base Plaster None Detected - Top Plaster |
| D13-3C | Plaster Walls, Perimeter, South Bedroom | None Detected - Base Plaster None Detected - Top Plaster |
| D14-4A | Ceramic Tile Grout and Bed Walls, South Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar |

PLM Summary Report

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NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06925

Project : Falcon Village, Unit C106

Report Date : 06/24/2013

Project # : 130602

Sample Date : 06/19/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 2 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|---|
| D15-4B | Ceramic Tile Grout and Bed Walls, South Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar |
| D16-4C | Ceramic Tile Grout and Bed Walls, North Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar None Detected - Plaster |
| D17-5A | Vinyl Sheet Flooring with Tile and Mastic, Living Room | 5% Chrysotile - Floor Tile 5% Chrysotile - Black Mastic None Detected - Sheet Flooring None Detected - Fiber Backing |
| D18-5B | Vinyl Sheet Flooring with Tile and Mastic, North Bedroom | Not Analyzed - Positive Stop |
| D19-5C | Vinyl Sheet Flooring with Tile and Mastic, Laundry Room | Not Analyzed - Positive Stop |
| D20-6A | Ceramic Tile Grout and Bed Floors, North Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar |
| D21-6B | Ceramic Tile Grout and Bed Floors, North Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar |
| D22-6C | Ceramic Tile Grout and Bed Floors, South Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar |
| D23-7A | Window Caulking, Laundry Room, Window | None Detected - Caulking |
| D24-7B | Window Caulking, Southeast Window | None Detected - Caulking |
| D25-7C | Window Caulking, South Bedroom, Window | None Detected - Caulking |
| D26-8A | Brick and Mortar, Front Planter Box | None Detected - Brick None Detected - Mortar |
| D27-8B | Brick and Mortar, Laundry Room, Window | None Detected - Brick None Detected - Mortar |

PLM Summary Report

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Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06925

Project : Falcon Village, Unit C106

Report Date : 06/24/2013

Project # : 130602

Sample Date : 06/19/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 3 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|---|
| D28-8C | Brick and Mortar, East Bedroom, Window | None Detected - Brick None Detected - Mortar |
| D29-9A | CMU with Block Filler, Carport, Storage Room | None Detected - CMU None Detected - Block Filler |
| D30-9B | CMU with Block Filler, Carport, Storage Room | None Detected - CMU None Detected - Block Filler |
| D31-9C | CMU with Block Filler, Carport, Storage Room | None Detected - CMU None Detected - Block Filler |
| D32-10A | Roofing, South Corner | None Detected - Roofing Shingle None Detected - Roofing Felt |
| D33-10B | Roofing, East Corner | None Detected - Roofing Shingle None Detected - Roofing Felt |
| D34-10C | Roofing, North Corner | None Detected - Roofing Shingle None Detected - Roofing Felt |
| D35-11A | Exterior Stucco, Front South | None Detected - Stucco |
| D36-11B | Exterior Stucco, Front North | None Detected - Stucco 2% Chrysotile - Texture |
| D37-11C | Exterior Stucco, North End | Not Analyzed - Positive Stop |
| D38-12A | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| D39-12B | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| D40-12C | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06925

Project : Falcon Village, Unit C106

Report Date : 06/24/2013

Project # : 130602

Sample Date : 06/19/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600 / R-93 / 116

Page 4 of 4

On 6/24/2013, forty (40) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--------------------------------------|------------------|
| | | |

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.



Analyst(s): Shaun Wilkerson

Lab Manager : Bruce Crabb

Lab Director : Steve Moody

Approved Signatory :

Approved Signatory :

Thank you for choosing Steve Moody Micro Services

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C106

Project # : 130602

Lab Job No. : 13B-06925

Report Date : 06/24/2013

Page 1 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-------------------------------|-------------|--------------------------|------------|---------------|---------|
| D1-1A | Drywall Material (White) | 75% | Cellulose Fibers | 5% | 06/24 | SW |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 10% | Cellulose Fibers | 100% | | |
| | Texture / Joint Cmpd (White) | 15% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| D2-1B | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| D3-1C | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| D4-1D | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| D5-1E | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| D6-2A | Drywall Material (White) | 75% | Cellulose Fibers | 5% | 06/24 | SW |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 10% | Cellulose Fibers | 100% | | |
| | Texture / Joint Cmpd (White) | 15% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| D7-2B | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| D8-2C | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| D9-2D | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| D10-2E | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| D11-3A | Plaster (Grey) | 100% | Aggregate | 65% | 06/24 | SW |
| | | | Calcite / Binders | 35% | | |
| D12-3B | Base Plaster (Grey) | 85% | Aggregate | 65% | 06/24 | SW |
| | | | Calcite / Binders | 35% | | |
| | Top Plaster (White) | 15% | Calcite / Binders | 100% | | |
| D13-3C | Base Plaster (Grey) | 85% | Aggregate | 65% | 06/24 | SW |
| | | | Calcite / Binders | 35% | | |
| | Top Plaster (White) | 15% | Calcite / Binders | 100% | | |
| | | | | | | |

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2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C106

Project # : 130602

Lab Job No. : 13B-06925

Report Date : 06/24/2013

Page 2 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------------|------------|---------------|---------|
| D14-4A | Ceramic Tile (White) | 80% | Sintered Clays | 100% | 06/24 | SW |
| | Grout (White) | 10% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| D15-4B | Ceramic Tile (White) | 80% | Sintered Clays | 100% | 06/24 | SW |
| | Grout (White) | 10% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| D16-4C | Ceramic Tile (White) | 80% | Sintered Clays | 100% | 06/24 | SW |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Plaster (Tan) | 5% | Aggregate | 65% | | |
| | | | Calcite / Binders | 35% | | |
| D17-5A | Floor Tile (Beige) | 55% | Chrysotile | 5% | 06/24 | SW |
| | | | Calcite / Vinyl Binders | 95% | | |
| | Black Mastic (Black) | 5% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| | Sheet Flooring (Beige) | 20% | Synthetic Foam | 70% | | |
| | | | Vinyl Binders | 30% | | |
| | Fiber Backing (Light Grey) | 20% | Cellulose Fibers | 50% | | |
| | | | Glass Wool Fibers | 5% | | |
| | | | Binders / Fillers | 45% | | |
| D18-5B | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| D19-5C | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| D20-6A | Ceramic Tile (Green) | 88% | Sintered Clays | 100% | 06/24 | SW |
| | Grout (White) | 2% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C106

Project # : 130602

Lab Job No. : 13B-06925

Report Date : 06/24/2013

Page 3 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|----------------------|----------------|-------------------|------------|---------------|---------|
| D21-6B | Ceramic Tile (Green) | 88% | Sintered Clays | 100% | 06/24 | SW |
| | Grout (White) | 2% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | Cement Binders | 35% | | | |
| D22-6C | Ceramic Tile (Green) | 88% | Sintered Clays | 100% | 06/24 | SW |
| | Grout (White) | 2% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | Cement Binders | 35% | | | |
| D23-7A | Caulking (White) | 100% | Calcite | 50% | 06/24 | SW |
| | | | Binders / Fillers | 50% | | |
| D24-7B | Caulking (White) | 100% | Calcite | 50% | 06/24 | SW |
| | | | Binders / Fillers | 50% | | |
| D25-7C | Caulking (White) | 100% | Calcite | 50% | 06/24 | SW |
| | | | Binders / Fillers | 50% | | |
| D26-8A | Brick (Orange) | 80% | Sintered Clays | 100% | 06/24 | SW |
| | Mortar (Grey) | 20% | Aggregate | 65% | | |
| | | Cement Binders | 35% | | | |
| D27-8B | Brick (Orange) | 80% | Sintered Clays | 100% | 06/24 | SW |
| | Mortar (Grey) | 20% | Aggregate | 65% | | |
| | | Cement Binders | 35% | | | |
| D28-8C | Brick (Orange) | 80% | Sintered Clays | 100% | 06/24 | SW |
| | Mortar (Grey) | 20% | Aggregate | 65% | | |
| | | Cement Binders | 35% | | | |
| D29-9A | CMU (Grey) | 80% | Aggregate | 65% | 06/24 | SW |
| | | | Cement Binders | 35% | | |
| | Block Filler (Grey) | 20% | Aggregate | 65% | | |
| | | Cement Binders | 35% | | | |
| | | | | | | |

Steve Moody Micro Services, LLC

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Supplement to PLM Summary Report

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Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit C106

Project # : 130602

Lab Job No. : 13B-06925

Report Date : 06/24/2013

Page 4 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-------------------------|-------------|-------------------|------------|---------------|---------|
| D30-9B | CMU (Grey) | 80% | Aggregate | 65% | 06/24 | SW |
| | | | Cement Binders | 35% | | |
| | Block Filler (Grey) | 20% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| D31-9C | CMU (Grey) | 80% | Aggregate | 65% | 06/24 | SW |
| | | | Cement Binders | 35% | | |
| | Block Filler (Grey) | 20% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| D32-10A | Sand Layer (Grey) | 25% | Aggregate | 100% | 06/24 | SW |
| | Roofing Shingle (Black) | 60% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 50% | | |
| | Roofing Felt (Black) | 15% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| D33-10B | Sand Layer (Grey) | 25% | Aggregate | 100% | 06/24 | SW |
| | Roofing Shingle (Black) | 60% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 50% | | |
| | Roofing Felt (Black) | 15% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| D34-10C | Sand Layer (Grey) | 25% | Aggregate | 100% | 06/24 | SW |
| | Roofing Shingle (Black) | 60% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 50% | | |
| | Roofing Felt (Black) | 15% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| D35-11A | Stucco (Grey) | 100% | Aggregate | 65% | 06/24 | SW |
| | | | Binders / Fillers | 35% | | |
| | | | | | | |

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Page 5 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------|------------|---------------|---------|
| D36-11B | Stucco (White) | 97% | Aggregate | 65% | 06/24 | SW |
| | Texture (Pink) | 3% | Binders / Fillers | 35% | | |
| | | | Chrysotile | 2% | | |
| | | | Binders / Fillers | 98% | | |
| D37-11C | Not Analyzed - Positive Stop | 100% | 06/24 | | | SW |
| D38-12A | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/24 | SW |
| | | | Tar Binders | 60% | | |
| D39-12B | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/24 | SW |
| | | | Tar Binders | 60% | | |
| D40-12C | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/24 | SW |
| | | | Tar Binders | 60% | | |
| | | | | | | |

Chain of Custody

Page 1 of 2



Lab Job # 13B-06925 PLM40
 Lab Job # _____
 Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.

Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM

Bulk ☐ 1 day ☐ 2 day ☒ 3 day ☐ 5 day ☐ Immediate
☐ Analyze All ☒ Positive Stop

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate

TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD

Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile

Analyze Blanks ☐ Yes ☐ No

Culture (Swab / Bulk / Plate) ☐ 7-14 day

OTHER:

Billing Company / City: LCA Environmental, Inc.

Submitter's Company: LCA Environmental, Inc.

Submitter's Name: Thomas Hale

Project: FALCON VILLAGE UNIT C106

Contact Information: Name: Thomas Hale

E-mail Results to: hale@lcaenvironmental.com; barganier@lcaenvironmental.com

Invoice Address: _____

ASBESTOS TEM

Air AHERA Method ☐ 6 hr ☐ 12hr ☐ 24 hr
 Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
 Bulk/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
 Water ☐ 1 day ☐ 2 day ☐ 3 day
 Analyze Blanks ☐ Yes ☐ No

BACTERIA

Heterotrophic Plate Count (HPC) ☐ 3 day
 HPC + Gram Stain ☐ 3 day ☐ 5 day
 HPC + 3 Gram Neg ID ☐ 6-8 day
 HPC + 5 Gram Neg ID ☐ 6-8 day
 Fecal Coliform (MPN) ☐ 3 day
 Total Coliform & E Coli (P/A) ☐ 2-3 day

of Samples: 40

Sample Date: 6-19-13

Project #: 130602

Phone #: 972-241-6680

Mobile #: 214-403-8298

Fax #: 972-241-6689

P.O. #: _____

— Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees—

Notes: _____

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|----------|--------------------------------|---------------------------|----------------------|
| D1-1A | GYP BRD CEILING W/TEXT + J.C. | | LIVING ROOM |
| D2-1B | | | HALLWAY |
| D3-1C | | | SOUTH BEDROOM |
| D4-1D | | | EAST BEDROOM |
| D5-1E | | | NORTH BEDROOM |
| D6-2A | GYP BRD WALLS W/TEXT + J.Comp | | BATHROOM CLOSET |
| D7-2B | | | SOUTH BEDROOM CLOSET |
| D8-2C | | | EAST BEDROOM CLOSET |
| D9-2D | | | NORTH BEDROOM CLOSET |
| D10-2E | | | KITCHEN |
| D11-3A | PLASTER WALLS PERIMETER | | LIVING ROOM |
| D12-3B | | | SOUTH BATHROOM |
| D13-3C | | | SOUTH BEDROOM |
| D14-4A | CERAMIC TILE GROUT + BED WALLS | | SOUTH BATHROOM |
| D15-4B | | | |

| | | | |
|---------------------------------|-----------------------------------|-------------------------|------------------------------------|
| Released By: <u>[Signature]</u> | Date / Time: <u>6/24/13 10:59</u> | Received By: <u>VA3</u> | Date / Time: <u>6-24-13/10:57A</u> |
| Released By: _____ | Date / Time: _____ | Received By: _____ | Date / Time: _____ |

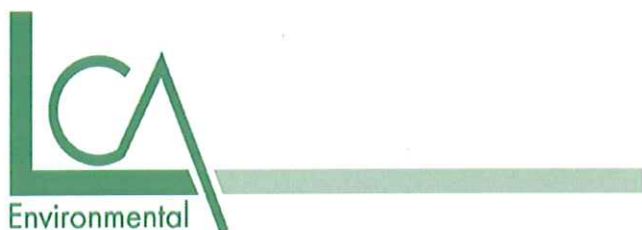
Lab Job # 13A-06925

Lab Job # _____

Lab Job # _____

Project: FALCON VILLAGE UNIT C106Project #: 130602

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|----------|-------------------------------------|------------------------------|----------------------|
| D16-4C | CERAMIC TILE GROUT + BED WALLS | | NORTH BATHROOM |
| D17-5A | VINYLSHEET FLOORING W/TILE + MASTIC | | LIVING ROOM |
| D18-5B | | | NORTH BEDROOM |
| D19-5C | ↓ | | LAUNDRY ROOM |
| D20-6A | CERAMIC TILE GROUT + BED FLOORS | | NORTH BATHROOM |
| D21-6B | ↓ | | ↓ |
| D22-6C | ↓ | | SOUTH BATHROOM |
| D23-7A | WINDOW CAULKING | | LAUNDRY ROOM WINDOW |
| D24-7B | ↓ | | SOUTH EAST WINDOW |
| D25-7C | ↓ | | SOUTH BEDROOM WINDOW |
| D26-8A | BRICK + MORTAR | | FRONT PLANTER BOX |
| D27-8B | ↓ | | LAUNDRY ROOM WINDOW |
| D28-8C | ↓ | | EAST BEDROOM WINDOW |
| D29-9A | CMU W/BLOCK FILLER | | CARPORT STORAGE ROOM |
| D30-9B | ↓ | | ↓ |
| D31-9C | ↓ | | ↓ |
| D32-10A | ROOFING | | SOUTH CORNER |
| D33-10B | ↓ | | EAST CORNER |
| D34-10C | ↓ | | NORTH CORNER |
| D35-11A | EXT. STUCCO | | FRONT SOUTH |
| D36-11B | ↓ | | FRONT NORTH |
| D37-11C | ↓ | | NORTH END |
| D38-12A | SINK UNDERCOAT | | KITCHEN SINK |
| D39-12B | ↓ | | ↓ |
| D40-12C | ↓ | | ↓ |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
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LCA Environmental, Inc.
13221 Bee Street
Farmers Branch, TX 75234
Phone: 972-241-6680
Fax: 972-241-6689
www.LCAenvironmental.com

Limited Asbestos Inspection

July 3, 2013

Client: Mr. Ron Moore
Quaternary Resource Investigations, LLC
3809 Camino Drive
Plano, Texas 75074

Project Site: Unit I401 - Single Family Dwelling
Falcon Village, Texas 78545

LCA Project No.: 130602

Area Sampled: Unit I401 - Single Family Dwelling

TDSHS Inspector and License: Thomas Hale, TDSHS License #602545

Date of Limited Asbestos Inspection: June 20, 2013

Total Samples Collected: 31

This inspection scope of work was limited to building materials which would be impacted by the planned demolition of the building.

On the above-referenced date, LCA Environmental, Inc. (LCA) collected bulk samples of suspect asbestos-containing building material (ACBM) at the above-referenced Project Site. The materials sampled came from areas that were identified by the Client as being subject to proposed renovation and/or demolition. The samples were submitted to a laboratory accredited by the National Voluntary Laboratory Accreditation Program and licensed by the Texas Department of State Health Services (TDSHS) to conduct asbestos analysis. The findings of this limited asbestos inspection are as follows:

Laboratory results are greater than 1% asbestos for one or more of the samples collected and submitted for laboratory analysis. Therefore, at least a portion of the building materials that will be disturbed during renovation and/or demolition are ACBM as defined by the National Emission Standard for Hazardous Air Pollutants (NESHAP 40 CFR 61, Subpart M).

**ACBM Summary Table
Unit I401 - Single Family Dwelling
Entire Building
Falcon Village, Texas 78545**

| Identified ACBM | Asbestos Content | Approximate Location | Approximate Quantity |
|---|--|-----------------------------|-----------------------------|
| Gypsum board ceilings with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 1,290 ft ² |
| Gypsum board walls with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 4,240 ft ² |
| Vinyl sheet bottom flooring and black mastic | 5% Chrysotile | Throughout | 1,205 ft ² |
| Vinyl tile and black mastic under ceramic tile floors | 5% Chrysotile | West and east bathrooms | 85 ft ² |

See attached Figure 1 - Sample Location Plan and Figure 2 - Asbestos Location Plan for further detail regarding sample locations and general extent of identified ACBM

Recommendations

In accordance with the EPA NESHAP regulations, these materials must be removed prior to any activity that might be expected to disturb them. The removal of these materials must be performed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer.

The findings and opinions of this limited asbestos inspection are not scientific certainties but rather opinions based on our professional judgment concerning the significance of the data gathered during the course of the limited asbestos inspection. LCA does not represent that the Project Site contains no hazardous or toxic materials, wastes, or other latent conditions beyond the observations made by LCA during the limited asbestos inspection and the information obtained from the other activities in the scope of work.

LCA is not responsible for any omissions or inaccuracies of any sort that arise as a result of the Client's failure or inability to provide Project Site information or data. LCA makes no warranties or representations, expressed or implied, beyond those expressed in the Standard Contract for Services and this limited asbestos inspection report.

This limited asbestos inspection report has been prepared for the exclusive use of the Client and its direct representatives and associates to assist with their efforts to identify potential environmental concerns connected with the Project Site. LCA does not authorize the use of this limited asbestos inspection report for any purpose other than that for which it is prepared.

Only those suspect ACBM that are specifically discussed in this limited asbestos inspection report were identified or addressed during this project. It is possible that other ACBM may exist at this Project Site in areas that were not seen or were concealed or otherwise inaccessible (e.g., behind walls, above ceilings, inside old air ducts, etc.). It is also possible that other accessible ACBM may exist at this Project Site in areas that were not identified by the Client as subject to proposed renovation and/or demolition. Samples were not collected of typically non-ACBM such as concrete, steel, plastic, glass, and paint. The identification or addressing of other potential ACBM was outside the scope of service of this contract. LCA assumes no responsibility or liability for any ACBM at the Project Site.

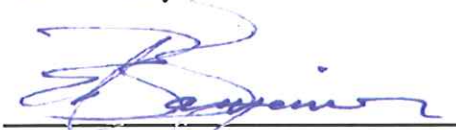
LCA represents that the work performed on this project was performed by qualified individuals, trained and licensed to perform their respective duties (see attached licenses). LCA further represents that work performed on this project by LCA or people under LCA's direct control was performed in a manner and fashion consistent with commonly accepted standards and practices within the asbestos industry in this area during the project period.

Prepared By:



Thomas A. Hale
TDSHS AI 602545

Reviewed By:



Edw. B. Barganier,
Building Sciences Program Manager
TDSHS IAC 105519

Attachments:

LCA Certifications

Figure 1 - Sample Location Plan

Figure 2 - Asbestos Location Plan

Steve Moody Micro Services, Report No. 13B-06926



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

LYNN CLARK ASSOCIATES INC DBA

is certified to perform as a

Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

A handwritten signature in cursive script, reading "David Lakey MD".

DAVID LAKEY, M.D.
COMMISSIONER OF HEALTH

License Number: 100285

Control Number: 96450

Expiration Date: 12/15/2013

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



**Texas Department of
State Health Services**

Asbestos Individual Consultant

EDWARD B BARGANIER

License No. 105519

Control No. 96396

Expiration Date: 11/9/2014



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/11/2013 for the annual update;

**Design of ACBM Abatement Projects
NESHAP Trained Person**


100.000.370.033

6/11/2014

Certificate Number

Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 8/15/2012 for the annual update:


Inspecting Buildings for ACBM

100.000.370.031
Certificate Number

8/15/2013
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379




John M. Barrett, Jr. - Instructor
Director of Training



**Texas Department of
State Health Services**

Asbestos Inspector

THOMAS A HALE

License No. 602545

Control No. 97247

Expiration Date: 4/18/2015



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Thomas Hale

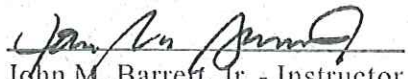
has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/12/2013 for the annual update:

Inspecting Buildings for ACBM

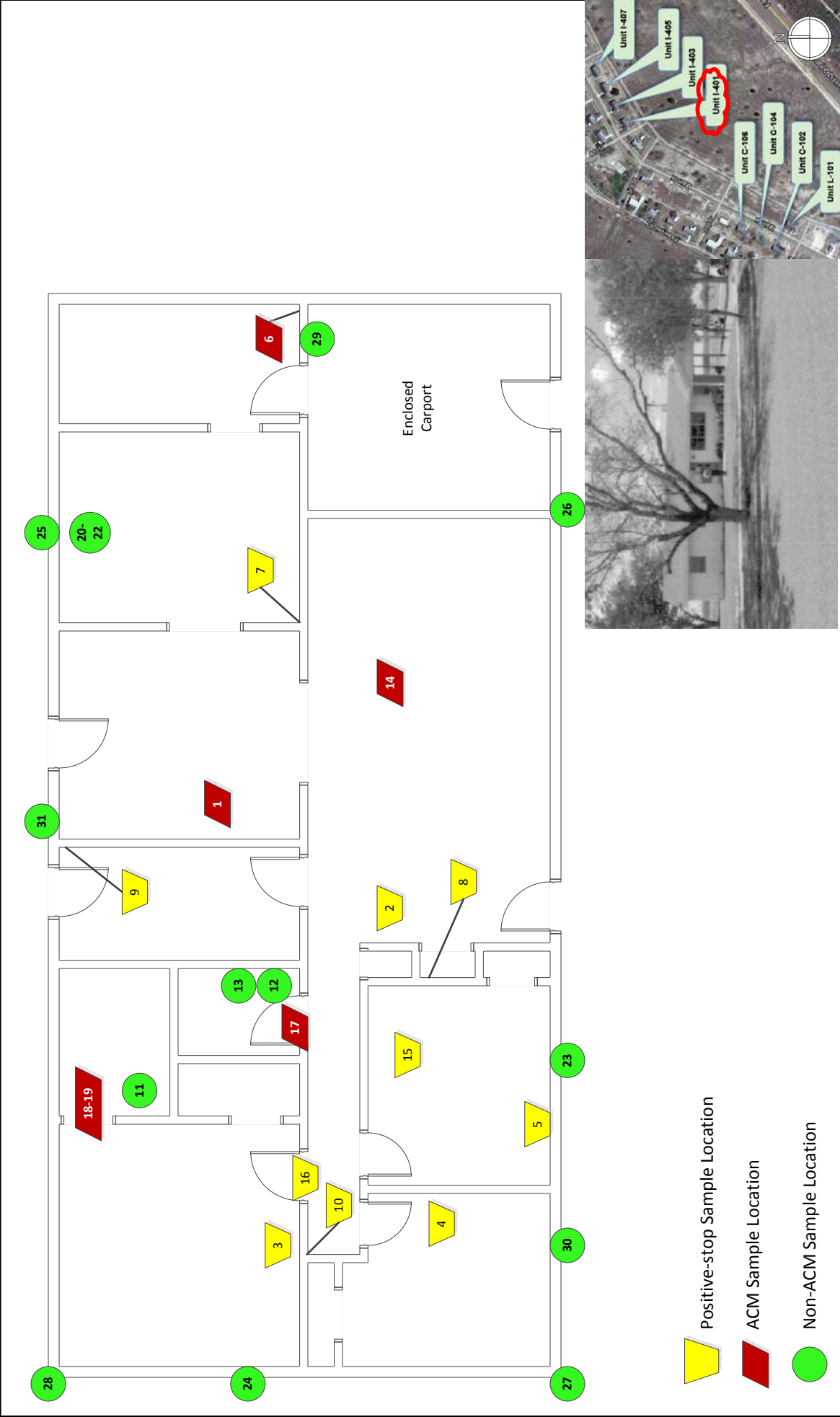
100.001.673 .031
Certificate Number



6/12/2014
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training

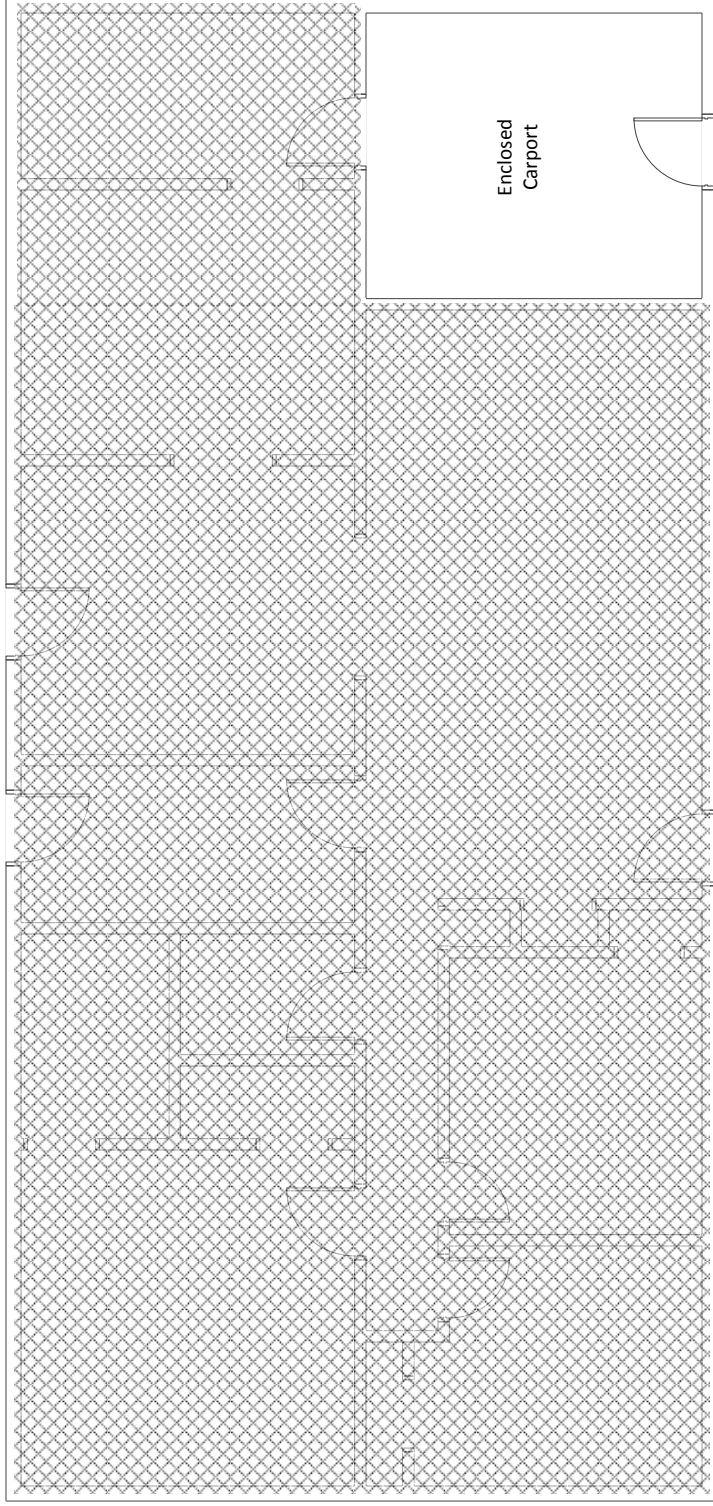




| | | | | |
|---|---|---|---|--|
|  |  NOT TO SCALE | Quanternary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas | Figure 1 Unit I401 Sample Location Plan | |
| | | | | |
| | | | | |
| Drawn By: EBB | Date: 07/02/13 | Location: CBP-Owned Housing, Falcon Village, Texas | LCA Project No.: 130602 | |
| Approved By: TAH | Date: 07/02/13 | Source: LCA Field Sketch | Filename: Fig1-I401 Sample Location Plan | |

LCA Project No.: 130602

Filename: Fig1-I401 Sample Location Plan



| | | | | |
|---|----------------|---|---|--|
|  | |  NOT TO SCALE | Quanternary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas | <p>Figure 2 Unit I401 ACBM Location Plan</p> |
| Drawn By: EBB | Date: 07/02/13 | | | |
| Approved By: TAH | Date: 07/02/13 | Source: LCA Field Sketch | LCA Project No.: 130602 | Filename: Fig2-I401 ACBM Location Plan |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06926

Project : Falcon Village, Unit I401

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 1 of 3

On 6/24/2013, thirty one (31) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|---|---|
| E1-1A | Gypsum Board Ceiling with Texture and Joint Compound, Dining Room | None Detected - Drywall Material 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| E2-1B | Gypsum Board Ceiling with Texture and Joint Compound, Living Room | Not Analyzed - Positive Stop |
| E3-1C | Gypsum Board Ceiling with Texture and Joint Compound, East Bedroom | Not Analyzed - Positive Stop |
| E4-1D | Gypsum Board Ceiling with Texture and Joint Compound, North Bedroom | Not Analyzed - Positive Stop |
| E5-1E | Gypsum Board Ceiling with Texture and Joint Compound, West Bedroom | Not Analyzed - Positive Stop |
| E6-2A | Gypsum Walls with Texture and Joint Compound, South Room | None Detected - Drywall Material 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| E7-2B | Gypsum Walls with Texture and Joint Compound, Kitchen | Not Analyzed - Positive Stop |
| E8-2C | Gypsum Walls with Texture and Joint Compound, Living Room, Closet | Not Analyzed - Positive Stop |
| E9-2D | Gypsum Walls with Texture and Joint Compound, Laundry Room | Not Analyzed - Positive Stop |
| E10-2E | Gypsum Walls with Texture and Joint Compound, North Bedroom, Closet | Not Analyzed - Positive Stop |
| E11-3A | Ceramic Tile Grout and Bed Walls, East Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bed |
| E12-3B | Ceramic Tile Grout and Bed Walls, West Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bed |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06926

Project : Falcon Village, Unit I401

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 2 of 3

On 6/24/2013, thirty one (31) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|--|
| E13-3C | Ceramic Tile Grout and Bed Walls, West Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bed |
| E14-4A | Vinyl Sheet Flooring, Living Room | None Detected - Top Flooring None Detected - Fiber Backing 5% Chrysotile - Bottom Flooring 5% Chrysotile - Black Mastic |
| E15-4B | Vinyl Sheet Flooring, West Bedroom | Not Analyzed - Positive Stop |
| E16-4C | Vinyl Sheet Flooring, East Bedroom, at Door | Not Analyzed - Positive Stop |
| E17-5A | Ceramic Tile Grout and Bed Floors, West Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bed 5% Chrysotile - Black Mastic |
| E18-5B | Ceramic Tile Grout and Bed Floors, East Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bed 5% Chrysotile - Floor Tile 5% Chrysotile - Black Mastic |
| E19-5C | Ceramic Tile Grout and Bed Floors, East Bathroom | Not Analyzed - Positive Stop |
| E20-6A | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| E21-6B | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| E22-6C | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| E23-7A | Window Caulking, West Bedroom, Window | None Detected - Caulking |
| E24-7B | Window Caulking, East Bedroom, Window | None Detected - Caulking |
| E25-7C | Window Caulking, Kitchen, Window | None Detected - Caulking |
| E26-8A | Roofing, West Corner | None Detected - Roofing Shingle None Detected - Roofing Felt |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06926

Project : Falcon Village, Unit I401

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600 / R-93 / 116

Page 3 of 3

On 6/24/2013, thirty one (31) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--------------------------------------|--|
| E27-8B | Roofing, North Corner | None Detected - Roofing Shingle None Detected - Roofing Felt |
| E28-8C | Roofing, East Corner | None Detected - Roofing Shingle 1 None Detected - Roofing Shingle 2 None Detected - Roofing Felt |
| E29-9A | Exterior Stucco, Carport Wall | None Detected - Plaster <1% Chrysotile - Stucco |
| E30-9B | Exterior Stucco, Front North | None Detected - Plaster <1% Chrysotile - Stucco |
| E31-9C | Exterior Stucco, Back Center | None Detected - Plaster <1% Chrysotile - Stucco |

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.



Analyst(s): Bruce Crabb, Will Colbert

Lab Manager : Bruce Crabb

Approved Signatory :

Lab Director : Steve Moody

Approved Signatory :

Thank you for choosing Steve Moody Micro Services

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Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I401

Project # : 130602

Lab Job No. : 13B-06926

Report Date : 06/25/2013

Page 1 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-------------------------------|-------------|--------------------------|------------|---------------|---------|
| E1-1A | Drywall Material (White) | 45% | Cellulose Fibers | 5% | 06/24 | WC |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 15% | Cellulose Fibers | 100% | | |
| | Joint Compound (White) | 20% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| | Texture (White) | 20% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| E2-1B | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| E3-1C | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| E4-1D | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| E5-1E | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| E6-2A | Drywall Material (White) | 5% | Cellulose Fibers | 5% | 06/24 | WC |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 10% | Cellulose Fibers | 100% | | |
| | Joint Compound (White) | 20% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| | Texture (White) | 65% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| E7-2B | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| E8-2C | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| E9-2D | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| E10-2E | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| E11-3A | Ceramic Tile (White) | 80% | Sintered Clays | 100% | 06/24 | WC |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Bed (Grey) | 15% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I401

Project # : 130602

Lab Job No. : 13B-06926

Report Date : 06/25/2013

Page 2 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------------|------------|---------------|---------|
| E12-3B | Ceramic Tile (White) | 90% | Sintered Clays | 100% | 06/24 | WC |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Bed (White) | 5% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| E13-3C | Ceramic Tile (White) | 90% | Sintered Clays | 100% | 06/24 | WC |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Bed (White) | 5% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| E14-4A | Top Flooring (Light Grey) | 15% | Synthetic Foam | 70% | 06/24 | WC |
| | | | Vinyl Binders | 30% | | |
| | Fiber Backing (Light Grey) | 35% | Cellulose Fibers | 50% | | |
| | | | Glass Wool Fibers | 5% | | |
| | | | Binders / Fillers | 45% | | |
| | Bottom Flooring (Off-White) | 49% | Chrysotile | 5% | | |
| | | | Calcite / Vinyl Binders | 95% | | |
| | Black Mastic (Black) | 1% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| E15-4B | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| E16-4C | Not Analyzed - Positive Stop | 100% | | | 06/24 | WC |
| E17-5A | Ceramic Tile (Light Grey) | 75% | Sintered Clays | 100% | 06/24 | WC |
| | Grout (Grey) | 15% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Bed (White) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Black Mastic (Black) | <1% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I401

Project # : 130602

Lab Job No. : 13B-06926

Report Date : 06/25/2013

Page 3 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------------|------------|---------------|---------|
| E18-5B | Ceramic Tile (Light Grey) | 10% | Sintered Clays | 100% | 06/24 | WC |
| | Grout (Grey) | 5% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Bed (Grey) | 45% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Floor Tile (Light Tan) | 40% | Chrysotile | 5% | | |
| | | | Calcite / Vinyl Binders | 95% | | |
| | Black Mastic (Black) | <1% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| E19-5C | Not Analyzed - Positive Stop | 100% | 06/24 | | | WC |
| E20-6A | Sink Undercoating (Black) | 100% | Calcite / Talc | 50% | 06/24 | WC |
| | | | Tar Binders | 50% | | |
| E21-6B | Sink Undercoating (Black) | 100% | Calcite / Talc | 50% | 06/24 | WC |
| | | | Tar Binders | 50% | | |
| E22-6C | Sink Undercoating (Black) | 100% | Calcite / Talc | 50% | 06/24 | WC |
| | | | Tar Binders | 50% | | |
| E23-7A | Caulking (White) | 100% | Calcite | 50% | 06/24 | WC |
| | | | Binders / Fillers | 50% | | |
| E24-7B | Caulking (White) | 100% | Calcite | 50% | 06/24 | WC |
| | | | Binders / Fillers | 50% | | |
| E25-7C | Caulking (White) | 100% | Calcite | 40% | 06/24 | WC |
| | | | Binders / Fillers | 60% | | |
| E26-8A | Sand Layer (Grey / Green) | 15% | Aggregate | 100% | 06/24 | WC |
| | Roofing Shingle (Black) | 40% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 35% | | |
| | | | Tar Binders | 45% | | |
| | | | Roofing Felt (Black) | 45% | | |
| | | | Cellulose Fibers | 85% | | |
| | | Tar Binders | 15% | | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I401

Project # : 130602

Lab Job No. : 13B-06926

Report Date : 06/25/2013

Page 4 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|------------------------|---------------------------|-------------|-------------------|------------|---------------|---------|
| E27-8B | Sand Layer (Grey / Green) | 15% | Aggregate | 100% | 06/24 | WC |
| | Roofing Shingle (Black) | 60% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 35% | | |
| | | | Tar Binders | 45% | | |
| | Roofing Felt (Black) | 25% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| E28-8C | Sand Layer (Grey / Green) | 5% | Aggregate | 100% | 06/24 | WC |
| | Roofing Shingle 1 (Black) | 30% | Glass Wool Fibers | 25% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 45% | | |
| | Sand Layer (Red / Brown) | 5% | Aggregate | 100% | | |
| | Roofing Shingle 2 (Black) | 30% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 50% | | |
| | Roofing Felt (Black) | 30% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| Note: Layering Unclear | | | | | | |
| E29-9A | Plaster (Grey) | 90% | Aggregate | 65% | 06/25 | BC |
| | | | Calcite / Binders | 35% | | |
| | Stucco (Light Green) | 10% | Chrysotile | <1% | | |
| | | | Aggregate | 65% | | |
| | | | Calcite / Binders | 35% | | |
| E30-9B | Plaster (Grey) | 95% | Aggregate | 65% | 06/25 | BC |
| | | | Calcite / Binders | 35% | | |
| | Stucco (Light Green) | 5% | Chrysotile | <1% | | |
| | | | Aggregate | 65% | | |
| | | | Calcite / Binders | 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I401

Project # : 130602

Lab Job No. : 13B-06926

Report Date : 06/25/2013

Page 5 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|----------------------|-------------|-------------------|------------|---------------|---------|
| E31-9C | Plaster (Grey) | 90% | Aggregate | 65% | 06/25 | BC |
| | | | Calcite / Binders | 35% | | |
| | Stucco (Light Green) | 10% | Chrysotile | <1% | | |
| | | | Aggregate | 65% | | |
| | | | Calcite / Binders | 35% | | |
| | | | | | | |

Chain of Custody

Page 1 of 2



Lab Job # 13B-0926 PLM 31
 Lab Job # _____
 Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.

Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM

Bulk ☐ 1 day ☐ 2 day ☒ 3 day ☐ 5 day ☐ Immediate
☐ Analyze All ☒ Positive Stop

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate

TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD

Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile

Analyze Blanks ☐ Yes ☐ No

Culture (Swab / Bulk / Plate) ☐ 7-14 day

OTHER:

ASBESTOS TEM

Air AHERA Method ☐ 6 hr ☐ 12hr ☐ 24 hr
 Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
 Bulk/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
 Water ☐ 1 day ☐ 2 day ☐ 3 day
 Analyze Blanks ☐ Yes ☐ No

BACTERIA

Heterotrophic Plate Count (HPC) ☐ 3 day
 HPC + Gram Stain ☐ 3 day ☐ 5 day
 HPC + 3 Gram Neg ID ☐ 6-8 day
 HPC + 5 Gram Neg ID ☐ 6-8 day
 Fecal Coliform (MPN) ☐ 3 day
 Total Coliform & E Coli (P/A) ☐ 2-3 day

Billing Company / City: LCA Environmental, Inc.

Submitter's Company: LCA Environmental, Inc.

Submitter's Name: Thomas Hale

Project: FALCON VILLAGE UNIT I 401

Contact Information: Name: Thomas Hale

E-mail Results to: hale@lcaenvironmental.com; barganier@lcaenvironmental.com

Invoice Address: _____

of Samples: 31

Sample Date: 6-20-13

Project #: 130602

Phone #: 972-241-6680

Mobile #: 214-403-8298

Fax #: 972-241-6689

P.O. #: _____

— Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees—

Notes: _____

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|----------|-----------------------------------|---------------------------|----------------------|
| E1-1A | GYP BRD CEILING W/ TEXT + J. Comp | | DINING ROOM |
| E2-1B | | | LIVING ROOM |
| E3-1C | | | EAST BEDROOM |
| E4-1D | | | NORTH BEDROOM |
| E5-1E | | | WEST BEDROOM |
| E6-2A | GYP WALLS W/ TEXT + J. Comp. | | SOUTH ROOM |
| E7-2B | | | KITCHEN |
| E8-2C | | | LIVING ROOM CLOSET |
| E9-2D | | | LAUNDRY ROOM |
| E10-2E | | | NORTH BEDROOM CLOSET |
| E11-3A | CERAMIC TILE GROUT + BED WALLS | | EAST BATHROOM |
| E12-3B | | | WEST BATHROOM |
| E13-3C | | | |
| E14-4A | VINYL SHEET FLOORING | | LIVING ROOM |
| E15-4B | | | WEST BEDROOM |

| | | | |
|---------------------------------|-----------------------------------|---------------------------------|------------------------------------|
| Released By: <u>[Signature]</u> | Date / Time: <u>6/24/13 10:59</u> | Received By: <u>[Signature]</u> | Date / Time: <u>6-24-13/10:57A</u> |
| Released By: _____ | Date / Time: _____ | Received By: _____ | Date / Time: _____ |



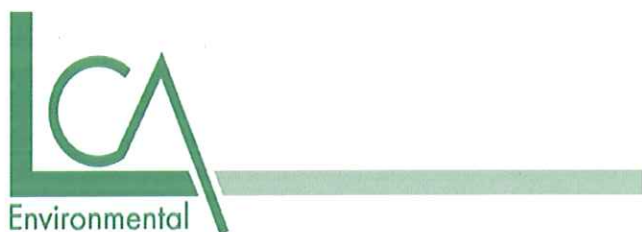
Lab Job #

Lab Job #

Project: FALCON VILLAGE UNIT I401

Project #: 130602

Steve Moody Micro Services, LLC - 2051 Valley View Ln. - Farmers Branch, TX 75234 - PHONE (972) 241-8460 / FAX (972) 241-8461 [COC 2011]



LCA Environmental, Inc.
13221 Bee Street
Farmers Branch, TX 75234
Phone: 972-241-6680
Fax: 972-241-6689
www.LCAenvironmental.com

Limited Asbestos Inspection

July 3, 2013

Client: Mr. Ron Moore
Quaternary Resource Investigations, LLC
3809 Camino Drive
Plano, Texas 75074

Project Site: Unit I403 - Single Family Dwelling
Falcon Village, Texas 78545

LCA Project No.: 130602

Area Sampled: Unit I403 - Single Family Dwelling

TDSHS Inspector and License: Thomas Hale, TDSHS License #602545

Date of Limited Asbestos Inspection: June 20, 2013

Total Samples Collected: 31

This inspection scope of work was limited to building materials which would be impacted by the planned demolition of the building.

On the above-referenced date, LCA Environmental, Inc. (LCA) collected bulk samples of suspect asbestos-containing building material (ACBM) at the above-referenced Project Site. The materials sampled came from areas that were identified by the Client as being subject to proposed renovation and/or demolition. The samples were submitted to a laboratory accredited by the National Voluntary Laboratory Accreditation Program and licensed by the Texas Department of State Health Services (TDSHS) to conduct asbestos analysis. The findings of this limited asbestos inspection are as follows:

Laboratory results are greater than 1% asbestos for one or more of the samples collected and submitted for laboratory analysis. Therefore, at least a portion of the building materials that will be disturbed during renovation and/or demolition are ACBM as defined by the National Emission Standard for Hazardous Air Pollutants (NESHAP 40 CFR 61, Subpart M).

ACBM Summary Table
Unit I403 - Single Family Dwelling
Entire Building.
Falcon Village, Texas 78545

| Identified ACBM | Asbestos Content | Approximate Location | Approximate Quantity |
|---|---|-------------------------|-----------------------|
| Gypsum board ceilings with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 1,290 ft ² |
| Gypsum board walls with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 4,240 ft ² |
| Vinyl Sheet flooring black mastic | 5% Chrysotile | Throughout | 1,205 ft ² |
| Black mastic under ceramic tile floors | 5% Chrysotile | East and west bathrooms | 85 ft ² |
| Exterior stucco | 2% Chrysotile | Exterior of building | 1,300 ft ² |

See attached Figure 1 - Sample Location Plan and Figure 2 - Asbestos Location Plan for further detail regarding sample locations and general extent of identified ACBM

Recommendations

In accordance with the EPA NESHAP regulations, these materials must be removed prior to any activity that might be expected to disturb them. The removal of these materials must be performed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer.

The findings and opinions of this limited asbestos inspection are not scientific certainties but rather opinions based on our professional judgment concerning the significance of the data gathered during the course of the limited asbestos inspection. LCA does not represent that the Project Site contains no hazardous or toxic materials, wastes, or other latent conditions beyond the observations made by LCA during the limited asbestos inspection and the information obtained from the other activities in the scope of work.

LCA is not responsible for any omissions or inaccuracies of any sort that arise as a result of the Client's failure or inability to provide Project Site information or data. LCA makes no warranties or representations, expressed or implied, beyond those expressed in the Standard Contract for Services and this limited asbestos inspection report.

This limited asbestos inspection report has been prepared for the exclusive use of the Client and its direct representatives and associates to assist with their efforts to identify potential environmental concerns connected with the Project Site. LCA does not authorize the use of this limited asbestos inspection report for any purpose other than that for which it is prepared.

Only those suspect ACM that are specifically discussed in this limited asbestos inspection report were identified or addressed during this project. It is possible that other ACM may exist at this Project Site in areas that were not seen or were concealed or otherwise inaccessible (e.g., behind walls, above ceilings, inside old air ducts, etc.). It is also possible that other accessible ACM may exist at this Project Site in areas that were not identified by the Client as subject to proposed renovation and/or demolition. Samples were not collected of typically non-ACM such as concrete, steel, plastic, glass, and paint. The identification or addressing of other potential ACM was outside the scope of service of this contract. LCA assumes no responsibility or liability for any ACM at the Project Site.

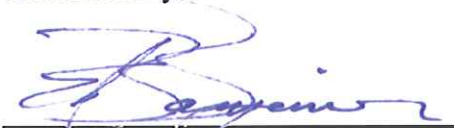
LCA represents that the work performed on this project was performed by qualified individuals, trained and licensed to perform their respective duties (see attached licenses). LCA further represents that work performed on this project by LCA or people under LCA's direct control was performed in a manner and fashion consistent with commonly accepted standards and practices within the asbestos industry in this area during the project period.

Prepared By:



Thomas A. Hale
TDSHS AI 602545

Reviewed By:



Edw. B. Baganier,
Building Sciences Program Manager
TDSHS IAC 105519

Attachments:

LCA Certifications

Figure 1 - Sample Location Plan

Figure 2 - Asbestos Location Plan

Steve Moody Micro Services, Report No. 13B-06924



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

LYNN CLARK ASSOCIATES INC DBA

is certified to perform as a

Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

A handwritten signature in cursive script, appearing to read "David Lakey MD".

DAVID LAKEY, M.D.
COMMISSIONER OF HEALTH

License Number: 100285

Control Number: 96450

Expiration Date: 12/15/2013

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



**Texas Department of
State Health Services**

Asbestos Individual Consultant

EDWARD B BARGANIER

License No. 105519

Control No. 96396

Expiration Date: 11/9/2014



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/11/2013 for the annual update:

**Design of ACBM Abatement Projects
NESHAP Trained Person**

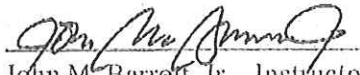
100.000.370.033

6/11/2014

Certificate Number

Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 8/15/2012 for the annual update:


Inspecting Buildings for ACBM

100.000.370.031
Certificate Number

8/15/2013
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379




John M. Barrett, Jr. - Instructor
Director of Training



**Texas Department of
State Health Services**

Asbestos Inspector

THOMAS A HALE

License No. 602545

Control No. 97247

Expiration Date: 4/18/2015



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Thomas Hale

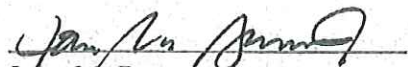
has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/12/2013 for the annual update:

Inspecting Buildings for ACBM

100.001.673 .031
Certificate Number


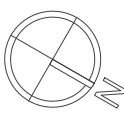
6/12/2014
Expiration Date

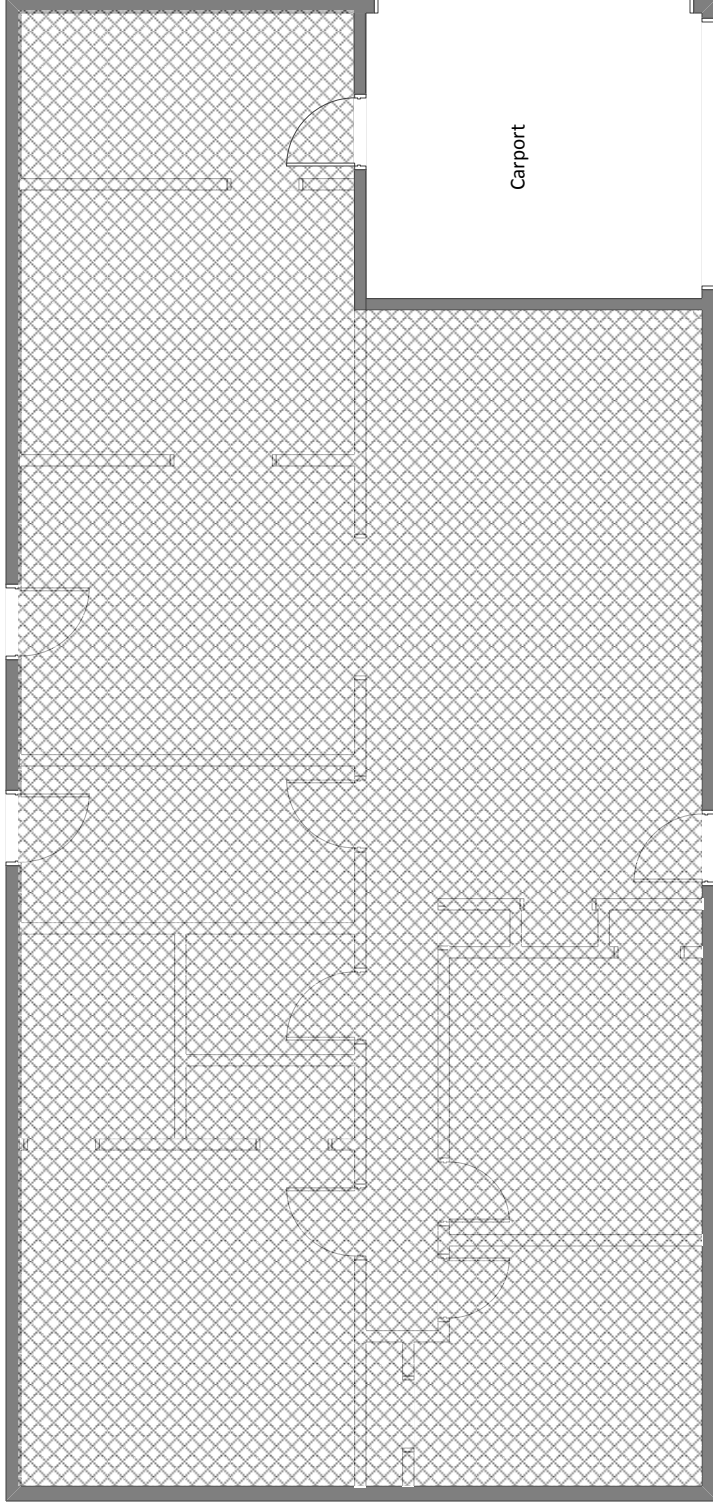
Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training





| | | | | | |
|---|----------------|---|--|---|---|
|  | |  NOT TO SCALE | | Quanternary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas | Figure 1 Unit 1403 Sample Location Plan |
| Drawn By: EBB | Date: 07/02/13 | Location: CBP-Owned Housing, Falcon Village, Texas | | LCA Project No.: 130602 | |
| Approved By: TAH | Date: 07/02/13 | Source: LCA Field Sketch | | Filename: Fig1-1403 Sample Location Plan | |



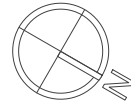
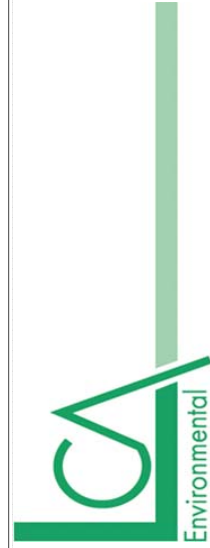
ACM Exterior Stucco



ACM text./joint comp. associated with
gyp-brd walls and ceilings



ACM black flooring mastic



NOT TO SCALE

Quanternary Resource Investigations, LLC
NESHAP Compliance Asbestos Survey
CBP-Owned Housing, Falcon Village, Texas

Figure 2
Unit 1403
ACBM Location Plan

Drawn By: EBB Date: 07/02/13

Location: CBP-Owned Housing, Falcon Village, Texas

LCA Project No.: 130602

Approved By: TAH Date: 07/02/13

Source: LCA Field Sketch

Filename: Fig2-1403 ACBM Location Plan

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06924

Project : Falcon Village, Unit I403

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 1 of 3

On 6/24/2013, thirty one (31) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|---|---|
| F1-1A | Gypsum Board Ceiling with Texture and Joint Compound, Living Room | None Detected - Drywall Material 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| F2-1B | Gypsum Board Ceiling with Texture and Joint Compound, West Bedroom | Not Analyzed - Positive Stop |
| F3-1C | Gypsum Board Ceiling with Texture and Joint Compound, North Bedroom | Not Analyzed - Positive Stop |
| F4-1D | Gypsum Board Ceiling with Texture and Joint Compound, East Bedroom | Not Analyzed - Positive Stop |
| F5-1E | Gypsum Board Ceiling with Texture and Joint Compound, Dining Room | Not Analyzed - Positive Stop |
| F6-2A | Gypsum Walls with Texture and Joint Compound, Kitchen | 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| F7-2B | Gypsum Walls with Texture and Joint Compound, Living Room | Not Analyzed - Positive Stop |
| F8-2C | Gypsum Walls with Texture and Joint Compound, Laundry Room | Not Analyzed - Positive Stop |
| F9-2D | Gypsum Walls with Texture and Joint Compound, West Bathroom | Not Analyzed - Positive Stop |
| F10-2E | Gypsum Walls with Texture and Joint Compound, East Bedroom | Not Analyzed - Positive Stop |
| F11-3A | Ceramic Tile Grout and Bed Walls, West Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bedding |
| F12-3B | Ceramic Tile Grout and Bed Walls, East Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bedding |
| F13-3C | Ceramic Tile Grout and Bed Walls, East Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bedding |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06924

Project : Falcon Village, Unit I403

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 2 of 3

On 6/24/2013, thirty one (31) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|--|
| F14-4A | Vinyl Sheet Flooring, Living Room | None Detected - Sheet Flooring None Detected - Fiber Backing 5% Chrysotile - Black Mastic |
| F15-4B | Vinyl Sheet Flooring, West Bedroom | Not Analyzed - Positive Stop |
| F16-4C | Vinyl Sheet Flooring, North Bedroom | Not Analyzed - Positive Stop |
| F17-5A | Ceramic Tile Grout and Bed Floors, East Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bedding 5% Chrysotile - Black Mastic |
| F18-5B | Ceramic Tile Grout and Bed Floors, West Bathroom | Not Analyzed - Positive Stop |
| F19-5C | Ceramic Tile Grout and Bed Floors, West Bathroom | Not Analyzed - Positive Stop |
| F20-6A | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| F21-6B | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| F22-6C | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| F23-7A | Window Caulking, Living Room, Window | None Detected - Caulking |
| F24-7B | Window Caulking, West Bedroom, Window | None Detected - Caulking |
| F25-7C | Window Caulking, North Bedroom, Window | None Detected - Caulking |
| F26-8A | Exterior Stucco, Front North | None Detected - Plaster 2% Chrysotile - Stucco |
| F27-8B | Exterior Stucco, North End | Not Analyzed - Positive Stop |
| F28-8C | Exterior Stucco, South End | Not Analyzed - Positive Stop |
| F29-9A | Roofing, West Corner | None Detected - Roofing Shingle None Detected - Roofing Tar None Detected - Roofing Felt |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06924

Project : Falcon Village, Unit I403

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600 / R-93 / 116

Page 3 of 3

On 6/24/2013, thirty one (31) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--------------------------------------|--|
| F30-9B | Roofing, North Corner | None Detected - Roofing Shingle None Detected - Roofing Tar None Detected - Roofing Felt |
| F31-9C | Roofing, East Corner | None Detected - Roofing Shingle None Detected - Roofing Tar None Detected - Roofing Felt |

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.



Analyst(s): Heather Deines

Lab Manager : Bruce Crabb

Lab Director : Steve Moody

Approved Signatory :

Approved Signatory :

Thank you for choosing Steve Moody Micro Services

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Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I403

Project # : 130602

Lab Job No. : 13B-06924

Report Date : 06/25/2013

Page 1 of 3

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-------------------------------|-------------|--------------------------|------------|---------------|---------|
| F1-1A | Drywall Material (White) | 40% | Cellulose Fibers | 5% | 06/24 | HD |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 10% | Cellulose Fibers | 100% | | |
| | Joint Compound (White) | 25% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| | Texture (White) | 25% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| F2-1B | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F3-1C | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F4-1D | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F5-1E | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F6-2A | DW Tape (White) | 20% | Cellulose Fibers | 100% | 06/24 | HD |
| | Joint Compound (White) | 40% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| | Texture (White) | 40% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| F7-2B | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F8-2C | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F9-2D | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F10-2E | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F11-3A | Ceramic Tile (White) | 85% | Sintered Clays | 100% | 06/24 | HD |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Bedding (White) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| F12-3B | Ceramic Tile (White) | 95% | Sintered Clays | 100% | 06/24 | HD |
| | Grout (White) | 4% | Calcite / Binders | 100% | | |
| | Bedding (White) | 1% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I403

Project # : 130602

Lab Job No. : 13B-06924

Report Date : 06/25/2013

Page 2 of 3

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------|------------|---------------|---------|
| F13-3C | Ceramic Tile (White) | 90% | Sintered Clays | 100% | 06/24 | HD |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Bedding (White) | 5% | Calcite / Binders | 100% | | |
| F14-4A | Sheet Flooring (Cream) | 50% | Synthetic Foam | 70% | 06/24 | HD |
| | | | Vinyl Binders | 30% | | |
| | Fiber Backing (Brown) | 47% | Cellulose Fibers | 100% | | |
| | Black Mastic (Black) | 3% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| F15-4B | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F16-4C | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F17-5A | Ceramic Tile (Light Grey) | 70% | Sintered Clays | 100% | 06/24 | HD |
| | Grout (White) | 25% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Bedding (White) | 3% | Calcite / Binders | 100% | | |
| | Black Mastic (Black) | 2% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| F18-5B | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F19-5C | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F20-6A | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/24 | HD |
| | | | Tar Binders | 60% | | |
| F21-6B | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/24 | HD |
| | | | Tar Binders | 60% | | |
| F22-6C | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/24 | HD |
| | | | Tar Binders | 60% | | |
| F23-7A | Caulking (White) | 100% | Calcite | 50% | 06/24 | HD |
| | | | Binders / Fillers | 50% | | |
| F24-7B | Caulking (White) | 100% | Calcite | 50% | 06/24 | HD |
| | | | Binders / Fillers | 50% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I403

Project # : 130602

Lab Job No. : 13B-06924

Report Date : 06/25/2013

Page 3 of 3

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------|------------|---------------|---------|
| F25-7C | Caulking (White) | 100% | Calcite | 50% | 06/24 | HD |
| | | | Binders / Fillers | 50% | | |
| F26-8A | Plaster (Grey) | 85% | Aggregate | 65% | 06/24 | HD |
| | | | Calcite / Binders | 35% | | |
| | Stucco (White) | 15% | Chrysotile | 2% | | |
| | | | Aggregate | 63% | | |
| | | | Calcite / Binders | 35% | | |
| F27-8B | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F28-8C | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| F29-9A | Sand Layer (Grey) | 20% | Aggregate | 100% | 06/24 | HD |
| | Roofing Shingle (Black) | 57% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 35% | | |
| | | | Tar Binders | 45% | | |
| | Roofing Tar (Black) | 3% | Tar Binders | 100% | | |
| | Roofing Felt (Black) | 20% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| F30-9B | Sand Layer (Grey) | 20% | Aggregate | 100% | 06/24 | HD |
| | Roofing Shingle (Black) | 57% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 35% | | |
| | | | Tar Binders | 45% | | |
| | Roofing Tar (Black) | 3% | Tar Binders | 100% | | |
| | Roofing Felt (Black) | 20% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| F31-9C | Sand Layer (Grey) | 20% | Aggregate | 100% | 06/24 | HD |
| | Roofing Shingle (Black) | 57% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 35% | | |
| | | | Tar Binders | 45% | | |
| | Roofing Tar (Black) | 3% | Tar Binders | 100% | | |
| | Roofing Felt (Black) | 20% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |

Chain of Custody

Page 1 of 2



Lab Job # 13B-06924 PLM 31

Lab Job # _____

Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.

Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM

Bulk ☐ 1 day ☐ 2 day ☒ 3 day ☐ 5 day ☐ Immediate
☐ Analyze All ☒ Positive Stop

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate
 TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD

Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile
 Analyze Blanks ☐ Yes ☐ No
 Culture (Swab / Bulk / Plate) ☐ 7-14 day

OTHER:

ASBESTOS TEM

Air AHERA Method ☐ 6 hr ☐ 12hr ☐ 24 hr
 Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
 Bulk/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
 Water ☐ 1 day ☐ 2 day ☐ 3 day
 Analyze Blanks ☐ Yes ☐ No

BACTERIA

Heterotrophic Plate Count (HPC) ☐ 3 day
 HPC + Gram Stain ☐ 3 day ☐ 5 day
 HPC + 3 Gram Neg ID ☐ 6-8 day
 HPC + 5 Gram Neg ID ☐ 6-8 day
 Fecal Coliform (MPN) ☐ 3 day
 Total Coliform & E Coli (P/A) ☐ 2-3 day

Billing Company / City: LCA Environmental, Inc.

Submitter's Company: LCA Environmental, Inc.

Submitter's Name: Thomas Hale

Project: FALCON VILLAGE UNIT I 403

Contact Information: Name: Thomas Hale

E-mail Results to: hale@lcaenvironmental.com; barganier@lcaenvironmental.com

Invoice Address: _____

of Samples: 31

Sample Date: 6-20-13

Project #: 130602

Phone #: 972-241-6680

Mobile #: 214-403-8298

Fax #: 972-241-6689

P.O. #: _____

— Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees—

Notes: _____

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|----------|-----------------------------------|---------------------------|------------------|
| F1 - 1A | GYP BRD CEILING w/ TEXT + J. Comp | | LIVING ROOM |
| F2 - 1B | | | WEST BEDROOM |
| F3 - 1C | | | NORTH BEDROOM |
| F4 - 1D | | | EAST BEDROOM |
| F5 - 1E | | | DINING ROOM |
| F6 - 2A | GYP WALLS w/ TEXT + J. comp. | | KITCHEN |
| F7 - 2B | | | LIVING ROOM |
| F8 - 2C | | | LAUNDRY ROOM |
| F9 - 2D | | | WEST BATHROOM |
| F10 - 2E | | | EAST BEDROOM |
| F11 - 3A | CERAMIC TILE GROUT + BED WALLS | | WEST BATHROOM |
| F12 - 3B | | | EAST BATHROOM |
| F13 - 3C | | | |
| F14 - 4A | VINYL SHEET FLOORING | | LIVING ROOM |
| F15 - 4B | | | WEST BEDROOM |

| | | | |
|---------------------------------|-----------------------------------|-------------------------|--------------------------------------|
| Released By: <u>[Signature]</u> | Date / Time: <u>6/24/13 11:00</u> | Received By: <u>LAB</u> | Date / Time: <u>6-24-13/12:57 PM</u> |
| Released By: _____ | Date / Time: _____ | Received By: _____ | Date / Time: _____ |

Page 2 of 2

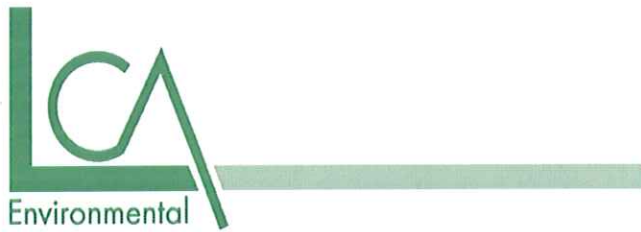


Lab Job # 136-06924
Lab Job # _____
Lab Job # _____

Project: *FALCON VILLAGE UNIT #403*

Project #: 130602

[illegible]



LCA Environmental, Inc.
13221 Bee Street
Farmers Branch, TX 75234
Phone: 972-241-6680
Fax: 972-241-6689
www.LCAenvironmental.com

Limited Asbestos Inspection

July 3, 2013

Client: Mr. Ron Moore
Quaternary Resource Investigations, LLC
3809 Camino Drive
Plano, Texas 75074

Project Site: Unit I405 - Single Family Dwelling
Falcon Village, Texas 78545

LCA Project No.: 130602

Area Sampled: Unit I405 - Single Family Dwelling

TDSHS Inspector and License: Thomas Hale, TDSHS License #602545

Date of Limited Asbestos Inspection: June 20, 2013

Total Samples Collected: 34

This inspection scope of work was limited to building materials which would be impacted by the planned demolition of the building.

On the above-referenced date, LCA Environmental, Inc. (LCA) collected bulk samples of suspect asbestos-containing building material (ACBM) at the above-referenced Project Site. The materials sampled came from areas that were identified by the Client as being subject to proposed renovation and/or demolition. The samples were submitted to a laboratory accredited by the National Voluntary Laboratory Accreditation Program and licensed by the Texas Department of State Health Services (TDSHS) to conduct asbestos analysis. The findings of this limited asbestos inspection are as follows:

Laboratory results are greater than 1% asbestos for one or more of the samples collected and submitted for laboratory analysis. Therefore, at least a portion of the building materials that will be disturbed during renovation and/or demolition are ACBM as defined by the National Emission Standard for Hazardous Air Pollutants (NESHAP 40 CFR 61, Subpart M).

**ACBM Summary Table
Unit I405 - Single Family Dwelling
Entire Building.
Falcon Village, Texas 78545**

| Identified ACBM | Asbestos Content | Approximate Location | Approximate Quantity |
|---|--|-----------------------------|-----------------------------|
| Gypsum board ceilings with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 1,230 ft ² |
| Gypsum board walls with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 4,035 ft ² |
| Vinyl sheet flooring black mastic | 5% Chrysotile | Throughout | 1,110 ft ² |
| Black mastic under ceramic tile floors | 5% Chrysotile | East and west bathrooms | 85 ft ² |
| Exterior stucco | 2% Chrysotile | Exterior of building | 1,315 ft ² |
| Beige vinyl floor tile and black mastic | 5% Chrysotile (floor tile & mastic) | South water heater room | 35 ft ² |

See attached Figure 1 - Sample Location Plan and Figure 2 - Asbestos Location Plan for further detail regarding sample locations and general extent of identified ACBM

Recommendations

In accordance with the EPA NESHAP regulations, these materials must be removed prior to any activity that might be expected to disturb them. The removal of these materials must be performed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer.

The findings and opinions of this limited asbestos inspection are not scientific certainties but rather opinions based on our professional judgment concerning the significance of the data gathered during the course of the limited asbestos inspection. LCA does not represent that the Project Site contains no hazardous or toxic materials, wastes, or other latent conditions beyond the observations made by LCA during the limited asbestos inspection and the information obtained from the other activities in the scope of work.

LCA is not responsible for any omissions or inaccuracies of any sort that arise as a result of the Client's failure or inability to provide Project Site information or data. LCA makes no warranties or representations, expressed or implied, beyond those expressed in the Standard Contract for Services and this limited asbestos inspection report.

This limited asbestos inspection report has been prepared for the exclusive use of the Client and its direct representatives and associates to assist with their efforts to identify potential environmental concerns connected with the Project Site. LCA does not authorize the use of this limited asbestos inspection report for any purpose other than that for which it is prepared.

Only those suspect ACBM that are specifically discussed in this limited asbestos inspection report were identified or addressed during this project. It is possible that other ACBM may exist at this Project Site in areas that were not seen or were concealed or otherwise inaccessible (e.g., behind walls, above ceilings, inside old air ducts, etc.). It is also possible that other accessible ACBM may exist at this Project Site in areas that were not identified by the Client as subject to proposed renovation and/or demolition. Samples were not collected of typically non-ACBM such as concrete, steel, plastic, glass, and paint. The identification or addressing of other potential ACBM was outside the scope of service of this contract. LCA assumes no responsibility or liability for any ACBM at the Project Site.

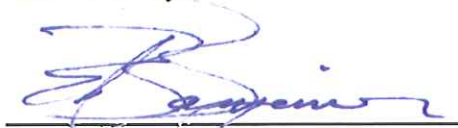
LCA represents that the work performed on this project was performed by qualified individuals, trained and licensed to perform their respective duties (see attached licenses). LCA further represents that work performed on this project by LCA or people under LCA's direct control was performed in a manner and fashion consistent with commonly accepted standards and practices within the asbestos industry in this area during the project period.

Prepared By:



Thomas A. Hale
TDSHS AI 602545

Reviewed By:



Edw. B. Baganier,
Building Sciences Program Manager
TDSHS IAC 105519

Attachments:

LCA Certifications

Figure 1 - Sample Location Plan

Figure 2 - Asbestos Location Plan

Steve Moody Micro Services, Report No. 13B-06927



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

LYNN CLARK ASSOCIATES INC DBA

is certified to perform as a

Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

A handwritten signature in cursive script, appearing to read "David Lahey MD".

DAVID LAHEY, M.D.
COMMISSIONER OF HEALTH

License Number: 100285

Control Number: 96450

Expiration Date: 12/15/2013

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



**Texas Department of
State Health Services**

Asbestos Individual Consultant

EDWARD B BARGANIER

License No. 105519

Control No. 96396

Expiration Date: 11/9/2014



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier


has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/11/2013 for the annual update.

**Design of ACBM Abatement Projects
NESHAP Trained Person**

100.000.370.033
Certificate Number

6/11/2014
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 8/15/2012 for the annual update:


Inspecting Buildings for ACBM

100.000.370.031
Certificate Number

8/15/2013
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379




John M. Barrett, Jr. - Instructor
Director of Training



**Texas Department of
State Health Services**

Asbestos Inspector

THOMAS A HALE

License No. 602545

Control No. 97247

Expiration Date: 4/18/2015



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Thomas Hale

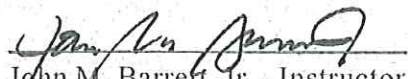
has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/12/2013 for the annual update:

Inspecting Buildings for ACBM

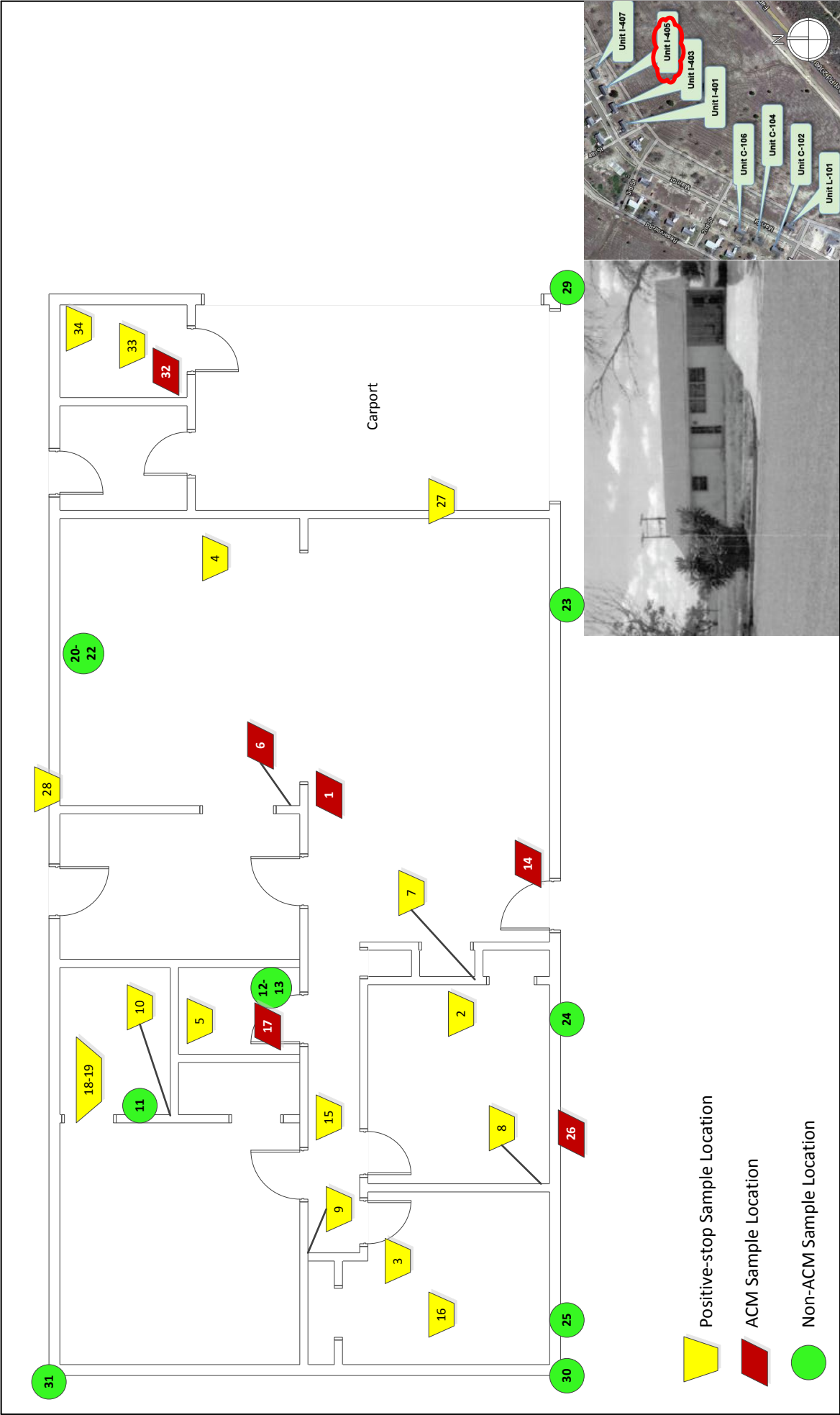
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6/12/2014
Expiration Date

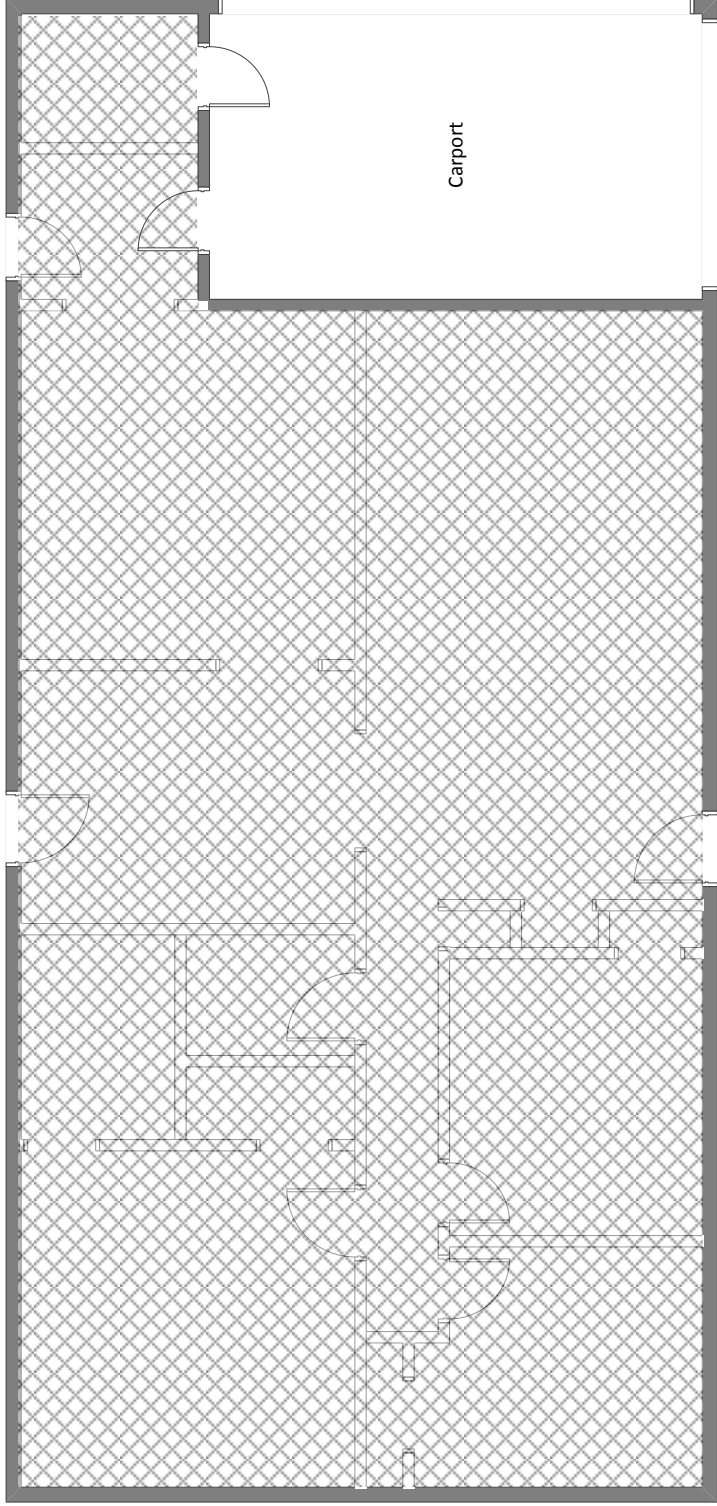
Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training



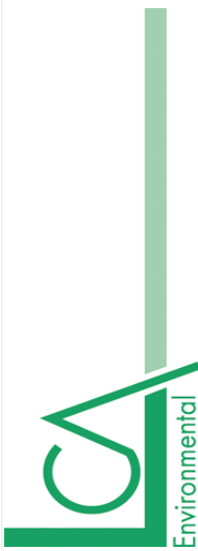
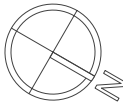


| | | | | |
|---|---|---|---|--|
|  |  NOT TO SCALE | Quanternary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas | Figure 1 Unit 1405 Sample Location Plan | LCA Project No.: 130602 |
| | | | | Location: CBP-Owned Housing, Falcon Village, Texas |
| | | | | Source: LCA Field Sketch |
| Drawn By: EBB | Date: 07/02/13 | | | |
| Approved By: TAH | Date: 07/02/13 | Filename: Fig1-1405 Sample Location Plan | | |



- ACM Exterior Stucco
- ACM vinyl flooring and black mastic
(ACM mastic under ceramic tile in bathrooms)
- ACM text./joint comp. associated with
gyp-brd walls and ceilings



| | | | | | |
|---|----------------|---|---|---|--|
|  | |  NOT TO SCALE | Quanternary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas | Figure 2 Unit 1405 ACBM Location Plan | |
| Drawn By: EBB | Date: 07/02/13 | Location: CBP-Owned Housing, Falcon Village, Texas | | | LCA Project No.: 130602 |
| Approved By: TAH | Date: 07/02/13 | Source: LCA Field Sketch | | | Filename: Fig2-1405 ACBM Location Plan |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06927

Project : Falcon Village, Unit I405

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 1 of 3

On 6/24/2013, thirty four (34) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|---|---|
| G1-1A | Gypsum Board Ceiling with Texture and Joint Compound, Living Room | None Detected - Drywall Material 2% Chrysotile - Texture / Joint Cmpd |
| G2-1B | Gypsum Board Ceiling with Texture and Joint Compound, West Bedroom | Not Analyzed - Positive Stop |
| G3-1C | Gypsum Board Ceiling with Texture and Joint Compound, North Bedroom | Not Analyzed - Positive Stop |
| G4-1D | Gypsum Board Ceiling with Texture and Joint Compound, Kitchen | Not Analyzed - Positive Stop |
| G5-1E | Gypsum Board Ceiling with Texture and Joint Compound, West Bathroom | Not Analyzed - Positive Stop |
| G6-2A | Gypsum Walls with Texture and Joint Compound, Kitchen | None Detected - Drywall Material 2% Chrysotile - Texture / Joint Cmpd |
| G7-2B | Gypsum Walls with Texture and Joint Compound, Living Room, Closet | Not Analyzed - Positive Stop |
| G8-2C | Gypsum Walls with Texture and Joint Compound, West Bedroom | Not Analyzed - Positive Stop |
| G9-2D | Gypsum Walls with Texture and Joint Compound, North Hall, Closet | Not Analyzed - Positive Stop |
| G10-2E | Gypsum Walls with Texture and Joint Compound, East Bathroom | Not Analyzed - Positive Stop |
| G11-3A | Ceramic Tile Grout and Bed Walls, East Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar |
| G12-3B | Ceramic Tile Grout and Bed Walls, West Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar |
| G13-3C | Ceramic Tile Grout and Bed Walls, West Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06927

Project : Falcon Village, Unit I405

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 2 of 3

On 6/24/2013, thirty four (34) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|---|
| G14-4A | Vinyl Sheet Flooring, at Front Door | None Detected - Sheet Flooring None Detected - Fiber Backing 5% Chrysotile - Black Mastic |
| G15-4B | Vinyl Sheet Flooring, Hallway | Not Analyzed - Positive Stop |
| G16-4C | Vinyl Sheet Flooring, North Bedroom | Not Analyzed - Positive Stop |
| G17-5A | Ceramic Tile Grout and Bed Floors, West Bathroom | None Detected - Ceramic Tile None Detected - Grout 5% Chrysotile - Black Mastic |
| G18-5B | Ceramic Tile Grout and Bed Floors, East Bathroom | Not Analyzed - Positive Stop |
| G19-5C | Ceramic Tile Grout and Bed Floors, East Bathroom | Not Analyzed - Positive Stop |
| G20-6A | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| G21-6B | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| G22-6C | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| G23-7A | Window Caulking, Living Room, Window | None Detected - Caulking |
| G24-7B | Window Caulking, West Bedroom, Window | None Detected - Caulking |
| G25-7C | Window Caulking, North Bedroom, Window | None Detected - Caulking |
| G26-8A | Exterior Stucco, Front North | None Detected - Grey Stucco 2% Chrysotile - Tan Stucco |
| G27-8B | Exterior Stucco, Carport Wall | Not Analyzed - Positive Stop |
| G28-8C | Exterior Stucco, Back Center | Not Analyzed - Positive Stop |
| G29-9A | Roofing, West Corner | None Detected - Roofing Shingles None Detected - Roofing Felt |
| G30-9B | Roofing, North Corner | None Detected - Roofing Shingles None Detected - Roofing Felt |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06927

Project : Falcon Village, Unit I405

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 3 of 3

On 6/24/2013, thirty four (34) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|---|--|
| G31-9C | Roofing, East Corner | None Detected - Roofing Shingles None Detected - Roofing Felt |
| G32-10A | 12" x 12" Vinyl Floor Tile with Mastic (Black), South Water Heater Room | 5% Chrysotile - Floor Tile 5% Chrysotile - Black Mastic |
| G33-10B | 12" x 12" Vinyl Floor Tile with Mastic (Black), South Water Heater Room | Not Analyzed - Positive Stop |
| G34-10C | 12" x 12" Vinyl Floor Tile with Mastic (Black), South Water Heater Room | Not Analyzed - Positive Stop |

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.



Analyst(s): Shaun Wilkerson

Lab Manager : Bruce Crabb

Lab Director : Steve Moody

Approved Signatory :

Approved Signatory :

Thank you for choosing Steve Moody Micro Services

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Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I405

Project # : 130602

Lab Job No. : 13B-06927

Report Date : 06/25/2013

Page 1 of 4

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-------------------------------|-------------|--------------------------|------------|---------------|---------|
| G1-1A | Drywall Material (White) | 90% | Cellulose Fibers | 5% | 06/24 | SW |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper Facing (Tan) | 5% | Cellulose Fibers | 100% | | |
| | Texture / Joint Compd (White) | 5% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| G2-1B | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| G3-1C | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| G4-1D | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| G5-1E | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| G6-2A | Drywall Material (White) | 90% | Cellulose Fibers | 5% | 06/24 | SW |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper Facing (Tan) | 5% | Cellulose Fibers | 100% | | |
| | Texture / Joint Compd (White) | 5% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| G7-2B | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| G8-2C | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| G9-2D | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| G10-2E | Not Analyzed - Positive Stop | 100% | | | 06/24 | SW |
| G11-3A | Ceramic Tile (Beige) | 85% | Sintered Clays | 100% | 06/24 | SW |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| G12-3B | Ceramic Tile (Beige) | 85% | Sintered Clays | 100% | 06/25 | SW |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I405

Project # : 130602

Lab Job No. : 13B-06927

Report Date : 06/25/2013

Page 2 of 4

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------|------------|---------------|---------|
| G13-3C | Ceramic Tile (Beige) | 85% | Sintered Clays | 100% | 06/25 | SW |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| G14-4A | Sheet Flooring (Beige) | 50% | Synthetic Foam | 70% | 06/25 | SW |
| | | | Vinyl Binders | 30% | | |
| | Fiber Backing (Brown) | 45% | Cellulose Fibers | 100% | | |
| | Black Mastic (Black) | 5% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| G15-4B | Not Analyzed - Positive Stop | 100% | | | 06/25 | SW |
| G16-4C | Not Analyzed - Positive Stop | 100% | | | 06/25 | SW |
| G17-5A | Ceramic Tile (Brown) | 95% | Sintered Clays | 100% | 06/25 | SW |
| | Grout (White) | 4% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Black Mastic (Black) | 1% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| G18-5B | Not Analyzed - Positive Stop | 100% | | | 06/25 | SW |
| G19-5C | Not Analyzed - Positive Stop | 100% | | | 06/25 | SW |
| G20-6A | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/25 | SW |
| | | | Tar Binders | 60% | | |
| G21-6B | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/25 | SW |
| | | | Tar Binders | 60% | | |
| G22-6C | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/25 | SW |
| | | | Tar Binders | 60% | | |
| G23-7A | Caulking (White) | 100% | Calcite | 50% | 06/25 | SW |
| | | | Binders / Fillers | 50% | | |
| G24-7B | Caulking (White) | 100% | Calcite | 50% | 06/25 | SW |
| | | | Binders / Fillers | 50% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I405

Project # : 130602

Lab Job No. : 13B-06927

Report Date : 06/25/2013

Page 3 of 4

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------|------------|---------------|---------|
| G25-7C | Caulking (White) | 100% | Calcite | 50% | 06/25 | SW |
| | | | Binders / Fillers | 50% | | |
| G26-8A | Grey Stucco (Grey) | 80% | Aggregate | 65% | 06/25 | SW |
| | | | Binders / Fillers | 35% | | |
| | Tan Stucco (Tan) | 20% | Chrysotile | 2% | | |
| | | | Aggregate | 63% | | |
| | | | Binders / Fillers | 35% | | |
| G27-8B | Not Analyzed - Positive Stop | 100% | | | 06/25 | SW |
| G28-8C | Not Analyzed - Positive Stop | 100% | | | 06/25 | SW |
| G29-9A | Sand Layer (Light Grey) | 25% | Aggregate | 100% | 06/25 | SW |
| | Roofing Shingles (Black) | 60% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 50% | | |
| | Roofing Felt (Black) | 15% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| G30-9B | Sand Layer (Light Grey) | 25% | Aggregate | 100% | 06/25 | SW |
| | Roofing Shingles (Black) | 60% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 50% | | |
| | Roofing Felt (Black) | 15% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| G31-9C | Sand Layer (Light Grey) | 25% | Aggregate | 100% | 06/25 | SW |
| | Roofing Shingles (Black) | 60% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 30% | | |
| | | | Tar Binders | 50% | | |
| | Roofing Felt (Black) | 15% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I405

Project # : 130602

Lab Job No. : 13B-06927

Report Date : 06/25/2013

Page 4 of 4

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------------|------------|---------------|---------|
| G32-10A | Floor Tile (Beige) | 97% | Chrysotile | 5% | 06/25 | SW |
| | | | Calcite / Vinyl Binders | 95% | | |
| | Black Mastic (Black) | 3% | Chrysotile | 5% | | |
| | | | Tar Binders | 95% | | |
| G33-10B | Not Analyzed - Positive Stop | 100% | | | 06/25 | SW |
| G34-10C | Not Analyzed - Positive Stop | 100% | | | 06/25 | SW |
| | | | | | | |

Chain of Custody

Page 1 of 2



Lab Job # 13B-0627 PLM 34

Lab Job # _____

Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.

Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM

Bulk ☐ 1 day ☐ 2 day ☒ 3 day ☐ 5 day ☐ Immediate
☐ Analyze All ☒ Positive Stop

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate

TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD

Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile

Analyze Blanks ☐ Yes ☐ No

Culture (Swab / Bulk / Plate) ☐ 7-14 day

OTHER:

Billing Company / City: LCA Environmental, Inc.

Submitter's Company: LCA Environmental, Inc.

Submitter's Name: Thomas Hale

Project: FALCON VILLAGE UNIT I 405

Contact Information: Name: Thomas Hale

E-mail Results to: hale@lcaenvironmental.com; barganier@lcaenvironmental.com

Invoice Address: _____

ASBESTOS TEM

Air AHERA Method ☐ 6 hr ☐ 12hr ☐ 24 hr

Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day

Bulk/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day

Water ☐ 1 day ☐ 2 day ☐ 3 day

Analyze Blanks ☐ Yes ☐ No

BACTERIA

Heterotrophic Plate Count (HPC) ☐ 3 day

HPC + Gram Stain ☐ 3 day ☐ 5 day

HPC + 3 Gram Neg ID ☐ 6-8 day

HPC + 5 Gram Neg ID ☐ 6-8 day

Fecal Coliform (MPN) ☐ 3 day

Total Coliform & E Coli (P/A) ☐ 2-3 day

of Samples: 34

Sample Date: 6-20-13

Project #: 130602

Phone #: 972-241-6680

Mobile #: 214-403-8298

Fax #: 972-241-6689

P.O. #: _____

— Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees—

Notes: _____

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|----------|-----------------------------------|---------------------------|--------------------|
| G1 - 1A | GYP BRD CEILING W/ TEXT + J. Comp | | LIVING ROOM |
| G2 - 1B | | | WEST BEDROOM |
| G3 - 1C | | | NORTH BEDROOM |
| G4 - 1D | | | KITCHEN |
| G5 - 1E | | | WEST BATHROOM |
| G6 - 2A | GYP WALLS W/ TEXT + J. Comp. | | KITCHEN |
| G7 - 2B | | | LIVING ROOM CLOSET |
| G8 - 2C | | | WEST BEDROOM |
| G9 - 2D | | | NORTH HALL CLOSET |
| G10 - 2E | | | EAST BATHROOM |
| G11 - 3A | CERAMIC TILE GROUT + BED WALLS | | EAST BATHROOM |
| G12 - 3B | | | WEST BATHROOM |
| G13 - 3C | | | |
| G14 - 4A | VINYL SHEET FLOORING | | AT FRONT DOOR |
| G15 - 4B | | | HALL WAY |

| | | | |
|---------------------------------|-----------------------------------|---------------------------------|--------------------------------------|
| Released By: <u>[Signature]</u> | Date / Time: <u>6/24/13 10:58</u> | Received By: <u>[Signature]</u> | Date / Time: <u>6-24-13 / 10:57H</u> |
| Released By: _____ | Date / Time: _____ | Received By: _____ | Date / Time: _____ |

Page 2 of 2



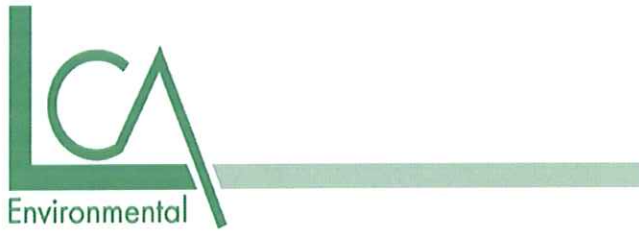
Lab Job #

Lab Job #

Project: *FALCON VILLAGE UNIT I405*

Project #: 130602

Steve Moody Micro Services, LLC - 2051 Valley View Ln. - Farmers Branch, TX 75234 - PHONE (972) 241-8460 / FAX (972) 241-8461 [COC 2011]



LCA Environmental, Inc.
13221 Bee Street
Farmers Branch, TX 75234
Phone: 972-241-6680
Fax: 972-241-6689

www.LCAenvironmental.com

Limited Asbestos Inspection

July 3, 2013

Client: Mr. Ron Moore
Quaternary Resource Investigations, LLC
3809 Camino Drive
Plano, Texas 75074

Project Site: Unit I407 - Single Family Dwelling
Falcon Village, Texas 78545

LCA Project No.: 130602

Area Sampled: Unit I407 - Single Family Dwelling

TDSHS Inspector and License: Thomas Hale, TDSHS License #602545

Date of Limited Asbestos Inspection: June 20, 2013

Total Samples Collected: 31

This inspection scope of work was limited to building materials which would be impacted by the planned demolition of the building.

On the above-referenced date, LCA Environmental, Inc. (LCA) collected bulk samples of suspect asbestos-containing building material (ACBM) at the above-referenced Project Site. The materials sampled came from areas that were identified by the Client as being subject to proposed renovation and/or demolition. The samples were submitted to a laboratory accredited by the National Voluntary Laboratory Accreditation Program and licensed by the Texas Department of State Health Services (TDSHS) to conduct asbestos analysis. The findings of this limited asbestos inspection are as follows:

Laboratory results are greater than 1% asbestos for one or more of the samples collected and submitted for laboratory analysis. Therefore, at least a portion of the building materials that will be disturbed during renovation and/or demolition are ACBM as defined by the National Emission Standard for Hazardous Air Pollutants (NESHAP 40 CFR 61, Subpart M).

ACBM Summary Table
Unit I407 - Single Family Dwelling
Entire Building.
Falcon Village, Texas 78545

| Identified ACBM | Asbestos Content | Approximate Location | Approximate Quantity |
|---|--|------------------------|-----------------------|
| Gypsum board ceilings with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 1,230 ft ² |
| Gypsum board walls with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 4,035 ft ² |
| Vinyl Sheet flooring, brown layer and black mastic | 5% Chrysotile (Floor Tile), 10% Chrysotile (Black Mastic) | Throughout | 1,145 ft ² |
| Black mastic under ceramic tile floors | 10% Chrysotile | West and east bathroom | 85 ft ² |

See attached Figure 1 - Sample Location Plan and Figure 2 - Asbestos Location Plan for further detail regarding sample locations and general extent of identified ACBM

Recommendations

In accordance with the EPA NESHAP regulations, these materials must be removed prior to any activity that might be expected to disturb them. The removal of these materials must be performed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer.

The findings and opinions of this limited asbestos inspection are not scientific certainties but rather opinions based on our professional judgment concerning the significance of the data gathered during the course of the limited asbestos inspection. LCA does not represent that the Project Site contains no hazardous or toxic materials, wastes, or other latent conditions beyond the observations made by LCA during the limited asbestos inspection and the information obtained from the other activities in the scope of work.

LCA is not responsible for any omissions or inaccuracies of any sort that arise as a result of the Client's failure or inability to provide Project Site information or data. LCA makes no warranties or representations, expressed or implied, beyond those expressed in the Standard Contract for Services and this limited asbestos inspection report.

This limited asbestos inspection report has been prepared for the exclusive use of the Client and its direct representatives and associates to assist with their efforts to identify potential environmental concerns connected with the Project Site. LCA does not authorize the use of this limited asbestos inspection report for any purpose other than that for which it is prepared.

Only those suspect ACM that are specifically discussed in this limited asbestos inspection report were identified or addressed during this project. It is possible that other ACM may exist at this Project Site in areas that were not seen or were concealed or otherwise inaccessible (e.g., behind walls, above ceilings, inside old air ducts, etc.). It is also possible that other accessible ACM may exist at this Project Site in areas that were not identified by the Client as subject to proposed renovation and/or demolition. Samples were not collected of typically non-ACM such as concrete, steel, plastic, glass, and paint. The identification or addressing of other potential ACM was outside the scope of service of this contract. LCA assumes no responsibility or liability for any ACM at the Project Site.

LCA represents that the work performed on this project was performed by qualified individuals, trained and licensed to perform their respective duties (see attached licenses). LCA further represents that work performed on this project by LCA or people under LCA's direct control was performed in a manner and fashion consistent with commonly accepted standards and practices within the asbestos industry in this area during the project period.

Prepared By:



Thomas A. Hale

TDSHS AI 602545

Reviewed By:



Edw. B. Barganier,

Building Sciences Program Manager

TDSHS IAC 105519

Attachments:

LCA Certifications

Figure 1 - Sample Location Plan

Figure 2 - Asbestos Location Plan

Steve Moody Micro Services, Report No. 13B-06929



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

LYNN CLARK ASSOCIATES INC DBA

is certified to perform as a

Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

A handwritten signature in dark ink, appearing to read "David Lakey MD".

DAVID LAKEY, M.D.
COMMISSIONER OF HEALTH

License Number: 100285

Control Number: 96450

Expiration Date: 12/15/2013

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



**Texas Department of
State Health Services**

Asbestos Individual Consultant

EDWARD B BARGANIER

License No. 105519

Control No. 96396

Expiration Date: 11/9/2014



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/11/2013 for the annual update:

**Design of ACBM Abatement Projects
NESHAP Trained Person**


100.000.370.033

6/11/2014

Certificate Number

Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barren, Jr. - Instructor
Director of Training



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 8/15/2012 for the annual update:


Inspecting Buildings for ACBM

100.000.370.031
Certificate Number

8/15/2013
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379




John M. Barrett, Jr. - Instructor
Director of Training



**Texas Department of
State Health Services**

Asbestos Inspector

THOMAS A HALE

License No. 602545

Control No. 97247

Expiration Date: 4/18/2015



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Thomas Hale

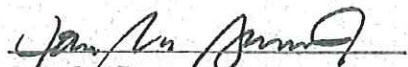
has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/12/2013 for the annual update:

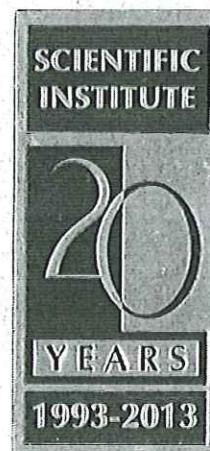
Inspecting Buildings for ACBM

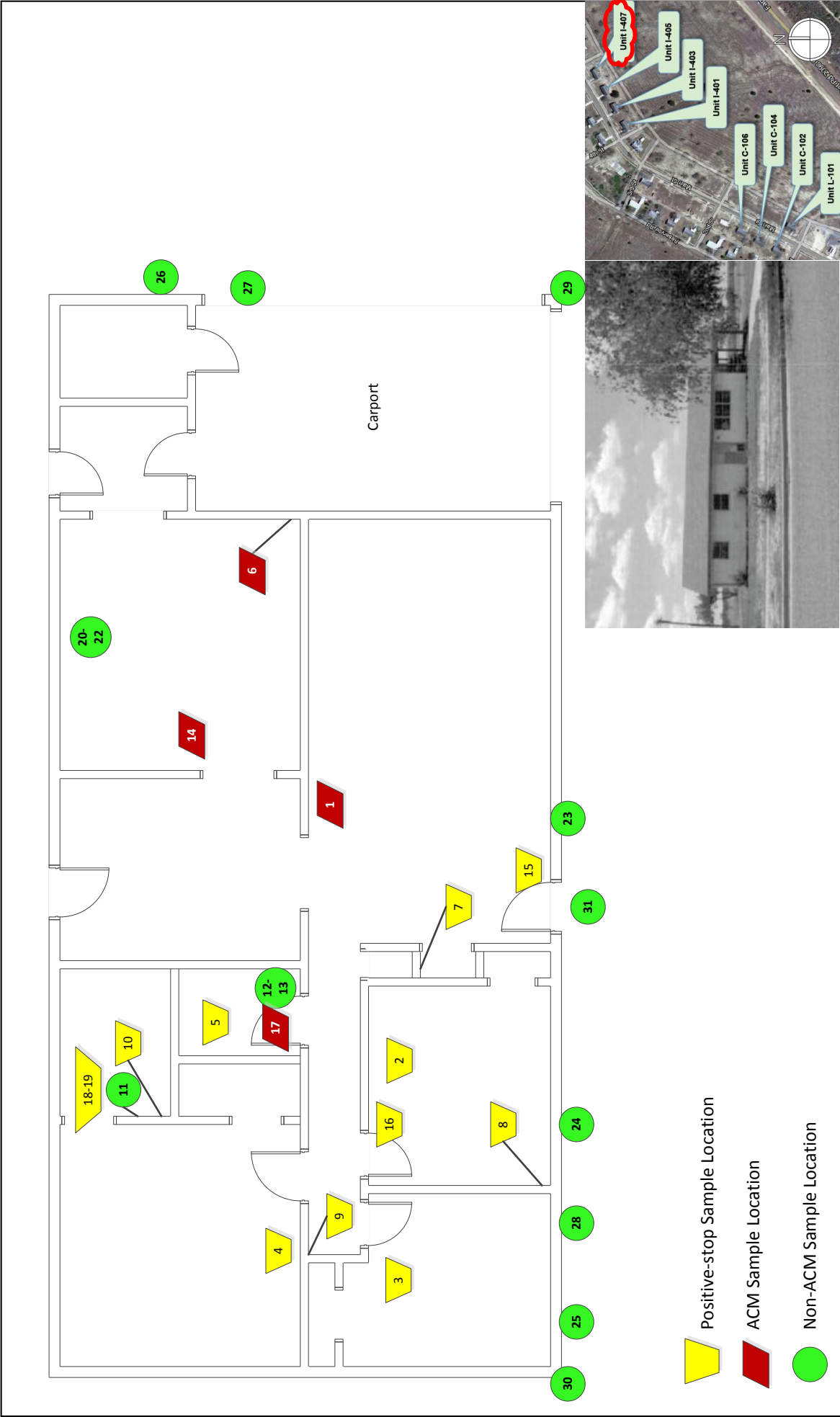
100.001.673 .031
Certificate Number



6/12/2014
Expiration Date

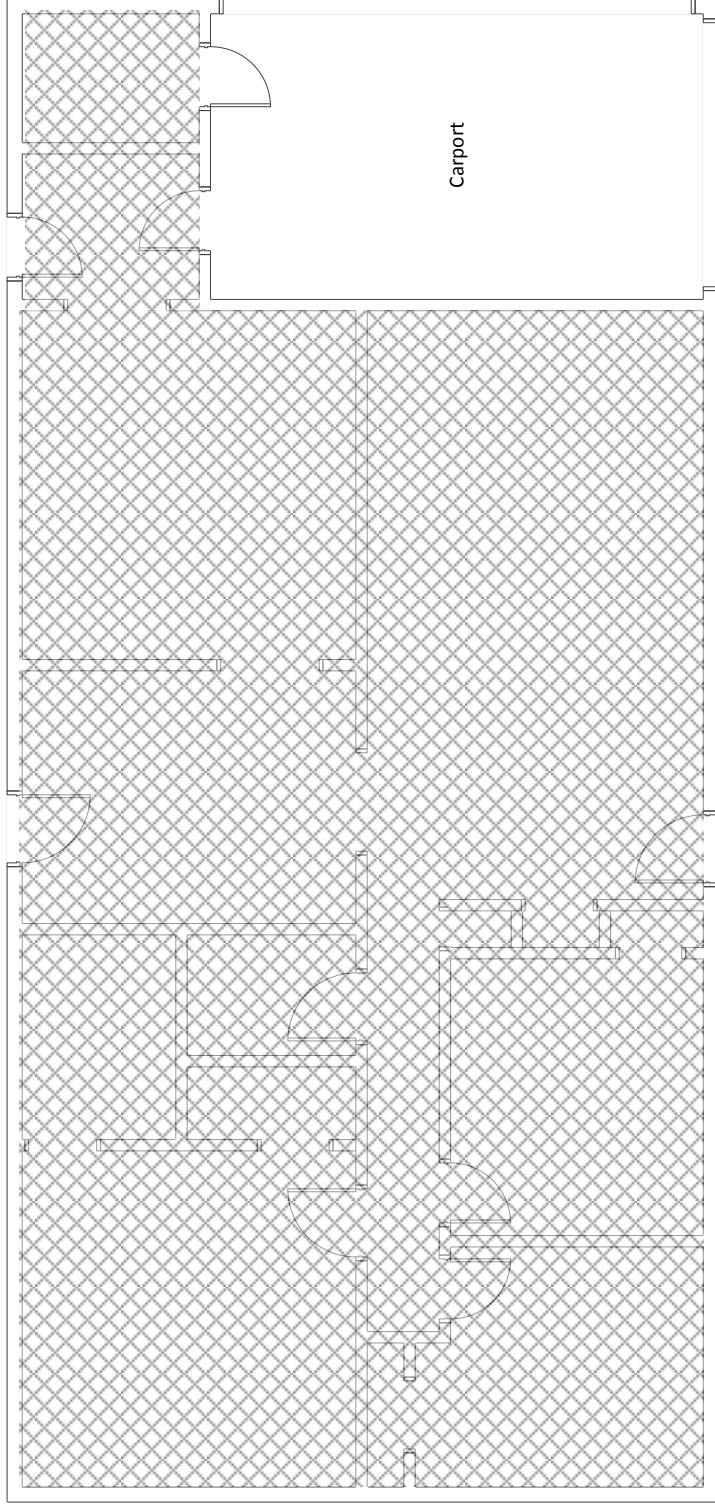
Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training





| | | | | | | |
|---|----------------|---|---|---|--|--|
|  | |  NOT TO SCALE | Quanternary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas | Figure 1 Unit I407 Sample Location Plan | | |
| Drawn By: EBB | Date: 07/02/13 | | | | Location: CBP-Owned Housing, Falcon Village, Texas | LCA Project No.: 130602 |
| Approved By: TAH | Date: 07/02/13 | | | | Source: LCA Field Sketch | Filename: Fig1-I407 Sample Location Plan |

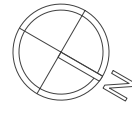


 ACM text./joint comp. associated with
gyp-brd walls and ceilings

 ACM floor tile and black mastic under sheet flooring
(under ceramic tile in bathrooms)



Quanternary Resource Investigations, LLC
NESHAP Compliance Asbestos Survey
CBP-Owned Housing, Falcon Village, Texas



NOT TO SCALE

Figure 2
Unit 1407
ACBM Location Plan

Drawn By: EBB

Date: 07/02/13

Location: CBP-Owned Housing, Falcon Village, Texas

LCA Project No.: 130602

Approved By: TAH

Date: 07/02/13

Source: LCA Field Sketch

Filename: Fig2-1407 ACBM Location Plan

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06929

Project : Falcon Village, Unit I407

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 1 of 3

On 6/24/2013, thirty one (31) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|---|---|
| H1-1A | Gypsum Board Ceiling with Texture and Joint Compound, Living Room | None Detected - Drywall Material 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| H2-1B | Gypsum Board Ceiling with Texture and Joint Compound, West Bedroom | Not Analyzed - Positive Stop |
| H3-1C | Gypsum Board Ceiling with Texture and Joint Compound, North Bedroom | Not Analyzed - Positive Stop |
| H4-1D | Gypsum Board Ceiling with Texture and Joint Compound, East Bedroom | Not Analyzed - Positive Stop |
| H5-1E | Gypsum Board Ceiling with Texture and Joint Compound, West Bathroom | Not Analyzed - Positive Stop |
| H6-2A | Gypsum Board Walls with Texture and Joint Compound, Kitchen | None Detected - Drywall Material 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| H7-2B | Gypsum Board Walls with Texture and Joint Compound, Living Room, Closet | Not Analyzed - Positive Stop |
| H8-2C | Gypsum Board Walls with Texture and Joint Compound, West Bedroom | Not Analyzed - Positive Stop |
| H9-2D | Gypsum Board Walls with Texture and Joint Compound, North Hall, Closet | Not Analyzed - Positive Stop |
| H10-2E | Gypsum Board Walls with Texture and Joint Compound, East Bathroom | Not Analyzed - Positive Stop |
| H11-3A | Ceramic Tile Grout and Bed Walls, East Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bedding |
| H12-3B | Ceramic Tile Grout and Bed Walls, West Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bedding |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06929

Project : Falcon Village, Unit I407

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 2 of 3

On 6/24/2013, thirty one (31) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|--|
| H13-3C | Ceramic Tile Grout and Bed Walls, West Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bedding |
| H14-4A | Vinyl Sheet Flooring, Kitchen | None Detected - Sheet Flooring None Detected - Fiber Backing 5% Chrysotile - Floor Tile 10% Chrysotile - Black Mastic |
| H15-4B | Vinyl Sheet Flooring, at Front Door | Not Analyzed - Positive Stop |
| H16-4C | Vinyl Sheet Flooring, West Bedroom | Not Analyzed - Positive Stop |
| H17-5A | Ceramic Tile Grout and Bed Floors, West Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Bedding 10% Chrysotile - Black Mastic |
| H18-5B | Ceramic Tile Grout and Bed Floors, East Bathroom | Not Analyzed - Positive Stop |
| H19-5C | Ceramic Tile Grout and Bed Floors, East Bathroom | Not Analyzed - Positive Stop |
| H20-6A | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| H21-6B | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| H22-6C | Sink Undercoat, Kitchen, Sink | None Detected - Sink Undercoating |
| H23-7A | Window Caulking, Living Room, Window | None Detected - Caulking |
| H24-7B | Window Caulking, West Bedroom, Window | None Detected - Caulking |
| H25-7C | Window Caulking, North Bedroom, Window | None Detected - Caulking |
| H26-8A | Exterior Stucco, South End | None Detected - Plaster None Detected - Stucco |
| H27-8B | Exterior Stucco, South End | None Detected - Plaster None Detected - Stucco |
| H28-8C | Exterior Stucco, Front North | None Detected - Plaster None Detected - Stucco |

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06929

Project : Falcon Village, Unit I407

Report Date : 06/25/2013

Project # : 130602

Sample Date : 06/20/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 3 of 3

On 6/24/2013, thirty one (31) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--------------------------------------|--|
| H29-9A | Roofing, West Corner | None Detected - Roofing Shingle None Detected - Roofing Felt |
| H30-9B | Roofing, North Corner | None Detected - Roofing Shingle None Detected - Roofing Felt None Detected - Roofing Tar |
| H31-9C | Roofing, Front Center | None Detected - Roofing Shingle None Detected - Roofing Felt None Detected - Roofing Tar |

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.



Analyst(s): Heather Deines

Lab Manager : Bruce Crabb

Lab Director : Steve Moody

Approved Signatory :

Approved Signatory :

Thank you for choosing Steve Moody Micro Services

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Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I407

Project # : 130602

Lab Job No. : 13B-06929

Report Date : 06/25/2013

Page 1 of 4

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-------------------------------|-------------|--------------------------|------------|---------------|---------|
| H1-1A | Drywall Material (White) | 25% | Cellulose Fibers | 5% | 06/24 | HD |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 25% | Cellulose Fibers | 100% | | |
| | Joint Compound (White) | 25% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| | Texture (White) | 25% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| H2-1B | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| H3-1C | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| H4-1D | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| H5-1E | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| H6-2A | Drywall Material (Pink) | 25% | Cellulose Fibers | 5% | 06/24 | HD |
| | | | Gypsum / Binders | 95% | | |
| | DW Paper / Tape (Tan / White) | 15% | Cellulose Fibers | 100% | | |
| | Joint Compound (White) | 30% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| | Texture (White) | 30% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| H7-2B | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| H8-2C | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| H9-2D | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| H10-2E | Not Analyzed - Positive Stop | 100% | | | 06/24 | HD |
| H11-3A | Ceramic Tile (White) | 85% | Sintered Clays | 100% | 06/24 | HD |
| | Grout (Off-White) | 5% | Calcite / Binders | 100% | | |
| | Bedding (Grey) | 10% | Cellulose Fibers | 2% | | |
| | | | Aggregate | 63% | | |
| | | | Calcite / Binders | 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I407

Project # : 130602

Lab Job No. : 13B-06929

Report Date : 06/25/2013

Page 2 of 4

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------------|------------|---------------|---------|
| H12-3B | Ceramic Tile (White) | 70% | Sintered Clays | 100% | 06/25 | HD |
| | Grout (Off-White) | 20% | Calcite / Binders | 100% | | |
| | Bedding (Grey) | 10% | Cellulose Fibers | 2% | | |
| | | | Aggregate | 63% | | |
| | | | Calcite / Binders | 35% | | |
| H13-3C | Ceramic Tile (White) | 80% | Sintered Clays | 100% | 06/25 | HD |
| | Grout (Off-White) | 10% | Calcite / Binders | 100% | | |
| | Bedding (Grey) | 10% | Cellulose Fibers | 2% | | |
| | | | Aggregate | 63% | | |
| | | | Calcite / Binders | 35% | | |
| H14-4A | Sheet Flooring (Cream) | 20% | Synthetic Foam | 70% | 06/25 | HD |
| | | | Vinyl Binders | 30% | | |
| | Fiber Backing (Brown) | 15% | Cellulose Fibers | 100% | | |
| | Floor Tile (Brown) | 60% | Chrysotile | 5% | | |
| | | | Calcite / Vinyl Binders | 95% | | |
| | Black Mastic (Black) | 5% | Chrysotile | 10% | | |
| | | | Tar Binders | 90% | | |
| H15-4B | Not Analyzed - Positive Stop | 100% | | | 06/25 | HD |
| H16-4C | Not Analyzed - Positive Stop | 100% | | | 06/25 | HD |
| H17-5A | Ceramic Tile (White) | 80% | Sintered Clays | 100% | 06/25 | HD |
| | Grout (Grey) | 10% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Bedding (Light Grey) | 10% | Cellulose Fibers | 2% | | |
| | | | Aggregate | 63% | | |
| | | | Calcite / Binders | 35% | | |
| | Black Mastic (Black) | <1% | Chrysotile | 10% | | |
| | | | Tar Binders | 90% | | |
| H18-5B | Not Analyzed - Positive Stop | 100% | | | 06/25 | HD |
| H19-5C | Not Analyzed - Positive Stop | 100% | | | 06/25 | HD |
| | | | | | | |

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PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I407

Project # : 130602

Lab Job No. : 13B-06929

Report Date : 06/25/2013

Page 3 of 4

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|---------------------------|-------------|--|-------------------|---------------|---------|
| H20-6A | Sink Undercoating (Black) | 100% | Calcite / Talc Tar Binders | 40% 60% | 06/25 | HD |
| H21-6B | Sink Undercoating (Black) | 100% | Calcite / Talc Tar Binders | 40% 60% | 06/25 | HD |
| H22-6C | Sink Undercoating (Black) | 100% | Calcite / Talc Tar Binders | 40% 60% | 06/25 | HD |
| H23-7A | Caulking (White) | 100% | Calcite Binders / Fillers | 50% 50% | 06/25 | HD |
| H24-7B | Caulking (White) | 100% | Calcite Binders / Fillers | 50% 50% | 06/25 | HD |
| H25-7C | Caulking (White) | 100% | Calcite Binders / Fillers | 50% 50% | 06/25 | HD |
| H26-8A | Plaster (Grey) | 50% | Aggregate Calcite / Binders | 65% 35% | 06/25 | HD |
| | Stucco (Light Beige) | 50% | Cellulose Fibers Aggregate Binders / Fillers | <1% 65% 35% | | |
| H27-8B | Plaster (Grey) | 50% | Aggregate Calcite / Binders | 65% 35% | 06/25 | HD |
| | Stucco (Light Beige) | 50% | Cellulose Fibers Aggregate Binders / Fillers | <1% 65% 35% | | |
| H28-8C | Plaster (Grey) | 50% | Aggregate Calcite / Binders | 65% 35% | 06/25 | HD |
| | Stucco (Light Beige) | 50% | Cellulose Fibers Aggregate Binders / Fillers | <1% 65% 35% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report

Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit I407

Project # : 130602

Lab Job No. : 13B-06929

Report Date : 06/25/2013

Page 4 of 4

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------------|-------------------------|-----------------------|-----------------------|------------|---------------|---------|
| H29-9A | Sand Layer (Grey) | 20% | Aggregate | 100% | 06/25 | HD |
| | Roofing Shingle (Black) | 55% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 35% | | |
| | | | Tar Binders | 45% | | |
| | Roofing Felt (Black) | 25% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| H30-9B | Sand Layer (Grey) | 20% | Aggregate | 100% | 06/25 | HD |
| | Roofing Shingle (Black) | 55% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 35% | | |
| | | | Tar Binders | 45% | | |
| | Roofing Felt (Black) | 23% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| | Roofing Tar (Black) | 2% | Calcite / Tar Binders | 100% | | |
| H31-9C | Sand Layer (Grey) | 20% | Aggregate | 100% | 06/25 | HD |
| | Roofing Shingle (Black) | 50% | Glass Wool Fibers | 20% | | |
| | | | Calcite | 35% | | |
| | | | Tar Binders | 45% | | |
| | Roofing Felt (Black) | 25% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| Roofing Tar (Black) | 5% | Calcite / Tar Binders | 100% | | | |
| | | | | | | |

Chain of Custody

Page 1 of 2



Lab Job # 13B-06929 PLM 31
 Lab Job # _____
 Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.
 Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM

Bulk ☐ 1 day ☐ 2 day ☒ 3 day ☐ 5 day ☐ Immediate
☐ Analyze All ☒ Positive Stop

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate
 TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD

Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile
 Analyze Blanks ☐ Yes ☐ No
 Culture (Swab / Bulk / Plate) ☐ 7-14 day

OTHER:

ASBESTOS TEM

Air AHERA Method ☐ 6 hr ☐ 12hr ☐ 24 hr
 Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
 Bulk/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
 Water ☐ 1 day ☐ 2 day ☐ 3 day
 Analyze Blanks ☐ Yes ☐ No

BACTERIA

Heterotrophic Plate Count (HPC) ☐ 3 day ☐ 5 day
 HPC + Gram Stain ☐ 3 day ☐ 5 day
 HPC + 3 Gram Neg ID ☐ 6-8 day
 HPC + 5 Gram Neg ID ☐ 6-8 day
 Fecal Coliform (MPN) ☐ 3 day
 Total Coliform & E Coli (P/A) ☐ 2-3 day

Billing Company / City: LCA Environmental, Inc.

Submitter's Company: LCA Environmental, Inc.

Submitter's Name: Thomas Hale

Project: FALCON VILLAGE UNIT I 407

Contact Information: Name: Thomas Hale

E-mail Results to: hale@lcaenvironmental.com; barganier@lcaenvironmental.com

Invoice Address: _____

of Samples: 31

Sample Date: 6-20-13

Project #: 130602

Phone #: 972-241-6680

Mobile #: 214-403-8298

Fax #: 972-241-6689

P.O. #: _____

— Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees—

Notes: _____

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|----------|-----------------------------------|---------------------------|--------------------|
| H1-1A | GYP BRD CEILING w/ TEXT + J. Comp | | LIVING ROOM |
| H2-1B | | | WEST BEDROOM |
| H3-1C | | | NORTH BEDROOM |
| H4-1D | | | EAST BEDROOM |
| H5-1E | | | WEST BATHROOM |
| H6-2A | GYP WALLS w/ TEXT + J. Comp. | | KITCHEN |
| H7-2B | | | LIVING ROOM CLOSET |
| H8-2C | | | WEST BEDROOM |
| H9-2D | | | NORTH HALL CLOSET |
| H10-2E | | | EAST BATHROOM |
| H11-3A | CERAMIC TILE GROUT + BED WALLS | | |
| H12-3B | | | WEST BATHROOM |
| H13-3C | | | |
| H14-4A | VINYL SHEET FLOORING | | KITCHEN |
| H15-4B | | | AT FRONT DOOR |

| | | | |
|---------------------------------|-----------------------------------|------------------------|------------------------------------|
| Released By: <u>[Signature]</u> | Date / Time: <u>6/24/13 10:57</u> | Received By: <u>AB</u> | Date / Time: <u>6-24-13/10:57A</u> |
| Released By: _____ | Date / Time: _____ | Received By: _____ | Date / Time: _____ |

Page 2 of 2



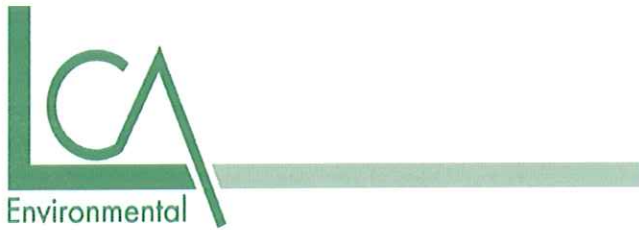
Lab Job #

Lab Job #

Project: FALCON VILLAGE UNIT I407

Project #: 130602

[illegible]



LCA Environmental, Inc.
13221 Bee Street
Farmers Branch, TX 75234
Phone: 972-241-6680
Fax: 972-241-6689
www.LCAenvironmental.com

Limited Asbestos Inspection

July 3, 2013

Client: Mr. Ron Moore
Quaternary Resource Investigations, LLC
3809 Camino Drive
Plano, Texas 75074

Project Site: Unit L101 - Single Family Dwelling
Falcon Village, Texas 78545

LCA Project No.: 130602

Area Sampled: Unit L101 - Single Family Dwelling

TDSHS Inspector and License: Thomas Hale, TDSHS License #602545

Date of Limited Asbestos Inspection: June 18, 2013

Total Samples Collected: 43

This inspection scope of work was limited to building materials which would be impacted by the planned demolition of the building.

On the above-referenced date, LCA Environmental, Inc. (LCA) collected bulk samples of suspect asbestos-containing building material (ACBM) at the above-referenced Project Site. The materials sampled came from areas that were identified by the Client as being subject to proposed renovation and/or demolition. The samples were submitted to a laboratory accredited by the National Voluntary Laboratory Accreditation Program and licensed by the Texas Department of State Health Services (TDSHS) to conduct asbestos analysis. The findings of this limited asbestos inspection are as follows:

Laboratory results are greater than 1% asbestos for one or more of the samples collected and submitted for laboratory analysis. Therefore, at least a portion of the building materials that will be disturbed during renovation and/or demolition are ACBM as defined by the National Emission Standard for Hazardous Air Pollutants (NESHAP 40 CFR 61, Subpart M).

ACBM Summary Table
Unit L101 - Single Family Dwelling
Entire Building.
Falcon Village, Texas 78545

| Identified ACBM | Asbestos Content | Approximate Location | Approximate Quantity |
|---|---|----------------------|-----------------------|
| Gypsum board ceilings with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 1,320 ft ² |
| Gypsum board walls with texture and joint compound | 2% Chrysotile (texture & joint compound) | Throughout | 2,150 ft ² |
| CMU block filler | 2% Chrysotile | Perimeter walls | 1,550 ft ² |
| Vinyl tile and sheet flooring | 3% Chrysotile (black mastic) | Throughout | 1,175 ft ² |
| Ceramic tile grout and bedding walls | 2% Chrysotile (mortar and bed) | Bathroom | 100 ft ² |
| HVAC sealant | 2% Chrysotile | Attic | 50 ft ² |
| Exterior stucco | 5% Chrysotile | Exterior of building | 1,550 ft ² |

See attached Figure 1 - Sample Location Plan and Figure 2 - Asbestos Location Plan for further detail regarding sample locations and general extent of identified ACBM

Recommendations

In accordance with the EPA NESHAP regulations, these materials must be removed prior to any activity that might be expected to disturb them. The removal of these materials must be performed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer.

The findings and opinions of this limited asbestos inspection are not scientific certainties but rather opinions based on our professional judgment concerning the significance of the data gathered during the course of the limited asbestos inspection. LCA does not represent that the Project Site contains no hazardous or toxic materials, wastes, or other latent conditions beyond the observations made by LCA during the limited asbestos inspection and the information obtained from the other activities in the scope of work.

LCA is not responsible for any omissions or inaccuracies of any sort that arise as a result of the Client's failure or inability to provide Project Site information or data. LCA makes no warranties or representations, expressed or implied, beyond those expressed in the Standard Contract for Services and this limited asbestos inspection report.

This limited asbestos inspection report has been prepared for the exclusive use of the Client and its direct representatives and associates to assist with their efforts to identify potential environmental concerns connected with the Project Site. LCA does not authorize the use of this limited asbestos inspection report for any purpose other than that for which it is prepared.

Only those suspect ACM that are specifically discussed in this limited asbestos inspection report were identified or addressed during this project. It is possible that other ACM may exist at this Project Site in areas that were not seen or were concealed or otherwise inaccessible (e.g., behind walls, above ceilings, inside old air ducts, etc.). It is also possible that other accessible ACM may exist at this Project Site in areas that were not identified by the Client as subject to proposed renovation and/or demolition. Samples were not collected of typically non-ACM such as concrete, steel, plastic, glass, and paint. The identification or addressing of other potential ACM was outside the scope of service of this contract. LCA assumes no responsibility or liability for any ACM at the Project Site.

LCA represents that the work performed on this project was performed by qualified individuals, trained and licensed to perform their respective duties (see attached licenses). LCA further represents that work performed on this project by LCA or people under LCA's direct control was performed in a manner and fashion consistent with commonly accepted standards and practices within the asbestos industry in this area during the project period.

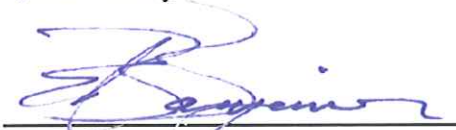
Prepared By:



Thomas A. Hale

TDSHS AI 602545

Reviewed By:



Edw. B. Barganier,

Building Sciences Program Manager

TDSHS IAC 105519

Attachments:

LCA Certifications

Figure 1 - Sample Location Plan

Figure 2 - Asbestos Location Plan

Steve Moody Micro Services, Report No. 13B-06931



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

LYNN CLARK ASSOCIATES INC DBA

is certified to perform as a

Asbestos Consultant Agency

in the State of Texas within the purview of Texas Occupations Code, chapter 1954, so long as this license is not suspended or revoked and is renewed according to the rules adopted by the Texas Board of Health.

A handwritten signature in cursive script, reading "David Lakey MD".

DAVID LAKEY, M.D.
COMMISSIONER OF HEALTH

License Number: 100285

Control Number: 96450

Expiration Date: 12/15/2013

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



**Texas Department of
State Health Services**

Asbestos Individual Consultant

EDWARD B BARGANIER

License No. 105519

Control No. 96396

Expiration Date: 11/9/2014



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/11/2013 for the annual update:

**Design of ACBM Abatement Projects
NESHAP Trained Person**


100.000.370.033

6/11/2014

Certificate Number

Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Edward B. Barganier

has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 8/15/2012 for the annual update:

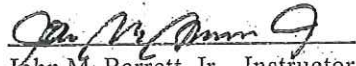
Inspecting Buildings for ACBM

100.000.370.031
Certificate Number

8/15/2013
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379




John M. Barrett, Jr. - Instructor
Director of Training



**Texas Department of
State Health Services**

Asbestos Inspector

THOMAS A HALE

License No. 602545

Control No. 97247

Expiration Date: 4/18/2015



SCIENTIFIC INVESTIGATION & INSTRUCTION INSTITUTE

CERTIFICATE of ACCREDITATION

to certify that

Thomas Hale

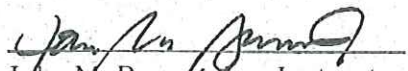
has successfully completed the course work
in compliance with TSCA Title II
EPA MAP 40 CFR 763 Appendix C to Subpart E
on 6/12/2013 for the annual update:

Inspecting Buildings for ACBM

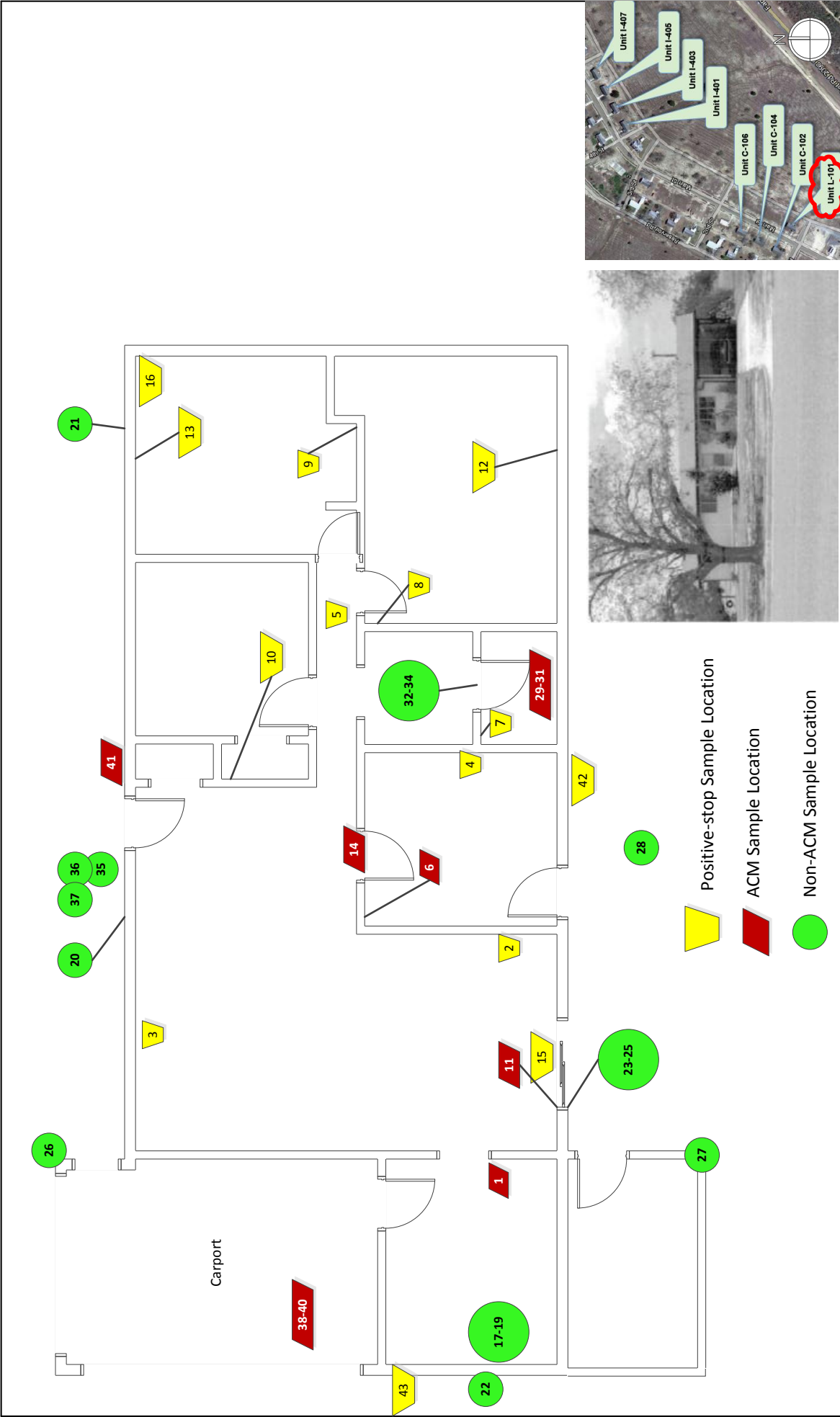
100.001.673 .031
Certificate Number




6/12/2014
Expiration Date

Scientific Investigation & Instruction Institute
9430 Research Blvd.
Echelon Two, Suite 120
Austin, Texas 78759
(512) 338-5379


John M. Barrett, Jr. - Instructor
Director of Training





| | | | | | |
|---|----------------|---|---|--|--|
|  | |  |  | <p>Quanternary Resource Investigations, LLC NESHAP Compliance Asbestos Survey CBP-Owned Housing, Falcon Village, Texas</p> | <p>Figure 1 Unit L101 Sample Location Plan</p> |
| Drawn By: EBB | Date: 07/02/13 | NOT TO SCALE | | | |
| Location: CBP-Owned Housing, Falcon Village, Texas | | LCA Project No.: 130602 | | | |
| Approved By: TAH | Date: 07/02/13 | Filename: Fig1-L101 Sample Location Plan | | | |



- ACM not shown:

- Exterior Stucco around entire building
- HVAC Sealant on ductwork throughout

ACM grout and bed associated with ceramic tile walls



ACM block filler associated with
CMU perimeter walls

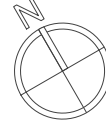


ACM text./joint comp. associated with
gyp-brd walls and ceilings

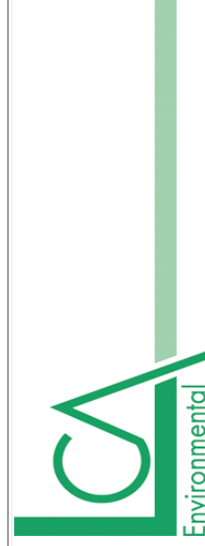
 ACM black flooring mastic

Figure 2
Unit L101
ACBM Location Plan

Quanternary Resource Investigations, LLC
NESHAP Compliance Asbestos Survey
CBP-Owned Housing, Falcon Village, Texas



NOT TO SCALE



Drawn By: EBB

Date: 07/02/13

Location: CBP-Owned Housing, Falcon Village, Texas

LCA Project No.: 130602

Approved By: TAH

Source: LCA Field Sketch

Filename: Fig2-L101 ACBM Location Plan

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Lab Job No. : 13B-06931

Project : Falcon Village, Unit L101

Report Date : 06/25/2013

Project # : 130602

Sample Date : 6/18/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 1 of 4

On 6/24/2013, forty three (43) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|---|
| A1-1A | Gypsum Board Ceiling with Texture and Joint Compound, South Room | None Detected - Drywall Material 2% Chrysotile - Texture / Joint Cmpd |
| A2-1B | Gypsum Board Ceiling with Texture and Joint Compound, Dining Room, East | Not Analyzed - Positive Stop |
| A3-1C | Gypsum Board Ceiling with Texture and Joint Compound, Living Room, West | Not Analyzed - Positive Stop |
| A4-1D | Gypsum Board Ceiling with Texture and Joint Compound, Laundry Room | Not Analyzed - Positive Stop |
| A5-1E | Gypsum Board Ceiling with Texture and Joint Compound, Hallway, North | Not Analyzed - Positive Stop |
| A6-2A | Gypsum Board Wall with Texture and Joint Compound, Laundry Room | None Detected - Drywall Material 2% Chrysotile - Joint Compound 2% Chrysotile - Texture |
| A7-2B | Gypsum Board Wall with Texture and Joint Compound, Bathroom | Not Analyzed - Positive Stop |
| A8-2C | Gypsum Board Wall with Texture and Joint Compound, East Bedroom | Not Analyzed - Positive Stop |
| A9-2D | Gypsum Board Wall with Texture and Joint Compound, North Bedroom, Closet | Not Analyzed - Positive Stop |
| A10-2E | Gypsum Board Wall with Texture and Joint Compound, West Bedroom, Closet | Not Analyzed - Positive Stop |
| A11-3A | CMU Block Filler, Dining Room | None Detected - CMU 2% Chrysotile - Filler |
| A12-3B | CMU Block Filler, East Bedroom | Not Analyzed - Positive Stop |
| A13-3C | CMU Block Filler, North Bedroom | Not Analyzed - Positive Stop |

PLM Summary Report

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2051 Valley View Lane

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Project : Falcon Village, Unit L101

Report Date : 06/25/2013

Project # : 130602

Sample Date : 6/18/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 2 of 4

On 6/24/2013, forty three (43) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|--|
| A14-4A | Vinyl Sheet Flooring with Vinyl Floor Tile and Mastic, at Door to Laundry Room | None Detected - Top Flooring None Detected - Fiber Backing None Detected - Yellow Mastic None Detected - Bottom Tile None Detected - Yellow Mastic 3% Chrysotile - Black Mastic |
| A15-4B | Vinyl Sheet Flooring with Vinyl Floor Tile and Mastic, Dining Room | Not Analyzed - Positive Stop |
| A16-4C | Vinyl Sheet Flooring with Vinyl Floor Tile and Mastic, North Bedroom | Not Analyzed - Positive Stop |
| A17-5A | Sink Undercoat, Kitchen Sink | None Detected - Sink Undercoating |
| A18-5B | Sink Undercoat, Kitchen Sink | None Detected - Sink Undercoating |
| A19-5C | Sink Undercoat, Kitchen Sink | None Detected - Sink Undercoating |
| A20-6A | Window Caulking, Southwest Window | None Detected - Caulking |
| A21-6B | Window Caulking, Northwest Window | None Detected - Caulking |
| A22-6C | Window Caulking, Kitchen Window | None Detected - Caulking |
| A23-7A | Door Caulking, Dining Room, Exterior Door | None Detected - Caulking |
| A24-7B | Door Caulking, Dining Room, Exterior Door | None Detected - Caulking |
| A25-7C | Door Caulking, Dining Room, Exterior Door | None Detected - Caulking |
| A26-8A | Roofing, West Corner | None Detected - Roofing Shingle 1 None Detected - Roofing Shingle 2 None Detected - Roofing Felt |
| A27-8B | Roofing, East Corner | None Detected - Roofing Shingle 1 None Detected - Roofing Shingle 2 None Detected - Roofing Felt |
| A28-8C | Roofing, Back Porch | None Detected - Roofing Shingle 1 None Detected - Roofing Shingle 2 None Detected - Roofing Felt |

PLM Summary Report

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Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 3 of 4

On 6/24/2013, forty three (43) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--|--|
| A29-9A | Ceramic Tile and Grout / Bedding Wall, Bathroom | None Detected - Ceramic Tile None Detected - Grout 2% Chrysotile - Mortar 2% Chrysotile - Texture |
| A30-9B | Ceramic Tile and Grout / Bedding Wall, Bathroom | Not Analyzed - Positive Stop |
| A31-9C | Ceramic Tile and Grout / Bedding Wall, Bathroom | Not Analyzed - Positive Stop |
| A32-10A | Ceramic Tile and Grout and Bedding Floor, Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar None Detected - Leveling Compound |
| A33-10B | Ceramic Tile and Grout and Bedding Floor, Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar None Detected - Leveling Compound |
| A34-10C | Ceramic Tile and Grout and Bedding Floor, Bathroom | None Detected - Ceramic Tile None Detected - Grout None Detected - Mortar None Detected - Leveling Compound |
| A35-11A | Brick and Mortar, Planter Box | None Detected - Brick None Detected - Mortar |
| A36-11B | Brick and Mortar, Planter Box | None Detected - Brick None Detected - Mortar |
| A37-11C | Brick and Mortar, Planter Box | None Detected - Brick None Detected - Mortar |
| A38-12A | HVAC Sealant, Attic | None Detected - Paper/Tar/Foil 5% Chrysotile - Sealant |
| A39-12B | HVAC Sealant, Attic | Not Analyzed - Positive Stop |
| A40-12C | HVAC Sealant, Attic | Not Analyzed - Positive Stop |

PLM Summary Report

Steve Moody Micro Services, LLC

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Client : LCA Environmental, Inc. - Dallas, TX

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Project : Falcon Village, Unit L101

Report Date : 06/25/2013

Project # : 130602

Sample Date : 6/18/2013

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600 / R-93 / 116

Page 4 of 4

On 6/24/2013, forty three (43) bulk material samples were submitted by Thomas Hale of LCA Environmental, Inc. - Dallas, TX for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

| Sample Number | Client Sample Description / Location | Asbestos Content |
|---------------|--------------------------------------|---|
| A41-13A | Exterior Stucco, Front of House | None Detected - Plaster 2% Chrysotile - Stucco |
| A42-13B | Exterior Stucco, Rear of House | Not Analyzed - Positive Stop |
| A43-13C | Exterior Stucco, South Side of House | Not Analyzed - Positive Stop |

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.



Analyst(s): Beverly Lorenzana

Lab Manager : Bruce Crabb

Lab Director : Steve Moody

Approved Signatory :

Approved Signatory :

Thank you for choosing Steve Moody Micro Services

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit L101

Project # : 130602

Lab Job No. : 13B-06931

Report Date : 06/25/2013

Page 1 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-----------------------------------|-------------|--------------------------|------------|---------------|---------|
| A1-1A | Drywall Material (White) | 95% | Cellulose Fibers | 3% | 06/25 | BL |
| | | | Gypsum / Binders | 97% | | |
| | DW Paper Facing (Tan) | 2% | Cellulose Fibers | 100% | | |
| | Texture / Joint Compd (Off-White) | 3% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| A2-1B | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A3-1C | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A4-1D | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A5-1E | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A6-2A | Drywall Material (White) | 90% | Cellulose Fibers | 3% | 06/25 | BL |
| | | | Gypsum / Binders | 97% | | |
| | DW Paper / Tape (Tan / White) | 5% | Cellulose Fibers | 100% | | |
| | | | Chrysotile | 2% | | |
| | Joint Compound (Off-White) | 2% | Calcite / Talc / Binders | 98% | | |
| | | | Chrysotile | 2% | | |
| | Texture (Off-White) | 3% | Calcite / Talc / Binders | 98% | | |
| A7-2B | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A8-2C | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A9-2D | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A10-2E | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A11-3A | CMU (Grey) | 97% | Aggregate | 65% | 06/25 | BL |
| | | | Cement Binders | 35% | | |
| | Filler (White) | 3% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| A12-3B | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A13-3C | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit L101

Project # : 130602

Lab Job No. : 13B-06931

Report Date : 06/25/2013

Page 2 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|-------------------------|------------|---------------|---------|
| A14-4A | Top Flooring (White) | 24% | Synthetic Foam | 70% | 06/25 | BL |
| | | | Vinyl Binders | 30% | | |
| | Fiber Backing (White) | 24% | Cellulose Fibers | 50% | | |
| | | | Glass Wool Fibers | 5% | | |
| | | | Binders / Fillers | 45% | | |
| | Yellow Mastic (Yellow) | 2% | Glue Binders | 100% | | |
| | Bottom Tile (White) | 48% | Calcite / Vinyl Binders | 100% | | |
| | Yellow Mastic (Yellow) | 1% | Glue Binders | 100% | | |
| | Black Mastic (Black) | 1% | Chrysotile | 3% | | |
| | | | Tar Binders | 97% | | |
| A15-4B | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A16-4C | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A17-5A | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/25 | BL |
| | | | Tar Binders | 60% | | |
| A18-5B | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/25 | BL |
| | | | Tar Binders | 60% | | |
| A19-5C | Sink Undercoating (Black) | 100% | Calcite / Talc | 40% | 06/25 | BL |
| | | | Tar Binders | 60% | | |
| A20-6A | Caulking (White) | 100% | Calcite | 50% | 06/25 | BL |
| | | | Binders / Fillers | 50% | | |
| A21-6B | Caulking (White) | 100% | Calcite | 50% | 06/25 | BL |
| | | | Binders / Fillers | 50% | | |
| A22-6C | Caulking (White) | 100% | Calcite | 50% | 06/25 | BL |
| | | | Binders / Fillers | 50% | | |
| A23-7A | Caulking (White) | 100% | Calcite | 50% | 06/25 | BL |
| | | | Binders / Fillers | 50% | | |
| A24-7B | Caulking (White) | 100% | Calcite | 50% | 06/25 | BL |
| | | | Binders / Fillers | 50% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

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Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit L101

Project # : 130602

Lab Job No. : 13B-06931

Report Date : 06/25/2013

Page 3 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|---------------------------|-------------|-----------------------|------------|---------------|---------|
| A25-7C | Caulking (White) | 100% | Calcite | 50% | 06/25 | BL |
| | | | Binders / Fillers | 50% | | |
| A26-8A | Sand Layer (Light Grey) | 5% | Aggregate | 100% | 06/25 | BL |
| | Roofing Shingle 1 (Black) | 30% | Glass Wool Fibers | 20% | | |
| | | | Calcite / Tar Binders | 80% | | |
| | Sand Layer (Grey) | 5% | Aggregate | 100% | | |
| | Roofing Shingle 2 (Black) | 30% | Glass Wool Fibers | 20% | | |
| | | | Calcite / Tar Binders | 80% | | |
| | Roofing Felt (Black) | 30% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| A27-8B | Sand Layer (Light Grey) | 5% | Aggregate | 100% | 06/25 | BL |
| | Roofing Shingle 1 (Black) | 30% | Glass Wool Fibers | 20% | | |
| | | | Calcite / Tar Binders | 80% | | |
| | Sand Layer (Grey) | 5% | Aggregate | 100% | | |
| | Roofing Shingle 2 (Black) | 30% | Glass Wool Fibers | 20% | | |
| | | | Calcite / Tar Binders | 80% | | |
| | Roofing Felt (Black) | 30% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| A28-8C | Sand Layer (Light Grey) | 5% | Aggregate | 100% | 06/25 | BL |
| | Roofing Shingle 1 (Black) | 30% | Glass Wool Fibers | 20% | | |
| | | | Calcite / Tar Binders | 80% | | |
| | Sand Layer (Grey) | 5% | Aggregate | 100% | | |
| | Roofing Shingle 2 (Black) | 30% | Glass Wool Fibers | 20% | | |
| | | | Calcite / Tar Binders | 80% | | |
| | Roofing Felt (Black) | 30% | Cellulose Fibers | 85% | | |
| | | | Tar Binders | 15% | | |
| | | | | | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

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PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit L101

Project # : 130602

Lab Job No. : 13B-06931

Report Date : 06/25/2013

Page 4 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|------------------------------|-------------|--------------------------|------------|---------------|---------|
| A29-9A | Ceramic Tile (Tan) | 82% | Sintered Clays | 100% | 06/25 | BL |
| | Grout (White) | 5% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 10% | Chrysotile | 2% | | |
| | | | Aggregate | 63% | | |
| | | | Cement Binders | 35% | | |
| | Texture (Off-White) | 3% | Chrysotile | 2% | | |
| | | | Calcite / Talc / Binders | 98% | | |
| A30-9B | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A31-9C | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A32-10A | Ceramic Tile (Tan) | 40% | Sintered Clays | 100% | 06/25 | BL |
| | Grout (White) | 2% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 55% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Leveling Compound (White) | 3% | Calcite / Binders | 100% | | |
| A33-10B | Ceramic Tile (Tan) | 70% | Sintered Clays | 100% | 06/25 | BL |
| | Grout (White) | 3% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 25% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Leveling Compound (White) | 2% | Calcite / Binders | 100% | | |
| A34-10C | Ceramic Tile (Tan) | 41% | Sintered Clays | 100% | 06/25 | BL |
| | Grout (White) | 2% | Calcite / Binders | 100% | | |
| | Mortar (Grey) | 55% | Aggregate | 65% | | |
| | | | Cement Binders | 35% | | |
| | Leveling Compound (White) | 2% | Calcite / Binders | 100% | | |
| A35-11A | Brick (Red) | 50% | Mineral Grains | 100% | 06/25 | BL |
| | Mortar (Off-White) | 50% | Aggregate | 65% | | |
| | | | Calcite / Binders | 35% | | |
| A36-11B | Brick (Red) | 55% | Mineral Grains | 100% | 06/25 | BL |
| | Mortar (Off-White) | 45% | Aggregate | 65% | | |
| | | | Calcite / Binders | 35% | | |

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : LCA Environmental, Inc. - Dallas, TX

Project : Falcon Village, Unit L101

Project # : 130602

Lab Job No. : 13B-06931

Report Date : 06/25/2013

Page 5 of 5

| Sample Number | Layer | % Of Sample | Components | % of Layer | Analysis Date | Analyst |
|---------------|-------------------------------|-------------|-----------------------|------------|---------------|---------|
| A37-11C | Brick (Red) | 80% | Mineral Grains | 100% | 06/25 | BL |
| | Mortar (Off-White) | 20% | Aggregate | 65% | | |
| | | | Calcite / Binders | 35% | | |
| A38-12A | Paper/Tar/Foil (Tan / Silver) | 50% | Cellulose Fibers | 50% | 06/25 | BL |
| | | | Tar Binders | 30% | | |
| | | | Metal Foil | 20% | | |
| | Sealant (Black) | 50% | Chrysotile | 5% | | |
| | | | Calcite / Tar Binders | 95% | | |
| A39-12B | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A40-12C | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A41-13A | Plaster (Grey) | 75% | Aggregate | 65% | 06/25 | BL |
| | | | Calcite / Binders | 35% | | |
| | Stucco (White) | 25% | Chrysotile | 2% | | |
| | | | Aggregate | 63% | | |
| | | | Binders / Fillers | 35% | | |
| A42-13B | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| A43-13C | Not Analyzed - Positive Stop | 100% | | | 06/25 | BL |
| | | | | | | |

Chain of Custody

Page 1 of 2



Lab Job # 13B-06931 PLM 43
 Lab Job # _____
 Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.

Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM

Bulk ☐ 1 day ☐ 2 day ☒ 3 day ☐ 5 day ☐ Immediate
☐ Analyze All ☒ Positive Stop

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate

TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD

Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile

Analyze Blanks ☐ Yes ☐ No

Culture (Swab / Bulk / Plate) ☐ 7-14 day

OTHER:

Billing Company / City: LCA Environmental, Inc.

Submitter's Company: LCA Environmental, Inc.

Submitter's Name: Thomas Hale

Project: FALCON VILLAGE UNIT L101

Contact Information: Name: Thomas Hale

E-mail Results to: hale@lcaenvironmental.com; barganier@lcaenvironmental.com

Invoice Address: _____

ASBESTOS TEM

Air AHERA Method ☐ 6 hr ☐ 12hr ☐ 24 hr
 Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
 Bulk/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
 Water ☐ 1 day ☐ 2 day ☐ 3 day
 Analyze Blanks ☐ Yes ☐ No

BACTERIA

Heterotrophic Plate Count (HPC) ☐ 3 day ☐ 5 day
 HPC + Gram Stain ☐ 3 day ☐ 5 day
 HPC + 3 Gram Neg ID ☐ 6-8 day
 HPC + 5 Gram Neg ID ☐ 6-8 day
 Fecal Coliform (MPN) ☐ 3 day
 Total Coliform & E Coli (P/A) ☐ 2-3 day

of Samples: 43

Sample Date: 6-18-13

Project #: 130602

Phone #: 972-241-6680

Mobile #: 214-403-8298

Fax #: 972-241-6689

P.O. #: _____

—Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees—

Notes: _____

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|----------|--------------------------------------|---------------------------|----------------------|
| A1-1A | GYP BRD CEILING W/TEXT + J. Compound | | SOUTH ROOM |
| A2-1B | | | DINING ROOM EAST |
| A3-1C | | | LIVING ROOM WEST |
| A4-1D | | | LAUNDRY ROOM |
| A5-1E | | | HALLWAY NORTH |
| A6-2A | GYP BRD WALL W/TEXT + J. Compound | | LAUNDRY ROOM |
| A7-2B | | | BATHROOM |
| A8-2C | | | EAST BEDROOM |
| A9-2D | | | NORTH BEDROOM CLOSET |
| A10-2E | | | WEST BEDROOM CLOSET |
| A11-3A | CMU BLOCK FILLER | | DINING ROOM |
| A12-3B | | | EAST BEDROOM |
| A13-3C | | | NORTH BEDROOM |

| | | | |
|---------------------------------|-----------------------------------|------------------------|------------------------------------|
| Released By: <u>[Signature]</u> | Date / Time: <u>6/24/13 10:57</u> | Received By: <u>43</u> | Date / Time: <u>6/24/13 10:57A</u> |
| Released By: _____ | Date / Time: _____ | Received By: _____ | Date / Time: _____ |

Lab Job # 13B-06931

Lab Job # _____

Lab Job # _____

Project: FALCON VILLAGE UNIT L101Project #: 130602

| Sample # | Sample Description | Vol. / Area if applicable | Location / Notes |
|-----------|--------------------------------------|------------------------------|-------------------------|
| A14 - 4A | VINYL SHEET FLOORING W/ VPT + MASTIC | | AT DOOR TO LAUNDRY ROOM |
| A15 - 4B | ┆ | | DINING ROOM |
| A16 - 4C | ┆ | | NORTH BEDROOM |
| A17 - 5A | SINK UNDERCOAT | | KITCHEN SINK |
| A18 - 5B | ┆ | | ┆ |
| A19 - 5C | ┆ | | ┆ |
| A20 - 6A | WINDOW CAULKING | | SW WINDOW |
| A21 - 6B | ┆ | | NW WINDOW |
| A22 - 6C | ┆ | | KITCHEN WINDOW |
| A23 - 7A | DOOR CAULKING | | DINING ROOM EXT DOOR |
| A24 - 7B | ┆ | | ┆ |
| A25 - 7C | ┆ | | ┆ |
| A26 - 8A | ROOFING | | WEST CORNER |
| A27 - 8B | ┆ | | EAST CORNER |
| A28 - 8C | ┆ | | BACK PORCH |
| A29 - 9A | CERAMIC TILE + GROUT / BEDDING WALL | | BATHROOM |
| A30 - 9B | ┆ | | ┆ |
| A31 - 9C | ┆ | | ┆ |
| A32 - 10A | CERAMIC TILE GROUT + BEDDING FLOOR | | BATHROOM |
| A33 - 10B | ┆ | | ┆ |
| A34 - 10C | ┆ | | ┆ |
| A35 - 11A | BRICK + MORTAR | | PLANTER BOX |
| A36 - 11B | ┆ | | ┆ |
| A37 - 11C | ┆ | | ┆ |
| A38 - 12A | HVAC SEALANT | | ATTIC |
| A39 - 12B | ┆ | | ┆ |
| A40 - 12C | ┆ | | ┆ |
| A41 - 13A | EXT. STUCCO | | FRONT OF HOUSE |
| A42 - 13B | ┆ | | REAR OF HOUSE |
| A43 - 13C | ┆ | | SOUTH SIDE OF HOUSE |

**LEAD-BASED PAINT INSPECTION
AND
VISUAL ASSESSMENT REPORT**

**UNIT C102
FALCON VILLAGE, TEXAS 78545**

Prepared for:

MR. RON MOORE
QUATERNARY RESOURCE INVESTIGATIONS, LLC
3809 CAMINO DRIVE
PLANO, TEXAS 75074

Prepared by:

LCA ENVIRONMENTAL, INC.
13221 BEE STREET
DALLAS, TEXAS 75234
(972) 241-6680

LCA Project Number 130602

3 July 2013

Inspector/Risk Assessor: Thomas Hale (Texas Risk Assessor: License # 2070881)



Report Preparer: Thomas Hale (Texas Risk Assessor: License # 2070881)



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APPENDICES

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EXECUTIVE SUMMARY

LCA Environmental, Inc. (LCA) has been authorized to perform a lead-based paint (LBP) evaluation at the single-family residence located at Unit C102 in Falcon Village, Texas. The property was not occupied at the time of the inspection. Readily accessible painted and/or finished components were evaluated according to the protocols described for LBP inspection in the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and applicable Federal, State, and Local regulations.

According to the HUD guidelines, a lead reading by X-Ray Fluorescence (XRF) of 1.0 mg/cm² or above is considered positive for the presence of LBP. The State of Texas' Texas Environmental Lead Reduction Rules (TELRR) lists an action level of 1.0 mg/cm². This action level will be referenced throughout the report.

Components identified as having lead levels at or above the action level are visually assessed for the condition of the surface area. LBP surfaces found to be intact at the time of inspection do not require paint stabilization, but should be monitored on an ongoing basis. During the evaluation, XRF testing was performed on at least one location per testing combination, except for interior walls, where four readings were taken (or one on each wall). The XRF testing was conducted using an Innov-X Systems, Inc. lead paint analyzer. A surface-by-surface visual assessment of the painted and/or finished surfaces was conducted to determine which lead-coated surfaces/components are deteriorated at or above *de minimis* levels.

The lead-based paint evaluation at this property performed on 19 June 2013 produced the following results:

LCA has determined that there is LBP at or above *de minimis* levels at the property. The following component(s) were determined to contain lead in amounts equal to or exceeding 1.0 mg/cm² in the surfaces tested:

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|--------------------|-----------------------|----------|------------|-----------|-------|-----------|
| 12 | Positive | 1.00 | Room 1 | Windowsill | Plaster | White | Intact |
| 15 | Positive | 1.00 | Room 2 | Ceiling | Gyp. | Green | Intact |
| 17 | Positive | 1.00 | Room 2 | Wall B | Concrete | Green | Intact |
| 23 | Positive | 1.00 | Room 3 | Ceiling | Gyp. | White | Intact |
| 24 | Positive | 1.00 | Room 3 | Wall A | Gyp. | White | Intact |
| 25 | Positive | 1.00 | Room 3 | Wall B | Plaster | White | Intact |
| 35 | Positive | 1.00 | Room 4 | Ceiling | Gyp. | White | Intact |
| 36 | Positive | 1.00 | Room 4 | Wall A | Gyp. | White | Intact |

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|--------------------|-----------------------|----------|------------|-----------|-------|-----------|
| 53 | Positive | 1.00 | Room 5 | Windowsill | Plaster | White | Intact |
| 54 | Positive | 1.00 | Room 6 | Ceiling | Gyp. | White | Intact |
| 55 | Positive | 1.00 | Room 6 | Wall A | Plaster | White | Intact |
| 56 | Positive | 1.00 | Room 6 | Wall B | Plaster | White | Intact |
| 58 | Positive | 1.00 | Room 6 | Wall D | Plaster | White | Intact |
| 64 | Positive | 1.00 | Room 7 | Wall B | Plaster | White | Intact |
| 66 | Positive | 1.00 | Room 7 | Wall D | Plaster | White | Intact |

See Appendix C (Drawings) and Appendix D (Photographs) for further detail regarding the location and extent of identified LBP.

1.0 SCOPE OF INSPECTION

1.1 Scope of Work

LCA performed a LBP evaluation (XRF testing and visual assessment) at Unit C102 in Falcon Village, Texas. Mr. Thomas Hale, an EPA-accredited and TDSHS Certified Risk Assessor/Inspector (Texas License Number 2070881), conducted the evaluation on 19 June 2013. Painted and/or finished components were tested according to the protocols described for LBP inspections in the HUD Guidelines Chapter 7 (revised 1997) and applicable Federal, state, and local regulations.

During the evaluation, the HUD/TELRR action level of 1.0 mg/cm² was the regulatory benchmark utilized to identify components that contained LBP.

1.2 Training Requirements

All individuals who performed this XRF testing and visual assessment are EPA accredited and hold State licensure as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, and the principles of radiation safety (in accordance with the work practices of 40 CFR 745, section 227, for States and Indian Tribes).

1.3 Equipment

An industry standard XRF, manufactured by Innov-X Systems, Inc., was utilized during the evaluation. Prior to initial sampling, the instrument was calibrated against the standards of the National Institute of Standards and Testing (NIST).

2.0 METHODOLOGY

2.1 Definitions

A Room Equivalent is an identifiable part of a residence, such as a room, foyer, staircase, hallway, or a house exterior or other exterior area. Exterior areas contain items such as play areas, painted swing sets, painted sandboxes, etc. Small closets or other similar areas adjoining rooms were not considered as separate room equivalents unless they are obviously dissimilar from the adjoining room equivalent. However, walk-in closets were considered as separate room equivalents.

Each room equivalent is made up of Components. Components may be located inside or outside a building. For example, components in a room could be its ceiling, floor, walls, a door and its casing, the window sash, and window casings. The Substrate is the material underneath the paint of a component. Although many different substrates exist, HUD guidelines recommend classifying substrates into one of six types: (1) brick; (2) concrete; (3) drywall; (4) metal, (5) plaster; and (6) wood. If the true substrate under investigation is not one of the aforementioned types, HUD guidelines mandate the inspector/risk assessor to select the substrate type that most closely resembles one of the six defined substrate types. For substrates that are layered, such as plaster on concrete, the substrate directly beneath the painted surface is identified during a LBP inspection. A Testing Combination is characterized by the room equivalent, component, and substrate. Visible color may not be an accurate predictor of painting history and was not included in the definition of a testing combination. Components that are coated with paint, varnish, shellac, wallpaper, stain, or other coating were considered as separate testing combinations. Certain building components adjacent to each other and not likely to have different painting histories were grouped together into a single testing combination as follows:

- Window casings, stops, jambs, and aprons.
- Interior window mullions and window sashes. Interior window components may not be grouped with exterior window components.
- Exterior window mullions and window sashes.
- Door jambs, stops, transoms, casings, and other door parts.
- Door stiles, rails, panels, mullions, and other door parts.
- Baseboards and associated trim (such as quarter-round or other caps).
- Painted electrical sockets, switches, or plates can be grouped with the walls.

The **Test Location** is a specific area on a testing combination where the XRF was used to test for LBP.

NOTE: If present, components covered with vinyl and/or metal sidings were not inspected during the evaluation because the surfaces underneath these components were not visible or accessible. This leaves the possibility that LBP components could be located beneath these coverings.

De minimis levels for deteriorated lead-based paint are defined as follows: (1) for a component with a small surface area, such as window sills, or baseboards, 10% of the surface area; (2) for an interior component with a large surface area, such as an interior wall, 2 square feet of the surface area; and (3) for an exterior component with a large surface area, 20 square feet of the surface area.

2.2 Sampling Strategies

According to the HUD guidelines, a lead reading by XRF of 1.0 mg/cm² or above is considered positive for the presence of LBP. An XRF reading below 1.0 mg/cm² is considered negative; however, a reading below 1.0 mg/cm² could still be harmful if proper precautions are not taken during activities that disturb these paint films. If there are any inconclusive readings, a paint-chip sample may be collected for laboratory analysis. Laboratory analysis of samples collected will only be performed by an EPA approved National Lead Laboratory Accreditation Program (NLLAP) laboratory. No inconclusive range exists for laboratory measurements/results.

Only painted, stained, varnished, or wallpapered components of a dwelling are tested during a LBP evaluation. Wall “A” or “1” in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall “A” or “1”, Wall “B” or “2” will always be to your right, Wall “C” or “3” directly to the rear and Wall “D” or “4” to the left. Doors, windows and closets are designated as left, center or right depending on their location on the wall. When more than one window/door is on a wall, features are numbered left to right.

2.3 Assessment Logic

Any paint found to contain lead below the HUD standard of 1.0 mg/cm², regardless of condition, is considered non-hazardous. Components having lead levels at or above the action level are visually assessed for condition and approximate surface area. Paint condition is established within one of two categories according to the risk assessor’s professional judgment: (1) intact (good) and (2) deteriorated (poor), based on the HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 5: Risk Assessment [Table 5-3], June, 1995.

2.4 Calibration of XRF Equipment

The calibration of the instrument must be done in accordance with the NIST-Certificate of Analysis for this instrument. These instruments will be calibrated using a calibration standard block of known lead content. Calibration readings will be taken before and after each home is tested to ensure manufacturer’s standards are met. If the inspection takes longer than four hours, a calibration reading must be taken prior to the end of the four hour period, and then an additional calibration reading taken at the end of the inspection. If, for any reason, the instruments are not maintaining a consistent calibration reading within the manufacturer’s standards for performance on the calibration block supplied by the manufacturer, manufacturer’s recommendations will be used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it must be taken off the site and sent back to the manufacturer for repair, re-calibration, or replacement.

3.0 FINDINGS

3.1 Site Description

The property is located at Unit C102 in Falcon Village, Texas and is a single family dwelling with one residential unit. The home, reportedly constructed in the 1960s, is a single-story dwelling containing approximately 1,350 square feet of living space. The exterior is predominantly composed of vinyl siding over stucco with wood walls at gables and wood soffits and fascia. Window components are metal or brick. Interior finishes include drywall and plaster walls, drywall ceilings, with concrete and vinyl flooring.

3.2 Inaccessible Areas

The following areas were inaccessible at the time of the inspection and should be assumed positive for the purposes of this report:

- No inaccessible painted surfaces were noted at the time of the site visit.

3.3 Visual Assessment Results

The visual assessment identified the following:

| Item | Identified Yes/No |
|--|----------------------|
| Deteriorating painted surfaces | Yes* |
| Painted surfaces that are chewable, impact joints or subject to friction | Yes |
| Bare soil surface (soil surface that is not covered by pavement or sod or landscaping) | Yes |
| Excessive accumulation of dust on most interior surfaces | Yes** |

* - These painted surfaces were not found to contain LBP.

** - The structure has been unoccupied and open to the elements for an undetermined amount of time.

3.4 Lead-Based Paint Inspection Results

The following components contain lead in amounts equal to or exceeding 1.0 mg/cm² in the surfaces tested during this LBP inspection:

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------------|----------|------------|-----------|-------|-----------|
| 12 | Positive | 1.00 | Room 1 | Windowsill | Plaster | White | Intact |
| 15 | Positive | 1.00 | Room 2 | Ceiling | Gyp. | Green | Intact |
| 17 | Positive | 1.00 | Room 2 | Wall B | Concrete | Green | Intact |
| 23 | Positive | 1.00 | Room 3 | Ceiling | Gyp. | White | Intact |
| 24 | Positive | 1.00 | Room 3 | Wall A | Gyp. | White | Intact |
| 25 | Positive | 1.00 | Room 3 | Wall B | Plaster | White | Intact |

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|--------------------|-----------------------|----------|------------|-----------|-------|-----------|
| 35 | Positive | 1.00 | Room 4 | Ceiling | Gyp. | White | Intact |
| 36 | Positive | 1.00 | Room 4 | Wall A | Gyp. | White | Intact |
| 53 | Positive | 1.00 | Room 5 | Windowsill | Plaster | White | Intact |
| 54 | Positive | 1.00 | Room 6 | Ceiling | Gyp. | White | Intact |
| 55 | Positive | 1.00 | Room 6 | Wall A | Plaster | White | Intact |
| 56 | Positive | 1.00 | Room 6 | Wall B | Plaster | White | Intact |
| 58 | Positive | 1.00 | Room 6 | Wall D | Plaster | White | Intact |
| 64 | Positive | 1.00 | Room 7 | Wall B | Plaster | White | Intact |
| 66 | Positive | 1.00 | Room 7 | Wall D | Plaster | White | Intact |

3.5 Summary and Distribution Table

| | |
|--|--------|
| Number of Positive Readings (for Paint Only) | 15 |
| Total Number of Readings | 119 |
| Percent Positive | 12.60% |

4.0 CONCLUSIONS

The components reported in Sections 3.4 and 3.5 were found “positive” for lead, as defined by the EPA and HUD as containing lead in concentrations equal to or greater than 1.0 mg/cm².

According to Chapter 7 HUD guidelines, if one testing building component combination (i.e. window, door) is positive for lead in an interior or exterior room equivalent, then all other similar testing combinations in those areas should also be assumed positive for lead. The converse should be true for negative readings. All inaccessible areas are assumed to be positive for LBP, even though they were not tested. Any inaccessible areas encountered during the LBP evaluation are noted in Section 3.2.

Given that the lead evaluation results indicated the presence of LBP, the owner or prospective owner may wish to obtain the services of a lead-based paint Risk Assessor, licensed in Texas, to help understand the positive results. If this building will remain unoccupied until demolition, a risk assessment is not necessary. The landfill where the construction debris will be disposed should be advised that LBP is present on some of the construction debris. (The landfill may require chemical testing for lead leachability before accepting the debris into its disposal facility.)

This evaluation was completed in accordance with Lead Safe Housing Rule 24 CFR Part 35 subpart F as amended (2004). The sampling results are presented in Appendix A and notes are presented in Appendix B. The outline of dwelling is drafted in Appendix C. Appendix D contains photographs of the property. Appendix E contains the personal certifications of the inspector. Appendix F contains the PCS sheets for the XRF instrument and Appendix G contains a glossary of terms.

Those components which were found to contain LBP and which were in intact (i.e., stable) condition should be monitored by the owner and occupant of the dwelling; any further deterioration of components or components that are already in poor condition should undergo corrective action to maintain the LBP surface. In addition, some painted surfaces may contain levels of lead below 1.0 mg/cm²; these components could create lead dust or lead-contaminated soil hazards if the paint is turned into dust by abrasion, scraping, sanding or friction. If stable conditions of intact paint surfaces become destabilized, these conditions will need to be addressed in the future. If any construction or modernization work is done on the premises, this report should be given to the contractors, as well as to any future tenants or owners.

In compliance with HUD's Final Rule, potential hazards resulting from LBP must be subjected to corrective action to stabilize all deteriorated LBP in housing built before 1978, unless the property is exempt. Paint stabilization repairs any defect in the substrate and/or in building components that are causing the paint deterioration, removes all loose paint and other material from the surface to be treated utilizing lead-safe work practices, and, in most cases, applies a new protective coating or paint. Any stabilization/construction activities which affect the existing paint films (including sanding and demolition) must be initiated by workers who have received proper training in the handling of lead-contaminated materials.

Upon completion of paint stabilization activities, HUD requires a clearance examination to determine that the paint stabilization efforts were performed adequately. A clearance examination will include a visual assessment of all surfaces that were determined to be defective during the initial evaluation, and collection of dust and soil composite samples. It should be determined that the deteriorated paint surfaces have been eliminated and that no settled dust hazards or paint chips exist in the interior or exterior. The clearance report must be signed by a Certified/Licensed Lead Inspector or Risk Assessor.

LCA understands that the Project Site structure is slated for demolition. Based on the results of the asbestos inspection performed by LCA on 18 June 2013, the identified LBP surface at the Project Site is also identified as asbestos-containing material (ACM). Prior to commencement of demolition at the Project Site, the identified ACM, as well as the identified LBP components, should be properly removed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer. Lead-safe work practices should be included in the abatement project design.

5.0 DISCLOSURE RESPONSIBILITY

A copy of this report must be provided to new lessees (tenants) and purchasers of this property under Federal Regulations (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that children and pregnant women are protected from LBP hazards.

The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard states that “negative” readings (i.e. those below the HUD/EPA definition of what constitutes LBP [1.0 mg/cm^2]) **do not** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead free. Although a reading may indicate “negative”, airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

DISCLAIMER

This is our report of a visual survey, and XRF analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation. No other environmental concerns or conditions were addressed during this evaluation.

APPENDIX A

XRF DATA SHEETS

Unit C102 Falcon Village, Texas

19 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|-------|-----------|
| 1 | Standardization | PASS | | | | | | |
| 2 | Calibration | Positive | 1.02 | | | | Red | |
| 3 | Lead Paint Fixed-Time | Negative | 0.07 | Room 1 | Ceiling | Gyp | White | N/A |
| 4 | Lead Paint Fixed-Time | Negative | 0.1 | | Wall A | Plaster | White | N/A |
| 5 | Lead Paint Fixed-Time | Negative | 0.11 | | Wall B | Plaster | White | N/A |
| 6 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall C | Gyp | White | N/A |
| 7 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall D | Gyp | White | N/A |
| 8 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard A | Wood | White | N/A |
| 9 | Lead Paint Fixed-Time | Negative | 0.04 | | Baseboard B | Wood | White | N/A |
| 10 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard C | Wood | White | N/A |
| 11 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard D | Wood | White | N/A |
| 12 | Lead Paint Fixed-Time | Positive | 1 | | Windowsill | Plaster | White | Intact |
| 13 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 14 | Lead Paint Fixed-Time | Negative | 0.01 | | Doorframe | Metal | White | N/A |
| 15 | Lead Paint Fixed-Time | Positive | 1 | Room 2 | Ceiling | Gyp | Green | Intact |
| 16 | Lead Paint Fixed-Time | Negative | 0.14 | | Wall A | CMU | Green | N/A |
| 17 | Lead Paint Fixed-Time | Positive | 1 | | Wall B | CMU | Green | Intact |
| 18 | Lead Paint Fixed-Time | Negative | 0.19 | | Wall C | CMU | Green | N/A |
| 19 | Lead Paint Fixed-Time | Negative | 0.17 | | Wall D | CMU | Green | N/A |
| 20 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 21 | Lead Paint Fixed-Time | Negative | 0.16 | | Doorframe | Metal | White | N/A |
| 22 | Lead Paint Fixed-Time | Negative | 0.12 | | Shelf | Wood | Green | N/A |
| 23 | Lead Paint Fixed-Time | Positive | 1 | Room 3 | Ceiling | Gyp | White | Intact |
| 24 | Lead Paint Fixed-Time | Positive | 1 | | Wall A | Gyp | White | Intact |
| 25 | Lead Paint Fixed-Time | Positive | 1 | | Wall B | Plaster | White | Intact |
| 26 | Lead Paint Fixed-Time | Negative | 0.03 | | Wall C | Plaster | White | N/A |
| 27 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall D | Gyp | White | N/A |
| 28 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 29 | Lead Paint Fixed-Time | Negative | 0.07 | | Baseboard B | Wood | White | N/A |
| 30 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard C | Wood | White | N/A |
| 31 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard D | Wood | White | N/A |
| 32 | Lead Paint Fixed-Time | Negative | 0.03 | | Windowsill | Plaster | White | N/A |
| 33 | Lead Paint Fixed-Time | Negative | 0.01 | | Door | Wood | White | N/A |
| 34 | Lead Paint Fixed-Time | Negative | 0.06 | | Doorframe | Metal | White | N/A |
| 35 | Lead Paint Fixed-Time | Positive | 1 | Room 4 | Ceiling | Gyp | White | Intact |
| 36 | Lead Paint Fixed-Time | Positive | 1 | | Wall A | Gyp | White | Intact |
| 37 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall B | Gyp | White | N/A |
| 38 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Plaster | White | N/A |
| 39 | Lead Paint Fixed-Time | Negative | 0.03 | | Wall D | Gyp | White | N/A |
| 40 | Lead Paint Fixed-Time | Negative | 0.02 | | Baseboard A | Wood | White | N/A |
| 41 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard B | Wood | White | N/A |
| 42 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 43 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Plaster | White | N/A |
| 44 | Lead Paint Fixed-Time | Negative | 0.01 | Room 5 | Ceiling | Gyp | White | N/A |
| 45 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 46 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall B | Gyp | White | N/A |
| 47 | Lead Paint Fixed-Time | Negative | 0.14 | | Wall C | Plaster | White | N/A |
| 48 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall D | Gyp | White | N/A |
| 49 | Lead Paint Fixed-Time | Negative | 0.02 | | Baseboard A | Wood | White | N/A |
| 50 | Lead Paint Fixed-Time | Negative | 0.02 | | Baseboard B | Wood | White | N/A |
| 51 | Lead Paint Fixed-Time | Negative | 0.04 | | Baseboard C | Wood | White | N/A |
| 52 | Lead Paint Fixed-Time | Negative | 0.04 | | Baseboard D | Wood | White | N/A |

Unit C102 Falcon Village, Texas

19 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|---------|-----------|
| 53 | Lead Paint Fixed-Time | Positive | 1 | | Windowsill | Plaster | White | Intact |
| 54 | Lead Paint Fixed-Time | Positive | 1 | Room 6 | Ceiling | Gyp | White | Intact |
| 55 | Lead Paint Fixed-Time | Positive | 1 | | Wall A | Plaster | White | Intact |
| 56 | Lead Paint Fixed-Time | Positive | 1 | | Wall B | Plaster | White | Intact |
| 57 | Lead Paint Fixed-Time | Negative | 0.09 | | Wall C | Plaster | White | N/A |
| 58 | Lead Paint Fixed-Time | Positive | 1 | | Wall D | Plaster | White | Intact |
| 59 | Lead Paint Fixed-Time | Negative | 0.03 | | Windowsill | Plaster | White | N/A |
| 60 | Lead Paint Fixed-Time | Negative | 0.02 | | Door | Wood | Varnish | N/A |
| 61 | Lead Paint Fixed-Time | Negative | 0.02 | | Doorframe | Metal | White | N/A |
| 62 | Lead Paint Fixed-Time | Negative | 0.02 | Room 7 | Ceiling | Gyp | White | N/A |
| 63 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall A | Plaster | White | N/A |
| 64 | Lead Paint Fixed-Time | Positive | 1 | | Wall B | Plaster | White | Intact |
| 65 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall C | Plaster | White | N/A |
| 66 | Lead Paint Fixed-Time | Positive | 1 | | Wall D | Plaster | White | Intact |
| 67 | Lead Paint Fixed-Time | Negative | 0.01 | | Windowsill | Plaster | White | N/A |
| 68 | Lead Paint Fixed-Time | Negative | 0.03 | | Door | Wood | Varnish | N/A |
| 69 | Lead Paint Fixed-Time | Negative | 0.01 | | Doorframe | Metal | White | N/A |
| 70 | Lead Paint Fixed-Time | Negative | 0.04 | Room 8 | Ceiling | Gyp | White | N/A |
| 71 | Lead Paint Fixed-Time | Negative | 0.03 | | Wall A | Gyp | White | N/A |
| 72 | Lead Paint Fixed-Time | Negative | 0.04 | | Wall B | Gyp | White | N/A |
| 73 | Lead Paint Fixed-Time | Negative | 0.18 | | Wall C | Plaster | White | N/A |
| 74 | Lead Paint Fixed-Time | Negative | 0.31 | | Wall D | Plaster | White | N/A |
| 75 | Lead Paint Fixed-Time | Negative | 0.04 | | Baseboard A | Wood | White | N/A |
| 76 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard B | Wood | White | N/A |
| 77 | Lead Paint Fixed-Time | Negative | 0.05 | | Baseboard C | Wood | White | N/A |
| 78 | Lead Paint Fixed-Time | Negative | 0.05 | | Baseboard D | Wood | White | N/A |
| 79 | Lead Paint Fixed-Time | Negative | 0.03 | | Windowsill | Plaster | White | N/A |
| 80 | Lead Paint Fixed-Time | Negative | 0.06 | | Door | Wood | Varnish | N/A |
| 81 | Lead Paint Fixed-Time | Negative | 0.04 | | Doorframe | Metal | White | N/A |
| 82 | Lead Paint Fixed-Time | Negative | 0.01 | Room 9 | Ceiling | Gyp | White | N/A |
| 83 | Lead Paint Fixed-Time | Negative | 0.17 | | Wall A | Plaster | White | N/A |
| 84 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 85 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 86 | Lead Paint Fixed-Time | Negative | 0.15 | | Wall D | Plaster | White | N/A |
| 87 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard A | Wood | White | N/A |
| 88 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard B | Wood | White | N/A |
| 89 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard C | Wood | White | N/A |
| 90 | Lead Paint Fixed-Time | Negative | 0.02 | | Baseboard D | Wood | White | N/A |
| 91 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Plaster | White | N/A |
| 92 | Lead Paint Fixed-Time | Negative | 0.02 | | Door | Wood | Varnish | N/A |
| 93 | Lead Paint Fixed-Time | Negative | 0.04 | | Doorframe | Metal | White | N/A |
| 94 | Lead Paint Fixed-Time | Negative | 0 | Room 10 | Ceiling | Gyp | White | N/A |
| 95 | Lead Paint Fixed-Time | Negative | 0.23 | | Wall A | Plaster | White | N/A |
| 96 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall B | Gyp | White | N/A |
| 97 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall C | Gyp | White | N/A |
| 98 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall D | Gyp | White | N/A |
| 99 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard A | Wood | White | N/A |
| 100 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard B | Wood | White | N/A |
| 101 | Lead Paint Fixed-Time | Negative | 0.04 | | Baseboard C | Wood | White | N/A |
| 102 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 103 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Plaster | White | N/A |
| 104 | Lead Paint Fixed-Time | Negative | 0.04 | | Door | Wood | Varnish | N/A |

Unit C102 Falcon Village, Texas

19 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|------------|-----------|-----------|-------|-----------|
| 105 | Lead Paint Fixed-Time | Negative | 0.05 | | Doorframe | Metal | White | N/A |
| 106 | Lead Paint Fixed-Time | Negative | 0.03 | Exterior A | Soffitt | Wood | White | N/A |
| 107 | Lead Paint Fixed-Time | Negative | 0.03 | | Fascia | Wood | White | N/A |
| 108 | Lead Paint Fixed-Time | Negative | 0.02 | | Joist | Wood | White | N/A |
| 109 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 110 | Lead Paint Fixed-Time | Negative | 0.04 | Exterior B | Soffitt | Wood | White | N/A |
| 111 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | White | N/A |
| 112 | Lead Paint Fixed-Time | Negative | 0.02 | | Gable | Wood | White | N/A |
| 113 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 114 | Lead Paint Fixed-Time | Negative | 0.04 | Exterior C | Soffitt | Wood | White | N/A |
| 115 | Lead Paint Fixed-Time | Negative | 0.01 | | Fascia | Wood | White | N/A |
| 116 | Lead Paint Fixed-Time | Negative | 0.02 | | Joist | Wood | White | N/A |
| 117 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 118 | Lead Paint Fixed-Time | Negative | 0.02 | Exterior D | Soffitt | Wood | White | N/A |
| 119 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | White | N/A |
| 120 | Lead Paint Fixed-Time | Negative | 0.02 | | Gable | Wood | White | N/A |
| 121 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |

APPENDIX B

NOTES

Unit C102, Falcon Village, Texas

| Room | Notes |
|-------------|---|
| Room 1 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 2 | Gyp-board ceiling, CMU walls, concrete floor |
| Room 3 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 4 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 5 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 6 | Plaster ceiling, plaster and ceramic tile walls, wood trim, ceramic tile floor |
| Room 7 | Plaster ceiling, plaster and ceramic tile walls, wood trim, ceramic tile floor |
| Room 8 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 9 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 10 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Exterior | Wood, stucco, vinyl siding |

APPENDIX C

DRAWING(S)

APPENDIX D

PHOTOGRAPHS



Photograph 1: View of the front of the structure at Unit C102, in Falcon Village, Texas.



Photograph 2: View of Room 1 Windowsill which was found to be positive for LBP.



Photograph 3: View of Room 2 Ceiling and Wall B which were found to be positive for LBP.



Photograph 4: View of Room 3 Ceiling, Walls A and B which were found to be positive for LBP.



Photograph 5: View of Room 4 Ceiling and Wall A which were found to be positive for LBP.



Photograph 6: View of Room 5 Windowsill which was found to be positive for LBP.



Photograph 7: View of Room 6 Ceiling and Walls A & B which were found to be positive for LBP.



Photograph 8: View of Room 6 Wall D which was found to be positive for LBP.



Photograph 9: View of Room 7 Wall B which was found to be positive for LBP.



Photograph 10: View of Room 7 Wall D which was found to be positive for LBP.

APPENDIX E

CERTIFICATIONS



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

LYNN CLARK ASSOCIATES INC

is certified to perform as a

Lead Firm

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, appearing to read "David L. Laakey".

David L. Laakey, M.D.
Commissioner of Health

License Number: 2110555

Control Number 6528

Expiration Date: 6/12/2015

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

THOMAS A HALE

is certified to perform as a

Lead Risk Assessor

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, reading "David L. Lakey".

David L. Lakey, M.D.
Commissioner of Health

License Number: 2070881

Expiration Date: 5/5/2013

Void After Expiration Date

VOID IF ALTERED

Control Number 6610

NON-TRANSFERABLE

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Inspector Refresher

Conducted at Hurst, Texas on December 3, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner



Instructor: Joseph Londt

Date of Issue 12/03/2012

Certificate Number: 12046 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

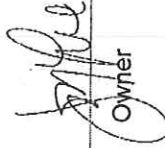
has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Risk Assessor Refresher

Conducted at Hurst, Texas on December 4, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/04/2012

Certificate Number: 12030 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

APPENDIX F

NIST – CERTIFICATE OF ANALYSIS



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material® 2573

Lead Paint Film

For Portable X-Ray Fluorescence Analyzers – Nominal 1.0 mg/cm²
(Color Code: Red)

This Standard Reference Material (SRM) is intended for checking the calibration of portable, hand-held, x-ray fluorescence analyzers when testing for lead in paint coatings on interior and exterior building surfaces. A unit of SRM 2573 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, red-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2570, is also provided. The blank is coated with a lead-free, lacquer layer on a white polyester sheet of the same thickness as the lead paint samples. All sheets are over-coated with a clear, thin, plastic laminate to protect the surface from abrasion. SRM 2573 and SRM 2570 are two of a set of six paint films (SRM 2570 to SRM 2575) available as SRM 2579a.

The certified values for lead for this SRM and the blank, SRM 2570, are reported in Table 1 in units of mg/cm². These values are based on measurements by isotope dilution inductively-coupled plasma mass spectrometry.

Table 1. Certified Lead Values

| Level | Color Code | Lead Concentration, in mg/cm ² |
|----------|---------------|---|
| SRM 2570 | White (Blank) | <0.001 |
| SRM 2573 | Red | 1.040 ± 0.064 |

The uncertainty of each certified value is expressed as an expanded uncertainty, U , at the 95 % level of confidence and is calculated according to the method described in the ISO Guide [1,2]. Because of variability in the paint film between different sheets of each SRM, the uncertainties are 95 % prediction intervals. The expanded uncertainty is calculated as $U = ku_c$, where u_c is intended to represent, at the level of one standard deviation, the combined uncertainty due to material variability and measurement uncertainty. The coverage factor, k , is determined from the Student's t -distribution corresponding to the calculated effective degrees of freedom and 95 % level of confidence.

Expiration of Certification: The certification of SRM 2573 is valid, within the measurement uncertainties specified, until **01 July 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Use"). The certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet) will facilitate notification.

The overall direction and coordination of the analytical measurements leading to certification were performed by G.C. Turk and J.D. Fassett of the NIST Analytical Chemistry Division. Analytical measurements were performed by K.E. Murphy, J.R. Sieber, A.F. Marlow, L.J. Wood, P.R. Seo, and M. Lankosz of the NIST Analytical Chemistry Division. The SRM was fabricated under the direction of J.R. Sieber of the NIST Analytical Chemistry Division.

Stephen A. Wise, Chief
Analytical Chemistry Division

Robert L. Watters, Jr., Chief
Measurement Services Division

Gaithersburg, MD 20899
Certificate Issue Date: 24 March 2009
See Certificate Revision History on Last Page

Statistical consultation for this SRM was provided by E.S. Lagergren and N.F. Zhang of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Measurement Services Division.

NOTICE AND WARNING TO USERS

NOTE: This SRM contains lead, as a lead chromate pigment, which is toxic and a suspected carcinogen to the lung and kidney. The SRM must be handled with care and disposed of according to the U.S. Environmental Protection Agency (EPA) practices and procedures.

INSTRUCTIONS FOR USE

The SRM sheet must first be removed from the plastic sleeve in which it is stored and then positioned so that the side labeled with the NIST logo and SRM number faces the x-ray source. For best results, the size of the x-ray beam from the field unit should irradiate an area of the SRM that is at least 2.5 cm in diameter and is centered on the sheet. Care must be exercised not to compromise the protective plastic laminate which prevents scratching or chipping of the painted surface and the potential release of dust containing lead. Upon completion of the measurement, the SRM must be re-stored in the plastic sleeve provided. It is also recommended that this SRM be stored indoors at ambient room temperature and away from direct sunlight when not in use.

Stability: This SRM is considered to be stable during the period of certification. NIST will monitor the SRM and will report any significant changes in certification to the purchaser. Return of the attached registration card will facilitate notification.

PREPARATION

SRM Preparation: The paint-coated, polyester sheets were prepared by an automated coating process at a commercial facility under contract to NIST. Known concentrations of a lead chromate pigment were dispersed in a commercial paint vehicle to prepare the lead paints. A lead-free, organic tint was added to each paint mixture to give the desired color. A thin, protective overlay of plastic laminate was applied to each paint film. The attenuation of lead $L_{3-}M_{4,5}$ ($L\alpha_{1,2}$) X-rays due to the protective overlay does not exceed 2 % relative, while that of $K-L_{2,3}$ ($K\alpha_{1,2}$) x-rays commonly used for field measurement is negligible.

REFERENCES

- [1] ISO; *Guide to the Expression of Uncertainty in Measurement*; ISBN 92-67-10188-9, 1st ed., International Organization for Standardization: Geneva, Switzerland (1993); see also Taylor, B.N.; Kuyatt, C.E.; *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*; NIST Technical Note 1297, U.S. Government Printing Office: Washington, DC (1994); available at <http://physics.nist.gov/Pubs/>.
- [2] Hahn, G.J.; Meeker, W.Q.; *Statistical Intervals: A Guide for Practitioners*; John Wiley & Sons, Inc., New York, NY (1991).

| |
|---|
| Certificate Revision History: 24 March 2009 (Extension of certification period); 29 November 1999 (Original certificate date). |
|---|

Users of this SRM should ensure that the certificate in their possession is current. This can be accomplished by contacting the SRM Program at: telephone (301) 975-2200; fax (301) 926-4751; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX G

GLOSSARY

Abatement - A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. See also Complete Abatement and Interim Controls.

Accessible surface - Any protruding interior or exterior surface, such as an interior window sill, that a young child can mouth or chew.

Accreditation - A formal recognition that an organization, such as a laboratory, is competent to carry out specific tasks or types of tests.

Accredited laboratory -A laboratory that has been evaluated and approved by the National Lead Laboratory Accreditation Program (NLLAP) to perform lead measurement or analysis, usually over a specified period of time.

Apron - A trim board that is installed beneath a window sill.

Area wells - Corrugated metal or concrete barrier walls installed around a basement window to hold back the earth.

Attic access - An opening that is placed in the drywalled ceiling of a home providing access to the attic.

Attic Ventilators - In houses, screened openings provided to ventilate an attic space.

Backing - Frame lumber installed between the wall studs to give additional support for drywall or an interior trim related item, such as handrail brackets, cabinets, and towel bars. In this way, items are screwed and mounted into solid wood rather than weak drywall that may allow the item to break loose from the wall. Carpet backing holds the pile fabric in place.

Balusters -Vertical members in a railing used between a top rail and bottom rail or the stair treads. Sometimes referred to as 'pickets' or 'spindles'.

Balustrade - The rail, posts and vertical balusters along the edge of a stairway or elevated walkway.

Bare soil - Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Barge board - A decorative board covering the projecting rafter (fly rafter) of the gable end. At the cornice, this member is a fascia board.

Base or baseboard - A trim board placed against the wall around the room next to the floor.

Basement window inserts - The window frame and glass unit that is installed in the window buck.

Base shoe - Molding used next to the floor on interior base board. Sometimes called a carpet strip.

Bat - A half-brick.

Batt - A section of fiber-glass or rock-wool insulation measuring 15 or 23 inches wide by four to eight feet long and various thicknesses. Sometimes "faced" (meaning to have a paper covering on one side) or "unfaced" (without paper).

Batten - Narrow strips of wood used to cover joints or as decorative vertical members over plywood or wide boards.

Bay window - Any window space projecting outward from the walls of a building, either square or polygonal in plan.

Beam - A structural member transversely supporting a load. A structural member carrying building loads (weight) from one support to another. Sometimes called a "girder".

Bearing wall - A wall that supports any vertical load in addition to its own weight. **Bearing header** - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Bifold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

Bypass doors - Doors that slide by each other and commonly used as closet doors.

Blocking - Small wood pieces to brace framing members or to provide a nailing base for gypsum board or paneling.

Blood lead threshold - Any blood level greater than or equal to 10 ug/dL as defined by the Centers for Disease Control and Prevention. See also Elevated Blood Lead level (EBL) child.

Brace - An inclined piece of framing lumber applied to wall or floor to strengthen the structure. Often used on walls as temporary bracing until framing has been completed.

Breaker panel - The electrical box that distributes electric power entering the home to each branch circuit (each plug and switch) and composed of circuit breakers.

Brick mold - Trim used around an exterior door jamb that siding butts to.

Brick tie - A small, corrugated metal strip @ 1" X 6"- 8" long nailed to wall sheathing or studs. They are inserted into the grout mortar joint of the veneer brick, and holds the veneer wall to the sheeted wall behind it.

Brick veneer - A vertical facing of brick laid against and fastened to sheathing of a framed wall or tile wall construction.

Building component - Any element of a building that may be painted or have dust on its surface, e.g. walls, stair treads, floors, railings, doors, window sills, etc.

By fold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

By pass doors - Doors that slide by each other and commonly used as closet doors.

Cantilever - An overhang. Where one floor extends beyond and over a foundation wall. For example at a fireplace location or bay window cantilever. Normally, not extending over 2 feet.

Cap - The upper member of a column, pilaster, door cornice, molding, or fireplace.

Cap flashing - The portion of the flashing attached to a vertical surface to prevent water from migrating behind the base flashing.

Casement - Frames of wood or metal enclosing part (or all) of a window sash. May be opened by means of hinges affixed to the vertical edges.

Casement Window - A window with hinges on one of the vertical sides and swings open like a normal door.

Casing - Wood trim molding installed around a door or window opening.

CelotexTM - Black fibrous board that is used as exterior sheathing.

Ceiling joist - One of a series of parallel framing members used to support ceiling loads and supported in turn by larger beams, girders or bearing walls. Also called roof joists.

Cement - The gray powder that is the "glue" in concrete. Portland cement. Also, any adhesive.

Ceramic tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally used in bathtub and shower enclosures and on counter tops.

Certification - The process of testing and evaluating against certain specifications the competence of a person, organization, or other entity in performing a function or service, usually for a specified period of time.

Certified - The designation for contractors who have completed training and other requirements to allow them to safely undertake risk assessments, inspections, or abatement work. Risk assessors, inspectors, and abatement contractors should be certified by the appropriate local, State or Federal agency.

Chair rail - Interior trim material installed about 3-4 feet up the wall, horizontally.

Chalking -The photo-oxidation of paint binders - usually due to weathering - that causes a powder to form on the film surface.

Chase - A framed enclosed space around a flue pipe or a channel in a wall, or through a ceiling for something to lie in or pass through.

Chewed surface - Any painted surface that shows evidence of having been chewed or mouthed by a young child. A chewed surface is usually a protruding, horizontal part of a building, such as an interior window sill. See also Accessible surface.

Chip Board - A manufactured wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing. Also called OSB (Oriented Strand Board) or wafer board.

Cleaning - The process of using a HEP A vacuum and wet cleaning agents to remove leaded dust; the process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to clean lead-contaminated dust from a surface.

Clearance examination - Visual examination and collection of environmental samples by an inspector or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control interventions, or maintenance job that disturbs lead-based paint (or paint suspected of being lead-based). The clearance examination is performed to ensure that lead exposure levels do not exceed standards established by the EPA administrator pursuant to Title IV of the Toxic Substances Control Act, and that any cleaning following such work adequately meets those standards.

Clearance examiner - A person who conducts clearance examinations following lead-based paint hazard control and cleanup work, usually a certified risk assessor or a certified inspector.

Code of Federal Regulations (CFR) - The codification of the regulations of Federal agencies.

Column - A vertical structural compression member which supports loads.

Complete abatement - Abatement of all lead-based paint inside and outside a dwelling or building and reduction of any lead-contaminated dust or soil hazards. All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, reevaluation and on-going monitoring. See also Abatement.

Concrete - The mixture of Portland cement, sand, gravel, and water. Used to make garage and basement floors, sidewalks, patios, foundation walls, etc. It is commonly reinforced with steel rods (rebar) or wire screening (mesh).

Concrete block - A hollow concrete 'brick' often 8" x 8" X 16" in size.

Concrete board - A panel made out of concrete and fiberglass usually used as a tile backing material.

Conduit, electrical - A pipe, usually metal, in which wire is installed.

Containment - A process to protect workers and the environment by controlling exposures to the lead contaminated dust and debris created during abatement.

Corbel - The triangular, decorative and supporting member that holds a mantel or horizontal shelf.

Corner bead - A strip of formed sheet metal placed on outside corners of drywall before applying drywall 'mud'.

Corner boards - Used as trim for the external corners of a house or other frame structure against which the ends of the siding are finished.

Corner braces - Diagonal braces at the corners of the framed structure designed to stiffen and strengthen the wall.

Cornice - Overhang of a pitched roof, usually consisting of a fascia board, a soffit and appropriate trim moldings.

Counter flashing - A metal flashing usually used on chimneys at the roofline to cover shingle flashing and used to prevent moisture entry.

Cove molding - A molding with a concave face used as trim or to finish interior corners.

Crawl space - A shallow space below the living quarters of a house, normally enclosed by the foundation wall and having a dirt floor.

Cross Tee - Short metal "T" beam used in suspended ceiling systems to bridge the spaces between the main beams.

Crown molding - A molding used on cornice or wherever an interior angle is to be covered, especially at the roof and wall corner.

Damper - A metal "door" placed within the fireplace chimney. Normally closed when the fireplace is not in use.

Deteriorated lead-based paint - Any lead-based paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or

otherwise becoming separated from the substrate.

Doorjamb, interior - The surrounding case into which and out of which a door closes and opens. It consists of two upright pieces, called side jambs, and a horizontal head jamb. These 3 jambs have the "door stop" installed on them.

Door stop - The wooden style that the door slab will rest upon when it's in a closed position.

Dormer - An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Downspout - A pipe, usually of metal, for carrying rainwater down from the roofs horizontal gutters.

Drip cap - A molding or metal flashing placed on the exterior topside of a door or window frame to cause water to drip beyond the outside of the frame.

Drywall (or Gypsum Wallboard (GWB), Sheet rock or Plasterboard) -Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The panels are nailed or screwed onto the framing and the joints are taped and covered with a 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Ducts - The heating system. Usually round or rectangular metal pipes installed for distributing warm (or cold) air from the furnace to rooms in the home. Also a tunnel made of galvanized metal or rigid fiberglass, which carries air from the heater or ventilation opening to the rooms in a building.

Dura board, dura rock - A panel made out of concrete and fiberglass usually used as a ceramic tile backing material. Commonly used on bathtub decks. Sometimes called Wonder board.

Dust removal - A form of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed. Depending on the severity of lead-based paint hazards, dust removal may be the primary activity or just one element of a broader control effort.

Eaves - The horizontal exterior roof overhang.

Elevated Blood Lead level (EBL) child - A child who has a blood level greater than or equal to 20 ug/dL or a persistent 15 ug/dL. See also Blood lead threshold.

Encapsulation - Any covering or coating that acts as a barrier between lead-based paint and the environment, the durability of which relies on adhesion and the integrity of the existing bonds between multiple layers of paint and between the paint and the substrate. See also Enclosure.

Enclosure - The use of rigid, durable construction materials that are mechanically fastened to the substrate to act as a barrier between the lead-based paint and the environment.

Escutcheon - An ornamental plate that fits around a pipe extending through a wall or floor to hide the cut out hole.

Evaluation - Risk assessment, paint inspection, reevaluation, investigation, clearance examination, or risk assessment screen.

Exterior work area - For lead hazard control work, the exterior work area includes any exterior building components, such as a porch or stairway; the safety perimeter; and access barriers.

Facing brick - The brick used and exposed on the outside of a wall. Usually these have a finished texture.

Fascia - Horizontal boards attached to rafter/truss ends at the eaves and along gables. Roof drain gutters are attached to the fascia.

Flue - Large pipe through which fumes escape from a gas water heater, furnace, or fireplace.

Friction surface - Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Gable - The end, upper, triangular area of a home, beneath the roof.

Gyp board - Drywall. Wall board or gypsum-A panel (normally 4' X 8', 10', 12', or 16') made with a core of Gypsum (chalk-like) rock, which covers interior walls and ceilings.

Header - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or

other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Hearth - The fireproof area directly in front of a fireplace. The inner or outer floor of a fireplace, usually made of brick, tile, or stone.

Hip - A roof with four sloping sides. The external angle formed by the meeting of two sloping sides of a roof.

Hip roof - A roof that rises by inclined planes from all four sides of a building.

HVAC - An abbreviation for Heat, Ventilation, and Air Conditioning

Impact surface - An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Inspection (of paint) - A surface-by-surface investigation to determine the presence of lead-based paint (in some cases including dust and soil sampling) and a report of the results.

Insulation board, rigid - A structural building board made of coarse wood or cane fiber in 1/2- and 25/32-inch thickness. It can be obtained in various size sheets and densities.

Interim controls- A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include specialized cleaning, repairs, maintenance, painting, temporary containment, and management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land-use controls. See also Monitoring, Reevaluation, and Abatement.

Interior window sill - The portion of the horizontal window ledge that protrudes into the interior of the room, adjacent to the window sash when the window is closed; often called the window stool.

Jamb - The side and head lining of a doorway, window, or other opening. Includes studs as well as the frame and trim.

Joint - The location between the touching surfaces of two members or components joined and held together by nails, glue, cement, mortar, or other means.

Joist - Wooden 2 X 8's, 10's, or 12's that run parallel to one another and support a floor or ceiling, and supported in turn by larger beams, girders, or bearing walls.

Laminated shingles -Shingles that have added dimensionality because of extra layers or tabs, giving a shake-like appearance. May also be called "architectural shingles" or "three-dimensional shingles."

Lath - A building material of narrow wood, metal, gypsum, or insulating board that is fastened to the frame of a building to act as a base for plaster, shingles, or tiles.

Lattice - An open framework of criss-crossed wood or metal strips that form regular, patterned spaces.

Lead - Lead includes metallic lead and inorganic and organic compounds of lead.

Lead-based paint - Any paint, varnish, shellac, or other coating' that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 ug/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis.

Lead-based paint hazard - A condition in which exposure to lead from lead-contaminated dust, lead contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA Administrator under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, deteriorated lead-based paint, leaded dust levels above applicable standards, and bare leaded soil above applicable standards.

Lead-based paint hazard control - Activities to control and eliminate lead-based paint hazards, including interim controls, abatement, and complete abatement.

Lead-contaminated dust - Surface dust in residences that contains an area or mass concentration of lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. Until the EPA standards are set, the HUD-recommended clearance and risk assessment standards for leaded dust are 100 ug/ft² on floors, 500 ug/ft² on interior window sills, and 800 ug/ft² on window troughs. The recommended standard for lead hazard

screens for floors is 50 ug/ft² and for window troughs is 400 ug/ft².

Lead-contaminated soil - Bare soil on residential property that contains lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. The HUD-recommended standard and interim EPA guidance is 400 ug/g for high-contact play areas and 2,000 ug/g in other bare areas of the yard. Soil contaminated with lead at levels greater than or equal to 5,000 ug/g should be abated by removal or paving.

Lead-free dwelling - A lead-free dwelling contains no lead-based paint and has interior dust and exterior soil lead levels below the applicable HUD and EPA standards.

Licensed - Holding a valid license or certification issued by EPA or by an EPA-approved State program pursuant to Title IV of the Toxic Substances Control Act. The license is based on certification for lead-based paint hazard control work. See also Certified.

Louver - A vented opening into the home that has a series of horizontal slats and arranged to permit ventilation but to exclude rain, snow, light, insects, or other living creatures.

Maintenance - Work intended to maintain adequate living conditions in a dwelling, which has the potential to disturb lead-based paint or paint that is suspected of being lead-based.

Mantel - The shelf above a fireplace opening. Also used in referring to the decorative trim around a fireplace opening.

Masonry - Stone, brick, concrete, hollow-tile, concrete block, or other similar building units or materials. Normally bonded together with mortar to form a wall.

Mastic - A pasty material used as a cement (as for setting tile) or a protective coating (as for thermal insulation or waterproofing)

Mg - Milligram; 1/1,000 of a gram.

Microgram - see Ug.

Milligram - see Mg.

Molding - A wood strip having an engraved, decorative surface.

Monitoring - Surveillance to determine (1) that known or suspected lead-based paint is not deteriorating; (2) that lead-based paint hazard controls, such as paint stabilization, enclosure, or encapsulation have not failed, (3) that structural problems do not threaten the integrity of hazard controls or of known or suspected lead-based paint, and (4) that dust lead levels have not risen above applicable levels.

Mortar - A mixture of cement (or lime) with sand and water used in masonry work.

Mullion - A vertical divider in the frame between windows, doors, or other openings.

Muntin - A small member which divides the glass or openings of sash or doors.

Natural finish - A transparent finish which does not seriously alter the original color or grain of the natural wood. Natural finishes are usually provided by sealers, oils, varnishes, water repellent preservatives, and other similar materials.

Newel post -The large starting post to which the end of a stair guard railing or balustrade is fastened.

Oriented Strand Board or OSB -A manufactured 4' X 8' wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood.

Overhang - Outward projecting eave-soffit area of a roof; the part of the roof that hangs out or over the outside wall. See also Cornice.

Paint film stabilization - The process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint; paint film stabilization includes cleanup and clearance.

Paint removal -An abatement strategy that entails the removal of lead-based paint from surfaces. For lead-hazard control work, this can mean using chemicals, heat guns below 1,100 °F, and certain contained abrasive methods. Open-flame burning, open abrasive blasting, and extensive dry scraping are prohibited paint removal methods.

Panel - A thin flat piece of wood, plywood, or similar material, framed by stiles and rails as in a door (or cabinet door), or fitted into grooves of thicker material with molded edges for decorative wall treatment.

Parting stop or strip -A small wood piece used in the side and head jambs of double hung windows to separate the upper sash from the lower sash.

Particle board - Plywood substitute made of course sawdust that is mixed with resin and pressed into sheets. Used for closet shelving, floor underlayment, stair treads, etc.

Partition -A wall that subdivides spaces within any story of a building or room.

Plenum -The main hot-air supply duct leading from a furnace.

Plywood - A panel (normally 4' X 8') of wood made of three or more layers of veneer, compressed and joined with glue, and usually laid with the grain of adjoining plies at right angles to give the sheet strength.

Portland cement -Cement made by heating clay and crushed limestone into a brick and then grinding to a pulverized powder state.

Pressure-treated wood -Lumber that has been saturated with a preservative.

Quarry tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally 6" X 6" X 11/4" thick.

Quarter round -A small trim molding that has the cross section of a quarter circle.

Rafter -Lumber used to support the roof sheeting and roof loads. Generally, 2 X 10's and 2 X 12's are used. The rafters of a flat roof are sometimes called roof joists.

Rake fascia -The vertical face of the sloping end of a roof eave.

Reevaluation - In lead hazard control work, the combination of a visual assessment and collection of environmental samples performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dwelling remains lead-safe.

Register - A grill placed over a heating duct or cold air return.

Renovation - Work that involves construction and/or home or building improvement measures such as window replacement, weatherization, remodeling, and repainting.

Replacement - A strategy of abatement that entails the removal of building components coated with lead-based paint (such as windows, doors, and trim) and the installation of new components free of lead-based paint.

Retaining wall - A structure that holds back a slope and prevents erosion.

Riser -Each of the vertical boards closing the spaces between the treads of stairways.

Risk assessment - An onsite investigation of a residential dwelling to discover any lead-based paint hazard. Risk assessments include an investigation of the age, history, management, and maintenance of the dwelling, and the number of children under age 6 and women of child-bearing age who are residents; a visual assessment; limited environmental sampling (i.e., collection of dust wipe samples, soil samples, and deteriorated paint samples); and preparation of a report identifying acceptable abatement and interim control strategies based on specific conditions.

Risk assessor - A certified individual who has completed training with an accredited training program and who has been certified to (1) perform risk assessments, (2) identify acceptable abatement and interim control strategies for reducing identified lead-based paint hazards, (3) perform clearance testing and reevaluations, and (4) document the successful completion of lead-based paint hazard control activities.

Shake - A wood roofing material, normally cedar or redwood. Produced by splitting a block of the wood along the grain line. Modern shakes are sometimes machine sawn on one side. See shingle.

Shed roof - A roof containing only one sloping plane.

Sheet rock - Drywall-Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Shim - A small piece of scrap lumber or shingle, usually wedge shaped, which when forced behind a furring strip or framing member forces it into position. Also used when installing doors and placed between the door jamb legs and 2 X 4 door trimmers. Metal shims are wafer 1 1/2" X 2" sheet metal of various thickness' used to fill gaps in wood framing

members, especially at bearing point locations.

Shingles - Roof covering of asphalt, asbestos, wood, tile, slate, or other material cut to stock lengths, widths, and thickness'.

Shingles, siding - Various kinds of shingles, used over sheathing for exterior wall covering of a structure.

Shutter - Usually lightweight louvered decorative frames in the form of doors located on the sides of a window. Some shutters are made to close over the window for protection.

Siding - The finished exterior covering of the outside walls of a frame building.

Sill - (1) The 2 X 4 or 2 X 6 wood plate framing member that lays flat against and bolted to the foundation wall (with anchor bolts) and upon which the floor joists are installed. Normally the sill plate is treated lumber. (2) The member forming the lower side of an opening, as a door sill or window sill.

Skylight - A more or less horizontal window located on the roof of a building.

Slab, concrete - Concrete pavement, i.e. driveways, garages, and basement floors.

Slab, door - A rectangular door without hinges or frame.

Soffit - The area below the eaves and overhangs. The underside where the roof overhangs the walls. Usually the underside of an overhanging cornice.

Stair landing - A platform between flights of stairs or at the termination of a flight of stairs. Often used when stairs change direction. Normally no less than 3 ft X 3 ft square.

Stile - An upright framing member in a panel door.

Stool - The flat molding fitted over the window sill between jambs and contacting the bottom rail of the lower sash.

Stops - Moldings along the inner edges of a door or window frame. Also valves used to shut off water to a fixture.

Storm sash or storm window - An extra window usually placed outside of an existing one, as additional protection against cold weather.

String, stringer - A timber or other support for cross members in floors or ceilings. In stairs, the supporting member for stair treads. Usually a 2 X 12 inch plank notched to receive the treads.

Stucco - Refers to an outside plaster finish made with Portland cement as its base.

Stud - A vertical wood framing member, also referred to as a wall stud, attached to the horizontal sole plate below and the top plate above. Normally 2 X 4's or 2 X 6's, 8' long (sometimes 92 5/8"). One of a series of wood or metal vertical structural members placed as supporting elements in walls and partitions.

Subfloor - The framing components of a floor to include the sill plate, floor joists, and deck sheeting over which a finish floor is to be laid.

Substrate - A surface on which paint, varnish, or other coating has been applied or may be applied. Examples of substrates include wood, plaster, metal, and drywall.

Suspended ceiling - A ceiling system supported by hanging it from the overhead structural framing.

Terra cotta - A ceramic material molded into masonry units.

Testing combination - A unique surface to be tested that is characterized by the room equivalent, component and substrate.

Test location - A specific area on a testing combination where XRF instruments will test for lead-based paint.

Threshold - The bottom metal or wood plate of an exterior door frame. Generally they are adjustable to keep a tight fit with the door slab.

Tread - The walking surface board in a stairway on which the foot is placed.

Treated lumber - A wood product which has been impregnated with chemical pesticides such as CCA (Chromated Copper Arsenate) to reduce damage from wood rot or insects. Often used for the portions of a structure which are likely

to be in contact with soil and water. Wood may also be treated with a fire retardant.

Treatment - In residential lead-based paint hazard control work, any method designed to control lead-based paint hazards. Treatment includes interim controls, abatement, and removal.

Trim - Interior- The finish materials in a building, such as moldings applied around openings (window trim, door trim) or at the floor and ceiling of rooms (baseboard, cornice, and other moldings). Also, the physical work of installing interior doors and interior woodwork, to include all handrails, guardrails, stair way balustrades, mantles, light boxes, base, door casings, cabinets, countertops, shelves, window sills and aprons, etc. Exterior- The finish materials on the exterior a building, such as moldings applied around openings (window trim, door trim), siding, windows, exterior doors, attic vents, crawl space vents, shutters, etc. Also, the physical work of installing these materials.

Ug - Micrograms. The prefix micro means 1/1,000,000 (or one-millionth); a microgram is 1/1,000,000 of a gram and 1/1,000 or a milligram.

Veneer - Extremely thin sheets of wood. Also, a thin slice of wood or brick or stone covering a framed wall.

Vent - A pipe or duct which allows the flow of air and gasses to the outside. Also, another word for the moving glass part of a window sash, i.e. window vent.

Wafer board - A manufactured wood panel made out of 1 "- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing.

Water board - Water resistant drywall to be used in tub and shower locations. Normally green or blue colored.

Window frame - The stationary part of a window unit; window sash fits into the window frame and their border.

Window sill - See Interior window sill.

Window trough - For a typical double-hung window, the portion of the exterior window sill between the exterior window sill between the interior window sill (or stool) and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when they are both lowered. Sometimes inaccurately called the window "well." See also Window well.

Window well - The space that provides exterior access and/or light to a window that is below grade, i.e., below the level of the surrounding earth or pavement.

XRF analyzer - An instrument that determines lead concentration in milligrams per square centimeter (mg/cm²) using the principle of x-ray fluorescence (XRF). For lead-based paint inspections, the term XRF analyzer only refers to portable instruments manufactured to analyze paint, and does not refer to laboratory-grade units or portable instruments designed to analyze soil.

Window sash - The operating or movable part of a window; the sash is made of window panes.

Building component terms from www.HomeBuildingManual.com; other terms from the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997).

**LEAD-BASED PAINT INSPECTION
AND
VISUAL ASSESSMENT REPORT**

**UNIT C104
FALCON VILLAGE, TEXAS 78545**

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APPENDICES

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EXECUTIVE SUMMARY

LCA Environmental, Inc. (LCA) has been authorized to perform a lead-based paint (LBP) evaluation at the single-family residence located at Unit C104 in Falcon Village, Texas. The property was not occupied at the time of the inspection. Readily accessible painted and/or finished components were evaluated according to the protocols described for LBP inspection in the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and applicable Federal, State, and Local regulations.

According to the HUD guidelines, a lead reading by X-Ray Fluorescence (XRF) of 1.0 mg/cm² or above is considered positive for the presence of LBP. The State of Texas' Texas Environmental Lead Reduction Rules (TELRR) lists an action level of 1.0 mg/cm². This action level will be referenced throughout the report.

Components identified as having lead levels at or above the action level are visually assessed for the condition of the surface area. LBP surfaces found to be intact at the time of inspection do not require paint stabilization, but should be monitored on an ongoing basis. During the evaluation, XRF testing was performed on at least one location per testing combination, except for interior walls, where four readings were taken (or one on each wall). The XRF testing was conducted using an Innov-X Systems, Inc. lead paint analyzer. A surface-by-surface visual assessment of the painted and/or finished surfaces was conducted to determine which lead-coated surfaces/components are deteriorated at or above *de minimis* levels.

The lead-based paint evaluation at this property performed on 19 June 2013 produced the following results:

LCA has determined that there is LBP at or above *de minimis* levels at the property. The following component(s) were determined to contain lead in amounts equal to or exceeding 1.0 mg/cm² in the surfaces tested:

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|--------------------|-----------------------|----------|------------|-----------|-------|-----------|
| 15 | Positive | 1.00 | Room 2 | Ceiling | Gyp. | Green | Intact |
| 16 | Positive | 1.00 | Room 2 | Wall A | Concrete | Green | Intact |
| 18 | Positive | 1.00 | Room 2 | Wall C | Concrete | Green | Intact |
| 23 | Positive | 1.00 | Room 3 | Ceiling | Gyp. | White | Intact |
| 24 | Positive | 1.00 | Room 3 | Wall A | Gyp. | White | Intact |
| 27 | Positive | 1.00 | Room 3 | Wall D | Gyp. | White | Intact |
| 35 | Positive | 1.00 | Room 4 | Ceiling | Gyp. | White | Intact |
| 43 | Positive | 1.00 | Room 4 | Windowsill | Plaster | White | Intact |

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|--------------------|-----------------------|----------|------------|-----------|-------|-----------|
| 58 | Positive | 1.00 | Room 6 | Wall B | Plaster | White | Intact |
| 61 | Positive | 1.00 | Room 6 | Windowsill | Plaster | White | Intact |
| 68 | Positive | 1.00 | Room 7 | Wall D | Plaster | White | Intact |

See Appendix C (Drawings) and Appendix D (Photographs) for further detail regarding the location and extent of identified LBP.

1.0 SCOPE OF INSPECTION

1.1 Scope of Work

LCA performed a LBP evaluation (XRF testing and visual assessment) at Unit C104 in Falcon Village, Texas. Mr. Thomas Hale, an EPA-accredited and TDSHS Certified Risk Assessor/Inspector (Texas License Number 2070881), conducted the evaluation on 19 June 2013. Painted and/or finished components were tested according to the protocols described for LBP inspections in the HUD Guidelines Chapter 7 (revised 1997) and applicable Federal, state, and local regulations.

During the evaluation, the HUD/TELRR action level of 1.0 mg/cm² was the regulatory benchmark utilized to identify components that contained LBP.

1.2 Training Requirements

All individuals who performed this XRF testing and visual assessment are EPA accredited and hold State licensure as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, and the principles of radiation safety (in accordance with the work practices of 40 CFR 745, section 227, for States and Indian Tribes).

1.3 Equipment

An industry standard XRF, manufactured by Innov-X Systems, Inc., was utilized during the evaluation. Prior to initial sampling, the instrument was calibrated against the standards of the National Institute of Standards and Testing (NIST).

2.0 METHODOLOGY

2.1 Definitions

A Room Equivalent is an identifiable part of a residence, such as a room, foyer, staircase, hallway, or a house exterior or other exterior area. Exterior areas contain items such as play areas, painted swing sets, painted sandboxes, etc. Small closets or other similar areas adjoining rooms were not considered as separate room equivalents unless they are obviously dissimilar from the adjoining room equivalent. However, walk-in closets were considered as separate room equivalents.

Each room equivalent is made up of Components. Components may be located inside or outside a building. For example, components in a room could be its ceiling, floor, walls, a door and its casing, the window sash, and window casings. The Substrate is the material underneath the paint of a

component. Although many different substrates exist, HUD guidelines recommend classifying substrates into one of six types: (1) brick; (2) concrete; (3) drywall; (4) metal; (5) plaster; and (6) wood. If the true substrate under investigation is not one of the aforementioned types, HUD guidelines mandate the inspector/risk assessor to select the substrate type that most closely resembles one of the six defined substrate types. For substrates that are layered, such as plaster on concrete, the substrate directly beneath the painted surface is identified during a LBP inspection. A Testing Combination is characterized by the room equivalent, component, and substrate. Visible color may not be an accurate predictor of painting history and was not included in the definition of a testing combination. Components that are coated with paint, varnish, shellac, wallpaper, stain, or other coating were considered as separate testing combinations. Certain building components adjacent to each other and not likely to have different painting histories were grouped together into a single testing combination as follows:

- Window casings, stops, jambs, and aprons.
- Interior window mullions and window sashes. Interior window components may not be grouped with exterior window components.
- Exterior window mullions and window sashes.
- Door jambs, stops, transoms, casings, and other door parts.
- Door stiles, rails, panels, mullions, and other door parts.
- Baseboards and associated trim (such as quarter-round or other caps).
- Painted electrical sockets, switches, or plates can be grouped with the walls.

The **Test Location** is a specific area on a testing combination where the XRF was used to test for LBP.

NOTE: If present, components covered with vinyl and/or metal sidings were not inspected during the evaluation because the surfaces underneath these components were not visible or accessible. This leaves the possibility that LBP components could be located beneath these coverings.

De minimis levels for deteriorated lead-based paint are defined as follows: (1) for a component with a small surface area, such as window sills, or baseboards, 10% of the surface area; (2) for an interior component with a large surface area, such as an interior wall, 2 square feet of the surface area; and (3) for an exterior component with a large surface area, 20 square feet of the surface area.

2.2 Sampling Strategies

According to the HUD guidelines, a lead reading by XRF of 1.0 mg/cm^2 or above is considered positive for the presence of LBP. An XRF reading below 1.0 mg/cm^2 is considered negative; however, a reading below 1.0 mg/cm^2 could still be harmful if proper precautions are not taken during activities that disturb these paint films. If there are any inconclusive readings, a paint-chip sample may be collected for laboratory analysis. Laboratory analysis of samples collected will only

be performed by an EPA approved National Lead Laboratory Accreditation Program (NLLAP) laboratory. No inconclusive range exists for laboratory measurements/results.

Only painted, stained, varnished, or wallpapered components of a dwelling are tested during a LBP evaluation. Wall "A" or "1" in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall "A" or "1", Wall "B" or "2" will always be to your right, Wall "C" or "3" directly to the rear and Wall "D" or "4" to the left. Doors, windows and closets are designated as left, center or right depending on their location on the wall. When more than one window/door is on a wall, features are numbered left to right.

2.3 Assessment Logic

Any paint found to contain lead below the HUD standard of 1.0 mg/cm², regardless of condition, is considered non-hazardous. Components having lead levels at or above the action level are visually assessed for condition and approximate surface area. Paint condition is established within one of two categories according to the risk assessor's professional judgment: (1) intact (good) and (2) deteriorated (poor), based on the HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 5: Risk Assessment [Table 5-3], June, 1995.

2.4 Calibration of XRF Equipment

The calibration of the instrument must be done in accordance with the NIST-Certificate of Analysis for this instrument. These instruments will be calibrated using a calibration standard block of known lead content. Calibration readings will be taken before and after each home is tested to ensure manufacturer's standards are met. If the inspection takes longer than four hours, a calibration reading must be taken prior to the end of the four hour period, and then an additional calibration reading taken at the end of the inspection. If, for any reason, the instruments are not maintaining a consistent calibration reading within the manufacturer's standards for performance on the calibration block supplied by the manufacturer, manufacturer's recommendations will be used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it must be taken off the site and sent back to the manufacturer for repair, re-calibration, or replacement.

3.0 FINDINGS

3.1 Site Description

The property is located at Unit C104 in Falcon Village, Texas and is a single family dwelling with one residential unit. The home, reportedly constructed in the 1960s, is a single-story dwelling containing approximately 1,350 square feet of living space. The exterior is predominantly composed of vinyl siding over stucco with wood walls at gables and wood soffits and fascia. Window components are metal or brick. Interior finishes include drywall and plaster walls, drywall ceilings, with concrete and vinyl flooring.

3.2 Inaccessible Areas

The following areas were inaccessible at the time of the inspection and should be assumed positive for the purposes of this report:

- No inaccessible painted surfaces were noted at the time of the site visit.

3.3 Visual Assessment Results

The visual assessment identified the following:

| Item | Identified Yes/No |
|--|-------------------|
| Deteriorating painted surfaces | Yes* |
| Painted surfaces that are chewable, impact joints or subject to friction | Yes |
| Bare soil surface (soil surface that is not covered by pavement or sod or landscaping) | Yes |
| Excessive accumulation of dust on most interior surfaces | Yes** |

* - These painted surfaces were not found to contain LBP.

** - The structure has been unoccupied and open to the elements for an undetermined amount of time.

3.4 Lead-Based Paint Inspection Results

The following components contain lead in amounts equal to or exceeding 1.0 mg/cm² in the surfaces tested during this LBP inspection:

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|--------------------|-----------------------|----------|------------|-----------|-------|-----------|
| 15 | Positive | 1.00 | Room 2 | Ceiling | Gyp. | Green | Intact |
| 16 | Positive | 1.00 | Room 2 | Wall A | Concrete | Green | Intact |
| 18 | Positive | 1.00 | Room 2 | Wall C | Concrete | Green | Intact |
| 23 | Positive | 1.00 | Room 3 | Ceiling | Gyp. | White | Intact |
| 24 | Positive | 1.00 | Room 3 | Wall A | Gyp. | White | Intact |
| 27 | Positive | 1.00 | Room 3 | Wall D | Gyp. | White | Intact |
| 35 | Positive | 1.00 | Room 4 | Ceiling | Gyp. | White | Intact |
| 43 | Positive | 1.00 | Room 4 | Windowsill | Plaster | White | Intact |
| 58 | Positive | 1.00 | Room 6 | Wall B | Plaster | White | Intact |
| 61 | Positive | 1.00 | Room 6 | Windowsill | Plaster | White | Intact |
| 68 | Positive | 1.00 | Room 7 | Wall D | Plaster | White | Intact |

3.5 Summary and Distribution Table

| | |
|--|-------|
| Number of Positive Readings (for Paint Only) | 11 |
| Total Number of Readings | 122 |
| Percent Positive | 9.01% |

4.0 CONCLUSIONS

The components reported in Sections 3.4 and 3.5 were found “positive” for lead, as defined by the EPA and HUD as containing lead in concentrations equal to or greater than 1.0 mg/cm².

According to Chapter 7 HUD guidelines, if one testing building component combination (i.e. window, door) is positive for lead in an interior or exterior room equivalent, then all other similar testing combinations in those areas should also be assumed positive for lead. The converse should be true for negative readings. All inaccessible areas are assumed to be positive for LBP, even though they were not tested. Any inaccessible areas encountered during the LBP evaluation are noted in Section 3.2.

Given that the lead evaluation results indicated the presence of LBP, the owner or prospective owner may wish to obtain the services of a lead-based paint Risk Assessor, licensed in Texas, to help understand the positive results. If this building will remain unoccupied until demolition, a risk assessment is not necessary. The landfill where the construction debris will be disposed should be advised that LBP is present on some of the construction debris. (The landfill may require chemical testing for lead leachability before accepting the debris into its disposal facility.)

This evaluation was completed in accordance with Lead Safe Housing Rule 24 CFR Part 35 subpart F as amended (2004). The sampling results are presented in Appendix A and notes are presented in Appendix B. The outline of dwelling is drafted in Appendix C. Appendix D contains photographs of the property. Appendix E contains the personal certifications of the inspector. Appendix F contains the PCS sheets for the XRF instrument and Appendix G contains a glossary of terms.

Those components which were found to contain LBP and which were in intact (i.e., stable) condition should be monitored by the owner and occupant of the dwelling; any further deterioration of components or components that are already in poor condition should undergo corrective action to maintain the LBP surface. In addition, some painted surfaces may contain levels of lead below 1.0 mg/cm²; these components could create lead dust or lead-contaminated soil hazards if the paint is turned into dust by abrasion, scraping, sanding or friction. If stable conditions of intact paint surfaces become destabilized, these conditions will need to be addressed in the future. If any construction or modernization work is done on the premises, this report should be given to the contractors, as well as to any future tenants or owners.

In compliance with HUD’s Final Rule, potential hazards resulting from LBP must be subjected to corrective action to stabilize all deteriorated LBP in housing built before 1978, unless the property is exempt. Paint stabilization repairs any defect in the substrate and/or in building components that are causing the paint deterioration, removes all loose paint and other material from the surface to be treated utilizing lead-safe work practices, and, in most cases, applies a new protective coating or paint. Any stabilization/construction activities which affect the existing paint films (including sanding and demolition) must be initiated by workers who have received proper training in the handling of lead-contaminated materials.

Upon completion of paint stabilization activities, HUD requires a clearance examination to determine that the paint stabilization efforts were performed adequately. A clearance examination will include a visual assessment of all surfaces that were determined to be defective during the initial evaluation, and collection of dust and soil composite samples. It should be determined that the deteriorated paint surfaces have been eliminated and that no settled dust hazards or paint chips exist in the interior or

exterior. The clearance report must be signed by a Certified/Licensed Lead Inspector or Risk Assessor.

LCA understands that the Project Site structure is slated for demolition. Based on the results of the asbestos inspection performed by LCA on 19 June 2013, the identified LBP surface at the Project Site is also identified as asbestos-containing material (ACM). Prior to commencement of demolition at the Project Site, the identified ACM, as well as the identified LBP components, should be properly removed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer. Lead-safe work practices should be included in the abatement project design.

5.0 DISCLOSURE RESPONSIBILITY

A copy of this report must be provided to new lessees (tenants) and purchasers of this property under Federal Regulations (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that children and pregnant women are protected from LBP hazards.

The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard states that “negative” readings (i.e. those below the HUD/EPA definition of what constitutes LBP [1.0 mg/cm^2]) **do not** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead free. Although a reading may indicate “negative”, airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

DISCLAIMER

This is our report of a visual survey, and XRF analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation. No other environmental concerns or conditions were addressed during this evaluation.

APPENDIX A

XRF DATA SHEETS

Unit C104 Falcon Village, Texas

19 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|-------|-----------|
| 1 | Standardization | PASS | | | | | | |
| 2 | Calibration | Positive | 1.11 | | | | Red | |
| 3 | Lead Paint Fixed-Time | Negative | 0.03 | Room 1 | Ceiling | Gyp | White | N/A |
| 4 | Lead Paint Fixed-Time | Negative | 0.12 | | Wall A | Plaster | White | N/A |
| 5 | Lead Paint Fixed-Time | Negative | 0.13 | | Wall B | Plaster | White | N/A |
| 6 | Lead Paint Fixed-Time | Negative | 0.04 | | Wall C | Gyp | White | N/A |
| 7 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall D | Gyp | White | N/A |
| 8 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 9 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 10 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 11 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 12 | Lead Paint Fixed-Time | Negative | 0.07 | | Windowsill | Plaster | White | N/A |
| 13 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 14 | Lead Paint Fixed-Time | Negative | 0.04 | | Doorframe | Metal | White | N/A |
| 15 | Lead Paint Fixed-Time | Positive | 1 | Room 2 | Ceiling | Gyp | Green | Intact |
| 16 | Lead Paint Fixed-Time | Positive | 1 | | Wall A | CMU | Green | Intact |
| 17 | Lead Paint Fixed-Time | Negative | 0.14 | | Wall B | CMU | Green | N/A |
| 18 | Lead Paint Fixed-Time | Positive | 1 | | Wall C | CMU | Green | Intact |
| 19 | Lead Paint Fixed-Time | Negative | 0.11 | | Wall D | CMU | Green | N/A |
| 20 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 21 | Lead Paint Fixed-Time | Negative | 0.38 | | Doorframe | Metal | Green | N/A |
| 22 | Lead Paint Fixed-Time | Negative | 0 | | Shelf | Wood | Green | N/A |
| 23 | Lead Paint Fixed-Time | Positive | 1 | Room 3 | Ceiling | Gyp | White | Intact |
| 24 | Lead Paint Fixed-Time | Positive | 1 | | Wall A | Gyp | White | Intact |
| 25 | Lead Paint Fixed-Time | Negative | 1 | | Wall B | Plaster | White | N/A |
| 26 | Lead Paint Fixed-Time | Negative | 1 | | Wall C | Plaster | White | N/A |
| 27 | Lead Paint Fixed-Time | Positive | 1 | | Wall D | Gyp | White | Intact |
| 28 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard A | Wood | White | N/A |
| 29 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 30 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard C | Wood | White | N/A |
| 31 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 32 | Lead Paint Fixed-Time | Negative | 0.07 | | Windowsill | Plaster | White | N/A |
| 33 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 34 | Lead Paint Fixed-Time | Negative | 0.03 | | Doorframe | Metal | White | N/A |
| 35 | Lead Paint Fixed-Time | Positive | 1 | Room 4 | Ceiling | Gyp | White | Intact |
| 36 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 37 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 38 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Plaster | White | N/A |
| 39 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 40 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 41 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 42 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard D | Wood | White | N/A |
| 43 | Lead Paint Fixed-Time | Positive | 1 | | Windowsill | Plaster | White | Intact |
| 44 | Lead Paint Fixed-Time | Negative | 0 | Room 5 | Ceiling | Gyp | White | N/A |
| 45 | Lead Paint Fixed-Time | Negative | 0.04 | | Wall A | Gyp | White | N/A |
| 46 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall B | Gyp | White | N/A |
| 47 | Lead Paint Fixed-Time | Negative | 0.06 | | Wall C | Plaster | White | N/A |
| 48 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall D | Gyp | White | N/A |
| 49 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 50 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 51 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 52 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |

Unit C104 Falcon Village, Texas

19 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|---------|-----------|
| 53 | Lead Paint Fixed-Time | Negative | 0.04 | | Windowsill | Plaster | White | N/A |
| 54 | Lead Paint Fixed-Time | Negative | 0.02 | | Door | Wood | Varnish | N/A |
| 55 | Lead Paint Fixed-Time | Negative | 0.03 | | Doorframe | Metal | White | N/A |
| 56 | Lead Paint Fixed-Time | Negative | 0.01 | Room 6 | Ceiling | Plaster | White | N/A |
| 57 | Lead Paint Fixed-Time | Negative | 1 | | Wall A | Plaster | White | N/A |
| 58 | Lead Paint Fixed-Time | Positive | 1 | | Wall B | Plaster | White | Intact |
| 59 | Lead Paint Fixed-Time | Negative | 1 | | Wall C | Plaster | White | N/A |
| 60 | Lead Paint Fixed-Time | Negative | 0.03 | | Wall D | Plaster | White | N/A |
| 61 | Lead Paint Fixed-Time | Positive | 1 | | Windowsill | Plaster | White | Intact |
| 62 | Lead Paint Fixed-Time | Negative | 0.04 | | Door | Wood | Varnish | N/A |
| 63 | Lead Paint Fixed-Time | Negative | 0.01 | | Doorframe | Metal | White | N/A |
| 64 | Lead Paint Fixed-Time | Negative | 1 | Room 7 | Ceiling | Plaster | White | N/A |
| 65 | Lead Paint Fixed-Time | Negative | 1 | | Wall A | Plaster | White | N/A |
| 66 | Lead Paint Fixed-Time | Negative | 1 | | Wall B | Plaster | White | N/A |
| 67 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Plaster | White | N/A |
| 68 | Lead Paint Fixed-Time | Positive | 1 | | Wall D | Plaster | White | Intact |
| 69 | Lead Paint Fixed-Time | Negative | 0.02 | | Windowsill | Plaster | White | N/A |
| 70 | Lead Paint Fixed-Time | Negative | 0.06 | | Door | Wood | Varnish | N/A |
| 71 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Metal | White | N/A |
| 72 | Lead Paint Fixed-Time | Negative | 0 | | Cabinet | Metal | White | N/A |
| 73 | Lead Paint Fixed-Time | Negative | 0 | Room 8 | Ceiling | Gyp | White | N/A |
| 74 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 75 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall B | Gyp | White | N/A |
| 76 | Lead Paint Fixed-Time | Negative | 0.05 | | Wall C | Plaster | White | N/A |
| 77 | Lead Paint Fixed-Time | Negative | 0.12 | | Wall D | Plaster | White | N/A |
| 78 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 79 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 80 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 81 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 82 | Lead Paint Fixed-Time | Negative | 0.09 | | Windowsill | Plaster | White | N/A |
| 83 | Lead Paint Fixed-Time | Negative | 0.03 | | Door | Wood | Varnish | N/A |
| 84 | Lead Paint Fixed-Time | Negative | 0.04 | | Doorframe | Metal | White | N/A |
| 85 | Lead Paint Fixed-Time | Negative | 0 | Room 9 | Ceiling | Gyp | White | N/A |
| 86 | Lead Paint Fixed-Time | Negative | 0.33 | | Wall A | Plaster | White | N/A |
| 87 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall B | Gyp | White | N/A |
| 88 | Lead Paint Fixed-Time | Negative | 0.03 | | Wall C | Gyp | White | N/A |
| 89 | Lead Paint Fixed-Time | Negative | 0.14 | | Wall D | Plaster | White | N/A |
| 90 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 91 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 92 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 93 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 94 | Lead Paint Fixed-Time | Negative | 0.03 | | Windowsill | Plaster | White | N/A |
| 95 | Lead Paint Fixed-Time | Negative | 0.01 | | Door | Wood | Varnish | N/A |
| 96 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Metal | White | N/A |
| 97 | Lead Paint Fixed-Time | Negative | 0.07 | Room 10 | Ceiling | Gyp | White | N/A |
| 98 | Lead Paint Fixed-Time | Negative | 0.11 | | Wall A | Plaster | White | N/A |
| 99 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall B | Gyp | White | N/A |
| 100 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 101 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall D | Gyp | White | N/A |
| 102 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 103 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 104 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |

Unit C104 Falcon Village, Texas

19 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|------------|-------------|-----------|---------|-----------|
| 105 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 106 | Lead Paint Fixed-Time | Negative | 0.05 | | Windowsill | Plaster | White | N/A |
| 107 | Lead Paint Fixed-Time | Negative | 0.06 | | Door | Wood | Varnish | N/A |
| 108 | Lead Paint Fixed-Time | Negative | 0.02 | | Doorframe | Metal | White | N/A |
| 109 | Lead Paint Fixed-Time | Negative | 0.27 | Exterior A | Soffitt | Wood | White | N/A |
| 110 | Lead Paint Fixed-Time | Negative | 0.38 | | Fascia | Wood | White | N/A |
| 111 | Lead Paint Fixed-Time | Negative | 0.27 | | Joist | Wood | White | N/A |
| 112 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 113 | Lead Paint Fixed-Time | Negative | 0.61 | Exterior B | Soffitt | Wood | White | N/A |
| 114 | Lead Paint Fixed-Time | Negative | 0.29 | | Fascia | Wood | White | N/A |
| 115 | Lead Paint Fixed-Time | Negative | 0.34 | | Gable | Wood | White | N/A |
| 116 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 117 | Lead Paint Fixed-Time | Negative | 0.29 | Exterior C | Soffitt | Wood | White | N/A |
| 118 | Lead Paint Fixed-Time | Negative | 0.24 | | Fascia | Wood | White | N/A |
| 119 | Lead Paint Fixed-Time | Negative | 0.32 | | Joist | Wood | White | N/A |
| 120 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 121 | Lead Paint Fixed-Time | Negative | 0.36 | Exterior D | Soffitt | Wood | White | N/A |
| 122 | Lead Paint Fixed-Time | Negative | 0.44 | | Fascia | Wood | White | N/A |
| 123 | Lead Paint Fixed-Time | Negative | 0.39 | | Gable | Wood | White | N/A |
| 124 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |

APPENDIX B

NOTES

Unit C104, Falcon Village, Texas

| Room | Notes |
|-------------|---|
| Room 1 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 2 | Gyp-board ceiling, CMU walls, concrete floor |
| Room 3 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 4 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 5 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 6 | Plaster ceiling, plaster and ceramic tile walls, wood trim, ceramic tile floor |
| Room 7 | Plaster ceiling, plaster and ceramic tile walls, wood trim, ceramic tile floor |
| Room 8 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 9 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 10 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Exterior | Wood, stucco, vinyl siding |

APPENDIX C

DRAWING(S)

| | | | | | | | |
|--|--|--|--|---|--|---|--|
| <div><div><div><div><div><div>Room 2</div><div>Room 2 Ceiling, Walls A & C were positive for LBP (readings 15, 16, 18)</div></div><div><div>Room 3</div><div>Room 3 Ceiling, Walls A & D were positive for LBP (readings 23, 24, 27)</div></div><div><div>Room 4</div><div>Room 4 Ceiling & Windowsill were positive for LBP (readings 35 & 43)</div></div><div><div>Room 5</div><div></div></div><div><div>Room 6</div><div></div></div><div><div>Room 7</div><div>Room 7 Wall D was positive for LBP (reading 68)</div></div><div><div>Room 8</div><div></div></div><div><div>Room 9</div><div></div></div><div><div>Room 10</div><div></div></div><div><div>Room 1</div><div></div></div><div><div>Chase</div><div></div></div></div><div><div><div>B</div><div>Room 2 Ceiling, Walls A & C were positive for LBP (readings 15, 16, 18)</div></div><div><div>D</div><div>Room 6 Wall B & Windowsill were positive for LBP (readings 58 & 61)</div></div><div><div>A</div><div></div></div></div><div><div><div>C</div><div></div></div><div><div>D</div><div></div></div></div><div><div><div>B</div><div>Carport</div></div></div></div></div></div> | | <div><div><div><div><div><div>Unit I-407</div><div>Unit I-405</div><div>Unit I-403</div><div>Unit I-401</div><div>Unit C-106</div><div>Unit C-104</div><div>Unit C-102</div><div>Unit L-101</div></div><div><div>Unit C-104</div></div></div><div><div>Unit I-407</div><div>Unit I-405</div><div>Unit I-403</div><div>Unit I-401</div><div>Unit C-106</div><div>Unit C-104</div><div>Unit C-102</div><div>Unit L-101</div></div></div><div><div><div>Unit I-407</div><div>Unit I-405</div><div>Unit I-403</div><div>Unit I-401</div><div>Unit C-106</div><div>Unit C-104</div><div>Unit C-102</div><div>Unit L-101</div></div><div><div>Unit C-104</div></div></div></div><div><div><div>Unit I-407</div><div>Unit I-405</div><div>Unit I-403</div><div>Unit I-401</div><div>Unit C-106</div><div>Unit C-104</div><div>Unit C-102</div><div>Unit L-101</div></div><div><div>Unit C-104</div></div></div></div> | | <div><div><div><div><div>Quanternary Resource Investigations, LLC</div><div>Lead-based Paint Inspection</div><div>CBP-Owned Housing, Falcon Village, Texas</div></div></div><div><div><div>NOT TO SCALE</div><div><div><div><div></div><div></div><div></div><div></div></div><div></div></div></div></div></div></div></div> | | <div><div><div><div><div>Figure 1</div><div>Unit C104</div><div>Sample Location Plan</div></div></div><div><div><div>LCA Project No.: 130602</div><div>Filename: Fig1-C104 Sample Location Plan</div></div></div></div></div> | |
| <div><div><div><div><div>LCA</div><div>Environmental</div></div></div></div></div> | | <div><div><div>Drawn By: EBB</div><div>Date: 07/02/13</div></div></div> | <div><div><div>Location: CBP-Owned Housing, Falcon Village, Texas</div><div>Source: LCA Field Sketch</div></div></div> | | | | |
| <div><div><div><div><div>Approved By: TAH</div><div>Date: 07/02/13</div></div></div></div></div> | | | | | | | |

APPENDIX D

PHOTOGRAPHS



Photograph 1: View of the front of the structure at Unit C104, in Falcon Village, Texas.



Photograph 2: View of Room 2 Ceiling and Wall A which were found to be positive for LBP.



Photograph 3: View of Room 2 Wall C which was found to be positive for LBP.



Photograph 4: View of Room 3 Ceiling and Wall A which were found to be positive for LBP. Wall C (not pictured) was also found positive for LBP.



Photograph 5: View of Room 4 Ceiling which was found to be positive for LBP.



Photograph 6: View of Room 4 Windowsill which was found to be positive for LBP.



Photograph 7: View of Room 6 Wall B and Windowsill which were found to be positive for LBP.



Photograph 8: View of Room 7 Wall D which was found to be positive for LBP.

APPENDIX E

CERTIFICATIONS



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

LYNN CLARK ASSOCIATES INC

is certified to perform as a

Lead Firm

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, appearing to read "David L. Laakey".

David L. Laakey, M.D.
Commissioner of Health

License Number: 2110555

Control Number 6528

Expiration Date: 6/12/2015

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

THOMAS A HALE

is certified to perform as a

Lead Risk Assessor

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, reading "David L. Lakey".

David L. Lakey, M.D.
Commissioner of Health

License Number: 2070881

Expiration Date: 5/5/2013

Void After Expiration Date

VOID IF ALTERED

Control Number 6610

NON-TRANSFERABLE

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Inspector Refresher

Conducted at Hurst, Texas on December 3, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/03/2012

Certificate Number: 12046 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

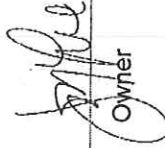
has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Risk Assessor Refresher

Conducted at Hurst, Texas on December 4, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/04/2012

Certificate Number: 12030 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

APPENDIX F

NIST – CERTIFICATE OF ANALYSIS



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material[®] 2573

Lead Paint Film

For Portable X-Ray Fluorescence Analyzers – Nominal 1.0 mg/cm²
(Color Code: Red)

This Standard Reference Material (SRM) is intended for checking the calibration of portable, hand-held, x-ray fluorescence analyzers when testing for lead in paint coatings on interior and exterior building surfaces. A unit of SRM 2573 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, red-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2570, is also provided. The blank is coated with a lead-free, lacquer layer on a white polyester sheet of the same thickness as the lead paint samples. All sheets are over-coated with a clear, thin, plastic laminate to protect the surface from abrasion. SRM 2573 and SRM 2570 are two of a set of six paint films (SRM 2570 to SRM 2575) available as SRM 2579a.

The certified values for lead for this SRM and the blank, SRM 2570, are reported in Table 1 in units of mg/cm². These values are based on measurements by isotope dilution inductively-coupled plasma mass spectrometry.

Table 1. Certified Lead Values

| Level | Color Code | Lead Concentration, in mg/cm ² |
|----------|---------------|---|
| SRM 2570 | White (Blank) | <0.001 |
| SRM 2573 | Red | 1.040 ± 0.064 |

The uncertainty of each certified value is expressed as an expanded uncertainty, U , at the 95 % level of confidence and is calculated according to the method described in the ISO Guide [1,2]. Because of variability in the paint film between different sheets of each SRM, the uncertainties are 95 % prediction intervals. The expanded uncertainty is calculated as $U = ku_c$, where u_c is intended to represent, at the level of one standard deviation, the combined uncertainty due to material variability and measurement uncertainty. The coverage factor, k , is determined from the Student's t -distribution corresponding to the calculated effective degrees of freedom and 95 % level of confidence.

Expiration of Certification: The certification of SRM 2573 is valid, within the measurement uncertainties specified, until **01 July 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Use"). The certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet) will facilitate notification.

The overall direction and coordination of the analytical measurements leading to certification were performed by G.C. Turk and J.D. Fassett of the NIST Analytical Chemistry Division. Analytical measurements were performed by K.E. Murphy, J.R. Sieber, A.F. Marlow, L.J. Wood, P.R. Seo, and M. Lankosz of the NIST Analytical Chemistry Division. The SRM was fabricated under the direction of J.R. Sieber of the NIST Analytical Chemistry Division.

Stephen A. Wise, Chief
Analytical Chemistry Division

Robert L. Watters, Jr., Chief
Measurement Services Division

Gaithersburg, MD 20899
Certificate Issue Date: 24 March 2009
See Certificate Revision History on Last Page

Statistical consultation for this SRM was provided by E.S. Lagergren and N.F. Zhang of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Measurement Services Division.

NOTICE AND WARNING TO USERS

NOTE: This SRM contains lead, as a lead chromate pigment, which is toxic and a suspected carcinogen to the lung and kidney. The SRM must be handled with care and disposed of according to the U.S. Environmental Protection Agency (EPA) practices and procedures.

INSTRUCTIONS FOR USE

The SRM sheet must first be removed from the plastic sleeve in which it is stored and then positioned so that the side labeled with the NIST logo and SRM number faces the x-ray source. For best results, the size of the x-ray beam from the field unit should irradiate an area of the SRM that is at least 2.5 cm in diameter and is centered on the sheet. Care must be exercised not to compromise the protective plastic laminate which prevents scratching or chipping of the painted surface and the potential release of dust containing lead. Upon completion of the measurement, the SRM must be re-stored in the plastic sleeve provided. It is also recommended that this SRM be stored indoors at ambient room temperature and away from direct sunlight when not in use.

Stability: This SRM is considered to be stable during the period of certification. NIST will monitor the SRM and will report any significant changes in certification to the purchaser. Return of the attached registration card will facilitate notification.

PREPARATION

SRM Preparation: The paint-coated, polyester sheets were prepared by an automated coating process at a commercial facility under contract to NIST. Known concentrations of a lead chromate pigment were dispersed in a commercial paint vehicle to prepare the lead paints. A lead-free, organic tint was added to each paint mixture to give the desired color. A thin, protective overlay of plastic laminate was applied to each paint film. The attenuation of lead $L_{3-}M_{4,5}$ ($L\alpha_{1,2}$) X-rays due to the protective overlay does not exceed 2 % relative, while that of K- $L_{2,3}$ ($K\alpha_{1,2}$) x-rays commonly used for field measurement is negligible.

REFERENCES

- [1] ISO; *Guide to the Expression of Uncertainty in Measurement*; ISBN 92-67-10188-9, 1st ed., International Organization for Standardization: Geneva, Switzerland (1993); see also Taylor, B.N.; Kuyatt, C.E.; *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*; NIST Technical Note 1297, U.S. Government Printing Office: Washington, DC (1994); available at <http://physics.nist.gov/Pubs/>.
- [2] Hahn, G.J.; Meeker, W.Q.; *Statistical Intervals: A Guide for Practitioners*; John Wiley & Sons, Inc., New York, NY (1991).

| |
|---|
| Certificate Revision History: 24 March 2009 (Extension of certification period); 29 November 1999 (Original certificate date). |
|---|

Users of this SRM should ensure that the certificate in their possession is current. This can be accomplished by contacting the SRM Program at: telephone (301) 975-2200; fax (301) 926-4751; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX G

GLOSSARY

Abatement - A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. See also Complete Abatement and Interim Controls.

Accessible surface - Any protruding interior or exterior surface, such as an interior window sill, that a young child can mouth or chew.

Accreditation - A formal recognition that an organization, such as a laboratory, is competent to carry out specific tasks or types of tests.

Accredited laboratory -A laboratory that has been evaluated and approved by the National Lead Laboratory Accreditation Program (NLLAP) to perform lead measurement or analysis, usually over a specified period of time.

Apron - A trim board that is installed beneath a window sill.

Area wells - Corrugated metal or concrete barrier walls installed around a basement window to hold back the earth.

Attic access - An opening that is placed in the drywalled ceiling of a home providing access to the attic.

Attic Ventilators - In houses, screened openings provided to ventilate an attic space.

Backing - Frame lumber installed between the wall studs to give additional support for drywall or an interior trim related item, such as handrail brackets, cabinets, and towel bars. In this way, items are screwed and mounted into solid wood rather than weak drywall that may allow the item to break loose from the wall. Carpet backing holds the pile fabric in place.

Balusters -Vertical members in a railing used between a top rail and bottom rail or the stair treads. Sometimes referred to as 'pickets' or 'spindles'.

Balustrade - The rail, posts and vertical balusters along the edge of a stairway or elevated walkway.

Bare soil - Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Barge board - A decorative board covering the projecting rafter (fly rafter) of the gable end. At the cornice, this member is a fascia board.

Base or baseboard - A trim board placed against the wall around the room next to the floor.

Basement window inserts - The window frame and glass unit that is installed in the window buck.

Base shoe - Molding used next to the floor on interior base board. Sometimes called a carpet strip.

Bat - A half-brick.

Batt - A section of fiber-glass or rock-wool insulation measuring 15 or 23 inches wide by four to eight feet long and various thicknesses. Sometimes "faced" (meaning to have a paper covering on one side) or "unfaced" (without paper).

Batten - Narrow strips of wood used to cover joints or as decorative vertical members over plywood or wide boards.

Bay window - Any window space projecting outward from the walls of a building, either square or polygonal in plan.

Beam - A structural member transversely supporting a load. A structural member carrying building loads (weight) from one support to another. Sometimes called a "girder".

Bearing wall - A wall that supports any vertical load in addition to its own weight. **Bearing header** - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Bifold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

Bypass doors - Doors that slide by each other and commonly used as closet doors.

Blocking - Small wood pieces to brace framing members or to provide a nailing base for gypsum board or paneling.

Blood lead threshold - Any blood level greater than or equal to 10 ug/dL as defined by the Centers for Disease Control and Prevention. See also Elevated Blood Lead level (EBL) child.

Brace - An inclined piece of framing lumber applied to wall or floor to strengthen the structure. Often used on walls as temporary bracing until framing has been completed.

Breaker panel - The electrical box that distributes electric power entering the home to each branch circuit (each plug and switch) and composed of circuit breakers.

Brick mold - Trim used around an exterior door jamb that siding butts to.

Brick tie - A small, corrugated metal strip @ 1" X 6"- 8" long nailed to wall sheathing or studs. They are inserted into the grout mortar joint of the veneer brick, and holds the veneer wall to the sheeted wall behind it.

Brick veneer - A vertical facing of brick laid against and fastened to sheathing of a framed wall or tile wall construction.

Building component - Any element of a building that may be painted or have dust on its surface, e.g. walls, stair treads, floors, railings, doors, window sills, etc.

By fold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

By pass doors - Doors that slide by each other and commonly used as closet doors.

Cantilever - An overhang. Where one floor extends beyond and over a foundation wall. For example at a fireplace location or bay window cantilever. Normally, not extending over 2 feet.

Cap - The upper member of a column, pilaster, door cornice, molding, or fireplace.

Cap flashing - The portion of the flashing attached to a vertical surface to prevent water from migrating behind the base flashing.

Casement - Frames of wood or metal enclosing part (or all) of a window sash. May be opened by means of hinges affixed to the vertical edges.

Casement Window - A window with hinges on one of the vertical sides and swings open like a normal door.

Casing - Wood trim molding installed around a door or window opening.

CelotexTM - Black fibrous board that is used as exterior sheathing.

Ceiling joist - One of a series of parallel framing members used to support ceiling loads and supported in turn by larger beams, girders or bearing walls. Also called roof joists.

Cement - The gray powder that is the "glue" in concrete. Portland cement. Also, any adhesive.

Ceramic tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally used in bathtub and shower enclosures and on counter tops.

Certification - The process of testing and evaluating against certain specifications the competence of a person, organization, or other entity in performing a function or service, usually for a specified period of time.

Certified - The designation for contractors who have completed training and other requirements to allow them to safely undertake risk assessments, inspections, or abatement work. Risk assessors, inspectors, and abatement contractors should be certified by the appropriate local, State or Federal agency.

Chair rail - Interior trim material installed about 3-4 feet up the wall, horizontally.

Chalking -The photo-oxidation of paint binders - usually due to weathering - that causes a powder to form on the film surface.

Chase - A framed enclosed space around a flue pipe or a channel in a wall, or through a ceiling for something to lie in or pass through.

Chewed surface - Any painted surface that shows evidence of having been chewed or mouthed by a young child. A chewed surface is usually a protruding, horizontal part of a building, such as an interior window sill. See also Accessible surface.

Chip Board - A manufactured wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing. Also called OSB (Oriented Strand Board) or wafer board.

Cleaning - The process of using a HEP A vacuum and wet cleaning agents to remove leaded dust; the process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to clean lead-contaminated dust from a surface.

Clearance examination - Visual examination and collection of environmental samples by an inspector or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control interventions, or maintenance job that disturbs lead-based paint (or paint suspected of being lead-based). The clearance examination is performed to ensure that lead exposure levels do not exceed standards established by the EPA administrator pursuant to Title IV of the Toxic Substances Control Act, and that any cleaning following such work adequately meets those standards.

Clearance examiner - A person who conducts clearance examinations following lead-based paint hazard control and cleanup work, usually a certified risk assessor or a certified inspector.

Code of Federal Regulations (CFR) - The codification of the regulations of Federal agencies.

Column - A vertical structural compression member which supports loads.

Complete abatement - Abatement of all lead-based paint inside and outside a dwelling or building and reduction of any lead-contaminated dust or soil hazards. All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, reevaluation and on-going monitoring. See also Abatement.

Concrete - The mixture of Portland cement, sand, gravel, and water. Used to make garage and basement floors, sidewalks, patios, foundation walls, etc. It is commonly reinforced with steel rods (rebar) or wire screening (mesh).

Concrete block - A hollow concrete 'brick' often 8" x 8" X 16" in size.

Concrete board - A panel made out of concrete and fiberglass usually used as a tile backing material.

Conduit, electrical - A pipe, usually metal, in which wire is installed.

Containment - A process to protect workers and the environment by controlling exposures to the lead contaminated dust and debris created during abatement.

Corbel - The triangular, decorative and supporting member that holds a mantel or horizontal shelf.

Corner bead - A strip of formed sheet metal placed on outside corners of drywall before applying drywall 'mud'.

Corner boards - Used as trim for the external corners of a house or other frame structure against which the ends of the siding are finished.

Corner braces - Diagonal braces at the corners of the framed structure designed to stiffen and strengthen the wall.

Cornice - Overhang of a pitched roof, usually consisting of a fascia board, a soffit and appropriate trim moldings.

Counter flashing - A metal flashing usually used on chimneys at the roofline to cover shingle flashing and used to prevent moisture entry.

Cove molding - A molding with a concave face used as trim or to finish interior corners.

Crawl space - A shallow space below the living quarters of a house, normally enclosed by the foundation wall and having a dirt floor.

Cross Tee - Short metal "T" beam used in suspended ceiling systems to bridge the spaces between the main beams.

Crown molding - A molding used on cornice or wherever an interior angle is to be covered, especially at the roof and wall corner.

Damper - A metal "door" placed within the fireplace chimney. Normally closed when the fireplace is not in use.

Deteriorated lead-based paint - Any lead-based paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or

otherwise becoming separated from the substrate.

Doorjamb, interior - The surrounding case into which and out of which a door closes and opens. It consists of two upright pieces, called side jambs, and a horizontal head jamb. These 3 jambs have the "door stop" installed on them.

Door stop - The wooden style that the door slab will rest upon when it's in a closed position.

Dormer - An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Downspout - A pipe, usually of metal, for carrying rainwater down from the roofs horizontal gutters.

Drip cap - A molding or metal flashing placed on the exterior topside of a door or window frame to cause water to drip beyond the outside of the frame.

Drywall (or Gypsum Wallboard (GWB), Sheet rock or Plasterboard) -Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The panels are nailed or screwed onto the framing and the joints are taped and covered with a 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Ducts - The heating system. Usually round or rectangular metal pipes installed for distributing warm (or cold) air from the furnace to rooms in the home. Also a tunnel made of galvanized metal or rigid fiberglass, which carries air from the heater or ventilation opening to the rooms in a building.

Dura board, dura rock - A panel made out of concrete and fiberglass usually used as a ceramic tile backing material. Commonly used on bathtub decks. Sometimes called Wonder board.

Dust removal - A form of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed. Depending on the severity of lead-based paint hazards, dust removal may be the primary activity or just one element of a broader control effort.

Eaves - The horizontal exterior roof overhang.

Elevated Blood Lead level (EBL) child - A child who has a blood level greater than or equal to 20 ug/dL or a persistent 15 ug/dL. See also Blood lead threshold.

Encapsulation - Any covering or coating that acts as a barrier between lead-based paint and the environment, the durability of which relies on adhesion and the integrity of the existing bonds between multiple layers of paint and between the paint and the substrate. See also Enclosure.

Enclosure - The use of rigid, durable construction materials that are mechanically fastened to the substrate to act as a barrier between the lead-based paint and the environment.

Escutcheon - An ornamental plate that fits around a pipe extending through a wall or floor to hide the cut out hole.

Evaluation - Risk assessment, paint inspection, reevaluation, investigation, clearance examination, or risk assessment screen.

Exterior work area - For lead hazard control work, the exterior work area includes any exterior building components, such as a porch or stairway; the safety perimeter; and access barriers.

Facing brick - The brick used and exposed on the outside of a wall. Usually these have a finished texture.

Fascia - Horizontal boards attached to rafter/truss ends at the eaves and along gables. Roof drain gutters are attached to the fascia.

Flue - Large pipe through which fumes escape from a gas water heater, furnace, or fireplace.

Friction surface - Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Gable - The end, upper, triangular area of a home, beneath the roof.

Gyp board - Drywall. Wall board or gypsum-A panel (normally 4' X 8', 10', 12', or 16') made with a core of Gypsum (chalk-like) rock, which covers interior walls and ceilings.

Header - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or

other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Hearth - The fireproof area directly in front of a fireplace. The inner or outer floor of a fireplace, usually made of brick, tile, or stone.

Hip - A roof with four sloping sides. The external angle formed by the meeting of two sloping sides of a roof.

Hip roof - A roof that rises by inclined planes from all four sides of a building.

HVAC - An abbreviation for Heat, Ventilation, and Air Conditioning

Impact surface - An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Inspection (of paint) - A surface-by-surface investigation to determine the presence of lead-based paint (in some cases including dust and soil sampling) and a report of the results.

Insulation board, rigid - A structural building board made of coarse wood or cane fiber in 1/2- and 25/32-inch thickness. It can be obtained in various size sheets and densities.

Interim controls- A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include specialized cleaning, repairs, maintenance, painting, temporary containment, and management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land-use controls. See also Monitoring, Reevaluation, and Abatement.

Interior window sill - The portion of the horizontal window ledge that protrudes into the interior of the room, adjacent to the window sash when the window is closed; often called the window stool.

Jamb - The side and head lining of a doorway, window, or other opening. Includes studs as well as the frame and trim.

Joint - The location between the touching surfaces of two members or components joined and held together by nails, glue, cement, mortar, or other means.

Joist - Wooden 2 X 8's, 10's, or 12's that run parallel to one another and support a floor or ceiling, and supported in turn by larger beams, girders, or bearing walls.

Laminated shingles -Shingles that have added dimensionality because of extra layers or tabs, giving a shake-like appearance. May also be called "architectural shingles" or "three-dimensional shingles."

Lath - A building material of narrow wood, metal, gypsum, or insulating board that is fastened to the frame of a building to act as a base for plaster, shingles, or tiles.

Lattice - An open framework of criss-crossed wood or metal strips that form regular, patterned spaces.

Lead - Lead includes metallic lead and inorganic and organic compounds of lead.

Lead-based paint - Any paint, varnish, shellac, or other coating' that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 ug/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis.

Lead-based paint hazard - A condition in which exposure to lead from lead-contaminated dust, lead contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA Administrator under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, deteriorated lead-based paint, leaded dust levels above applicable standards, and bare leaded soil above applicable standards.

Lead-based paint hazard control - Activities to control and eliminate lead-based paint hazards, including interim controls, abatement, and complete abatement.

Lead-contaminated dust - Surface dust in residences that contains an area or mass concentration of lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. Until the EPA standards are set, the HUD-recommended clearance and risk assessment standards for leaded dust are 100 ug/ft² on floors, 500 ug/ft² on interior window sills, and 800 ug/ft² on window troughs. The recommended standard for lead hazard

screens for floors is 50 ug/ft² and for window troughs is 400 ug/ft².

Lead-contaminated soil - Bare soil on residential property that contains lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. The HUD-recommended standard and interim EPA guidance is 400 ug/g for high-contact play areas and 2,000 ug/g in other bare areas of the yard. Soil contaminated with lead at levels greater than or equal to 5,000 ug/g should be abated by removal or paving.

Lead-free dwelling - A lead-free dwelling contains no lead-based paint and has interior dust and exterior soil lead levels below the applicable HUD and EPA standards.

Licensed - Holding a valid license or certification issued by EPA or by an EPA-approved State program pursuant to Title IV of the Toxic Substances Control Act. The license is based on certification for lead-based paint hazard control work. See also Certified.

Louver - A vented opening into the home that has a series of horizontal slats and arranged to permit ventilation but to exclude rain, snow, light, insects, or other living creatures.

Maintenance - Work intended to maintain adequate living conditions in a dwelling, which has the potential to disturb lead-based paint or paint that is suspected of being lead-based.

Mantel - The shelf above a fireplace opening. Also used in referring to the decorative trim around a fireplace opening.

Masonry - Stone, brick, concrete, hollow-tile, concrete block, or other similar building units or materials. Normally bonded together with mortar to form a wall.

Mastic - A pasty material used as a cement (as for setting tile) or a protective coating (as for thermal insulation or waterproofing)

Mg - Milligram; 1/1,000 of a gram.

Microgram - see Ug.

Milligram - see Mg.

Molding - A wood strip having an engraved, decorative surface.

Monitoring - Surveillance to determine (1) that known or suspected lead-based paint is not deteriorating; (2) that lead-based paint hazard controls, such as paint stabilization, enclosure, or encapsulation have not failed, (3) that structural problems do not threaten the integrity of hazard controls or of known or suspected lead-based paint, and (4) that dust lead levels have not risen above applicable levels.

Mortar - A mixture of cement (or lime) with sand and water used in masonry work.

Mullion - A vertical divider in the frame between windows, doors, or other openings.

Muntin - A small member which divides the glass or openings of sash or doors.

Natural finish - A transparent finish which does not seriously alter the original color or grain of the natural wood. Natural finishes are usually provided by sealers, oils, varnishes, water repellent preservatives, and other similar materials.

Newel post -The large starting post to which the end of a stair guard railing or balustrade is fastened.

Oriented Strand Board or OSB -A manufactured 4' X 8' wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood.

Overhang - Outward projecting eave-soffit area of a roof; the part of the roof that hangs out or over the outside wall. See also Cornice.

Paint film stabilization - The process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint; paint film stabilization includes cleanup and clearance.

Paint removal -An abatement strategy that entails the removal of lead-based paint from surfaces. For lead-hazard control work, this can mean using chemicals, heat guns below 1,100 °F, and certain contained abrasive methods. Open-flame burning, open abrasive blasting, and extensive dry scraping are prohibited paint removal methods.

Panel - A thin flat piece of wood, plywood, or similar material, framed by stiles and rails as in a door (or cabinet door), or fitted into grooves of thicker material with molded edges for decorative wall treatment.

Parting stop or strip -A small wood piece used in the side and head jambs of double hung windows to separate the upper sash from the lower sash.

Particle board - Plywood substitute made of course sawdust that is mixed with resin and pressed into sheets. Used for closet shelving, floor underlayment, stair treads, etc.

Partition -A wall that subdivides spaces within any story of a building or room.

Plenum -The main hot-air supply duct leading from a furnace.

Plywood - A panel (normally 4' X 8') of wood made of three or more layers of veneer, compressed and joined with glue, and usually laid with the grain of adjoining plies at right angles to give the sheet strength.

Portland cement -Cement made by heating clay and crushed limestone into a brick and then grinding to a pulverized powder state.

Pressure-treated wood -Lumber that has been saturated with a preservative.

Quarry tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally 6" X 6" X 11/4" thick.

Quarter round -A small trim molding that has the cross section of a quarter circle.

Rafter -Lumber used to support the roof sheeting and roof loads. Generally, 2 X 10's and 2 X 12's are used. The rafters of a flat roof are sometimes called roof joists.

Rake fascia -The vertical face of the sloping end of a roof eave.

Reevaluation - In lead hazard control work, the combination of a visual assessment and collection of environmental samples performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dwelling remains lead-safe.

Register - A grill placed over a heating duct or cold air return.

Renovation - Work that involves construction and/or home or building improvement measures such as window replacement, weatherization, remodeling, and repainting.

Replacement - A strategy of abatement that entails the removal of building components coated with lead-based paint (such as windows, doors, and trim) and the installation of new components free of lead-based paint.

Retaining wall - A structure that holds back a slope and prevents erosion.

Riser -Each of the vertical boards closing the spaces between the treads of stairways.

Risk assessment - An onsite investigation of a residential dwelling to discover any lead-based paint hazard. Risk assessments include an investigation of the age, history, management, and maintenance of the dwelling, and the number of children under age 6 and women of child-bearing age who are residents; a visual assessment; limited environmental sampling (i.e., collection of dust wipe samples, soil samples, and deteriorated paint samples); and preparation of a report identifying acceptable abatement and interim control strategies based on specific conditions.

Risk assessor - A certified individual who has completed training with an accredited training program and who has been certified to (1) perform risk assessments, (2) identify acceptable abatement and interim control strategies for reducing identified lead-based paint hazards, (3) perform clearance testing and reevaluations, and (4) document the successful completion of lead-based paint hazard control activities.

Shake - A wood roofing material, normally cedar or redwood. Produced by splitting a block of the wood along the grain line. Modern shakes are sometimes machine sawn on one side. See shingle.

Shed roof - A roof containing only one sloping plane.

Sheet rock - Drywall-Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Shim - A small piece of scrap lumber or shingle, usually wedge shaped, which when forced behind a furring strip or framing member forces it into position. Also used when installing doors and placed between the door jamb legs and 2 X 4 door trimmers. Metal shims are wafer 1 1/2" X 2" sheet metal of various thickness' used to fill gaps in wood framing

members, especially at bearing point locations.

Shingles - Roof covering of asphalt, asbestos, wood, tile, slate, or other material cut to stock lengths, widths, and thickness'.

Shingles, siding - Various kinds of shingles, used over sheathing for exterior wall covering of a structure.

Shutter - Usually lightweight louvered decorative frames in the form of doors located on the sides of a window. Some shutters are made to close over the window for protection.

Siding - The finished exterior covering of the outside walls of a frame building.

Sill - (1) The 2 X 4 or 2 X 6 wood plate framing member that lays flat against and bolted to the foundation wall (with anchor bolts) and upon which the floor joists are installed. Normally the sill plate is treated lumber. (2) The member forming the lower side of an opening, as a door sill or window sill.

Skylight - A more or less horizontal window located on the roof of a building.

Slab, concrete - Concrete pavement, i.e. driveways, garages, and basement floors.

Slab, door - A rectangular door without hinges or frame.

Soffit - The area below the eaves and overhangs. The underside where the roof overhangs the walls. Usually the underside of an overhanging cornice.

Stair landing - A platform between flights of stairs or at the termination of a flight of stairs. Often used when stairs change direction. Normally no less than 3 ft X 3 ft square.

Stile - An upright framing member in a panel door.

Stool - The flat molding fitted over the window sill between jambs and contacting the bottom rail of the lower sash.

Stops - Moldings along the inner edges of a door or window frame. Also valves used to shut off water to a fixture.

Storm sash or storm window - An extra window usually placed outside of an existing one, as additional protection against cold weather.

String, stringer - A timber or other support for cross members in floors or ceilings. In stairs, the supporting member for stair treads. Usually a 2 X 12 inch plank notched to receive the treads.

Stucco - Refers to an outside plaster finish made with Portland cement as its base.

Stud - A vertical wood framing member, also referred to as a wall stud, attached to the horizontal sole plate below and the top plate above. Normally 2 X 4's or 2 X 6's, 8' long (sometimes 92 5/8"). One of a series of wood or metal vertical structural members placed as supporting elements in walls and partitions.

Subfloor - The framing components of a floor to include the sill plate, floor joists, and deck sheeting over which a finish floor is to be laid.

Substrate - A surface on which paint, varnish, or other coating has been applied or may be applied. Examples of substrates include wood, plaster, metal, and drywall.

Suspended ceiling - A ceiling system supported by hanging it from the overhead structural framing.

Terra cotta - A ceramic material molded into masonry units.

Testing combination - A unique surface to be tested that is characterized by the room equivalent, component and substrate.

Test location - A specific area on a testing combination where XRF instruments will test for lead-based paint.

Threshold - The bottom metal or wood plate of an exterior door frame. Generally they are adjustable to keep a tight fit with the door slab.

Tread - The walking surface board in a stairway on which the foot is placed.

Treated lumber - A wood product which has been impregnated with chemical pesticides such as CCA (Chromated Copper Arsenate) to reduce damage from wood rot or insects. Often used for the portions of a structure which are likely

to be in contact with soil and water. Wood may also be treated with a fire retardant.

Treatment - In residential lead-based paint hazard control work, any method designed to control lead-based paint hazards. Treatment includes interim controls, abatement, and removal.

Trim - Interior- The finish materials in a building, such as moldings applied around openings (window trim, door trim) or at the floor and ceiling of rooms (baseboard, cornice, and other moldings). Also, the physical work of installing interior doors and interior woodwork, to include all handrails, guardrails, stair way balustrades, mantles, light boxes, base, door casings, cabinets, countertops, shelves, window sills and aprons, etc. Exterior- The finish materials on the exterior a building, such as moldings applied around openings (window trim, door trim), siding, windows, exterior doors, attic vents, crawl space vents, shutters, etc. Also, the physical work of installing these materials.

Ug - Micrograms. The prefix micro means 1/1,000,000 (or one-millionth); a microgram is 1/1,000,000 of a gram and 1/1,000 or a milligram.

Veneer - Extremely thin sheets of wood. Also, a thin slice of wood or brick or stone covering a framed wall.

Vent - A pipe or duct which allows the flow of air and gasses to the outside. Also, another word for the moving glass part of a window sash, i.e. window vent.

Wafer board - A manufactured wood panel made out of 1 "- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing.

Water board - Water resistant drywall to be used in tub and shower locations. Normally green or blue colored.

Window frame - The stationary part of a window unit; window sash fits into the window frame and their border.

Window sill - See Interior window sill.

Window trough - For a typical double-hung window, the portion of the exterior window sill between the exterior window sill between the interior window sill (or stool) and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when they are both lowered. Sometimes inaccurately called the window "well." See also Window well.

Window well - The space that provides exterior access and/or light to a window that is below grade, i.e., below the level of the surrounding earth or pavement.

XRF analyzer - An instrument that determines lead concentration in milligrams per square centimeter (mg/cm²) using the principle of x-ray fluorescence (XRF). For lead-based paint inspections, the term XRF analyzer only refers to portable instruments manufactured to analyze paint, and does not refer to laboratory-grade units or portable instruments designed to analyze soil.

Window sash - The operating or movable part of a window; the sash is made of window panes.

Building component terms from www.HomeBuildingManual.com; other terms from the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997).

**LEAD-BASED PAINT INSPECTION
AND
VISUAL ASSESSMENT REPORT**

**UNIT C106
FALCON VILLAGE, TEXAS 78545**

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3 July 2013

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APPENDICES

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EXECUTIVE SUMMARY

LCA Environmental, Inc. (LCA) has been authorized to perform a lead-based paint (LBP) evaluation at the single-family residence located at Unit C106 in Falcon Village, Texas. The property was not occupied at the time of the inspection. Readily accessible painted and/or finished components were evaluated according to the protocols described for LBP inspection in the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and applicable Federal, State, and Local regulations.

According to the HUD guidelines, a lead reading by X-Ray Fluorescence (XRF) of 1.0 mg/cm² or above is considered positive for the presence of LBP. The State of Texas' Texas Environmental Lead Reduction Rules (TELRR) lists an action level of 1.0 mg/cm². This action level will be referenced throughout the report.

Components identified as having lead levels at or above the action level are visually assessed for the condition of the surface area. LBP surfaces found to be intact at the time of inspection do not require paint stabilization, but should be monitored on an ongoing basis. During the evaluation, XRF testing was performed on at least one location per testing combination, except for interior walls, where four readings were taken (or one on each wall). The XRF testing was conducted using an Innov-X Systems, Inc. lead paint analyzer. A surface-by-surface visual assessment of the painted and/or finished surfaces was conducted to determine which lead-coated surfaces/components are deteriorated at or above *de minimis* levels.

The lead-based paint evaluation at this property performed on 19 June 2013 produced the following results:

LCA has determined that there is LBP at or above *de minimis* levels at the property. The following component(s) were determined to contain lead in amounts equal to or exceeding 1.0 mg/cm² in the surfaces tested:

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|--------------------|-----------------------|----------|-----------|-----------|-------|-----------|
| 15 | Positive | 1.00 | Room 2 | Ceiling | Gyp. | Green | Intact |

See Appendix C (Drawings) and Appendix D (Photographs) for further detail regarding the location and extent of identified LBP.

1.0 SCOPE OF INSPECTION

1.1 Scope of Work

LCA performed a LBP evaluation (XRF testing and visual assessment) at Unit C106 in Falcon Village, Texas. Mr. Thomas Hale, an EPA-accredited and TDSHS Certified Risk Assessor/Inspector (Texas License Number 2070881), conducted the evaluation on 19 June 2013. Painted and/or finished components were tested according to the protocols described for LBP inspections in the HUD Guidelines Chapter 7 (revised 1997) and applicable Federal, state, and local regulations.

During the evaluation, the HUD/TELRR action level of 1.0 mg/cm² was the regulatory benchmark utilized to identify components that contained LBP.

1.2 Training Requirements

All individuals who performed this XRF testing and visual assessment are EPA accredited and hold State licensure as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, and the principles of radiation safety (in accordance with the work practices of 40 CFR 745, section 227, for States and Indian Tribes).

1.3 Equipment

An industry standard XRF, manufactured by Innov-X Systems, Inc., was utilized during the evaluation. Prior to initial sampling, the instrument was calibrated against the standards of the National Institute of Standards and Testing (NIST).

2.0 METHODOLOGY

2.1 Definitions

A Room Equivalent is an identifiable part of a residence, such as a room, foyer, staircase, hallway, or a house exterior or other exterior area. Exterior areas contain items such as play areas, painted swing sets, painted sandboxes, etc. Small closets or other similar areas adjoining rooms were not considered as separate room equivalents unless they are obviously dissimilar from the adjoining room equivalent. However, walk-in closets were considered as separate room equivalents.

Each room equivalent is made up of Components. Components may be located inside or outside a building. For example, components in a room could be its ceiling, floor, walls, a door and its casing, the window sash, and window casings. The Substrate is the material underneath the paint of a component. Although many different substrates exist, HUD guidelines recommend classifying substrates into one of six types: (1) brick; (2) concrete; (3) drywall; (4) metal, (5) plaster; and (6) wood. If the true substrate under investigation is not one of the aforementioned types, HUD guidelines mandate the inspector/risk assessor to select the substrate type that most closely resembles one of the six defined substrate types. For substrates that are layered, such as plaster on concrete, the substrate directly beneath the painted surface is identified during a LBP inspection. A Testing Combination is characterized by the room equivalent, component, and substrate. Visible color may not be an accurate predictor of painting history and was not included in the definition of a testing combination. Components that are coated with paint, varnish, shellac, wallpaper, stain, or other coating were considered as separate testing combinations. Certain building components adjacent to each other and not likely to have different painting histories were grouped together into a single testing combination as follows:

- Window casings, stops, jams, and aprons.
- Interior window mullions and window sashes. Interior window components may not be grouped with exterior window components.

- Exterior window mullions and window sashes.
- Door jambs, stops, transoms, casings, and other door parts.
- Door stiles, rails, panels, mullions, and other door parts.
- Baseboards and associated trim (such as quarter-round or other caps).
- Painted electrical sockets, switches, or plates can be grouped with the walls.

The **Test Location** is a specific area on a testing combination where the XRF was used to test for LBP.

NOTE: If present, components covered with vinyl and/or metal sidings were not inspected during the evaluation because the surfaces underneath these components were not visible or accessible. This leaves the possibility that LBP components could be located beneath these coverings.

De minimis levels for deteriorated lead-based paint are defined as follows: (1) for a component with a small surface area, such as window sills, or baseboards, 10% of the surface area; (2) for an interior component with a large surface area, such as an interior wall, 2 square feet of the surface area; and (3) for an exterior component with a large surface area, 20 square feet of the surface area.

2.2 Sampling Strategies

According to the HUD guidelines, a lead reading by XRF of 1.0 mg/cm² or above is considered positive for the presence of LBP. An XRF reading below 1.0 mg/cm² is considered negative; however, a reading below 1.0 mg/cm² could still be harmful if proper precautions are not taken during activities that disturb these paint films. If there are any inconclusive readings, a paint-chip sample may be collected for laboratory analysis. Laboratory analysis of samples collected will only be performed by an EPA approved National Lead Laboratory Accreditation Program (NLLAP) laboratory. No inconclusive range exists for laboratory measurements/results.

Only painted, stained, varnished, or wallpapered components of a dwelling are tested during a LBP evaluation. Wall “A” or “1” in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall “A” or “1”, Wall “B” or “2” will always be to your right, Wall “C” or “3” directly to the rear and Wall “D” or “4” to the left. Doors, windows and closets are designated as left, center or right depending on their location on the wall. When more than one window/door is on a wall, features are numbered left to right.

2.3 Assessment Logic

Any paint found to contain lead below the HUD standard of 1.0 mg/cm², regardless of condition, is considered non-hazardous. Components having lead levels at or above the action level are visually assessed for condition and approximate surface area. Paint condition is established within one of two categories according to the risk assessor’s professional judgment: (1) intact

(good) and (2) deteriorated (poor), based on the HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 5: Risk Assessment [Table 5-3], June, 1995.

2.4 Calibration of XRF Equipment

The calibration of the instrument must be done in accordance with the NIST-Certificate of Analysis for this instrument. These instruments will be calibrated using a calibration standard block of known lead content. Calibration readings will be taken before and after each home is tested to ensure manufacturer's standards are met. If the inspection takes longer than four hours, a calibration reading must be taken prior to the end of the four hour period, and then an additional calibration reading taken at the end of the inspection. If, for any reason, the instruments are not maintaining a consistent calibration reading within the manufacturer's standards for performance on the calibration block supplied by the manufacturer, manufacturer's recommendations will be used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it must be taken off the site and sent back to the manufacturer for repair, re-calibration, or replacement.

3.0 FINDINGS

3.1 Site Description

The property is located at Unit C106 in Falcon Village, Texas and is a single family dwelling with one residential unit. The home, reportedly constructed in the 1960s, is a single-story dwelling containing approximately 1,350 square feet of living space. The exterior is predominantly composed of vinyl siding over stucco with wood walls at gables and wood soffits and fascia. Window components are metal or brick. Interior finishes include drywall and plaster walls, drywall ceilings, with concrete and vinyl flooring.

3.2 Inaccessible Areas

The following areas were inaccessible at the time of the inspection and should be assumed positive for the purposes of this report:

- No inaccessible painted surfaces were noted at the time of the site visit.

3.3 Visual Assessment Results

The visual assessment identified the following:

| Item | Identified Yes/No |
|--|----------------------|
| Deteriorating painted surfaces | Yes* |
| Painted surfaces that are chewable, impact joints or subject to friction | Yes |
| Bare soil surface (soil surface that is not covered by pavement or sod or landscaping) | Yes |
| Excessive accumulation of dust on most interior surfaces | Yes** |

* - These painted surfaces were not found to contain LBP.

** - The structure has been unoccupied and open to the elements for an undetermined amount of time.

3.4 Lead-Based Paint Inspection Results

The following components contain lead in amounts equal to or exceeding 1.0 mg/cm² in the surfaces tested during this LBP inspection:

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|--------------------|-----------------------|----------|-----------|-----------|-------|-----------|
| 15 | Positive | 1.00 | Room 2 | Ceiling | Gyp. | Green | Intact |

3.5 Summary and Distribution Table

| | |
|--|-------|
| Number of Positive Readings (for Paint Only) | 1 |
| Total Number of Readings | 121 |
| Percent Positive | 0.83% |

4.0 CONCLUSIONS

The components reported in Sections 3.4 and 3.5 were found “positive” for lead, as defined by the EPA and HUD as containing lead in concentrations equal to or greater than 1.0 mg/cm².

According to Chapter 7 HUD guidelines, if one testing building component combination (i.e. window, door) is positive for lead in an interior or exterior room equivalent, then all other similar testing combinations in those areas should also be assumed positive for lead. The converse should be true for negative readings. All inaccessible areas are assumed to be positive for LBP, even though they were not tested. Any inaccessible areas encountered during the LBP evaluation are noted in Section 3.2.

Given that the lead evaluation results indicated the presence of LBP, the owner or prospective owner may wish to obtain the services of a lead-based paint Risk Assessor, licensed in Texas, to help understand the positive results. If this building will remain unoccupied until demolition, a risk assessment is not necessary. The landfill where the construction debris will be disposed should be advised that LBP is present on some of the construction debris. (The landfill may require chemical testing for lead leachability before accepting the debris into its disposal facility.)

This evaluation was completed in accordance with Lead Safe Housing Rule 24 CFR Part 35 subpart F as amended (2004). The sampling results are presented in Appendix A and notes are presented in Appendix B. The outline of dwelling is drafted in Appendix C. Appendix D contains photographs of the property. Appendix E contains the personal certifications of the inspector. Appendix F contains the PCS sheets for the XRF instrument and Appendix G contains a glossary of terms.

Those components which were found to contain LBP and which were in intact (i.e., stable) condition should be monitored by the owner and occupant of the dwelling; any further deterioration of components or components that are already in poor condition should undergo

corrective action to maintain the LBP surface. In addition, some painted surfaces may contain levels of lead below 1.0 mg/cm^2 ; these components could create lead dust or lead-contaminated soil hazards if the paint is turned into dust by abrasion, scraping, sanding or friction. If stable conditions of intact paint surfaces become destabilized, these conditions will need to be addressed in the future. If any construction or modernization work is done on the premises, this report should be given to the contractors, as well as to any future tenants or owners.

In compliance with HUD's Final Rule, potential hazards resulting from LBP must be subjected to corrective action to stabilize all deteriorated LBP in housing built before 1978, unless the property is exempt. Paint stabilization repairs any defect in the substrate and/or in building components that are causing the paint deterioration, removes all loose paint and other material from the surface to be treated utilizing lead-safe work practices, and, in most cases, applies a new protective coating or paint. Any stabilization/construction activities which affect the existing paint films (including sanding and demolition) must be initiated by workers who have received proper training in the handling of lead-contaminated materials.

Upon completion of paint stabilization activities, HUD requires a clearance examination to determine that the paint stabilization efforts were performed adequately. A clearance examination will include a visual assessment of all surfaces that were determined to be defective during the initial evaluation, and collection of dust and soil composite samples. It should be determined that the deteriorated paint surfaces have been eliminated and that no settled dust hazards or paint chips exist in the interior or exterior. The clearance report must be signed by a Certified/Licensed Lead Inspector or Risk Assessor.

LCA understands that the Project Site structure is slated for demolition. Based on the results of the asbestos inspection performed by LCA on 19 June 2013, the identified LBP surface at the Project Site is also identified as asbestos-containing material (ACM). Prior to commencement of demolition at the Project Site, the identified ACM, as well as the identified LBP components, should be properly removed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer. Lead-safe work practices should be included in the abatement project design.

5.0 DISCLOSURE RESPONSIBILITY

A copy of this report must be provided to new lessees (tenants) and purchasers of this property under Federal Regulations (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that children and pregnant women are protected from LBP hazards.

The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard states that "negative" readings (i.e. those below the HUD/EPA definition of what constitutes LBP [1.0 mg/cm^2]) **do not** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead free. Although a reading may indicate "negative", airborne lead concentrations still may

exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

DISCLAIMER

This is our report of a visual survey, and XRF analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation. No other environmental concerns or conditions were addressed during this evaluation.

APPENDIX A

XRF DATA SHEETS

Unit C106 Falcon Village, Texas

19 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|-------|-----------|
| 1 | Standardization | PASS | | | | | | |
| 2 | Calibration | Positive | 1.12 | | | | Red | |
| 3 | Lead Paint Fixed-Time | Negative | 0.03 | Room 1 | Ceiling | Gyp | White | N/A |
| 4 | Lead Paint Fixed-Time | Negative | 0.14 | | Wall A | Plaster | White | N/A |
| 5 | Lead Paint Fixed-Time | Negative | 0.08 | | Wall B | Plaster | White | N/A |
| 6 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 7 | Lead Paint Fixed-Time | Negative | 0.06 | | Wall D | Gyp | White | N/A |
| 8 | Lead Paint Fixed-Time | Negative | 0.05 | | Baseboard A | Wood | White | N/A |
| 9 | Lead Paint Fixed-Time | Negative | 0.05 | | Baseboard B | Wood | White | N/A |
| 10 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard C | Wood | White | N/A |
| 11 | Lead Paint Fixed-Time | Negative | 0.02 | | Baseboard D | Wood | White | N/A |
| 12 | Lead Paint Fixed-Time | Negative | 0.12 | | Windowsill | Plaster | White | N/A |
| 13 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 14 | Lead Paint Fixed-Time | Negative | 0.01 | | Doorframe | Metal | White | N/A |
| 15 | Lead Paint Fixed-Time | Positive | 1 | Room 2 | Ceiling | Gyp | Green | Intact |
| 16 | Lead Paint Fixed-Time | Negative | 1 | | Wall A | CMU | Green | N/A |
| 17 | Lead Paint Fixed-Time | Negative | 0.15 | | Wall B | CMU | Green | N/A |
| 18 | Lead Paint Fixed-Time | Negative | 1 | | Wall C | CMU | Green | N/A |
| 19 | Lead Paint Fixed-Time | Negative | 1 | | Wall D | CMU | Green | N/A |
| 20 | Lead Paint Fixed-Time | Negative | 0.1 | | Door | Wood | White | N/A |
| 21 | Lead Paint Fixed-Time | Negative | 0.08 | | Doorframe | Metal | Red | N/A |
| 22 | Lead Paint Fixed-Time | Negative | 0.1 | | Shelf | Wood | Green | N/A |
| 23 | Lead Paint Fixed-Time | Negative | 0.04 | Room 3 | Ceiling | Gyp | White | N/A |
| 24 | Lead Paint Fixed-Time | Negative | 0.04 | | Wall A | Gyp | White | N/A |
| 25 | Lead Paint Fixed-Time | Negative | 0.13 | | Wall B | Plaster | White | N/A |
| 26 | Lead Paint Fixed-Time | Negative | 0.09 | | Wall C | Plaster | White | N/A |
| 27 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall D | Gyp | White | N/A |
| 28 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard A | Wood | White | N/A |
| 29 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard B | Wood | White | N/A |
| 30 | Lead Paint Fixed-Time | Negative | 0.06 | | Baseboard C | Wood | White | N/A |
| 31 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard D | Wood | White | N/A |
| 32 | Lead Paint Fixed-Time | Negative | 0.11 | | Windowsill | Plaster | White | N/A |
| 33 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 34 | Lead Paint Fixed-Time | Negative | 0.11 | | Doorframe | Metal | White | N/A |
| 35 | Lead Paint Fixed-Time | Negative | 0.06 | Room 4 | Ceiling | Gyp | White | N/A |
| 36 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall A | Gyp | White | N/A |
| 37 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 38 | Lead Paint Fixed-Time | Negative | 0.17 | | Wall C | Plaster | White | N/A |
| 39 | Lead Paint Fixed-Time | Negative | 0.04 | | Wall D | Gyp | White | N/A |
| 40 | Lead Paint Fixed-Time | Negative | 0.06 | | Baseboard A | Wood | White | N/A |
| 41 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard B | Wood | White | N/A |
| 42 | Lead Paint Fixed-Time | Negative | 0.05 | | Baseboard D | Wood | White | N/A |
| 43 | Lead Paint Fixed-Time | Negative | 0.07 | | Windowsill | Plaster | White | N/A |
| 44 | Lead Paint Fixed-Time | Negative | 0.04 | Room 5 | Ceiling | Gyp | White | N/A |
| 45 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall A | Gyp | White | N/A |
| 46 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall B | Gyp | White | N/A |
| 47 | Lead Paint Fixed-Time | Negative | 0.11 | | Wall C | Plaster | White | N/A |
| 48 | Lead Paint Fixed-Time | Negative | 0.05 | | Wall D | Gyp | White | N/A |
| 49 | Lead Paint Fixed-Time | Negative | 0.06 | | Baseboard A | Wood | White | N/A |
| 50 | Lead Paint Fixed-Time | Negative | 0.04 | | Baseboard B | Wood | White | N/A |
| 51 | Lead Paint Fixed-Time | Negative | 0.09 | | Baseboard C | Wood | White | N/A |
| 52 | Lead Paint Fixed-Time | Negative | 0.07 | | Baseboard D | Wood | White | N/A |

Unit C106 Falcon Village, Texas

19 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|---------|-----------|
| 53 | Lead Paint Fixed-Time | Negative | 0.03 | | Windowsill | Plaster | White | N/A |
| 54 | Lead Paint Fixed-Time | Negative | 0.04 | | Door | Wood | Varnish | N/A |
| 55 | Lead Paint Fixed-Time | Negative | 0.03 | | Doorframe | Metal | White | N/A |
| 56 | Lead Paint Fixed-Time | Negative | 0 | Room 6 | Ceiling | Plaster | White | N/A |
| 57 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall A | Plaster | White | N/A |
| 58 | Lead Paint Fixed-Time | Negative | 0.04 | | Wall B | Plaster | White | N/A |
| 59 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall C | Plaster | White | N/A |
| 60 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall D | Plaster | White | N/A |
| 61 | Lead Paint Fixed-Time | Negative | 0.08 | | Windowsill | Plaster | White | N/A |
| 62 | Lead Paint Fixed-Time | Negative | 0.05 | | Door | Wood | Varnish | N/A |
| 63 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Metal | White | N/A |
| 64 | Lead Paint Fixed-Time | Negative | 0.02 | Room 7 | Ceiling | Plaster | White | N/A |
| 65 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall A | Plaster | White | N/A |
| 66 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall B | Plaster | White | N/A |
| 67 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall C | Plaster | White | N/A |
| 68 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall D | Plaster | White | N/A |
| 69 | Lead Paint Fixed-Time | Negative | 0.05 | | Windowsill | Plaster | White | N/A |
| 70 | Lead Paint Fixed-Time | Negative | 0.03 | | Door | Wood | Varnish | N/A |
| 71 | Lead Paint Fixed-Time | Negative | 0.01 | | Doorframe | Metal | White | N/A |
| 72 | Lead Paint Fixed-Time | Negative | 0.02 | Room 8 | Ceiling | Gyp | White | N/A |
| 73 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall A | Gyp | White | N/A |
| 74 | Lead Paint Fixed-Time | Negative | 0.2 | | Wall B | Gyp | White | N/A |
| 75 | Lead Paint Fixed-Time | Negative | 0.16 | | Wall C | Plaster | White | N/A |
| 76 | Lead Paint Fixed-Time | Negative | 0.09 | | Wall D | Plaster | White | N/A |
| 77 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard A | Wood | White | N/A |
| 78 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard B | Wood | White | N/A |
| 79 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard C | Wood | White | N/A |
| 80 | Lead Paint Fixed-Time | Negative | 0.02 | | Baseboard D | Wood | White | N/A |
| 81 | Lead Paint Fixed-Time | Negative | 0.1 | | Windowsill | Plaster | White | N/A |
| 82 | Lead Paint Fixed-Time | Negative | 0.05 | | Door | Wood | Varnish | N/A |
| 83 | Lead Paint Fixed-Time | Negative | 0.03 | | Doorframe | Metal | White | N/A |
| 84 | Lead Paint Fixed-Time | Negative | 0.02 | Room 9 | Ceiling | Gyp | White | N/A |
| 85 | Lead Paint Fixed-Time | Negative | 0.14 | | Wall A | Plaster | White | N/A |
| 86 | Lead Paint Fixed-Time | Negative | 0.07 | | Wall B | Gyp | White | N/A |
| 87 | Lead Paint Fixed-Time | Negative | 0.04 | | Wall C | Gyp | White | N/A |
| 88 | Lead Paint Fixed-Time | Negative | 0.11 | | Wall D | Plaster | White | N/A |
| 89 | Lead Paint Fixed-Time | Negative | 0.03 | | Baseboard A | Wood | White | N/A |
| 90 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard B | Wood | White | N/A |
| 91 | Lead Paint Fixed-Time | Negative | 0.01 | | Baseboard C | Wood | White | N/A |
| 92 | Lead Paint Fixed-Time | Negative | 0.04 | | Baseboard D | Wood | White | N/A |
| 93 | Lead Paint Fixed-Time | Negative | 0.08 | | Windowsill | Plaster | White | N/A |
| 94 | Lead Paint Fixed-Time | Negative | 0.04 | | Door | Wood | Varnish | N/A |
| 95 | Lead Paint Fixed-Time | Negative | 0.01 | | Doorframe | Metal | White | N/A |
| 96 | Lead Paint Fixed-Time | Negative | 0.01 | Room 10 | Ceiling | Gyp | White | N/A |
| 97 | Lead Paint Fixed-Time | Negative | 0.14 | | Wall A | Plaster | White | N/A |
| 98 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall B | Gyp | White | N/A |
| 99 | Lead Paint Fixed-Time | Negative | 0.07 | | Wall C | Gyp | White | N/A |
| 100 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 101 | Lead Paint Fixed-Time | Negative | 0.02 | | Baseboard A | Wood | White | N/A |
| 102 | Lead Paint Fixed-Time | Negative | 0.04 | | Baseboard B | Wood | White | N/A |
| 103 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 104 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |

Unit C106 Falcon Village, Texas

19 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|------------|------------|-----------|---------|-----------|
| 105 | Lead Paint Fixed-Time | Negative | 0.04 | | Windowsill | Plaster | White | N/A |
| 106 | Lead Paint Fixed-Time | Negative | 0.02 | | Door | Wood | Varnish | N/A |
| 107 | Lead Paint Fixed-Time | Negative | 0.03 | | Doorframe | Metal | White | N/A |
| 108 | Lead Paint Fixed-Time | Negative | 0.07 | Exterior A | Soffitt | Wood | White | N/A |
| 109 | Lead Paint Fixed-Time | Negative | 0.09 | | Fascia | Wood | White | N/A |
| 110 | Lead Paint Fixed-Time | Negative | 0.08 | | Joist | Wood | White | N/A |
| 111 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 112 | Lead Paint Fixed-Time | Negative | 0.08 | Exterior B | Soffitt | Wood | White | N/A |
| 113 | Lead Paint Fixed-Time | Negative | 0.04 | | Fascia | Wood | White | N/A |
| 114 | Lead Paint Fixed-Time | Negative | 0.04 | | Gable | Wood | White | N/A |
| 115 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 116 | Lead Paint Fixed-Time | Negative | 0.07 | Exterior C | Soffitt | Wood | White | N/A |
| 117 | Lead Paint Fixed-Time | Negative | 0.1 | | Fascia | Wood | White | N/A |
| 118 | Lead Paint Fixed-Time | Negative | 0.09 | | Joist | Wood | White | N/A |
| 119 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 120 | Lead Paint Fixed-Time | Negative | 0.04 | Exterior D | Soffitt | Wood | White | N/A |
| 121 | Lead Paint Fixed-Time | Negative | 0.06 | | Fascia | Wood | White | N/A |
| 122 | Lead Paint Fixed-Time | Negative | 0.11 | | Gable | Wood | White | N/A |
| 123 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |

APPENDIX B

NOTES

Unit C106, Falcon Village, Texas

| Room | Notes |
|-------------|---|
| Room 1 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 2 | Gyp-board ceiling, CMU walls, concrete floor |
| Room 3 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 4 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 5 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 6 | Plaster ceiling, plaster and ceramic tile walls, wood trim, ceramic tile floor |
| Room 7 | Plaster ceiling, plaster and ceramic tile walls, wood trim, ceramic tile floor |
| Room 8 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 9 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Room 10 | Gyp-board ceiling, gyp-board and plaster walls, wood baseboards, vinyl sheet flooring |
| Exterior | Wood, stucco, vinyl siding |

APPENDIX C

DRAWING(S)

APPENDIX D

PHOTOGRAPHS



Photograph 1: View of the front of the structure at Unit C106, in Falcon Village, Texas.



Photograph 2: View of Room 2 Ceiling which was found to be positive for LBP.

APPENDIX E

CERTIFICATIONS



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

LYNN CLARK ASSOCIATES INC

is certified to perform as a

Lead Firm

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, appearing to read "David L. Laakey".

David L. Laakey, M.D.
Commissioner of Health

License Number: 2110555

Control Number 6528

Expiration Date: 6/12/2015

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

THOMAS A HALE

is certified to perform as a

Lead Risk Assessor

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, reading "David L. Lakey".

David L. Lakey, M.D.
Commissioner of Health

License Number: 2070881

Expiration Date: 5/5/2013

Void After Expiration Date

VOID IF ALTERED

Control Number 6610

NON-TRANSFERABLE

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Inspector Refresher

Conducted at Hurst, Texas on December 3, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner



Instructor: Joseph Londt

Date of Issue 12/03/2012

Certificate Number: 12046 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

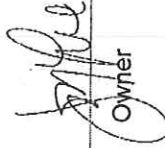
has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Risk Assessor Refresher

Conducted at Hurst, Texas on December 4, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/04/2012

Certificate Number: 12030 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

APPENDIX F

NIST – CERTIFICATE OF ANALYSIS



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material® 2573

Lead Paint Film

For Portable X-Ray Fluorescence Analyzers – Nominal 1.0 mg/cm²
(Color Code: Red)

This Standard Reference Material (SRM) is intended for checking the calibration of portable, hand-held, x-ray fluorescence analyzers when testing for lead in paint coatings on interior and exterior building surfaces. A unit of SRM 2573 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, red-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2570, is also provided. The blank is coated with a lead-free, lacquer layer on a white polyester sheet of the same thickness as the lead paint samples. All sheets are over-coated with a clear, thin, plastic laminate to protect the surface from abrasion. SRM 2573 and SRM 2570 are two of a set of six paint films (SRM 2570 to SRM 2575) available as SRM 2579a.

The certified values for lead for this SRM and the blank, SRM 2570, are reported in Table 1 in units of mg/cm². These values are based on measurements by isotope dilution inductively-coupled plasma mass spectrometry.

Table 1. Certified Lead Values

| Level | Color Code | Lead Concentration, in mg/cm ² |
|----------|---------------|---|
| SRM 2570 | White (Blank) | <0.001 |
| SRM 2573 | Red | 1.040 ± 0.064 |

The uncertainty of each certified value is expressed as an expanded uncertainty, U , at the 95 % level of confidence and is calculated according to the method described in the ISO Guide [1,2]. Because of variability in the paint film between different sheets of each SRM, the uncertainties are 95 % prediction intervals. The expanded uncertainty is calculated as $U = ku_c$, where u_c is intended to represent, at the level of one standard deviation, the combined uncertainty due to material variability and measurement uncertainty. The coverage factor, k , is determined from the Student's t -distribution corresponding to the calculated effective degrees of freedom and 95 % level of confidence.

Expiration of Certification: The certification of SRM 2573 is valid, within the measurement uncertainties specified, until **01 July 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Use"). The certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet) will facilitate notification.

The overall direction and coordination of the analytical measurements leading to certification were performed by G.C. Turk and J.D. Fassett of the NIST Analytical Chemistry Division. Analytical measurements were performed by K.E. Murphy, J.R. Sieber, A.F. Marlow, L.J. Wood, P.R. Seo, and M. Lankosz of the NIST Analytical Chemistry Division. The SRM was fabricated under the direction of J.R. Sieber of the NIST Analytical Chemistry Division.

Stephen A. Wise, Chief
Analytical Chemistry Division

Robert L. Watters, Jr., Chief
Measurement Services Division

Gaithersburg, MD 20899
Certificate Issue Date: 24 March 2009
See Certificate Revision History on Last Page

Statistical consultation for this SRM was provided by E.S. Lagergren and N.F. Zhang of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Measurement Services Division.

NOTICE AND WARNING TO USERS

NOTE: This SRM contains lead, as a lead chromate pigment, which is toxic and a suspected carcinogen to the lung and kidney. The SRM must be handled with care and disposed of according to the U.S. Environmental Protection Agency (EPA) practices and procedures.

INSTRUCTIONS FOR USE

The SRM sheet must first be removed from the plastic sleeve in which it is stored and then positioned so that the side labeled with the NIST logo and SRM number faces the x-ray source. For best results, the size of the x-ray beam from the field unit should irradiate an area of the SRM that is at least 2.5 cm in diameter and is centered on the sheet. Care must be exercised not to compromise the protective plastic laminate which prevents scratching or chipping of the painted surface and the potential release of dust containing lead. Upon completion of the measurement, the SRM must be re-stored in the plastic sleeve provided. It is also recommended that this SRM be stored indoors at ambient room temperature and away from direct sunlight when not in use.

Stability: This SRM is considered to be stable during the period of certification. NIST will monitor the SRM and will report any significant changes in certification to the purchaser. Return of the attached registration card will facilitate notification.

PREPARATION

SRM Preparation: The paint-coated, polyester sheets were prepared by an automated coating process at a commercial facility under contract to NIST. Known concentrations of a lead chromate pigment were dispersed in a commercial paint vehicle to prepare the lead paints. A lead-free, organic tint was added to each paint mixture to give the desired color. A thin, protective overlay of plastic laminate was applied to each paint film. The attenuation of lead $L_{3-}M_{4,5}$ ($L\alpha_{1,2}$) X-rays due to the protective overlay does not exceed 2 % relative, while that of K- $L_{2,3}$ ($K\alpha_{1,2}$) x-rays commonly used for field measurement is negligible.

REFERENCES

- [1] ISO; *Guide to the Expression of Uncertainty in Measurement*; ISBN 92-67-10188-9, 1st ed., International Organization for Standardization: Geneva, Switzerland (1993); see also Taylor, B.N.; Kuyatt, C.E.; *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*; NIST Technical Note 1297, U.S. Government Printing Office: Washington, DC (1994); available at <http://physics.nist.gov/Pubs/>.
- [2] Hahn, G.J.; Meeker, W.Q.; *Statistical Intervals: A Guide for Practitioners*; John Wiley & Sons, Inc., New York, NY (1991).

Certificate Revision History: 24 March 2009 (Extension of certification period); 29 November 1999 (Original certificate date).

Users of this SRM should ensure that the certificate in their possession is current. This can be accomplished by contacting the SRM Program at: telephone (301) 975-2200; fax (301) 926-4751; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX G

GLOSSARY

Abatement - A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. See also Complete Abatement and Interim Controls.

Accessible surface - Any protruding interior or exterior surface, such as an interior window sill, that a young child can mouth or chew.

Accreditation - A formal recognition that an organization, such as a laboratory, is competent to carry out specific tasks or types of tests.

Accredited laboratory -A laboratory that has been evaluated and approved by the National Lead Laboratory Accreditation Program (NLLAP) to perform lead measurement or analysis, usually over a specified period of time.

Apron - A trim board that is installed beneath a window sill.

Area wells - Corrugated metal or concrete barrier walls installed around a basement window to hold back the earth.

Attic access - An opening that is placed in the drywalled ceiling of a home providing access to the attic.

Attic Ventilators - In houses, screened openings provided to ventilate an attic space.

Backing - Frame lumber installed between the wall studs to give additional support for drywall or an interior trim related item, such as handrail brackets, cabinets, and towel bars. In this way, items are screwed and mounted into solid wood rather than weak drywall that may allow the item to break loose from the wall. Carpet backing holds the pile fabric in place.

Balusters -Vertical members in a railing used between a top rail and bottom rail or the stair treads. Sometimes referred to as 'pickets' or 'spindles'.

Balustrade - The rail, posts and vertical balusters along the edge of a stairway or elevated walkway.

Bare soil - Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Barge board - A decorative board covering the projecting rafter (fly rafter) of the gable end. At the cornice, this member is a fascia board.

Base or baseboard - A trim board placed against the wall around the room next to the floor.

Basement window inserts - The window frame and glass unit that is installed in the window buck.

Base shoe - Molding used next to the floor on interior base board. Sometimes called a carpet strip.

Bat - A half-brick.

Batt - A section of fiber-glass or rock-wool insulation measuring 15 or 23 inches wide by four to eight feet long and various thicknesses. Sometimes "faced" (meaning to have a paper covering on one side) or "unfaced" (without paper).

Batten - Narrow strips of wood used to cover joints or as decorative vertical members over plywood or wide boards.

Bay window - Any window space projecting outward from the walls of a building, either square or polygonal in plan.

Beam - A structural member transversely supporting a load. A structural member carrying building loads (weight) from one support to another. Sometimes called a "girder".

Bearing wall - A wall that supports any vertical load in addition to its own weight. **Bearing header** - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Bifold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

Bypass doors - Doors that slide by each other and commonly used as closet doors.

Blocking - Small wood pieces to brace framing members or to provide a nailing base for gypsum board or paneling.

Blood lead threshold - Any blood level greater than or equal to 10 ug/dL as defined by the Centers for Disease Control and Prevention. See also Elevated Blood Lead level (EBL) child.

Brace - An inclined piece of framing lumber applied to wall or floor to strengthen the structure. Often used on walls as temporary bracing until framing has been completed.

Breaker panel - The electrical box that distributes electric power entering the home to each branch circuit (each plug and switch) and composed of circuit breakers.

Brick mold - Trim used around an exterior door jamb that siding butts to.

Brick tie - A small, corrugated metal strip @ 1" X 6"- 8" long nailed to wall sheathing or studs. They are inserted into the grout mortar joint of the veneer brick, and holds the veneer wall to the sheathed wall behind it.

Brick veneer - A vertical facing of brick laid against and fastened to sheathing of a framed wall or tile wall construction.

Building component - Any element of a building that may be painted or have dust on its surface, e.g. walls, stair treads, floors, railings, doors, window sills, etc.

By fold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

By pass doors - Doors that slide by each other and commonly used as closet doors.

Cantilever - An overhang. Where one floor extends beyond and over a foundation wall. For example at a fireplace location or bay window cantilever. Normally, not extending over 2 feet.

Cap - The upper member of a column, pilaster, door cornice, molding, or fireplace.

Cap flashing - The portion of the flashing attached to a vertical surface to prevent water from migrating behind the base flashing.

Casement - Frames of wood or metal enclosing part (or all) of a window sash. May be opened by means of hinges affixed to the vertical edges.

Casement Window - A window with hinges on one of the vertical sides and swings open like a normal door.

Casing - Wood trim molding installed around a door or window opening.

CelotexTM - Black fibrous board that is used as exterior sheathing.

Ceiling joist - One of a series of parallel framing members used to support ceiling loads and supported in turn by larger beams, girders or bearing walls. Also called roof joists.

Cement - The gray powder that is the "glue" in concrete. Portland cement. Also, any adhesive.

Ceramic tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally used in bathtub and shower enclosures and on counter tops.

Certification - The process of testing and evaluating against certain specifications the competence of a person, organization, or other entity in performing a function or service, usually for a specified period of time.

Certified - The designation for contractors who have completed training and other requirements to allow them to safely undertake risk assessments, inspections, or abatement work. Risk assessors, inspectors, and abatement contractors should be certified by the appropriate local, State or Federal agency.

Chair rail - Interior trim material installed about 3-4 feet up the wall, horizontally.

Chalking -The photo-oxidation of paint binders - usually due to weathering - that causes a powder to form on the film surface.

Chase - A framed enclosed space around a flue pipe or a channel in a wall, or through a ceiling for something to lie in or pass through.

Chewed surface - Any painted surface that shows evidence of having been chewed or mouthed by a young child. A chewed surface is usually a protruding, horizontal part of a building, such as an interior window sill. See also Accessible surface.

Chip Board - A manufactured wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing. Also called OSB (Oriented Strand Board) or wafer board.

Cleaning - The process of using a HEP A vacuum and wet cleaning agents to remove leaded dust; the process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to clean lead-contaminated dust from a surface.

Clearance examination - Visual examination and collection of environmental samples by an inspector or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control interventions, or maintenance job that disturbs lead-based paint (or paint suspected of being lead-based). The clearance examination is performed to ensure that lead exposure levels do not exceed standards established by the EPA administrator pursuant to Title IV of the Toxic Substances Control Act, and that any cleaning following such work adequately meets those standards.

Clearance examiner - A person who conducts clearance examinations following lead-based paint hazard control and cleanup work, usually a certified risk assessor or a certified inspector.

Code of Federal Regulations (CFR) - The codification of the regulations of Federal agencies.

Column - A vertical structural compression member which supports loads.

Complete abatement - Abatement of all lead-based paint inside and outside a dwelling or building and reduction of any lead-contaminated dust or soil hazards. All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, reevaluation and on-going monitoring. See also Abatement.

Concrete - The mixture of Portland cement, sand, gravel, and water. Used to make garage and basement floors, sidewalks, patios, foundation walls, etc. It is commonly reinforced with steel rods (rebar) or wire screening (mesh).

Concrete block - A hollow concrete 'brick' often 8" x 8" X 16" in size.

Concrete board - A panel made out of concrete and fiberglass usually used as a tile backing material.

Conduit, electrical - A pipe, usually metal, in which wire is installed.

Containment - A process to protect workers and the environment by controlling exposures to the lead contaminated dust and debris created during abatement.

Corbel - The triangular, decorative and supporting member that holds a mantel or horizontal shelf.

Corner bead - A strip of formed sheet metal placed on outside corners of drywall before applying drywall 'mud'.

Corner boards - Used as trim for the external corners of a house or other frame structure against which the ends of the siding are finished.

Corner braces - Diagonal braces at the corners of the framed structure designed to stiffen and strengthen the wall.

Cornice - Overhang of a pitched roof, usually consisting of a fascia board, a soffit and appropriate trim moldings.

Counter flashing - A metal flashing usually used on chimneys at the roofline to cover shingle flashing and used to prevent moisture entry.

Cove molding - A molding with a concave face used as trim or to finish interior corners.

Crawl space - A shallow space below the living quarters of a house, normally enclosed by the foundation wall and having a dirt floor.

Cross Tee - Short metal "T" beam used in suspended ceiling systems to bridge the spaces between the main beams.

Crown molding - A molding used on cornice or wherever an interior angle is to be covered, especially at the roof and wall corner.

Damper - A metal "door" placed within the fireplace chimney. Normally closed when the fireplace is not in use.

Deteriorated lead-based paint - Any lead-based paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or

otherwise becoming separated from the substrate.

Doorjamb, interior - The surrounding case into which and out of which a door closes and opens. It consists of two upright pieces, called side jambs, and a horizontal head jamb. These 3 jambs have the "door stop" installed on them.

Door stop - The wooden style that the door slab will rest upon when it's in a closed position.

Dormer - An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Downspout - A pipe, usually of metal, for carrying rainwater down from the roofs horizontal gutters.

Drip cap - A molding or metal flashing placed on the exterior topside of a door or window frame to cause water to drip beyond the outside of the frame.

Drywall (or Gypsum Wallboard (GWB), Sheet rock or Plasterboard) -Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The panels are nailed or screwed onto the framing and the joints are taped and covered with a 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Ducts - The heating system. Usually round or rectangular metal pipes installed for distributing warm (or cold) air from the furnace to rooms in the home. Also a tunnel made of galvanized metal or rigid fiberglass, which carries air from the heater or ventilation opening to the rooms in a building.

Dura board, dura rock - A panel made out of concrete and fiberglass usually used as a ceramic tile backing material. Commonly used on bathtub decks. Sometimes called Wonder board.

Dust removal - A form of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed. Depending on the severity of lead-based paint hazards, dust removal may be the primary activity or just one element of a broader control effort.

Eaves - The horizontal exterior roof overhang.

Elevated Blood Lead level (EBL) child - A child who has a blood level greater than or equal to 20 ug/dL or a persistent 15 ug/dL. See also Blood lead threshold.

Encapsulation - Any covering or coating that acts as a barrier between lead-based paint and the environment, the durability of which relies on adhesion and the integrity of the existing bonds between multiple layers of paint and between the paint and the substrate. See also Enclosure.

Enclosure - The use of rigid, durable construction materials that are mechanically fastened to the substrate to act as a barrier between the lead-based paint and the environment.

Escutcheon - An ornamental plate that fits around a pipe extending through a wall or floor to hide the cut out hole.

Evaluation - Risk assessment, paint inspection, reevaluation, investigation, clearance examination, or risk assessment screen.

Exterior work area - For lead hazard control work, the exterior work area includes any exterior building components, such as a porch or stairway; the safety perimeter; and access barriers.

Facing brick - The brick used and exposed on the outside of a wall. Usually these have a finished texture.

Fascia - Horizontal boards attached to rafter/truss ends at the eaves and along gables. Roof drain gutters are attached to the fascia.

Flue - Large pipe through which fumes escape from a gas water heater, furnace, or fireplace.

Friction surface - Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Gable - The end, upper, triangular area of a home, beneath the roof.

Gyp board - Drywall. Wall board or gypsum-A panel (normally 4' X 8', 10', 12', or 16') made with a core of Gypsum (chalk-like) rock, which covers interior walls and ceilings.

Header - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or

other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Hearth - The fireproof area directly in front of a fireplace. The inner or outer floor of a fireplace, usually made of brick, tile, or stone.

Hip - A roof with four sloping sides. The external angle formed by the meeting of two sloping sides of a roof.

Hip roof - A roof that rises by inclined planes from all four sides of a building.

HVAC - An abbreviation for Heat, Ventilation, and Air Conditioning

Impact surface - An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Inspection (of paint) - A surface-by-surface investigation to determine the presence of lead-based paint (in some cases including dust and soil sampling) and a report of the results.

Insulation board, rigid - A structural building board made of coarse wood or cane fiber in 1/2- and 25/32-inch thickness. It can be obtained in various size sheets and densities.

Interim controls- A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include specialized cleaning, repairs, maintenance, painting, temporary containment, and management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land-use controls. See also Monitoring, Reevaluation, and Abatement.

Interior window sill - The portion of the horizontal window ledge that protrudes into the interior of the room, adjacent to the window sash when the window is closed; often called the window stool.

Jamb - The side and head lining of a doorway, window, or other opening. Includes studs as well as the frame and trim.

Joint - The location between the touching surfaces of two members or components joined and held together by nails, glue, cement, mortar, or other means.

Joist - Wooden 2 X 8's, 10's, or 12's that run parallel to one another and support a floor or ceiling, and supported in turn by larger beams, girders, or bearing walls.

Laminated shingles -Shingles that have added dimensionality because of extra layers or tabs, giving a shake-like appearance. May also be called "architectural shingles" or "three-dimensional shingles."

Lath - A building material of narrow wood, metal, gypsum, or insulating board that is fastened to the frame of a building to act as a base for plaster, shingles, or tiles.

Lattice - An open framework of criss-crossed wood or metal strips that form regular, patterned spaces.

Lead - Lead includes metallic lead and inorganic and organic compounds of lead.

Lead-based paint - Any paint, varnish, shellac, or other coating' that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 ug/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis.

Lead-based paint hazard - A condition in which exposure to lead from lead-contaminated dust, lead contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA Administrator under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, deteriorated lead-based paint, leaded dust levels above applicable standards, and bare leaded soil above applicable standards.

Lead-based paint hazard control - Activities to control and eliminate lead-based paint hazards, including interim controls, abatement, and complete abatement.

Lead-contaminated dust - Surface dust in residences that contains an area or mass concentration of lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. Until the EPA standards are set, the HUD-recommended clearance and risk assessment standards for leaded dust are 100 ug/ft² on floors, 500 ug/ft² on interior window sills, and 800 ug/ft² on window troughs. The recommended standard for lead hazard

screens for floors is 50 ug/ft² and for window troughs is 400 ug/ft².

Lead-contaminated soil - Bare soil on residential property that contains lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. The HUD-recommended standard and interim EPA guidance is 400 ug/g for high-contact play areas and 2,000 ug/g in other bare areas of the yard. Soil contaminated with lead at levels greater than or equal to 5,000 ug/g should be abated by removal or paving.

Lead-free dwelling - A lead-free dwelling contains no lead-based paint and has interior dust and exterior soil lead levels below the applicable HUD and EPA standards.

Licensed - Holding a valid license or certification issued by EPA or by an EPA-approved State program pursuant to Title IV of the Toxic Substances Control Act. The license is based on certification for lead-based paint hazard control work. See also Certified.

Louver - A vented opening into the home that has a series of horizontal slats and arranged to permit ventilation but to exclude rain, snow, light, insects, or other living creatures.

Maintenance - Work intended to maintain adequate living conditions in a dwelling, which has the potential to disturb lead-based paint or paint that is suspected of being lead-based.

Mantel - The shelf above a fireplace opening. Also used in referring to the decorative trim around a fireplace opening.

Masonry - Stone, brick, concrete, hollow-tile, concrete block, or other similar building units or materials. Normally bonded together with mortar to form a wall.

Mastic - A pasty material used as a cement (as for setting tile) or a protective coating (as for thermal insulation or waterproofing)

Mg - Milligram; 1/1,000 of a gram.

Microgram - see Ug.

Milligram - see Mg.

Molding - A wood strip having an engraved, decorative surface.

Monitoring - Surveillance to determine (1) that known or suspected lead-based paint is not deteriorating; (2) that lead-based paint hazard controls, such as paint stabilization, enclosure, or encapsulation have not failed, (3) that structural problems do not threaten the integrity of hazard controls or of known or suspected lead-based paint, and (4) that dust lead levels have not risen above applicable levels.

Mortar - A mixture of cement (or lime) with sand and water used in masonry work.

Mullion - A vertical divider in the frame between windows, doors, or other openings.

Muntin - A small member which divides the glass or openings of sash or doors.

Natural finish - A transparent finish which does not seriously alter the original color or grain of the natural wood. Natural finishes are usually provided by sealers, oils, varnishes, water repellent preservatives, and other similar materials.

Newel post -The large starting post to which the end of a stair guard railing or balustrade is fastened.

Oriented Strand Board or OSB -A manufactured 4' X 8' wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood.

Overhang - Outward projecting eave-soffit area of a roof; the part of the roof that hangs out or over the outside wall. See also Cornice.

Paint film stabilization - The process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint; paint film stabilization includes cleanup and clearance.

Paint removal -An abatement strategy that entails the removal of lead-based paint from surfaces. For lead-hazard control work, this can mean using chemicals, heat guns below 1,100 °F, and certain contained abrasive methods. Open-flame burning, open abrasive blasting, and extensive dry scraping are prohibited paint removal methods.

Panel - A thin flat piece of wood, plywood, or similar material, framed by stiles and rails as in a door (or cabinet door), or fitted into grooves of thicker material with molded edges for decorative wall treatment.

Parting stop or strip -A small wood piece used in the side and head jambs of double hung windows to separate the upper sash from the lower sash.

Particle board - Plywood substitute made of course sawdust that is mixed with resin and pressed into sheets. Used for closet shelving, floor underlayment, stair treads, etc.

Partition -A wall that subdivides spaces within any story of a building or room.

Plenum -The main hot-air supply duct leading from a furnace.

Plywood - A panel (normally 4' X 8') of wood made of three or more layers of veneer, compressed and joined with glue, and usually laid with the grain of adjoining plies at right angles to give the sheet strength.

Portland cement -Cement made by heating clay and crushed limestone into a brick and then grinding to a pulverized powder state.

Pressure-treated wood -Lumber that has been saturated with a preservative.

Quarry tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally 6" X 6" X 11/4" thick.

Quarter round -A small trim molding that has the cross section of a quarter circle.

Rafter -Lumber used to support the roof sheeting and roof loads. Generally, 2 X 10's and 2 X 12's are used. The rafters of a flat roof are sometimes called roof joists.

Rake fascia -The vertical face of the sloping end of a roof eave.

Reevaluation - In lead hazard control work, the combination of a visual assessment and collection of environmental samples performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dwelling remains lead-safe.

Register - A grill placed over a heating duct or cold air return.

Renovation - Work that involves construction and/or home or building improvement measures such as window replacement, weatherization, remodeling, and repainting.

Replacement - A strategy of abatement that entails the removal of building components coated with lead-based paint (such as windows, doors, and trim) and the installation of new components free of lead-based paint.

Retaining wall - A structure that holds back a slope and prevents erosion.

Riser -Each of the vertical boards closing the spaces between the treads of stairways.

Risk assessment - An onsite investigation of a residential dwelling to discover any lead-based paint hazard. Risk assessments include an investigation of the age, history, management, and maintenance of the dwelling, and the number of children under age 6 and women of child-bearing age who are residents; a visual assessment; limited environmental sampling (i.e., collection of dust wipe samples, soil samples, and deteriorated paint samples); and preparation of a report identifying acceptable abatement and interim control strategies based on specific conditions.

Risk assessor - A certified individual who has completed training with an accredited training program and who has been certified to (1) perform risk assessments, (2) identify acceptable abatement and interim control strategies for reducing identified lead-based paint hazards, (3) perform clearance testing and reevaluations, and (4) document the successful completion of lead-based paint hazard control activities.

Shake - A wood roofing material, normally cedar or redwood. Produced by splitting a block of the wood along the grain line. Modern shakes are sometimes machine sawn on one side. See shingle.

Shed roof - A roof containing only one sloping plane.

Sheet rock - Drywall-Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Shim - A small piece of scrap lumber or shingle, usually wedge shaped, which when forced behind a furring strip or framing member forces it into position. Also used when installing doors and placed between the door jamb legs and 2 X 4 door trimmers. Metal shims are wafer 1 1/2" X 2" sheet metal of various thickness' used to fill gaps in wood framing

members, especially at bearing point locations.

Shingles - Roof covering of asphalt, asbestos, wood, tile, slate, or other material cut to stock lengths, widths, and thickness'.

Shingles, siding - Various kinds of shingles, used over sheathing for exterior wall covering of a structure.

Shutter - Usually lightweight louvered decorative frames in the form of doors located on the sides of a window. Some shutters are made to close over the window for protection.

Siding - The finished exterior covering of the outside walls of a frame building.

Sill - (1) The 2 X 4 or 2 X 6 wood plate framing member that lays flat against and bolted to the foundation wall (with anchor bolts) and upon which the floor joists are installed. Normally the sill plate is treated lumber. (2) The member forming the lower side of an opening, as a door sill or window sill.

Skylight - A more or less horizontal window located on the roof of a building.

Slab, concrete - Concrete pavement, i.e. driveways, garages, and basement floors.

Slab, door - A rectangular door without hinges or frame.

Soffit - The area below the eaves and overhangs. The underside where the roof overhangs the walls. Usually the underside of an overhanging cornice.

Stair landing - A platform between flights of stairs or at the termination of a flight of stairs. Often used when stairs change direction. Normally no less than 3 ft X 3 ft square.

Stile - An upright framing member in a panel door.

Stool - The flat molding fitted over the window sill between jambs and contacting the bottom rail of the lower sash.

Stops - Moldings along the inner edges of a door or window frame. Also valves used to shut off water to a fixture.

Storm sash or storm window - An extra window usually placed outside of an existing one, as additional protection against cold weather.

String, stringer - A timber or other support for cross members in floors or ceilings. In stairs, the supporting member for stair treads. Usually a 2 X 12 inch plank notched to receive the treads.

Stucco - Refers to an outside plaster finish made with Portland cement as its base.

Stud - A vertical wood framing member, also referred to as a wall stud, attached to the horizontal sole plate below and the top plate above. Normally 2 X 4's or 2 X 6's, 8' long (sometimes 92 5/8"). One of a series of wood or metal vertical structural members placed as supporting elements in walls and partitions.

Subfloor - The framing components of a floor to include the sill plate, floor joists, and deck sheeting over which a finish floor is to be laid.

Substrate - A surface on which paint, varnish, or other coating has been applied or may be applied. Examples of substrates include wood, plaster, metal, and drywall.

Suspended ceiling - A ceiling system supported by hanging it from the overhead structural framing.

Terra cotta - A ceramic material molded into masonry units.

Testing combination - A unique surface to be tested that is characterized by the room equivalent, component and substrate.

Test location - A specific area on a testing combination where XRF instruments will test for lead-based paint.

Threshold - The bottom metal or wood plate of an exterior door frame. Generally they are adjustable to keep a tight fit with the door slab.

Tread - The walking surface board in a stairway on which the foot is placed.

Treated lumber - A wood product which has been impregnated with chemical pesticides such as CCA (Chromated Copper Arsenate) to reduce damage from wood rot or insects. Often used for the portions of a structure which are likely

to be in contact with soil and water. Wood may also be treated with a fire retardant.

Treatment - In residential lead-based paint hazard control work, any method designed to control lead-based paint hazards. Treatment includes interim controls, abatement, and removal.

Trim - Interior- The finish materials in a building, such as moldings applied around openings (window trim, door trim) or at the floor and ceiling of rooms (baseboard, cornice, and other moldings). Also, the physical work of installing interior doors and interior woodwork, to include all handrails, guardrails, stair way balustrades, mantles, light boxes, base, door casings, cabinets, countertops, shelves, window sills and aprons, etc. Exterior- The finish materials on the exterior a building, such as moldings applied around openings (window trim, door trim), siding, windows, exterior doors, attic vents, crawl space vents, shutters, etc. Also, the physical work of installing these materials.

Ug - Micrograms. The prefix micro means 1/1,000,000 (or one-millionth); a microgram is 1/1,000,000 of a gram and 1/1,000 or a milligram.

Veneer - Extremely thin sheets of wood. Also, a thin slice of wood or brick or stone covering a framed wall.

Vent - A pipe or duct which allows the flow of air and gasses to the outside. Also, another word for the moving glass part of a window sash, i.e. window vent.

Wafer board - A manufactured wood panel made out of 1 "- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing.

Water board - Water resistant drywall to be used in tub and shower locations. Normally green or blue colored.

Window frame - The stationary part of a window unit; window sash fits into the window frame and their border.

Window sill - See Interior window sill.

Window trough - For a typical double-hung window, the portion of the exterior window sill between the exterior window sill between the interior window sill (or stool) and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when they are both lowered. Sometimes inaccurately called the window "well." See also Window well.

Window well - The space that provides exterior access and/or light to a window that is below grade, i.e., below the level of the surrounding earth or pavement.

XRF analyzer - An instrument that determines lead concentration in milligrams per square centimeter (mg/cm²) using the principle of x-ray fluorescence (XRF). For lead-based paint inspections, the term XRF analyzer only refers to portable instruments manufactured to analyze paint, and does not refer to laboratory-grade units or portable instruments designed to analyze soil.

Window sash - The operating or movable part of a window; the sash is made of window panes.

Building component terms from www.HomeBuildingManual.com; other terms from the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997).

**LEAD-BASED PAINT INSPECTION
AND
VISUAL ASSESSMENT REPORT**

UNIT I401

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EXECUTIVE SUMMARY

LCA Environmental, Inc. (LCA) has been authorized to perform a lead-based paint (LBP) evaluation at the single-family residence located at Unit I401 in Falcon Village, Texas. The property was not occupied at the time of the inspection. Readily accessible painted and/or finished components were evaluated according to the protocols described for LBP inspection in the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and applicable Federal, State, and Local regulations.

According to the HUD guidelines, a lead reading by X-Ray Fluorescence (XRF) of 1.0 mg/cm² or above is considered positive for the presence of LBP. The State of Texas also uses an action level of 1.0 mg/cm². This action level will be referenced throughout the report.

Components having lead levels at or above the action level are visually assessed for the condition of the surface area. Those LBP surfaces found to be intact at the time of inspection do not require paint stabilization, but should be monitored on an ongoing basis. During the evaluation, XRF testing was performed on at least one location per testing combination, except for interior walls, where four readings were taken (or one on each wall). The XRF testing was conducted using an InnovX Systems, Inc. lead paint analyzer. A surface-by-surface visual assessment of the painted and/or finished surfaces was conducted to determine which lead-coated surfaces/components are deteriorated at or above *de minimis* levels.

The lead-based paint evaluation at this property performed on 20 June 2013 produced the following findings:

Interior Components

- *No LBP was detected at or above 1.0 mg/cm² in the interior surfaces tested.*

Exterior Components

- *No LBP was detected at or above 1.0 mg/cm² in the exterior surfaces tested.*

1.0 SCOPE OF INSPECTION

1.1 Scope of Work

LCA performed a LBP evaluation (XRF testing and visual assessment) at Unit I401 in Falcon Village, Texas. Mr. Thomas Hale, an EPA-accredited and TDSHS Certified Risk Assessor/Inspector (Texas License Number 2070881), conducted the evaluation on 20 June 2013. Painted and/or finished components were tested according to the protocols described for LBP inspections in the HUD Guidelines Chapter 7 (revised 1997) and applicable Federal, state, and local regulations.

During the evaluation, an action level of 1.0 mg/cm² was followed to determine the components that contained LBP, in accordance with Federal, state, and local regulations.

1.2 Training Requirements

All individuals who performed this XRF testing and visual assessment have EPA and/or State licensure as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, along with the principles of radiation safety, in accordance with the work practices of 40 CFR 745, section 227, for States and Indian Tribes.

1.3 Equipment

An industry standard XRF, manufactured by Innov-X Systems, Inc., was utilized during the evaluation. Prior to initial sampling, the instrument was calibrated against the standards of the National Institute of Standards and Testing (NIST).

2.0 METHODOLOGY

2.1 Definitions

A Room Equivalent is an identifiable part of a residence, such as a room, foyer, staircase, hallway, or a house exterior or other exterior area. Exterior areas contain items such as play areas, painted swing sets, painted sandboxes, etc. Small closets or other similar areas adjoining rooms should not be considered as separate room equivalents unless they are obviously dissimilar from the adjoining room equivalent. However, walk-in closets should be considered as separate room equivalents.

Each room equivalent is made up of Components. Components may be located inside or outside a building. For example, components in a room could be its ceiling, floor, walls, a door and its casing, the window sash, and window casings. The Substrate is the material underneath the paint of a component. Although many different substrates exist, HUD guidelines recommend classifying substrates into one of six types: (1) brick; (2) concrete; (3) drywall; (4) metal, (5) plaster; and (6) wood. If the true substrate under investigation is not one of the aforementioned types, HUD guidelines mandate the inspector/risk assessor to select the substrate type that most closely resembles one of the six defined substrate types. For substrates that are layered, such as plaster on concrete, the substrate directly beneath the painted surface is identified during a LBP inspection. A Testing Combination is characterized by the room equivalent, component, and substrate. Visible color may not be an accurate predictor of painting history and is not included in the definition of a testing combination. Components that are coated with paint, varnish, shellac, wallpaper, stain, or other coating should be considered as separate testing combinations. Certain building components that are adjacent to each other and not likely to have different painting histories can be grouped together into a single testing combination as follows:

- Window casings, stops, jambs, and aprons.
- Interior window mullions and window sashes. Interior window components may not be grouped with exterior window components.
- Exterior window mullions and window sashes.
- Door jambs, stops, transoms, casings, and other door parts.

- Door stiles, rails, panels, mullions, and other door parts.
- Baseboards and associated trim (such as quarter-round or other caps).
- Painted electrical sockets, switches, or plates can be grouped with the walls.

The **Test Location** is a specific area on a testing combination where the XRF was used to test for LBP.

NOTE: If present, components covered with vinyl and/or metal sidings were not inspected during the evaluation because the surfaces underneath these components were not visible or accessible. This leaves the possibility that LBP components could be located beneath these coverings.

De minimis levels for deteriorated lead-based paint are defined follows: (1) For a component with a small surface area, such as window sills, or baseboards, 10% of the surface area; (2) For an interior component with a large surface area, such as an interior wall, 2 square feet of the surface area; and (3) For an exterior component with a large surface area, 20 square feet of the surface area.

2.2 Sampling Strategies

According to the HUD guidelines, a lead reading by XRF of 1.0 mg/cm² or above is considered positive for the presence of LBP. An XRF reading below 1.0 mg/cm² is considered negative; however, a reading below 1.0 mg/cm² could still be harmful if proper precautions are not taken during activities that disturb these paint films. If there are any inconclusive readings, a paint-chip sample may be collected for laboratory analysis. Laboratory analysis of samples collected will only be performed by an EPA approved National Lead Laboratory Accreditation Program (NLLAP) laboratory. There is no inconclusive range for laboratory measurements/results.

Only painted, stained, varnished, or wallpapered components of a dwelling are tested during a LBP evaluation. Wall “A” or “1” in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall “A” or “1”, Wall “B” or “2” will always be to your right, Wall “C” or “3” directly to the rear and Wall “D” or “4” to the left. Doors, windows and closets are designated as left, center or right depending on their location on the wall. When more than one window/door is on a wall, features are numbered left to right.

2.3 Assessment Logic

A LBP evaluation is performed by use of the following assessment logic. Any paint found to contain lead below the HUD standard of 1.0 mg/cm², regardless of condition, is considered non-hazardous. Components having lead levels at or above the action level are visually assessed for condition and approximate surface area. The paint condition is placed into one of two categories using the risk assessor’s professional judgment. These categories are: (1) intact (good) and (2) deteriorated (poor), based on the HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 5: Risk Assessment [Table 5-3], June, 1995.

2.4 Calibration of XRF Equipment

The calibration of the instrument is done in accordance with the Performance Characteristic Sheet (PCS) for this instrument. These instruments are calibrated using a calibration standard block of known lead content. Three calibration readings are taken before and after each home is tested to ensure manufacturer's standards are met. If the inspection is longer than four hours, a set of three calibration readings must be taken before the four hours expires, and then an additional three calibration readings taken at the end of the inspection. If for any reason the instruments are not maintaining a consistent calibration reading within the manufacturer's standards for performance on the calibration block supplied by the manufacturer, manufacturer's recommendations are used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it is taken off the site and sent back to the manufacturer for repair and/or re-calibration.

3.0 FINDINGS

3.1 Site Description

The property is located at Unit I401 in Falcon Village, Texas and is a single family dwelling with one residential unit. The home, reportedly constructed in the 1960s, is a single-story dwelling containing approximately 1,300 square feet of living space. The exterior is predominantly composed of vinyl siding over stucco with wood walls at gables and wood soffits and fascia. Window components are metal or brick. Interior finishes include drywall walls, drywall ceilings, with concrete and vinyl flooring.

3.2 Inaccessible Areas

There were no inaccessible areas identified at the time of the inspection.

3.3 Visual Assessment Results

The visual assessment identified the following:

| Item | Identified Yes/No |
|--|-------------------|
| Deteriorating painted surfaces | Yes* |
| Painted surfaces that are chewable, impact joints or subject to friction | Yes |
| Bare soil surface (soil surface that is not covered by pavement or sod or landscaping) | Yes |
| Excessive accumulation of dust on most interior surfaces | Yes** |

* - These painted surfaces were not found to contain LBP.

** - The structure has been unoccupied and open to the elements for an undetermined amount of time.

3.4 Lead-Based Paint Inspection Results

LCA has determined that the following components contain lead in amounts equal to or exceeding 1.0 mg/cm^2 in the surfaces tested during the LBP inspection:

Interior Components

- *No LBP was detected at or above 1.0 mg/cm^2 in the interior surfaces tested.*

Exterior Components

- *No LBP was detected at or above 1.0 mg/cm^2 in the exterior surfaces tested.*

3.5 Summary and Distribution Table

| | |
|--|-----|
| Number of Positive Readings (for Paint Only) | 0 |
| Total Number of Readings | 131 |
| Percent Positive | 0 |

4.0 CONCLUSIONS

No components were found to contain lead exceeding 1.0 mg/cm^2 (see Section 3.4).

This evaluation was completed in accordance with Lead Safe Housing Rule 24 CFR Part 35 subpart F as amended (2004). The sampling results are presented in Appendix A and notes are presented in Appendix B. The outline of dwelling is drafted in Appendix C. Appendix D contains photographs of the property. Appendix E contains the personal certifications of the inspector. Appendix F contains the PCS sheets for the XRF instrument and Appendix G contains a glossary of terms.

5.0 DISCLOSURE RESPONSIBILITY

A copy of this report must be provided to new lessees (tenants) and purchasers of this property under Federal Law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that children and pregnant women are protected from LBP hazards.

The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard states that “negative” readings (i.e. those below the HUD/EPA definition of what constitutes LBP [1.0 mg/cm^2]) **do not** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead free. Although a reading may indicate “negative”, airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

DISCLAIMER

This is our report of a visual survey, and X-Ray Fluorescence (XRF) analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation. No other environmental concerns or conditions were addressed during this evaluation.

APPENDIX A

XRF DATA SHEETS

Unit I401 Falcon Village, Texas

20 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|-------|-----------|
| 1 | Standardization | PASS | | | | | | |
| 2 | Calibration | Positive | 1.03 | | | | Red | |
| 3 | Lead Paint Fixed-Time | Negative | 0 | Room 1 | Ceiling | Gyp | White | N/A |
| 4 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 5 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 6 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 7 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 8 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 9 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 10 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 11 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 12 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 13 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 14 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 15 | Lead Paint Fixed-Time | Negative | 0 | Room 2 | Ceiling | Gyp | White | N/A |
| 16 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 17 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 18 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 19 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 20 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 21 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 22 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 23 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 24 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 25 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 26 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 27 | Lead Paint Fixed-Time | Negative | 0 | Room 3 | Ceiling | Gyp | White | N/A |
| 28 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 29 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 30 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 31 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 32 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 33 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 34 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 35 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 36 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 37 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 38 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 39 | Lead Paint Fixed-Time | Negative | 0 | Room 4 | Ceiling | Gyp | White | N/A |
| 40 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 41 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 42 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 43 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 44 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 45 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 46 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 47 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 48 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 49 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 50 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 51 | Lead Paint Fixed-Time | Negative | 0 | Room 5 | Ceiling | Gyp | White | N/A |
| 52 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |

Unit I401 Falcon Village, Texas

20 June 2013

| | | | | | | | | |
|-----|-----------------------|----------|---|---------|-------------|------|-------|-----|
| 53 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 54 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 55 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 56 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 57 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 58 | Lead Paint Fixed-Time | Negative | 0 | Room 6 | Ceiling | Gyp | White | N/A |
| 59 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 60 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 61 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 62 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 63 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 64 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 65 | Lead Paint Fixed-Time | Negative | 0 | Room 7 | Ceiling | Gyp | White | N/A |
| 66 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 67 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 68 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 69 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 70 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 71 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 72 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 73 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 74 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 75 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 76 | Lead Paint Fixed-Time | Negative | 0 | Room 8 | Ceiling | Gyp | White | N/A |
| 77 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 78 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 79 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 80 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 81 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 82 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 83 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 84 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 85 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 86 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 87 | Lead Paint Fixed-Time | Negative | 0 | Room 9 | Ceiling | Gyp | White | N/A |
| 88 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 89 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 90 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 91 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 92 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 93 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 94 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 95 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 96 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 97 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 98 | Lead Paint Fixed-Time | Negative | 0 | Room 10 | Ceiling | Gyp | Biege | N/A |
| 99 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 100 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 101 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 102 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 103 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 104 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 105 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |

Unit I401 Falcon Village, Texas

20 June 2013

| | | | | | | | | |
|-----|-----------------------|----------|------|------------|---------------|--------|-------|-----|
| 106 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 107 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 108 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 109 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 110 | Lead Paint Fixed-Time | Negative | 0 | Room 11 | Ceiling | Wood | White | N/A |
| 111 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Wood | White | N/A |
| 112 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Stucco | Green | N/A |
| 113 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Stucco | Green | N/A |
| 114 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Wood | White | N/A |
| 115 | Lead Paint Fixed-Time | Negative | 0 | Exterior A | Soffit | Wood | White | N/A |
| 116 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | White | N/A |
| 117 | Lead Paint Fixed-Time | Negative | 0 | | Porch Ceiling | Wood | White | N/A |
| 118 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Green | N/A |
| 119 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Wood | White | N/A |
| 120 | Lead Paint Fixed-Time | Negative | 0 | | Column | Wood | White | N/A |
| 121 | Lead Paint Fixed-Time | Negative | 0.03 | Exterior B | Soffit | Wood | White | N/A |
| 122 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | White | N/A |
| 123 | Lead Paint Fixed-Time | Negative | 0.01 | | Gable | Metal | White | N/A |
| 124 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Green | N/A |
| 125 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Wood | White | N/A |
| 126 | Lead Paint Fixed-Time | Negative | 0 | Exterior C | Soffit | Wood | White | N/A |
| 127 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | White | N/A |
| 128 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Green | N/A |
| 129 | Lead Paint Fixed-Time | Negative | 0 | Exterior D | Soffit | Wood | White | N/A |
| 130 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | White | N/A |
| 131 | Lead Paint Fixed-Time | Negative | 0 | | Gable | Metal | White | N/A |
| 132 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Green | N/A |
| 133 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Wood | White | N/A |

APPENDIX B

NOTES

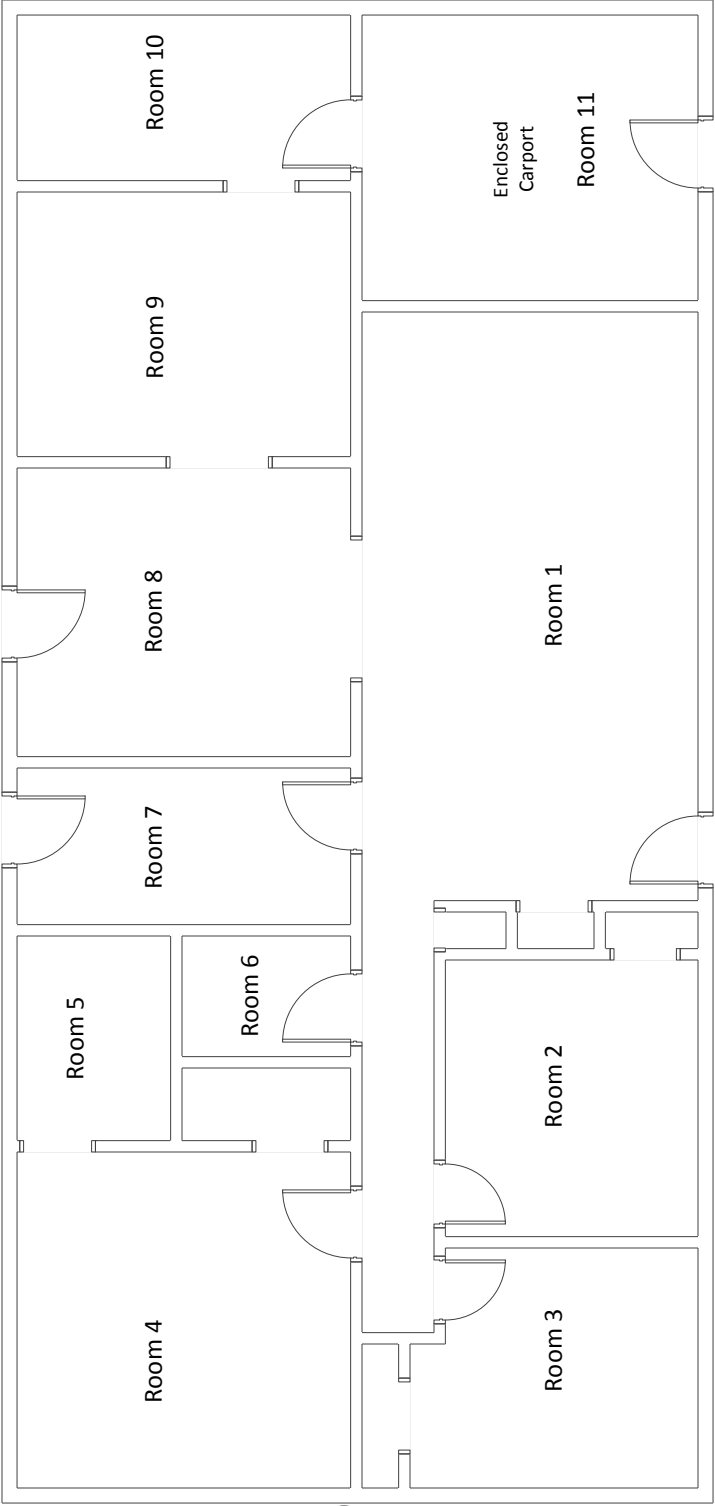
Unit I401, Falcon Village, Texas

| Room | Notes |
|-------------|---|
| Room 1 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 2 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 3 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 4 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 5 | Gyp-board ceiling, gyp-board and ceramic tile walls, ceramic tile floor |
| Room 6 | Gyp-board ceiling, gyp-board and ceramic tile walls, ceramic tile floor |
| Room 7 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 8 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 9 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 10 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 11 | Wood ceiling, wood and stucco walls, concrete floor |
| Exterior | Wood, stucco, vinyl siding |

APPENDIX C

DRAWING(S)

C

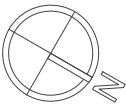


B

D

A

NOTE: No LBP was found during this LBP Inspection.



NOT TO SCALE

Quanternary Resource Investigations, LLC
Lead-based Paint Inspection
CBP-Owned Housing, Falcon Village, Texas

Figure 1
Unit I401
Sample Location Plan

Drawn By: EBB

Date: 07/02/13

Location: CBP-Owned Housing, Falcon Village, Texas

LCA Project No.: 130602

Approved By: TAH

Date: 07/02/13

Source: LCA Field Sketch

Filename: Fig1-I401 Sample Location Plan

APPENDIX D

PHOTOGRAPHS



Photograph 1: View of the front of the structure at Unit I401, in Falcon Village, Texas. No LBP was found during this inspection.

APPENDIX E

CERTIFICATIONS



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

LYNN CLARK ASSOCIATES INC

is certified to perform as a

Lead Firm

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, appearing to read "David L. Laakey".

David L. Laakey, M.D.
Commissioner of Health

License Number: 2110555

Control Number 6528

Expiration Date: 6/12/2015

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

THOMAS A HALE

is certified to perform as a

Lead Risk Assessor

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, reading "David L. Lakey".

David L. Lakey, M.D.
Commissioner of Health

License Number: 2070881

Expiration Date: 5/5/2013

Void After Expiration Date

VOID IF ALTERED

Control Number 6610

NON-TRANSFERABLE

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

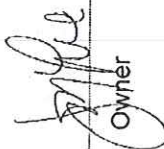
has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Inspector Refresher

Conducted at Hurst, Texas on December 3, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/03/2012

Certificate Number: 12046 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

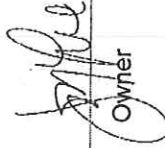
has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Risk Assessor Refresher

Conducted at Hurst, Texas on December 4, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/04/2012

Certificate Number: 12030 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

APPENDIX F

NIST – CERTIFICATE OF ANALYSIS



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material[®] 2573

Lead Paint Film

For Portable X-Ray Fluorescence Analyzers – Nominal 1.0 mg/cm²
(Color Code: Red)

This Standard Reference Material (SRM) is intended for checking the calibration of portable, hand-held, x-ray fluorescence analyzers when testing for lead in paint coatings on interior and exterior building surfaces. A unit of SRM 2573 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, red-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2570, is also provided. The blank is coated with a lead-free, lacquer layer on a white polyester sheet of the same thickness as the lead paint samples. All sheets are over-coated with a clear, thin, plastic laminate to protect the surface from abrasion. SRM 2573 and SRM 2570 are two of a set of six paint films (SRM 2570 to SRM 2575) available as SRM 2579a.

The certified values for lead for this SRM and the blank, SRM 2570, are reported in Table 1 in units of mg/cm². These values are based on measurements by isotope dilution inductively-coupled plasma mass spectrometry.

Table 1. Certified Lead Values

| Level | Color Code | Lead Concentration, in mg/cm ² |
|----------|---------------|---|
| SRM 2570 | White (Blank) | <0.001 |
| SRM 2573 | Red | 1.040 ± 0.064 |

The uncertainty of each certified value is expressed as an expanded uncertainty, U , at the 95 % level of confidence and is calculated according to the method described in the ISO Guide [1,2]. Because of variability in the paint film between different sheets of each SRM, the uncertainties are 95 % prediction intervals. The expanded uncertainty is calculated as $U = ku_c$, where u_c is intended to represent, at the level of one standard deviation, the combined uncertainty due to material variability and measurement uncertainty. The coverage factor, k , is determined from the Student's t -distribution corresponding to the calculated effective degrees of freedom and 95 % level of confidence.

Expiration of Certification: The certification of SRM 2573 is valid, within the measurement uncertainties specified, until **01 July 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Use"). The certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet) will facilitate notification.

The overall direction and coordination of the analytical measurements leading to certification were performed by G.C. Turk and J.D. Fassett of the NIST Analytical Chemistry Division. Analytical measurements were performed by K.E. Murphy, J.R. Sieber, A.F. Marlow, L.J. Wood, P.R. Seo, and M. Lankosz of the NIST Analytical Chemistry Division. The SRM was fabricated under the direction of J.R. Sieber of the NIST Analytical Chemistry Division.

Stephen A. Wise, Chief
Analytical Chemistry Division

Robert L. Watters, Jr., Chief
Measurement Services Division

Gaithersburg, MD 20899
Certificate Issue Date: 24 March 2009
See Certificate Revision History on Last Page

Statistical consultation for this SRM was provided by E.S. Lagergren and N.F. Zhang of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Measurement Services Division.

NOTICE AND WARNING TO USERS

NOTE: This SRM contains lead, as a lead chromate pigment, which is toxic and a suspected carcinogen to the lung and kidney. The SRM must be handled with care and disposed of according to the U.S. Environmental Protection Agency (EPA) practices and procedures.

INSTRUCTIONS FOR USE

The SRM sheet must first be removed from the plastic sleeve in which it is stored and then positioned so that the side labeled with the NIST logo and SRM number faces the x-ray source. For best results, the size of the x-ray beam from the field unit should irradiate an area of the SRM that is at least 2.5 cm in diameter and is centered on the sheet. Care must be exercised not to compromise the protective plastic laminate which prevents scratching or chipping of the painted surface and the potential release of dust containing lead. Upon completion of the measurement, the SRM must be re-stored in the plastic sleeve provided. It is also recommended that this SRM be stored indoors at ambient room temperature and away from direct sunlight when not in use.

Stability: This SRM is considered to be stable during the period of certification. NIST will monitor the SRM and will report any significant changes in certification to the purchaser. Return of the attached registration card will facilitate notification.

PREPARATION

SRM Preparation: The paint-coated, polyester sheets were prepared by an automated coating process at a commercial facility under contract to NIST. Known concentrations of a lead chromate pigment were dispersed in a commercial paint vehicle to prepare the lead paints. A lead-free, organic tint was added to each paint mixture to give the desired color. A thin, protective overlay of plastic laminate was applied to each paint film. The attenuation of lead $L_{3-M_{4,5}}$ ($L\alpha_{1,2}$) X-rays due to the protective overlay does not exceed 2 % relative, while that of K- $L_{2,3}$ ($K\alpha_{1,2}$) x-rays commonly used for field measurement is negligible.

REFERENCES

- [1] ISO; *Guide to the Expression of Uncertainty in Measurement*; ISBN 92-67-10188-9, 1st ed., International Organization for Standardization: Geneva, Switzerland (1993); see also Taylor, B.N.; Kuyatt, C.E.; *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*; NIST Technical Note 1297, U.S. Government Printing Office: Washington, DC (1994); available at <http://physics.nist.gov/Pubs/>.
- [2] Hahn, G.J.; Meeker, W.Q.; *Statistical Intervals: A Guide for Practitioners*; John Wiley & Sons, Inc., New York, NY (1991).

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| Certificate Revision History: 24 March 2009 (Extension of certification period); 29 November 1999 (Original certificate date). |
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Users of this SRM should ensure that the certificate in their possession is current. This can be accomplished by contacting the SRM Program at: telephone (301) 975-2200; fax (301) 926-4751; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX G

GLOSSARY

Abatement - A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. See also Complete Abatement and Interim Controls.

Accessible surface - Any protruding interior or exterior surface, such as an interior window sill, that a young child can mouth or chew.

Accreditation - A formal recognition that an organization, such as a laboratory, is competent to carry out specific tasks or types of tests.

Accredited laboratory -A laboratory that has been evaluated and approved by the National Lead Laboratory Accreditation Program (NLLAP) to perform lead measurement or analysis, usually over a specified period of time.

Apron - A trim board that is installed beneath a window sill.

Area wells - Corrugated metal or concrete barrier walls installed around a basement window to hold back the earth.

Attic access - An opening that is placed in the drywalled ceiling of a home providing access to the attic.

Attic Ventilators - In houses, screened openings provided to ventilate an attic space.

Backing - Frame lumber installed between the wall studs to give additional support for drywall or an interior trim related item, such as handrail brackets, cabinets, and towel bars. In this way, items are screwed and mounted into solid wood rather than weak drywall that may allow the item to break loose from the wall. Carpet backing holds the pile fabric in place.

Balusters -Vertical members in a railing used between a top rail and bottom rail or the stair treads. Sometimes referred to as 'pickets' or 'spindles'.

Balustrade - The rail, posts and vertical balusters along the edge of a stairway or elevated walkway.

Bare soil - Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Barge board - A decorative board covering the projecting rafter (fly rafter) of the gable end. At the cornice, this member is a fascia board.

Base or baseboard - A trim board placed against the wall around the room next to the floor.

Basement window inserts - The window frame and glass unit that is installed in the window buck.

Base shoe - Molding used next to the floor on interior base board. Sometimes called a carpet strip.

Bat - A half-brick.

Batt - A section of fiber-glass or rock-wool insulation measuring 15 or 23 inches wide by four to eight feet long and various thicknesses. Sometimes "faced" (meaning to have a paper covering on one side) or "unfaced" (without paper).

Batten - Narrow strips of wood used to cover joints or as decorative vertical members over plywood or wide boards.

Bay window - Any window space projecting outward from the walls of a building, either square or polygonal in plan.

Beam - A structural member transversely supporting a load. A structural member carrying building loads (weight) from one support to another. Sometimes called a "girder".

Bearing wall - A wall that supports any vertical load in addition to its own weight. **Bearing header** - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Bifold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

Bypass doors - Doors that slide by each other and commonly used as closet doors.

Blocking - Small wood pieces to brace framing members or to provide a nailing base for gypsum board or paneling.

Blood lead threshold - Any blood level greater than or equal to 10 ug/dL as defined by the Centers for Disease Control and Prevention. See also Elevated Blood Lead level (EBL) child.

Brace - An inclined piece of framing lumber applied to wall or floor to strengthen the structure. Often used on walls as temporary bracing until framing has been completed.

Breaker panel - The electrical box that distributes electric power entering the home to each branch circuit (each plug and switch) and composed of circuit breakers.

Brick mold - Trim used around an exterior door jamb that siding butts to.

Brick tie - A small, corrugated metal strip @ 1" X 6"- 8" long nailed to wall sheathing or studs. They are inserted into the grout mortar joint of the veneer brick, and holds the veneer wall to the sheeted wall behind it.

Brick veneer - A vertical facing of brick laid against and fastened to sheathing of a framed wall or tile wall construction.

Building component - Any element of a building that may be painted or have dust on its surface, e.g. walls, stair treads, floors, railings, doors, window sills, etc.

By fold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

By pass doors - Doors that slide by each other and commonly used as closet doors.

Cantilever - An overhang. Where one floor extends beyond and over a foundation wall. For example at a fireplace location or bay window cantilever. Normally, not extending over 2 feet.

Cap - The upper member of a column, pilaster, door cornice, molding, or fireplace.

Cap flashing - The portion of the flashing attached to a vertical surface to prevent water from migrating behind the base flashing.

Casement - Frames of wood or metal enclosing part (or all) of a window sash. May be opened by means of hinges affixed to the vertical edges.

Casement Window - A window with hinges on one of the vertical sides and swings open like a normal door.

Casing - Wood trim molding installed around a door or window opening.

CelotexTM - Black fibrous board that is used as exterior sheathing.

Ceiling joist - One of a series of parallel framing members used to support ceiling loads and supported in turn by larger beams, girders or bearing walls. Also called roof joists.

Cement - The gray powder that is the "glue" in concrete. Portland cement. Also, any adhesive.

Ceramic tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally used in bathtub and shower enclosures and on counter tops.

Certification - The process of testing and evaluating against certain specifications the competence of a person, organization, or other entity in performing a function or service, usually for a specified period of time.

Certified - The designation for contractors who have completed training and other requirements to allow them to safely undertake risk assessments, inspections, or abatement work. Risk assessors, inspectors, and abatement contractors should be certified by the appropriate local, State or Federal agency.

Chair rail - Interior trim material installed about 3-4 feet up the wall, horizontally.

Chalking -The photo-oxidation of paint binders - usually due to weathering - that causes a powder to form on the film surface.

Chase - A framed enclosed space around a flue pipe or a channel in a wall, or through a ceiling for something to lie in or pass through.

Chewed surface - Any painted surface that shows evidence of having been chewed or mouthed by a young child. A chewed surface is usually a protruding, horizontal part of a building, such as an interior window sill. See also Accessible surface.

Chip Board - A manufactured wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing. Also called OSB (Oriented Strand Board) or wafer board.

Cleaning - The process of using a HEP A vacuum and wet cleaning agents to remove leaded dust; the process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to clean lead-contaminated dust from a surface.

Clearance examination - Visual examination and collection of environmental samples by an inspector or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control interventions, or maintenance job that disturbs lead-based paint (or paint suspected of being lead-based). The clearance examination is performed to ensure that lead exposure levels do not exceed standards established by the EPA administrator pursuant to Title IV of the Toxic Substances Control Act, and that any cleaning following such work adequately meets those standards.

Clearance examiner - A person who conducts clearance examinations following lead-based paint hazard control and cleanup work, usually a certified risk assessor or a certified inspector.

Code of Federal Regulations (CFR) - The codification of the regulations of Federal agencies.

Column - A vertical structural compression member which supports loads.

Complete abatement - Abatement of all lead-based paint inside and outside a dwelling or building and reduction of any lead-contaminated dust or soil hazards. All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, reevaluation and on-going monitoring. See also Abatement.

Concrete - The mixture of Portland cement, sand, gravel, and water. Used to make garage and basement floors, sidewalks, patios, foundation walls, etc. It is commonly reinforced with steel rods (rebar) or wire screening (mesh).

Concrete block - A hollow concrete 'brick' often 8" x 8" X 16" in size.

Concrete board - A panel made out of concrete and fiberglass usually used as a tile backing material.

Conduit, electrical - A pipe, usually metal, in which wire is installed.

Containment - A process to protect workers and the environment by controlling exposures to the lead contaminated dust and debris created during abatement.

Corbel - The triangular, decorative and supporting member that holds a mantel or horizontal shelf.

Corner bead - A strip of formed sheet metal placed on outside corners of drywall before applying drywall 'mud'.

Corner boards - Used as trim for the external corners of a house or other frame structure against which the ends of the siding are finished.

Corner braces - Diagonal braces at the corners of the framed structure designed to stiffen and strengthen the wall.

Cornice - Overhang of a pitched roof, usually consisting of a fascia board, a soffit and appropriate trim moldings.

Counter flashing - A metal flashing usually used on chimneys at the roofline to cover shingle flashing and used to prevent moisture entry.

Cove molding - A molding with a concave face used as trim or to finish interior corners.

Crawl space - A shallow space below the living quarters of a house, normally enclosed by the foundation wall and having a dirt floor.

Cross Tee - Short metal "T" beam used in suspended ceiling systems to bridge the spaces between the main beams.

Crown molding - A molding used on cornice or wherever an interior angle is to be covered, especially at the roof and wall corner.

Damper - A metal "door" placed within the fireplace chimney. Normally closed when the fireplace is not in use.

Deteriorated lead-based paint - Any lead-based paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or

otherwise becoming separated from the substrate.

Doorjamb, interior - The surrounding case into which and out of which a door closes and opens. It consists of two upright pieces, called side jambs, and a horizontal head jamb. These 3 jambs have the "door stop" installed on them.

Door stop - The wooden style that the door slab will rest upon when it's in a closed position.

Dormer - An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Downspout - A pipe, usually of metal, for carrying rainwater down from the roofs horizontal gutters.

Drip cap - A molding or metal flashing placed on the exterior topside of a door or window frame to cause water to drip beyond the outside of the frame.

Drywall (or Gypsum Wallboard (GWB), Sheet rock or Plasterboard) -Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The panels are nailed or screwed onto the framing and the joints are taped and covered with a 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Ducts - The heating system. Usually round or rectangular metal pipes installed for distributing warm (or cold) air from the furnace to rooms in the home. Also a tunnel made of galvanized metal or rigid fiberglass, which carries air from the heater or ventilation opening to the rooms in a building.

Dura board, dura rock - A panel made out of concrete and fiberglass usually used as a ceramic tile backing material. Commonly used on bathtub decks. Sometimes called Wonder board.

Dust removal - A form of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed. Depending on the severity of lead-based paint hazards, dust removal may be the primary activity or just one element of a broader control effort.

Eaves - The horizontal exterior roof overhang.

Elevated Blood Lead level (EBL) child - A child who has a blood level greater than or equal to 20 ug/dL or a persistent 15 ug/dL. See also Blood lead threshold.

Encapsulation - Any covering or coating that acts as a barrier between lead-based paint and the environment, the durability of which relies on adhesion and the integrity of the existing bonds between multiple layers of paint and between the paint and the substrate. See also Enclosure.

Enclosure - The use of rigid, durable construction materials that are mechanically fastened to the substrate to act as a barrier between the lead-based paint and the environment.

Escutcheon - An ornamental plate that fits around a pipe extending through a wall or floor to hide the cut out hole.

Evaluation - Risk assessment, paint inspection, reevaluation, investigation, clearance examination, or risk assessment screen.

Exterior work area - For lead hazard control work, the exterior work area includes any exterior building components, such as a porch or stairway; the safety perimeter; and access barriers.

Facing brick - The brick used and exposed on the outside of a wall. Usually these have a finished texture.

Fascia - Horizontal boards attached to rafter/truss ends at the eaves and along gables. Roof drain gutters are attached to the fascia.

Flue - Large pipe through which fumes escape from a gas water heater, furnace, or fireplace.

Friction surface - Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Gable - The end, upper, triangular area of a home, beneath the roof.

Gyp board - Drywall. Wall board or gypsum-A panel (normally 4' X 8', 10', 12', or 16') made with a core of Gypsum (chalk-like) rock, which covers interior walls and ceilings.

Header - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or

other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Hearth - The fireproof area directly in front of a fireplace. The inner or outer floor of a fireplace, usually made of brick, tile, or stone.

Hip - A roof with four sloping sides. The external angle formed by the meeting of two sloping sides of a roof.

Hip roof - A roof that rises by inclined planes from all four sides of a building.

HVAC - An abbreviation for Heat, Ventilation, and Air Conditioning

Impact surface - An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Inspection (of paint) - A surface-by-surface investigation to determine the presence of lead-based paint (in some cases including dust and soil sampling) and a report of the results.

Insulation board, rigid - A structural building board made of coarse wood or cane fiber in 1/2- and 25/32-inch thickness. It can be obtained in various size sheets and densities.

Interim controls- A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include specialized cleaning, repairs, maintenance, painting, temporary containment, and management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land-use controls. See also Monitoring, Reevaluation, and Abatement.

Interior window sill - The portion of the horizontal window ledge that protrudes into the interior of the room, adjacent to the window sash when the window is closed; often called the window stool.

Jamb - The side and head lining of a doorway, window, or other opening. Includes studs as well as the frame and trim.

Joint - The location between the touching surfaces of two members or components joined and held together by nails, glue, cement, mortar, or other means.

Joist - Wooden 2 X 8's, 10's, or 12's that run parallel to one another and support a floor or ceiling, and supported in turn by larger beams, girders, or bearing walls.

Laminated shingles -Shingles that have added dimensionality because of extra layers or tabs, giving a shake-like appearance. May also be called "architectural shingles" or "three-dimensional shingles."

Lath - A building material of narrow wood, metal, gypsum, or insulating board that is fastened to the frame of a building to act as a base for plaster, shingles, or tiles.

Lattice - An open framework of criss-crossed wood or metal strips that form regular, patterned spaces.

Lead - Lead includes metallic lead and inorganic and organic compounds of lead.

Lead-based paint - Any paint, varnish, shellac, or other coating' that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 ug/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis.

Lead-based paint hazard - A condition in which exposure to lead from lead-contaminated dust, lead contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA Administrator under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, deteriorated lead-based paint, leaded dust levels above applicable standards, and bare leaded soil above applicable standards.

Lead-based paint hazard control - Activities to control and eliminate lead-based paint hazards, including interim controls, abatement, and complete abatement.

Lead-contaminated dust - Surface dust in residences that contains an area or mass concentration of lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. Until the EPA standards are set, the HUD-recommended clearance and risk assessment standards for leaded dust are 100 ug/ft² on floors, 500 ug/ft² on interior window sills, and 800 ug/ft² on window troughs. The recommended standard for lead hazard

screens for floors is 50 ug/ft² and for window troughs is 400 ug/ft².

Lead-contaminated soil - Bare soil on residential property that contains lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. The HUD-recommended standard and interim EPA guidance is 400 ug/g for high-contact play areas and 2,000 ug/g in other bare areas of the yard. Soil contaminated with lead at levels greater than or equal to 5,000 ug/g should be abated by removal or paving.

Lead-free dwelling - A lead-free dwelling contains no lead-based paint and has interior dust and exterior soil lead levels below the applicable HUD and EPA standards.

Licensed - Holding a valid license or certification issued by EPA or by an EPA-approved State program pursuant to Title IV of the Toxic Substances Control Act. The license is based on certification for lead-based paint hazard control work. See also Certified.

Louver - A vented opening into the home that has a series of horizontal slats and arranged to permit ventilation but to exclude rain, snow, light, insects, or other living creatures.

Maintenance - Work intended to maintain adequate living conditions in a dwelling, which has the potential to disturb lead-based paint or paint that is suspected of being lead-based.

Mantel - The shelf above a fireplace opening. Also used in referring to the decorative trim around a fireplace opening.

Masonry - Stone, brick, concrete, hollow-tile, concrete block, or other similar building units or materials. Normally bonded together with mortar to form a wall.

Mastic - A pasty material used as a cement (as for setting tile) or a protective coating (as for thermal insulation or waterproofing)

Mg - Milligram; 1/1,000 of a gram.

Microgram - see Ug.

Milligram - see Mg.

Molding - A wood strip having an engraved, decorative surface.

Monitoring - Surveillance to determine (1) that known or suspected lead-based paint is not deteriorating; (2) that lead-based paint hazard controls, such as paint stabilization, enclosure, or encapsulation have not failed, (3) that structural problems do not threaten the integrity of hazard controls or of known or suspected lead-based paint, and (4) that dust lead levels have not risen above applicable levels.

Mortar - A mixture of cement (or lime) with sand and water used in masonry work.

Mullion - A vertical divider in the frame between windows, doors, or other openings.

Muntin - A small member which divides the glass or openings of sash or doors.

Natural finish - A transparent finish which does not seriously alter the original color or grain of the natural wood. Natural finishes are usually provided by sealers, oils, varnishes, water repellent preservatives, and other similar materials.

Newel post -The large starting post to which the end of a stair guard railing or balustrade is fastened.

Oriented Strand Board or OSB -A manufactured 4' X 8' wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood.

Overhang - Outward projecting eave-soffit area of a roof; the part of the roof that hangs out or over the outside wall. See also Cornice.

Paint film stabilization - The process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint; paint film stabilization includes cleanup and clearance.

Paint removal -An abatement strategy that entails the removal of lead-based paint from surfaces. For lead-hazard control work, this can mean using chemicals, heat guns below 1,100 °F, and certain contained abrasive methods. Open-flame burning, open abrasive blasting, and extensive dry scraping are prohibited paint removal methods.

Panel - A thin flat piece of wood, plywood, or similar material, framed by stiles and rails as in a door (or cabinet door), or fitted into grooves of thicker material with molded edges for decorative wall treatment.

Parting stop or strip -A small wood piece used in the side and head jambs of double hung windows to separate the upper sash from the lower sash.

Particle board - Plywood substitute made of course sawdust that is mixed with resin and pressed into sheets. Used for closet shelving, floor underlayment, stair treads, etc.

Partition -A wall that subdivides spaces within any story of a building or room.

Plenum -The main hot-air supply duct leading from a furnace.

Plywood - A panel (normally 4' X 8') of wood made of three or more layers of veneer, compressed and joined with glue, and usually laid with the grain of adjoining plies at right angles to give the sheet strength.

Portland cement -Cement made by heating clay and crushed limestone into a brick and then grinding to a pulverized powder state.

Pressure-treated wood -Lumber that has been saturated with a preservative.

Quarry tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally 6" X 6" X 11/4" thick.

Quarter round -A small trim molding that has the cross section of a quarter circle.

Rafter -Lumber used to support the roof sheeting and roof loads. Generally, 2 X 10's and 2 X 12's are used. The rafters of a flat roof are sometimes called roof joists.

Rake fascia -The vertical face of the sloping end of a roof eave.

Reevaluation - In lead hazard control work, the combination of a visual assessment and collection of environmental samples performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dwelling remains lead-safe.

Register - A grill placed over a heating duct or cold air return.

Renovation - Work that involves construction and/or home or building improvement measures such as window replacement, weatherization, remodeling, and repainting.

Replacement - A strategy of abatement that entails the removal of building components coated with lead-based paint (such as windows, doors, and trim) and the installation of new components free of lead-based paint.

Retaining wall - A structure that holds back a slope and prevents erosion.

Riser -Each of the vertical boards closing the spaces between the treads of stairways.

Risk assessment - An onsite investigation of a residential dwelling to discover any lead-based paint hazard. Risk assessments include an investigation of the age, history, management, and maintenance of the dwelling, and the number of children under age 6 and women of child-bearing age who are residents; a visual assessment; limited environmental sampling (i.e., collection of dust wipe samples, soil samples, and deteriorated paint samples); and preparation of a report identifying acceptable abatement and interim control strategies based on specific conditions.

Risk assessor - A certified individual who has completed training with an accredited training program and who has been certified to (1) perform risk assessments, (2) identify acceptable abatement and interim control strategies for reducing identified lead-based paint hazards, (3) perform clearance testing and reevaluations, and (4) document the successful completion of lead-based paint hazard control activities.

Shake - A wood roofing material, normally cedar or redwood. Produced by splitting a block of the wood along the grain line. Modern shakes are sometimes machine sawn on one side. See shingle.

Shed roof - A roof containing only one sloping plane.

Sheet rock - Drywall-Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Shim - A small piece of scrap lumber or shingle, usually wedge shaped, which when forced behind a furring strip or framing member forces it into position. Also used when installing doors and placed between the door jamb legs and 2 X 4 door trimmers. Metal shims are wafer 1 1/2" X 2" sheet metal of various thickness' used to fill gaps in wood framing

members, especially at bearing point locations.

Shingles - Roof covering of asphalt, asbestos, wood, tile, slate, or other material cut to stock lengths, widths, and thickness'.

Shingles, siding - Various kinds of shingles, used over sheathing for exterior wall covering of a structure.

Shutter - Usually lightweight louvered decorative frames in the form of doors located on the sides of a window. Some shutters are made to close over the window for protection.

Siding - The finished exterior covering of the outside walls of a frame building.

Sill - (1) The 2 X 4 or 2 X 6 wood plate framing member that lays flat against and bolted to the foundation wall (with anchor bolts) and upon which the floor joists are installed. Normally the sill plate is treated lumber. (2) The member forming the lower side of an opening, as a door sill or window sill.

Skylight - A more or less horizontal window located on the roof of a building.

Slab, concrete - Concrete pavement, i.e. driveways, garages, and basement floors.

Slab, door - A rectangular door without hinges or frame.

Soffit - The area below the eaves and overhangs. The underside where the roof overhangs the walls. Usually the underside of an overhanging cornice.

Stair landing - A platform between flights of stairs or at the termination of a flight of stairs. Often used when stairs change direction. Normally no less than 3 ft X 3 ft square.

Stile - An upright framing member in a panel door.

Stool - The flat molding fitted over the window sill between jambs and contacting the bottom rail of the lower sash.

Stops - Moldings along the inner edges of a door or window frame. Also valves used to shut off water to a fixture.

Storm sash or storm window - An extra window usually placed outside of an existing one, as additional protection against cold weather.

String, stringer - A timber or other support for cross members in floors or ceilings. In stairs, the supporting member for stair treads. Usually a 2 X 12 inch plank notched to receive the treads.

Stucco - Refers to an outside plaster finish made with Portland cement as its base.

Stud - A vertical wood framing member, also referred to as a wall stud, attached to the horizontal sole plate below and the top plate above. Normally 2 X 4's or 2 X 6's, 8' long (sometimes 92 5/8"). One of a series of wood or metal vertical structural members placed as supporting elements in walls and partitions.

Subfloor - The framing components of a floor to include the sill plate, floor joists, and deck sheeting over which a finish floor is to be laid.

Substrate - A surface on which paint, varnish, or other coating has been applied or may be applied. Examples of substrates include wood, plaster, metal, and drywall.

Suspended ceiling - A ceiling system supported by hanging it from the overhead structural framing.

Terra cotta - A ceramic material molded into masonry units.

Testing combination - A unique surface to be tested that is characterized by the room equivalent, component and substrate.

Test location - A specific area on a testing combination where XRF instruments will test for lead-based paint.

Threshold - The bottom metal or wood plate of an exterior door frame. Generally they are adjustable to keep a tight fit with the door slab.

Tread - The walking surface board in a stairway on which the foot is placed.

Treated lumber - A wood product which has been impregnated with chemical pesticides such as CCA (Chromated Copper Arsenate) to reduce damage from wood rot or insects. Often used for the portions of a structure which are likely

to be in contact with soil and water. Wood may also be treated with a fire retardant.

Treatment - In residential lead-based paint hazard control work, any method designed to control lead-based paint hazards. Treatment includes interim controls, abatement, and removal.

Trim - Interior- The finish materials in a building, such as moldings applied around openings (window trim, door trim) or at the floor and ceiling of rooms (baseboard, cornice, and other moldings). Also, the physical work of installing interior doors and interior woodwork, to include all handrails, guardrails, stair way balustrades, mantles, light boxes, base, door casings, cabinets, countertops, shelves, window sills and aprons, etc. Exterior- The finish materials on the exterior a building, such as moldings applied around openings (window trim, door trim), siding, windows, exterior doors, attic vents, crawl space vents, shutters, etc. Also, the physical work of installing these materials.

Ug - Micrograms. The prefix micro means 1/1,000,000 (or one-millionth); a microgram is 1/1,000,000 of a gram and 1/1,000 or a milligram.

Veneer - Extremely thin sheets of wood. Also, a thin slice of wood or brick or stone covering a framed wall.

Vent - A pipe or duct which allows the flow of air and gasses to the outside. Also, another word for the moving glass part of a window sash, i.e. window vent.

Wafer board - A manufactured wood panel made out of 1 "- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing.

Water board - Water resistant drywall to be used in tub and shower locations. Normally green or blue colored.

Window frame - The stationary part of a window unit; window sash fits into the window frame and their border.

Window sill - See Interior window sill.

Window trough - For a typical double-hung window, the portion of the exterior window sill between the exterior window sill between the interior window sill (or stool) and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when they are both lowered. Sometimes inaccurately called the window "well." See also Window well.

Window well - The space that provides exterior access and/or light to a window that is below grade, i.e., below the level of the surrounding earth or pavement.

XRF analyzer - An instrument that determines lead concentration in milligrams per square centimeter (mg/cm²) using the principle of x-ray fluorescence (XRF). For lead-based paint inspections, the term XRF analyzer only refers to portable instruments manufactured to analyze paint, and does not refer to laboratory-grade units or portable instruments designed to analyze soil.

Window sash - The operating or movable part of a window; the sash is made of window panes.

Building component terms from www.HomeBuildingManual.com; other terms from the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997).

**LEAD-BASED PAINT INSPECTION
AND
VISUAL ASSESSMENT REPORT**

**UNIT I403
FALCON VILLAGE, TEXAS 78545**

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3 July 2013

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EXECUTIVE SUMMARY

LCA Environmental, Inc. (LCA) has been authorized to perform a lead-based paint (LBP) evaluation at the single-family residence located at Unit I403 in Falcon Village, Texas. The property was not occupied at the time of the inspection. Readily accessible painted and/or finished components were evaluated according to the protocols described for LBP inspection in the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and applicable Federal, State, and Local regulations.

According to the HUD guidelines, a lead reading by X-Ray Fluorescence (XRF) of 1.0 mg/cm^2 or above is considered positive for the presence of LBP. The State of Texas also uses an action level of 1.0 mg/cm^2 . This action level will be referenced throughout the report.

Components having lead levels at or above the action level are visually assessed for the condition of the surface area. Those LBP surfaces found to be intact at the time of inspection do not require paint stabilization, but should be monitored on an ongoing basis. During the evaluation, XRF testing was performed on at least one location per testing combination, except for interior walls, where four readings were taken (or one on each wall). The XRF testing was conducted using an InnovX Systems, Inc. lead paint analyzer. A surface-by-surface visual assessment of the painted and/or finished surfaces was conducted to determine which lead-coated surfaces/components are deteriorated at or above *de minimis* levels.

The lead-based paint evaluation at this property performed on 20 June 2013 produced the following findings:

Interior Components

- *No LBP was detected at or above 1.0 mg/cm^2 in the interior surfaces tested.*

Exterior Components

- *No LBP was detected at or above 1.0 mg/cm^2 in the exterior surfaces tested.*

1.0 SCOPE OF INSPECTION

1.1 Scope of Work

LCA performed a LBP evaluation (XRF testing and visual assessment) at Unit I403 in Falcon Village, Texas. Mr. Thomas Hale, an EPA-accredited and TDSHS Certified Risk Assessor/Inspector (Texas License Number 2070881), conducted the evaluation on 20 June 2013. Painted and/or finished components were tested according to the protocols described for LBP inspections in the HUD Guidelines Chapter 7 (revised 1997) and applicable Federal, state, and local regulations.

During the evaluation, an action level of 1.0 mg/cm^2 was followed to determine the components that contained LBP, in accordance with Federal, state, and local regulations.

1.2 Training Requirements

All individuals who performed this XRF testing and visual assessment have EPA and/or State licensure as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, along with the principles of radiation safety, in accordance with the work practices of 40 CFR 745, section 227, for States and Indian Tribes.

1.3 Equipment

An industry standard XRF, manufactured by Innov-X Systems, Inc., was utilized during the evaluation. Prior to initial sampling, the instrument was calibrated against the standards of the National Institute of Standards and Testing (NIST).

2.0 METHODOLOGY

2.1 Definitions

A Room Equivalent is an identifiable part of a residence, such as a room, foyer, staircase, hallway, or a house exterior or other exterior area. Exterior areas contain items such as play areas, painted swing sets, painted sandboxes, etc. Small closets or other similar areas adjoining rooms should not be considered as separate room equivalents unless they are obviously dissimilar from the adjoining room equivalent. However, walk-in closets should be considered as separate room equivalents.

Each room equivalent is made up of Components. Components may be located inside or outside a building. For example, components in a room could be its ceiling, floor, walls, a door and its casing, the window sash, and window casings. The Substrate is the material underneath the paint of a component. Although many different substrates exist, HUD guidelines recommend classifying substrates into one of six types: (1) brick; (2) concrete; (3) drywall; (4) metal, (5) plaster; and (6) wood. If the true substrate under investigation is not one of the aforementioned types, HUD guidelines mandate the inspector/risk assessor to select the substrate type that most closely resembles one of the six defined substrate types. For substrates that are layered, such as plaster on concrete, the substrate directly beneath the painted surface is identified during a LBP inspection. A Testing Combination is characterized by the room equivalent, component, and substrate. Visible color may not be an accurate predictor of painting history and is not included in the definition of a testing combination. Components that are coated with paint, varnish, shellac, wallpaper, stain, or other coating should be considered as separate testing combinations. Certain building components that are adjacent to each other and not likely to have different painting histories can be grouped together into a single testing combination as follows:

- Window casings, stops, jambs, and aprons.
- Interior window mullions and window sashes. Interior window components may not be grouped with exterior window components.
- Exterior window mullions and window sashes.
- Door jambs, stops, transoms, casings, and other door parts.

- Door stiles, rails, panels, mullions, and other door parts.
- Baseboards and associated trim (such as quarter-round or other caps).
- Painted electrical sockets, switches, or plates can be grouped with the walls.

The **Test Location** is a specific area on a testing combination where the XRF was used to test for LBP.

NOTE: If present, components covered with vinyl and/or metal sidings were not inspected during the evaluation because the surfaces underneath these components were not visible or accessible. This leaves the possibility that LBP components could be located beneath these coverings.

De minimis levels for deteriorated lead-based paint are defined follows: (1) For a component with a small surface area, such as window sills, or baseboards, 10% of the surface area; (2) For an interior component with a large surface area, such as an interior wall, 2 square feet of the surface area; and (3) For an exterior component with a large surface area, 20 square feet of the surface area.

2.2 Sampling Strategies

According to the HUD guidelines, a lead reading by XRF of 1.0 mg/cm² or above is considered positive for the presence of LBP. An XRF reading below 1.0 mg/cm² is considered negative; however, a reading below 1.0 mg/cm² could still be harmful if proper precautions are not taken during activities that disturb these paint films. If there are any inconclusive readings, a paint-chip sample may be collected for laboratory analysis. Laboratory analysis of samples collected will only be performed by an EPA approved National Lead Laboratory Accreditation Program (NLLAP) laboratory. There is no inconclusive range for laboratory measurements/results.

Only painted, stained, varnished, or wallpapered components of a dwelling are tested during a LBP evaluation. Wall “A” or “1” in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall “A” or “1”, Wall “B” or “2” will always be to your right, Wall “C” or “3” directly to the rear and Wall “D” or “4” to the left. Doors, windows and closets are designated as left, center or right depending on their location on the wall. When more than one window/door is on a wall, features are numbered left to right.

2.3 Assessment Logic

A LBP evaluation is performed by use of the following assessment logic. Any paint found to contain lead below the HUD standard of 1.0 mg/cm², regardless of condition, is considered non-hazardous. Components having lead levels at or above the action level are visually assessed for condition and approximate surface area. The paint condition is placed into one of two categories using the risk assessor’s professional judgment. These categories are: (1) intact (good) and (2) deteriorated (poor), based on the HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 5: Risk Assessment [Table 5-3], June, 1995.

2.4 Calibration of XRF Equipment

The calibration of the instrument is done in accordance with the Performance Characteristic Sheet (PCS) for this instrument. These instruments are calibrated using a calibration standard block of known lead content. Three calibration readings are taken before and after each home is tested to ensure manufacturer's standards are met. If the inspection is longer than four hours, a set of three calibration readings must be taken before the four hours expires, and then an additional three calibration readings taken at the end of the inspection. If for any reason the instruments are not maintaining a consistent calibration reading within the manufacturer's standards for performance on the calibration block supplied by the manufacturer, manufacturer's recommendations are used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it is taken off the site and sent back to the manufacturer for repair and/or re-calibration.

3.0 FINDINGS

3.1 Site Description

The property is located at Unit I403 in Falcon Village, Texas and is a single family dwelling with one residential unit. The home, reportedly constructed in the 1960s, is a single-story dwelling containing approximately 1,300 square feet of living space. The exterior is predominantly composed of vinyl siding over stucco with wood walls at gables and wood soffits and fascia. Window components are metal or brick. Interior finishes include drywall walls, drywall ceilings, with concrete and vinyl flooring.

3.2 Inaccessible Areas

There were no inaccessible areas identified at the time of the inspection.

3.3 Visual Assessment Results

The visual assessment identified the following:

| Item | Identified Yes/No |
|--|----------------------|
| Deteriorating painted surfaces | Yes* |
| Painted surfaces that are chewable, impact joints or subject to friction | Yes |
| Bare soil surface (soil surface that is not covered by pavement or sod or landscaping) | Yes |
| Excessive accumulation of dust on most interior surfaces | Yes** |

* - These painted surfaces were not found to contain LBP.

** - The structure has been unoccupied and open to the elements for an undetermined amount of time.

3.4 Lead-Based Paint Inspection Results

LCA has determined that the following components contain lead in amounts equal to or exceeding 1.0 mg/cm^2 in the surfaces tested during the LBP inspection:

Interior Components

- *No LBP was detected at or above 1.0 mg/cm^2 in the interior surfaces tested.*

Exterior Components

- *No LBP was detected at or above 1.0 mg/cm² in the exterior surfaces tested.*

3.5 Summary and Distribution Table

| | |
|--|-----|
| Number of Positive Readings (for Paint Only) | 0 |
| Total Number of Readings | 125 |
| Percent Positive | 0 |

4.0 CONCLUSIONS

No components were found to contain lead exceeding 1.0 mg/cm² (see Section 3.4).

This evaluation was completed in accordance with Lead Safe Housing Rule 24 CFR Part 35 subpart F as amended (2004). The sampling results are presented in Appendix A and notes are presented in Appendix B. The outline of dwelling is drafted in Appendix C. Appendix D contains photographs of the property. Appendix E contains the personal certifications of the inspector. Appendix F contains the PCS sheets for the XRF instrument and Appendix G contains a glossary of terms.

5.0 DISCLOSURE RESPONSIBILITY

A copy of this report must be provided to new lessees (tenants) and purchasers of this property under Federal Law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that children and pregnant women are protected from LBP hazards.

The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard states that “negative” readings (i.e. those below the HUD/EPA definition of what constitutes LBP [1.0 mg/cm²]) **do not** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead free. Although a reading may indicate “negative”, airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

DISCLAIMER

This is our report of a visual survey, and X-Ray Fluorescence (XRF) analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation. No other environmental concerns or conditions were addressed during this evaluation.

APPENDIX A

XRF DATA SHEETS

Unit I403 Falcon Village, Texas

20 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|-------|-----------|
| 1 | Standardization | PASS | | | | | | |
| 2 | Calibration | Positive | 1.03 | | | | Red | |
| 3 | Lead Paint Fixed-Time | Negative | 0 | Room 1 | Ceiling | Gyp | White | N/A |
| 4 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 5 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 6 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 7 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 8 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 9 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 10 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 11 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 12 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 13 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 14 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 15 | Lead Paint Fixed-Time | Negative | 0 | Room 2 | Ceiling | Gyp | White | N/A |
| 16 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 17 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 18 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 19 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 20 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 21 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 22 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 23 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 24 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 25 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 26 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 27 | Lead Paint Fixed-Time | Negative | 0 | Room 3 | Ceiling | Gyp | White | N/A |
| 28 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 29 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 30 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 31 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 32 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 33 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 34 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 35 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 36 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 37 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 38 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 39 | Lead Paint Fixed-Time | Negative | 0 | Room 4 | Ceiling | Gyp | White | N/A |
| 40 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 41 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 42 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 43 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 44 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 45 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 46 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 47 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 48 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 49 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 50 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 51 | Lead Paint Fixed-Time | Negative | 0 | Room 5 | Ceiling | Gyp | White | N/A |
| 52 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |

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20 June 2013

| | | | | | | | | |
|-----|-----------------------|----------|---|---------|-------------|------|-------|-----|
| 53 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 54 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 55 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 56 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 57 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 58 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 59 | Lead Paint Fixed-Time | Negative | 0 | Room 6 | Ceiling | Gyp | White | N/A |
| 60 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 61 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 62 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 63 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 64 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 65 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 66 | Lead Paint Fixed-Time | Negative | 0 | Room 7 | Ceiling | Gyp | White | N/A |
| 67 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 68 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 69 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 70 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 71 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 72 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 73 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 74 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 75 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 76 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 77 | Lead Paint Fixed-Time | Negative | 0 | Room 8 | Ceiling | Gyp | White | N/A |
| 78 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 79 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 80 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 81 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 82 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 83 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 84 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 85 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 86 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 87 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 88 | Lead Paint Fixed-Time | Negative | 0 | Room 9 | Ceiling | Gyp | White | N/A |
| 89 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 90 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 91 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 92 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 93 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 94 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 95 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 96 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 97 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 98 | Lead Paint Fixed-Time | Negative | 0 | Room 10 | Ceiling | Gyp | White | N/A |
| 99 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 100 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 101 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 102 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 103 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 104 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 105 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |

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| | | | | | | | | |
|-----|-----------------------|----------|------|------------|-----------------|--------|-------|-----|
| 106 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 107 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 108 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 109 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 110 | Lead Paint Fixed-Time | Negative | 0 | Exterior A | Soffit | Wood | White | N/A |
| 111 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | White | N/A |
| 112 | Lead Paint Fixed-Time | Negative | 0 | | Carport Ceiling | Wood | White | N/A |
| 113 | Lead Paint Fixed-Time | Negative | 0 | | Column | Wood | White | N/A |
| 114 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 115 | Lead Paint Fixed-Time | Negative | 0.01 | Exterior B | Soffit | Wood | White | N/A |
| 116 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | Red | N/A |
| 117 | Lead Paint Fixed-Time | Negative | 0 | | Gable | Metal | Red | N/A |
| 118 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Wood | Brown | N/A |
| 119 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 120 | Lead Paint Fixed-Time | Negative | 0 | Exterior C | Soffit | Wood | White | N/A |
| 121 | Lead Paint Fixed-Time | Negative | 0.03 | | Fascia | Wood | White | N/A |
| 122 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 123 | Lead Paint Fixed-Time | Negative | 0 | Exterior D | Soffit | Wood | Red | N/A |
| 124 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | Red | N/A |
| 125 | Lead Paint Fixed-Time | Negative | 0.01 | | Gable | Metal | Red | N/A |
| 126 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall | Wood | Brown | N/A |
| 127 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |

APPENDIX B

NOTES

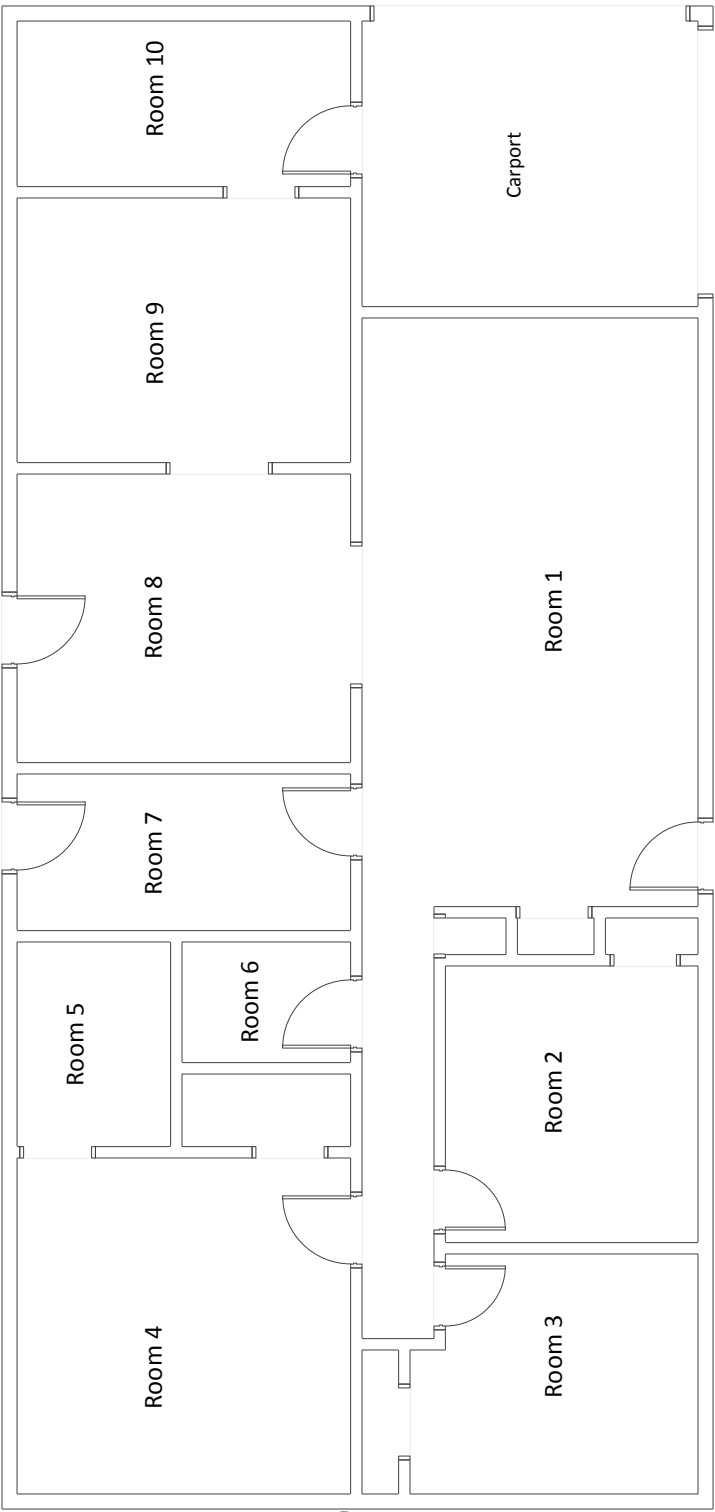
Unit I403, Falcon Village, Texas

| Room | Notes |
|-------------|---|
| Room 1 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 2 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 3 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 4 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 5 | Gyp-board ceiling, gyp-board and ceramic tile walls, ceramic tile floor |
| Room 6 | Gyp-board ceiling, gyp-board and ceramic tile walls, ceramic tile floor |
| Room 7 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 8 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 9 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 10 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl flooring |
| Exterior | Wood, stucco, vinyl siding |

APPENDIX C

DRAWING(S)

C



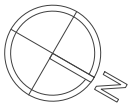
A



NOTE: No LBP was found during this LBP Inspection.



Quanternary Resource Investigations, LLC
Lead-based Paint Inspection
CBP-Owned Housing, Falcon Village, Texas



NOT TO SCALE

Figure 1
Unit 1403
Sample Location Plan

Drawn By: EBB

Date: 07/02/13

Location: CBP-Owned Housing, Falcon Village, Texas

LCA Project No.: 130602

Approved By: TAH

Date: 07/02/13

Source: LCA Field Sketch

Filename: Fig1-I403 Sample Location Plan

APPENDIX D

PHOTOGRAPHS



Photograph 1: View of the front of the structure at Unit I403, in Falcon Village, Texas. No LBP was found during this inspection.

APPENDIX E

CERTIFICATIONS



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

LYNN CLARK ASSOCIATES INC

is certified to perform as a

Lead Firm

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, appearing to read "David L. Laakey".

David L. Laakey, M.D.
Commissioner of Health

License Number: 2110555

Control Number 6528

Expiration Date: 6/12/2015

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

THOMAS A HALE

is certified to perform as a

Lead Risk Assessor

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, reading "David L. Lakey".

David L. Lakey, M.D.
Commissioner of Health

License Number: 2070881

Expiration Date: 5/5/2013

Void After Expiration Date

VOID IF ALTERED

Control Number 6610

NON-TRANSFERABLE

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Inspector Refresher

Conducted at Hurst, Texas on December 3, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/03/2012

Certificate Number: 12046 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

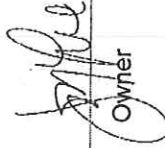
has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Risk Assessor Refresher

Conducted at Hurst, Texas on December 4, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/04/2012

Certificate Number: 12030 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

APPENDIX F

NIST – CERTIFICATE OF ANALYSIS



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material® 2573

Lead Paint Film

For Portable X-Ray Fluorescence Analyzers – Nominal 1.0 mg/cm²
(Color Code: Red)

This Standard Reference Material (SRM) is intended for checking the calibration of portable, hand-held, x-ray fluorescence analyzers when testing for lead in paint coatings on interior and exterior building surfaces. A unit of SRM 2573 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, red-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2570, is also provided. The blank is coated with a lead-free, lacquer layer on a white polyester sheet of the same thickness as the lead paint samples. All sheets are over-coated with a clear, thin, plastic laminate to protect the surface from abrasion. SRM 2573 and SRM 2570 are two of a set of six paint films (SRM 2570 to SRM 2575) available as SRM 2579a.

The certified values for lead for this SRM and the blank, SRM 2570, are reported in Table 1 in units of mg/cm². These values are based on measurements by isotope dilution inductively-coupled plasma mass spectrometry.

Table 1. Certified Lead Values

| Level | Color Code | Lead Concentration, in mg/cm ² |
|----------|---------------|---|
| SRM 2570 | White (Blank) | <0.001 |
| SRM 2573 | Red | 1.040 ± 0.064 |

The uncertainty of each certified value is expressed as an expanded uncertainty, U , at the 95 % level of confidence and is calculated according to the method described in the ISO Guide [1,2]. Because of variability in the paint film between different sheets of each SRM, the uncertainties are 95 % prediction intervals. The expanded uncertainty is calculated as $U = ku_c$, where u_c is intended to represent, at the level of one standard deviation, the combined uncertainty due to material variability and measurement uncertainty. The coverage factor, k , is determined from the Student's t -distribution corresponding to the calculated effective degrees of freedom and 95 % level of confidence.

Expiration of Certification: The certification of SRM 2573 is valid, within the measurement uncertainties specified, until **01 July 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Use"). The certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet) will facilitate notification.

The overall direction and coordination of the analytical measurements leading to certification were performed by G.C. Turk and J.D. Fassett of the NIST Analytical Chemistry Division. Analytical measurements were performed by K.E. Murphy, J.R. Sieber, A.F. Marlow, L.J. Wood, P.R. Seo, and M. Lankosz of the NIST Analytical Chemistry Division. The SRM was fabricated under the direction of J.R. Sieber of the NIST Analytical Chemistry Division.

Stephen A. Wise, Chief
Analytical Chemistry Division

Robert L. Watters, Jr., Chief
Measurement Services Division

Gaithersburg, MD 20899
Certificate Issue Date: 24 March 2009
See Certificate Revision History on Last Page

Statistical consultation for this SRM was provided by E.S. Lagergren and N.F. Zhang of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Measurement Services Division.

NOTICE AND WARNING TO USERS

NOTE: This SRM contains lead, as a lead chromate pigment, which is toxic and a suspected carcinogen to the lung and kidney. The SRM must be handled with care and disposed of according to the U.S. Environmental Protection Agency (EPA) practices and procedures.

INSTRUCTIONS FOR USE

The SRM sheet must first be removed from the plastic sleeve in which it is stored and then positioned so that the side labeled with the NIST logo and SRM number faces the x-ray source. For best results, the size of the x-ray beam from the field unit should irradiate an area of the SRM that is at least 2.5 cm in diameter and is centered on the sheet. Care must be exercised not to compromise the protective plastic laminate which prevents scratching or chipping of the painted surface and the potential release of dust containing lead. Upon completion of the measurement, the SRM must be re-stored in the plastic sleeve provided. It is also recommended that this SRM be stored indoors at ambient room temperature and away from direct sunlight when not in use.

Stability: This SRM is considered to be stable during the period of certification. NIST will monitor the SRM and will report any significant changes in certification to the purchaser. Return of the attached registration card will facilitate notification.

PREPARATION

SRM Preparation: The paint-coated, polyester sheets were prepared by an automated coating process at a commercial facility under contract to NIST. Known concentrations of a lead chromate pigment were dispersed in a commercial paint vehicle to prepare the lead paints. A lead-free, organic tint was added to each paint mixture to give the desired color. A thin, protective overlay of plastic laminate was applied to each paint film. The attenuation of lead $L_{3-}M_{4,5}$ ($L\alpha_{1,2}$) X-rays due to the protective overlay does not exceed 2 % relative, while that of $K-L_{2,3}$ ($K\alpha_{1,2}$) x-rays commonly used for field measurement is negligible.

REFERENCES

- [1] ISO; *Guide to the Expression of Uncertainty in Measurement*; ISBN 92-67-10188-9, 1st ed., International Organization for Standardization: Geneva, Switzerland (1993); see also Taylor, B.N.; Kuyatt, C.E.; *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*; NIST Technical Note 1297, U.S. Government Printing Office: Washington, DC (1994); available at <http://physics.nist.gov/Pubs/>.
- [2] Hahn, G.J.; Meeker, W.Q.; *Statistical Intervals: A Guide for Practitioners*; John Wiley & Sons, Inc., New York, NY (1991).

Certificate Revision History: 24 March 2009 (Extension of certification period); 29 November 1999 (Original certificate date).

Users of this SRM should ensure that the certificate in their possession is current. This can be accomplished by contacting the SRM Program at: telephone (301) 975-2200; fax (301) 926-4751; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX G

GLOSSARY

Abatement - A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. See also Complete Abatement and Interim Controls.

Accessible surface - Any protruding interior or exterior surface, such as an interior window sill, that a young child can mouth or chew.

Accreditation - A formal recognition that an organization, such as a laboratory, is competent to carry out specific tasks or types of tests.

Accredited laboratory -A laboratory that has been evaluated and approved by the National Lead Laboratory Accreditation Program (NLLAP) to perform lead measurement or analysis, usually over a specified period of time.

Apron - A trim board that is installed beneath a window sill.

Area wells - Corrugated metal or concrete barrier walls installed around a basement window to hold back the earth.

Attic access - An opening that is placed in the drywalled ceiling of a home providing access to the attic.

Attic Ventilators - In houses, screened openings provided to ventilate an attic space.

Backing - Frame lumber installed between the wall studs to give additional support for drywall or an interior trim related item, such as handrail brackets, cabinets, and towel bars. In this way, items are screwed and mounted into solid wood rather than weak drywall that may allow the item to break loose from the wall. Carpet backing holds the pile fabric in place.

Balusters -Vertical members in a railing used between a top rail and bottom rail or the stair treads. Sometimes referred to as 'pickets' or 'spindles'.

Balustrade - The rail, posts and vertical balusters along the edge of a stairway or elevated walkway.

Bare soil - Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Barge board - A decorative board covering the projecting rafter (fly rafter) of the gable end. At the cornice, this member is a fascia board.

Base or baseboard - A trim board placed against the wall around the room next to the floor.

Basement window inserts - The window frame and glass unit that is installed in the window buck.

Base shoe - Molding used next to the floor on interior base board. Sometimes called a carpet strip.

Bat - A half-brick.

Batt - A section of fiber-glass or rock-wool insulation measuring 15 or 23 inches wide by four to eight feet long and various thicknesses. Sometimes "faced" (meaning to have a paper covering on one side) or "unfaced" (without paper).

Batten - Narrow strips of wood used to cover joints or as decorative vertical members over plywood or wide boards.

Bay window - Any window space projecting outward from the walls of a building, either square or polygonal in plan.

Beam - A structural member transversely supporting a load. A structural member carrying building loads (weight) from one support to another. Sometimes called a "girder".

Bearing wall - A wall that supports any vertical load in addition to its own weight. **Bearing header** - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Bifold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

Bypass doors - Doors that slide by each other and commonly used as closet doors.

Blocking - Small wood pieces to brace framing members or to provide a nailing base for gypsum board or paneling.

Blood lead threshold - Any blood level greater than or equal to 10 ug/dL as defined by the Centers for Disease Control and Prevention. See also Elevated Blood Lead level (EBL) child.

Brace - An inclined piece of framing lumber applied to wall or floor to strengthen the structure. Often used on walls as temporary bracing until framing has been completed.

Breaker panel - The electrical box that distributes electric power entering the home to each branch circuit (each plug and switch) and composed of circuit breakers.

Brick mold - Trim used around an exterior door jamb that siding butts to.

Brick tie - A small, corrugated metal strip @ 1" X 6"- 8" long nailed to wall sheathing or studs. They are inserted into the grout mortar joint of the veneer brick, and holds the veneer wall to the sheathed wall behind it.

Brick veneer - A vertical facing of brick laid against and fastened to sheathing of a framed wall or tile wall construction.

Building component - Any element of a building that may be painted or have dust on its surface, e.g. walls, stair treads, floors, railings, doors, window sills, etc.

By fold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

By pass doors - Doors that slide by each other and commonly used as closet doors.

Cantilever - An overhang. Where one floor extends beyond and over a foundation wall. For example at a fireplace location or bay window cantilever. Normally, not extending over 2 feet.

Cap - The upper member of a column, pilaster, door cornice, molding, or fireplace.

Cap flashing - The portion of the flashing attached to a vertical surface to prevent water from migrating behind the base flashing.

Casement - Frames of wood or metal enclosing part (or all) of a window sash. May be opened by means of hinges affixed to the vertical edges.

Casement Window - A window with hinges on one of the vertical sides and swings open like a normal door.

Casing - Wood trim molding installed around a door or window opening.

CelotexTM - Black fibrous board that is used as exterior sheathing.

Ceiling joist - One of a series of parallel framing members used to support ceiling loads and supported in turn by larger beams, girders or bearing walls. Also called roof joists.

Cement - The gray powder that is the "glue" in concrete. Portland cement. Also, any adhesive.

Ceramic tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally used in bathtub and shower enclosures and on counter tops.

Certification - The process of testing and evaluating against certain specifications the competence of a person, organization, or other entity in performing a function or service, usually for a specified period of time.

Certified - The designation for contractors who have completed training and other requirements to allow them to safely undertake risk assessments, inspections, or abatement work. Risk assessors, inspectors, and abatement contractors should be certified by the appropriate local, State or Federal agency.

Chair rail - Interior trim material installed about 3-4 feet up the wall, horizontally.

Chalking -The photo-oxidation of paint binders - usually due to weathering - that causes a powder to form on the film surface.

Chase - A framed enclosed space around a flue pipe or a channel in a wall, or through a ceiling for something to lie in or pass through.

Chewed surface - Any painted surface that shows evidence of having been chewed or mouthed by a young child. A chewed surface is usually a protruding, horizontal part of a building, such as an interior window sill. See also Accessible surface.

Chip Board - A manufactured wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing. Also called OSB (Oriented Strand Board) or wafer board.

Cleaning - The process of using a HEP A vacuum and wet cleaning agents to remove leaded dust; the process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to clean lead-contaminated dust from a surface.

Clearance examination - Visual examination and collection of environmental samples by an inspector or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control interventions, or maintenance job that disturbs lead-based paint (or paint suspected of being lead-based). The clearance examination is performed to ensure that lead exposure levels do not exceed standards established by the EPA administrator pursuant to Title IV of the Toxic Substances Control Act, and that any cleaning following such work adequately meets those standards.

Clearance examiner - A person who conducts clearance examinations following lead-based paint hazard control and cleanup work, usually a certified risk assessor or a certified inspector.

Code of Federal Regulations (CFR) - The codification of the regulations of Federal agencies.

Column - A vertical structural compression member which supports loads.

Complete abatement - Abatement of all lead-based paint inside and outside a dwelling or building and reduction of any lead-contaminated dust or soil hazards. All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, reevaluation and on-going monitoring. See also Abatement.

Concrete - The mixture of Portland cement, sand, gravel, and water. Used to make garage and basement floors, sidewalks, patios, foundation walls, etc. It is commonly reinforced with steel rods (rebar) or wire screening (mesh).

Concrete block - A hollow concrete 'brick' often 8" x 8" X 16" in size.

Concrete board - A panel made out of concrete and fiberglass usually used as a tile backing material.

Conduit, electrical - A pipe, usually metal, in which wire is installed.

Containment - A process to protect workers and the environment by controlling exposures to the lead contaminated dust and debris created during abatement.

Corbel - The triangular, decorative and supporting member that holds a mantel or horizontal shelf.

Corner bead - A strip of formed sheet metal placed on outside corners of drywall before applying drywall 'mud'.

Corner boards - Used as trim for the external corners of a house or other frame structure against which the ends of the siding are finished.

Corner braces - Diagonal braces at the corners of the framed structure designed to stiffen and strengthen the wall.

Cornice - Overhang of a pitched roof, usually consisting of a fascia board, a soffit and appropriate trim moldings.

Counter flashing - A metal flashing usually used on chimneys at the roofline to cover shingle flashing and used to prevent moisture entry.

Cove molding - A molding with a concave face used as trim or to finish interior corners.

Crawl space - A shallow space below the living quarters of a house, normally enclosed by the foundation wall and having a dirt floor.

Cross Tee - Short metal "T" beam used in suspended ceiling systems to bridge the spaces between the main beams.

Crown molding - A molding used on cornice or wherever an interior angle is to be covered, especially at the roof and wall corner.

Damper - A metal "door" placed within the fireplace chimney. Normally closed when the fireplace is not in use.

Deteriorated lead-based paint - Any lead-based paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or

otherwise becoming separated from the substrate.

Doorjamb, interior - The surrounding case into which and out of which a door closes and opens. It consists of two upright pieces, called side jambs, and a horizontal head jamb. These 3 jambs have the "door stop" installed on them.

Door stop - The wooden style that the door slab will rest upon when it's in a closed position.

Dormer - An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Downspout - A pipe, usually of metal, for carrying rainwater down from the roofs horizontal gutters.

Drip cap - A molding or metal flashing placed on the exterior topside of a door or window frame to cause water to drip beyond the outside of the frame.

Drywall (or Gypsum Wallboard (GWB), Sheet rock or Plasterboard) -Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The panels are nailed or screwed onto the framing and the joints are taped and covered with a 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Ducts - The heating system. Usually round or rectangular metal pipes installed for distributing warm (or cold) air from the furnace to rooms in the home. Also a tunnel made of galvanized metal or rigid fiberglass, which carries air from the heater or ventilation opening to the rooms in a building.

Dura board, dura rock - A panel made out of concrete and fiberglass usually used as a ceramic tile backing material. Commonly used on bathtub decks. Sometimes called Wonder board.

Dust removal - A form of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed. Depending on the severity of lead-based paint hazards, dust removal may be the primary activity or just one element of a broader control effort.

Eaves - The horizontal exterior roof overhang.

Elevated Blood Lead level (EBL) child - A child who has a blood level greater than or equal to 20 ug/dL or a persistent 15 ug/dL. See also Blood lead threshold.

Encapsulation - Any covering or coating that acts as a barrier between lead-based paint and the environment, the durability of which relies on adhesion and the integrity of the existing bonds between multiple layers of paint and between the paint and the substrate. See also Enclosure.

Enclosure - The use of rigid, durable construction materials that are mechanically fastened to the substrate to act as a barrier between the lead-based paint and the environment.

Escutcheon - An ornamental plate that fits around a pipe extending through a wall or floor to hide the cut out hole.

Evaluation - Risk assessment, paint inspection, reevaluation, investigation, clearance examination, or risk assessment screen.

Exterior work area - For lead hazard control work, the exterior work area includes any exterior building components, such as a porch or stairway; the safety perimeter; and access barriers.

Facing brick - The brick used and exposed on the outside of a wall. Usually these have a finished texture.

Fascia - Horizontal boards attached to rafter/truss ends at the eaves and along gables. Roof drain gutters are attached to the fascia.

Flue - Large pipe through which fumes escape from a gas water heater, furnace, or fireplace.

Friction surface - Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Gable - The end, upper, triangular area of a home, beneath the roof.

Gyp board - Drywall. Wall board or gypsum-A panel (normally 4' X 8', 10', 12', or 16') made with a core of Gypsum (chalk-like) rock, which covers interior walls and ceilings.

Header - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or

other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Hearth - The fireproof area directly in front of a fireplace. The inner or outer floor of a fireplace, usually made of brick, tile, or stone.

Hip - A roof with four sloping sides. The external angle formed by the meeting of two sloping sides of a roof.

Hip roof - A roof that rises by inclined planes from all four sides of a building.

HVAC - An abbreviation for Heat, Ventilation, and Air Conditioning

Impact surface - An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Inspection (of paint) - A surface-by-surface investigation to determine the presence of lead-based paint (in some cases including dust and soil sampling) and a report of the results.

Insulation board, rigid - A structural building board made of coarse wood or cane fiber in 1/2- and 25/32-inch thickness. It can be obtained in various size sheets and densities.

Interim controls- A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include specialized cleaning, repairs, maintenance, painting, temporary containment, and management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land-use controls. See also Monitoring, Reevaluation, and Abatement.

Interior window sill - The portion of the horizontal window ledge that protrudes into the interior of the room, adjacent to the window sash when the window is closed; often called the window stool.

Jamb - The side and head lining of a doorway, window, or other opening. Includes studs as well as the frame and trim.

Joint - The location between the touching surfaces of two members or components joined and held together by nails, glue, cement, mortar, or other means.

Joist - Wooden 2 X 8's, 10's, or 12's that run parallel to one another and support a floor or ceiling, and supported in turn by larger beams, girders, or bearing walls.

Laminated shingles -Shingles that have added dimensionality because of extra layers or tabs, giving a shake-like appearance. May also be called "architectural shingles" or "three-dimensional shingles."

Lath - A building material of narrow wood, metal, gypsum, or insulating board that is fastened to the frame of a building to act as a base for plaster, shingles, or tiles.

Lattice - An open framework of criss-crossed wood or metal strips that form regular, patterned spaces.

Lead - Lead includes metallic lead and inorganic and organic compounds of lead.

Lead-based paint - Any paint, varnish, shellac, or other coating' that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 ug/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis.

Lead-based paint hazard - A condition in which exposure to lead from lead-contaminated dust, lead contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA Administrator under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, deteriorated lead-based paint, leaded dust levels above applicable standards, and bare leaded soil above applicable standards.

Lead-based paint hazard control - Activities to control and eliminate lead-based paint hazards, including interim controls, abatement, and complete abatement.

Lead-contaminated dust - Surface dust in residences that contains an area or mass concentration of lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. Until the EPA standards are set, the HUD-recommended clearance and risk assessment standards for leaded dust are 100 ug/ft² on floors, 500 ug/ft² on interior window sills, and 800 ug/ft² on window troughs. The recommended standard for lead hazard

screens for floors is 50 ug/ft² and for window troughs is 400 ug/ft².

Lead-contaminated soil - Bare soil on residential property that contains lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. The HUD-recommended standard and interim EPA guidance is 400 ug/g for high-contact play areas and 2,000 ug/g in other bare areas of the yard. Soil contaminated with lead at levels greater than or equal to 5,000 ug/g should be abated by removal or paving.

Lead-free dwelling - A lead-free dwelling contains no lead-based paint and has interior dust and exterior soil lead levels below the applicable HUD and EPA standards.

Licensed - Holding a valid license or certification issued by EPA or by an EPA-approved State program pursuant to Title IV of the Toxic Substances Control Act. The license is based on certification for lead-based paint hazard control work. See also Certified.

Louver - A vented opening into the home that has a series of horizontal slats and arranged to permit ventilation but to exclude rain, snow, light, insects, or other living creatures.

Maintenance - Work intended to maintain adequate living conditions in a dwelling, which has the potential to disturb lead-based paint or paint that is suspected of being lead-based.

Mantel - The shelf above a fireplace opening. Also used in referring to the decorative trim around a fireplace opening.

Masonry - Stone, brick, concrete, hollow-tile, concrete block, or other similar building units or materials. Normally bonded together with mortar to form a wall.

Mastic - A pasty material used as a cement (as for setting tile) or a protective coating (as for thermal insulation or waterproofing)

Mg - Milligram; 1/1,000 of a gram.

Microgram - see Ug.

Milligram - see Mg.

Molding - A wood strip having an engraved, decorative surface.

Monitoring - Surveillance to determine (1) that known or suspected lead-based paint is not deteriorating; (2) that lead-based paint hazard controls, such as paint stabilization, enclosure, or encapsulation have not failed, (3) that structural problems do not threaten the integrity of hazard controls or of known or suspected lead-based paint, and (4) that dust lead levels have not risen above applicable levels.

Mortar - A mixture of cement (or lime) with sand and water used in masonry work.

Mullion - A vertical divider in the frame between windows, doors, or other openings.

Muntin - A small member which divides the glass or openings of sash or doors.

Natural finish - A transparent finish which does not seriously alter the original color or grain of the natural wood. Natural finishes are usually provided by sealers, oils, varnishes, water repellent preservatives, and other similar materials.

Newel post -The large starting post to which the end of a stair guard railing or balustrade is fastened.

Oriented Strand Board or OSB -A manufactured 4' X 8' wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood.

Overhang - Outward projecting eave-soffit area of a roof; the part of the roof that hangs out or over the outside wall. See also Cornice.

Paint film stabilization - The process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint; paint film stabilization includes cleanup and clearance.

Paint removal -An abatement strategy that entails the removal of lead-based paint from surfaces. For lead-hazard control work, this can mean using chemicals, heat guns below 1,100 °F, and certain contained abrasive methods. Open-flame burning, open abrasive blasting, and extensive dry scraping are prohibited paint removal methods.

Panel - A thin flat piece of wood, plywood, or similar material, framed by stiles and rails as in a door (or cabinet door), or fitted into grooves of thicker material with molded edges for decorative wall treatment.

Parting stop or strip -A small wood piece used in the side and head jambs of double hung windows to separate the upper sash from the lower sash.

Particle board - Plywood substitute made of course sawdust that is mixed with resin and pressed into sheets. Used for closet shelving, floor underlayment, stair treads, etc.

Partition -A wall that subdivides spaces within any story of a building or room.

Plenum -The main hot-air supply duct leading from a furnace.

Plywood - A panel (normally 4' X 8') of wood made of three or more layers of veneer, compressed and joined with glue, and usually laid with the grain of adjoining plies at right angles to give the sheet strength.

Portland cement -Cement made by heating clay and crushed limestone into a brick and then grinding to a pulverized powder state.

Pressure-treated wood -Lumber that has been saturated with a preservative.

Quarry tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally 6" X 6" X 11/4" thick.

Quarter round -A small trim molding that has the cross section of a quarter circle.

Rafter -Lumber used to support the roof sheeting and roof loads. Generally, 2 X 10's and 2 X 12's are used. The rafters of a flat roof are sometimes called roof joists.

Rake fascia -The vertical face of the sloping end of a roof eave.

Reevaluation - In lead hazard control work, the combination of a visual assessment and collection of environmental samples performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dwelling remains lead-safe.

Register - A grill placed over a heating duct or cold air return.

Renovation - Work that involves construction and/or home or building improvement measures such as window replacement, weatherization, remodeling, and repainting.

Replacement - A strategy of abatement that entails the removal of building components coated with lead-based paint (such as windows, doors, and trim) and the installation of new components free of lead-based paint.

Retaining wall - A structure that holds back a slope and prevents erosion.

Riser -Each of the vertical boards closing the spaces between the treads of stairways.

Risk assessment - An onsite investigation of a residential dwelling to discover any lead-based paint hazard. Risk assessments include an investigation of the age, history, management, and maintenance of the dwelling, and the number of children under age 6 and women of child-bearing age who are residents; a visual assessment; limited environmental sampling (i.e., collection of dust wipe samples, soil samples, and deteriorated paint samples); and preparation of a report identifying acceptable abatement and interim control strategies based on specific conditions.

Risk assessor - A certified individual who has completed training with an accredited training program and who has been certified to (1) perform risk assessments, (2) identify acceptable abatement and interim control strategies for reducing identified lead-based paint hazards, (3) perform clearance testing and reevaluations, and (4) document the successful completion of lead-based paint hazard control activities.

Shake - A wood roofing material, normally cedar or redwood. Produced by splitting a block of the wood along the grain line. Modern shakes are sometimes machine sawn on one side. See shingle.

Shed roof - A roof containing only one sloping plane.

Sheet rock - Drywall-Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Shim - A small piece of scrap lumber or shingle, usually wedge shaped, which when forced behind a furring strip or framing member forces it into position. Also used when installing doors and placed between the door jamb legs and 2 X 4 door trimmers. Metal shims are wafer 1 1/2" X 2" sheet metal of various thickness' used to fill gaps in wood framing

members, especially at bearing point locations.

Shingles - Roof covering of asphalt, asbestos, wood, tile, slate, or other material cut to stock lengths, widths, and thickness'.

Shingles, siding - Various kinds of shingles, used over sheathing for exterior wall covering of a structure.

Shutter - Usually lightweight louvered decorative frames in the form of doors located on the sides of a window. Some shutters are made to close over the window for protection.

Siding - The finished exterior covering of the outside walls of a frame building.

Sill - (1) The 2 X 4 or 2 X 6 wood plate framing member that lays flat against and bolted to the foundation wall (with anchor bolts) and upon which the floor joists are installed. Normally the sill plate is treated lumber. (2) The member forming the lower side of an opening, as a door sill or window sill.

Skylight - A more or less horizontal window located on the roof of a building.

Slab, concrete - Concrete pavement, i.e. driveways, garages, and basement floors.

Slab, door - A rectangular door without hinges or frame.

Soffit - The area below the eaves and overhangs. The underside where the roof overhangs the walls. Usually the underside of an overhanging cornice.

Stair landing - A platform between flights of stairs or at the termination of a flight of stairs. Often used when stairs change direction. Normally no less than 3 ft X 3 ft square.

Stile - An upright framing member in a panel door.

Stool - The flat molding fitted over the window sill between jambs and contacting the bottom rail of the lower sash.

Stops - Moldings along the inner edges of a door or window frame. Also valves used to shut off water to a fixture.

Storm sash or storm window - An extra window usually placed outside of an existing one, as additional protection against cold weather.

String, stringer - A timber or other support for cross members in floors or ceilings. In stairs, the supporting member for stair treads. Usually a 2 X 12 inch plank notched to receive the treads.

Stucco - Refers to an outside plaster finish made with Portland cement as its base.

Stud - A vertical wood framing member, also referred to as a wall stud, attached to the horizontal sole plate below and the top plate above. Normally 2 X 4's or 2 X 6's, 8' long (sometimes 92 5/8"). One of a series of wood or metal vertical structural members placed as supporting elements in walls and partitions.

Subfloor - The framing components of a floor to include the sill plate, floor joists, and deck sheathing over which a finish floor is to be laid.

Substrate - A surface on which paint, varnish, or other coating has been applied or may be applied. Examples of substrates include wood, plaster, metal, and drywall.

Suspended ceiling - A ceiling system supported by hanging it from the overhead structural framing.

Terra cotta - A ceramic material molded into masonry units.

Testing combination - A unique surface to be tested that is characterized by the room equivalent, component and substrate.

Test location - A specific area on a testing combination where XRF instruments will test for lead-based paint.

Threshold - The bottom metal or wood plate of an exterior door frame. Generally they are adjustable to keep a tight fit with the door slab.

Tread - The walking surface board in a stairway on which the foot is placed.

Treated lumber - A wood product which has been impregnated with chemical pesticides such as CCA (Chromated Copper Arsenate) to reduce damage from wood rot or insects. Often used for the portions of a structure which are likely

to be in contact with soil and water. Wood may also be treated with a fire retardant.

Treatment - In residential lead-based paint hazard control work, any method designed to control lead-based paint hazards. Treatment includes interim controls, abatement, and removal.

Trim - Interior- The finish materials in a building, such as moldings applied around openings (window trim, door trim) or at the floor and ceiling of rooms (baseboard, cornice, and other moldings). Also, the physical work of installing interior doors and interior woodwork, to include all handrails, guardrails, stair way balustrades, mantles, light boxes, base, door casings, cabinets, countertops, shelves, window sills and aprons, etc. Exterior- The finish materials on the exterior a building, such as moldings applied around openings (window trim, door trim), siding, windows, exterior doors, attic vents, crawl space vents, shutters, etc. Also, the physical work of installing these materials.

Ug - Micrograms. The prefix micro means 1/1,000,000 (or one-millionth); a microgram is 1/1,000,000 of a gram and 1/1,000 or a milligram.

Veneer - Extremely thin sheets of wood. Also, a thin slice of wood or brick or stone covering a framed wall.

Vent - A pipe or duct which allows the flow of air and gasses to the outside. Also, another word for the moving glass part of a window sash, i.e. window vent.

Wafer board - A manufactured wood panel made out of 1 "- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing.

Water board - Water resistant drywall to be used in tub and shower locations. Normally green or blue colored.

Window frame - The stationary part of a window unit; window sash fits into the window frame and their border.

Window sill - See Interior window sill.

Window trough - For a typical double-hung window, the portion of the exterior window sill between the exterior window sill between the interior window sill (or stool) and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when they are both lowered. Sometimes inaccurately called the window "well." See also Window well.

Window well - The space that provides exterior access and/or light to a window that is below grade, i.e., below the level of the surrounding earth or pavement.

XRF analyzer - An instrument that determines lead concentration in milligrams per square centimeter (mg/cm²) using the principle of x-ray fluorescence (XRF). For lead-based paint inspections, the term XRF analyzer only refers to portable instruments manufactured to analyze paint, and does not refer to laboratory-grade units or portable instruments designed to analyze soil.

Window sash - The operating or movable part of a window; the sash is made of window panes.

Building component terms from www.HomeBuildingManual.com; other terms from the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997).

**LEAD-BASED PAINT INSPECTION
AND
VISUAL ASSESSMENT REPORT**

UNIT I405

FALCON VILLAGE, TEXAS 78545

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3 July 2013

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EXECUTIVE SUMMARY

LCA Environmental, Inc. (LCA) has been authorized to perform a lead-based paint (LBP) evaluation at the single-family residence located at Unit I405 in Falcon Village, Texas. The property was not occupied at the time of the inspection. Readily accessible painted and/or finished components were evaluated according to the protocols described for LBP inspection in the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and applicable Federal, State, and Local regulations.

According to the HUD guidelines, a lead reading by X-Ray Fluorescence (XRF) of 1.0 mg/cm^2 or above is considered positive for the presence of LBP. The State of Texas also uses an action level of 1.0 mg/cm^2 . This action level will be referenced throughout the report.

Components having lead levels at or above the action level are visually assessed for the condition of the surface area. Those LBP surfaces found to be intact at the time of inspection do not require paint stabilization, but should be monitored on an ongoing basis. During the evaluation, XRF testing was performed on at least one location per testing combination, except for interior walls, where four readings were taken (or one on each wall). The XRF testing was conducted using an InnovX Systems, Inc. lead paint analyzer. A surface-by-surface visual assessment of the painted and/or finished surfaces was conducted to determine which lead-coated surfaces/components are deteriorated at or above *de minimis* levels.

The lead-based paint evaluation at this property performed on 20 June 2013 produced the following findings:

Interior Components

- *No LBP was detected at or above 1.0 mg/cm^2 in the interior surfaces tested.*

Exterior Components

- *No LBP was detected at or above 1.0 mg/cm^2 in the exterior surfaces tested.*

1.0 SCOPE OF INSPECTION

1.1 Scope of Work

LCA performed a LBP evaluation (XRF testing and visual assessment) at Unit I405 in Falcon Village, Texas. Mr. Thomas Hale, an EPA-accredited and TDSHS Certified Risk Assessor/Inspector (Texas License Number 2070881), conducted the evaluation on 20 June 2013. Painted and/or finished components were tested according to the protocols described for LBP inspections in the HUD Guidelines Chapter 7 (revised 1997) and applicable Federal, state, and local regulations.

During the evaluation, an action level of 1.0 mg/cm^2 was followed to determine the components that contained LBP, in accordance with Federal, state, and local regulations.

1.2 Training Requirements

All individuals who performed this XRF testing and visual assessment have EPA and/or State licensure as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, along with the principles of radiation safety, in accordance with the work practices of 40 CFR 745, section 227, for States and Indian Tribes.

1.3 Equipment

An industry standard XRF, manufactured by Innov-X Systems, Inc., was utilized during the evaluation. Prior to initial sampling, the instrument was calibrated against the standards of the National Institute of Standards and Testing (NIST).

2.0 METHODOLOGY

2.1 Definitions

A Room Equivalent is an identifiable part of a residence, such as a room, foyer, staircase, hallway, or a house exterior or other exterior area. Exterior areas contain items such as play areas, painted swing sets, painted sandboxes, etc. Small closets or other similar areas adjoining rooms should not be considered as separate room equivalents unless they are obviously dissimilar from the adjoining room equivalent. However, walk-in closets should be considered as separate room equivalents.

Each room equivalent is made up of Components. Components may be located inside or outside a building. For example, components in a room could be its ceiling, floor, walls, a door and its casing, the window sash, and window casings. The Substrate is the material underneath the paint of a component. Although many different substrates exist, HUD guidelines recommend classifying substrates into one of six types: (1) brick; (2) concrete; (3) drywall; (4) metal, (5) plaster; and (6) wood. If the true substrate under investigation is not one of the aforementioned types, HUD guidelines mandate the inspector/risk assessor to select the substrate type that most closely resembles one of the six defined substrate types. For substrates that are layered, such as plaster on concrete, the substrate directly beneath the painted surface is identified during a LBP inspection. A Testing Combination is characterized by the room equivalent, component, and substrate. Visible color may not be an accurate predictor of painting history and is not included in the definition of a testing combination. Components that are coated with paint, varnish, shellac, wallpaper, stain, or other coating should be considered as separate testing combinations. Certain building components that are adjacent to each other and not likely to have different painting histories can be grouped together into a single testing combination as follows:

- Window casings, stops, jambs, and aprons.
- Interior window mullions and window sashes. Interior window components may not be grouped with exterior window components.
- Exterior window mullions and window sashes.
- Door jambs, stops, transoms, casings, and other door parts.

- Door stiles, rails, panels, mullions, and other door parts.
- Baseboards and associated trim (such as quarter-round or other caps).
- Painted electrical sockets, switches, or plates can be grouped with the walls.

The **Test Location** is a specific area on a testing combination where the XRF was used to test for LBP.

NOTE: If present, components covered with vinyl and/or metal sidings were not inspected during the evaluation because the surfaces underneath these components were not visible or accessible. This leaves the possibility that LBP components could be located beneath these coverings.

De minimis levels for deteriorated lead-based paint are defined follows: (1) For a component with a small surface area, such as window sills, or baseboards, 10% of the surface area; (2) For an interior component with a large surface area, such as an interior wall, 2 square feet of the surface area; and (3) For an exterior component with a large surface area, 20 square feet of the surface area.

2.2 Sampling Strategies

According to the HUD guidelines, a lead reading by XRF of 1.0 mg/cm² or above is considered positive for the presence of LBP. An XRF reading below 1.0 mg/cm² is considered negative; however, a reading below 1.0 mg/cm² could still be harmful if proper precautions are not taken during activities that disturb these paint films. If there are any inconclusive readings, a paint-chip sample may be collected for laboratory analysis. Laboratory analysis of samples collected will only be performed by an EPA approved National Lead Laboratory Accreditation Program (NLLAP) laboratory. There is no inconclusive range for laboratory measurements/results.

Only painted, stained, varnished, or wallpapered components of a dwelling are tested during a LBP evaluation. Wall “A” or “1” in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall “A” or “1”, Wall “B” or “2” will always be to your right, Wall “C” or “3” directly to the rear and Wall “D” or “4” to the left. Doors, windows and closets are designated as left, center or right depending on their location on the wall. When more than one window/door is on a wall, features are numbered left to right.

2.3 Assessment Logic

A LBP evaluation is performed by use of the following assessment logic. Any paint found to contain lead below the HUD standard of 1.0 mg/cm², regardless of condition, is considered non-hazardous. Components having lead levels at or above the action level are visually assessed for condition and approximate surface area. The paint condition is placed into one of two categories using the risk assessor’s professional judgment. These categories are: (1) intact (good) and (2) deteriorated (poor), based on the HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 5: Risk Assessment [Table 5-3], June, 1995.

2.4 Calibration of XRF Equipment

The calibration of the instrument is done in accordance with the Performance Characteristic Sheet (PCS) for this instrument. These instruments are calibrated using a calibration standard block of known lead content. Three calibration readings are taken before and after each home is tested to ensure manufacturer's standards are met. If the inspection is longer than four hours, a set of three calibration readings must be taken before the four hours expires, and then an additional three calibration readings taken at the end of the inspection. If for any reason the instruments are not maintaining a consistent calibration reading within the manufacturer's standards for performance on the calibration block supplied by the manufacturer, manufacturer's recommendations are used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it is taken off the site and sent back to the manufacturer for repair and/or re-calibration.

3.0 FINDINGS

3.1 Site Description

The property is located at Unit I405 in Falcon Village, Texas and is a single family dwelling with one residential unit. The home, reportedly constructed in the 1960s, is a single-story dwelling containing approximately 1,300 square feet of living space. The exterior is predominantly composed of vinyl siding over stucco with wood walls at gables and wood soffits and fascia. Window components are metal or brick. Interior finishes include drywall walls, drywall ceilings, with concrete and vinyl flooring.

3.2 Inaccessible Areas

There were no inaccessible areas identified at the time of the inspection.

3.3 Visual Assessment Results

The visual assessment identified the following:

| Item | Identified Yes/No |
|--|----------------------|
| Deteriorating painted surfaces | Yes* |
| Painted surfaces that are chewable, impact joints or subject to friction | Yes |
| Bare soil surface (soil surface that is not covered by pavement or sod or landscaping) | Yes |
| Excessive accumulation of dust on most interior surfaces | Yes** |

* - These painted surfaces were not found to contain LBP.

** - The structure has been unoccupied and open to the elements for an undetermined amount of time.

3.4 Lead-Based Paint Inspection Results

LCA has determined that the following components contain lead in amounts equal to or exceeding 1.0 mg/cm^2 in the surfaces tested during the LBP inspection:

Interior Components

- No LBP was detected at or above 1.0 mg/cm^2 in the interior surfaces tested.*

Exterior Components

- *No LBP was detected at or above 1.0 mg/cm² in the exterior surfaces tested.*

3.5 Summary and Distribution Table

| | |
|--|-----|
| Number of Positive Readings (for Paint Only) | 0 |
| Total Number of Readings | 123 |
| Percent Positive | 0 |

4.0 CONCLUSIONS

No components were found to contain lead exceeding 1.0 mg/cm² (see Section 3.4).

This evaluation was completed in accordance with Lead Safe Housing Rule 24 CFR Part 35 subpart F as amended (2004). The sampling results are presented in Appendix A and notes are presented in Appendix B. The outline of dwelling is drafted in Appendix C. Appendix D contains photographs of the property. Appendix E contains the personal certifications of the inspector. Appendix F contains the PCS sheets for the XRF instrument and Appendix G contains a glossary of terms.

5.0 DISCLOSURE RESPONSIBILITY

A copy of this report must be provided to new lessees (tenants) and purchasers of this property under Federal Law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that children and pregnant women are protected from LBP hazards.

The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard states that “negative” readings (i.e. those below the HUD/EPA definition of what constitutes LBP [1.0 mg/cm²]) **do not** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead free. Although a reading may indicate “negative”, airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

DISCLAIMER

This is our report of a visual survey, and X-Ray Fluorescence (XRF) analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation. No other environmental concerns or conditions were addressed during this evaluation.

APPENDIX A

XRF DATA SHEETS

Unit I405 Falcon Village, Texas

20 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|-------|-----------|
| 1 | Standardization | PASS | | | | | | |
| 2 | Calibration | Positive | 1.06 | | | | Red | |
| 3 | Lead Paint Fixed-Time | Negative | 0 | Room 1 | Ceiling | Gyp | White | N/A |
| 4 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | Green | N/A |
| 5 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | Green | N/A |
| 6 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | Green | N/A |
| 7 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | Green | N/A |
| 8 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 9 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 10 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 11 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 12 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 13 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 14 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 15 | Lead Paint Fixed-Time | Negative | 0 | Room 2 | Ceiling | Gyp | White | N/A |
| 16 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 17 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 18 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 19 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 20 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 21 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 22 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 23 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 24 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 25 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 26 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 27 | Lead Paint Fixed-Time | Negative | 0 | Room 3 | Ceiling | Gyp | White | N/A |
| 28 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 29 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 30 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 31 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 32 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 33 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 34 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 35 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 36 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 37 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 38 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 39 | Lead Paint Fixed-Time | Negative | 0 | Room 4 | Ceiling | Gyp | Tan | N/A |
| 40 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | Tan | N/A |
| 41 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | Tan | N/A |
| 42 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | Tan | N/A |
| 43 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | Tan | N/A |
| 44 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 45 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 46 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 47 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 48 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 49 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 50 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 51 | Lead Paint Fixed-Time | Negative | 0 | Room 5 | Ceiling | Gyp | White | N/A |
| 52 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |

Unit I405 Falcon Village, Texas

20 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|----|----------|-------------|-----------|-------|-----------|
| 53 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 54 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 55 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 56 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 57 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 58 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 59 | Lead Paint Fixed-Time | Negative | 0 | Room 6 | Ceiling | Gyp | White | N/A |
| 60 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 61 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 62 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 63 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 64 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 65 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 66 | Lead Paint Fixed-Time | Negative | 0 | Room 7 | Ceiling | Gyp | White | N/A |
| 67 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 68 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 69 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 70 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 71 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 72 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 73 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 74 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 75 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 76 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 77 | Lead Paint Fixed-Time | Negative | 0 | Room 8 | Ceiling | Gyp | White | N/A |
| 78 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | Green | N/A |
| 79 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | Green | N/A |
| 80 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | Green | N/A |
| 81 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | Green | N/A |
| 82 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 83 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 84 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 85 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 86 | Lead Paint Fixed-Time | Negative | 0 | Room 9 | Ceiling | Gyp | White | N/A |
| 87 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 88 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 89 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 90 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 91 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 92 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 93 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 94 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 95 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 96 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 97 | Lead Paint Fixed-Time | Negative | 0 | Room 10 | Ceiling | Gyp | White | N/A |
| 98 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 99 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 100 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 101 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 102 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 103 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 104 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |

Unit I405 Falcon Village, Texas

20 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|------------|-----------------|-----------|-------|-----------|
| 105 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 106 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 107 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 108 | Lead Paint Fixed-Time | Negative | 0.03 | Exterior A | Soffit | Wood | White | N/A |
| 109 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | White | N/A |
| 110 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Pink | N/A |
| 111 | Lead Paint Fixed-Time | Negative | 0 | | Carport Ceiling | Wood | White | N/A |
| 112 | Lead Paint Fixed-Time | Negative | 0 | | Column | Wood | White | N/A |
| 113 | Lead Paint Fixed-Time | Negative | 0.02 | Exterior B | Soffit | Wood | White | N/A |
| 114 | Lead Paint Fixed-Time | Negative | 0.02 | | Fascia | Wood | White | N/A |
| 115 | Lead Paint Fixed-Time | Negative | 0.02 | | Gable | Metal | White | N/A |
| 116 | Lead Paint Fixed-Time | Negative | 0.03 | | Wall | Wood | White | N/A |
| 117 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Pink | N/A |
| 118 | Lead Paint Fixed-Time | Negative | 0.02 | Exterior C | Soffit | Wood | White | N/A |
| 119 | Lead Paint Fixed-Time | Negative | 0.07 | | Fascia | Wood | White | N/A |
| 120 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Pink | N/A |
| 121 | Lead Paint Fixed-Time | Negative | 0 | Exterior D | Soffit | Wood | White | N/A |
| 122 | Lead Paint Fixed-Time | Negative | 0.04 | | Fascia | Wood | White | N/A |
| 123 | Lead Paint Fixed-Time | Negative | 0.02 | | Gable | Metal | White | N/A |
| 124 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Wood | White | N/A |
| 125 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Pink | N/A |

APPENDIX B

NOTES

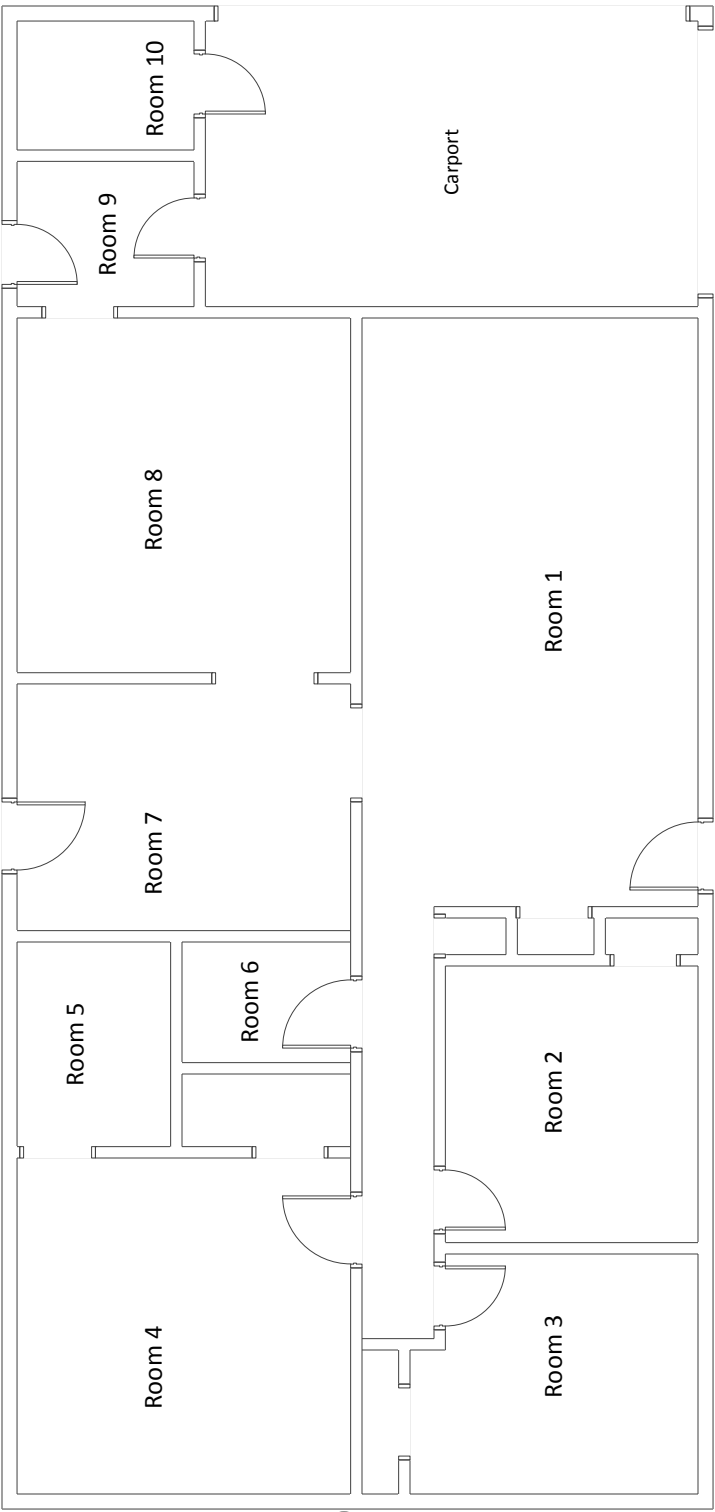
Unit I405, Falcon Village, Texas

| Room | Notes |
|-------------|---|
| Room 1 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 2 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 3 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 4 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 5 | Gyp-board ceiling, gyp-board and ceramic tile walls, ceramic tile floor |
| Room 6 | Gyp-board ceiling, gyp-board and ceramic tile walls, ceramic tile floor |
| Room 7 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 8 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 9 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 10 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl flooring |
| Exterior | Wood, stucco, vinyl siding |

APPENDIX C

DRAWING(S)

C



B

D

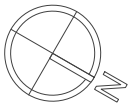
A



NOTE: No LBP was found during this LBP Inspection.



Quanternary Resource Investigations, LLC
Lead-based Paint Inspection
CBP-Owned Housing, Falcon Village, Texas



NOT TO SCALE

Figure 1
Unit 1405
Sample Location Plan

Drawn By: EBB

Date: 07/02/13

Location: CBP-Owned Housing, Falcon Village, Texas

LCA Project No.: 130602

Approved By: TAH

Date: 07/02/13

Source: LCA Field Sketch

Filename: Fig1-1405 Sample Location Plan

APPENDIX D

PHOTOGRAPHS



Photograph 1: View of the front of the structure at Unit I405, in Falcon Village, Texas. No LBP was found during this inspection.

APPENDIX E

CERTIFICATIONS



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

LYNN CLARK ASSOCIATES INC

is certified to perform as a

Lead Firm

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, appearing to read "David L. Laakey".

David L. Laakey, M.D.
Commissioner of Health

License Number: 2110555

Control Number 6528

Expiration Date: 6/12/2015

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

THOMAS A HALE

is certified to perform as a

Lead Risk Assessor

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, reading "David L. Lakey".

David L. Lakey, M.D.
Commissioner of Health

License Number: 2070881

Expiration Date: 5/5/2013

Void After Expiration Date

VOID IF ALTERED

Control Number 6610

NON-TRANSFERABLE

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Inspector Refresher

Conducted at Hurst, Texas on December 3, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner



Instructor: Joseph Londt

Date of Issue 12/03/2012

Certificate Number: 12046 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

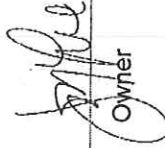
has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Risk Assessor Refresher

Conducted at Hurst, Texas on December 4, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/04/2012

Certificate Number: 12030 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

APPENDIX F

NIST – CERTIFICATE OF ANALYSIS



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material[®] 2573

Lead Paint Film

For Portable X-Ray Fluorescence Analyzers – Nominal 1.0 mg/cm²
(Color Code: Red)

This Standard Reference Material (SRM) is intended for checking the calibration of portable, hand-held, x-ray fluorescence analyzers when testing for lead in paint coatings on interior and exterior building surfaces. A unit of SRM 2573 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, red-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2570, is also provided. The blank is coated with a lead-free, lacquer layer on a white polyester sheet of the same thickness as the lead paint samples. All sheets are over-coated with a clear, thin, plastic laminate to protect the surface from abrasion. SRM 2573 and SRM 2570 are two of a set of six paint films (SRM 2570 to SRM 2575) available as SRM 2579a.

The certified values for lead for this SRM and the blank, SRM 2570, are reported in Table 1 in units of mg/cm². These values are based on measurements by isotope dilution inductively-coupled plasma mass spectrometry.

Table 1. Certified Lead Values

| Level | Color Code | Lead Concentration, in mg/cm ² |
|----------|---------------|---|
| SRM 2570 | White (Blank) | <0.001 |
| SRM 2573 | Red | 1.040 ± 0.064 |

The uncertainty of each certified value is expressed as an expanded uncertainty, U , at the 95 % level of confidence and is calculated according to the method described in the ISO Guide [1,2]. Because of variability in the paint film between different sheets of each SRM, the uncertainties are 95 % prediction intervals. The expanded uncertainty is calculated as $U = ku_c$, where u_c is intended to represent, at the level of one standard deviation, the combined uncertainty due to material variability and measurement uncertainty. The coverage factor, k , is determined from the Student's t -distribution corresponding to the calculated effective degrees of freedom and 95 % level of confidence.

Expiration of Certification: The certification of SRM 2573 is valid, within the measurement uncertainties specified, until **01 July 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Use"). The certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet) will facilitate notification.

The overall direction and coordination of the analytical measurements leading to certification were performed by G.C. Turk and J.D. Fassett of the NIST Analytical Chemistry Division. Analytical measurements were performed by K.E. Murphy, J.R. Sieber, A.F. Marlow, L.J. Wood, P.R. Seo, and M. Lankosz of the NIST Analytical Chemistry Division. The SRM was fabricated under the direction of J.R. Sieber of the NIST Analytical Chemistry Division.

Stephen A. Wise, Chief
Analytical Chemistry Division

Robert L. Watters, Jr., Chief
Measurement Services Division

Gaithersburg, MD 20899
Certificate Issue Date: 24 March 2009
See Certificate Revision History on Last Page

Statistical consultation for this SRM was provided by E.S. Lagergren and N.F. Zhang of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Measurement Services Division.

NOTICE AND WARNING TO USERS

NOTE: This SRM contains lead, as a lead chromate pigment, which is toxic and a suspected carcinogen to the lung and kidney. The SRM must be handled with care and disposed of according to the U.S. Environmental Protection Agency (EPA) practices and procedures.

INSTRUCTIONS FOR USE

The SRM sheet must first be removed from the plastic sleeve in which it is stored and then positioned so that the side labeled with the NIST logo and SRM number faces the x-ray source. For best results, the size of the x-ray beam from the field unit should irradiate an area of the SRM that is at least 2.5 cm in diameter and is centered on the sheet. Care must be exercised not to compromise the protective plastic laminate which prevents scratching or chipping of the painted surface and the potential release of dust containing lead. Upon completion of the measurement, the SRM must be re-stored in the plastic sleeve provided. It is also recommended that this SRM be stored indoors at ambient room temperature and away from direct sunlight when not in use.

Stability: This SRM is considered to be stable during the period of certification. NIST will monitor the SRM and will report any significant changes in certification to the purchaser. Return of the attached registration card will facilitate notification.

PREPARATION

SRM Preparation: The paint-coated, polyester sheets were prepared by an automated coating process at a commercial facility under contract to NIST. Known concentrations of a lead chromate pigment were dispersed in a commercial paint vehicle to prepare the lead paints. A lead-free, organic tint was added to each paint mixture to give the desired color. A thin, protective overlay of plastic laminate was applied to each paint film. The attenuation of lead $L_{3-}M_{4,5}$ ($L\alpha_{1,2}$) X-rays due to the protective overlay does not exceed 2 % relative, while that of $K-L_{2,3}$ ($K\alpha_{1,2}$) x-rays commonly used for field measurement is negligible.

REFERENCES

- [1] ISO; *Guide to the Expression of Uncertainty in Measurement*; ISBN 92-67-10188-9, 1st ed., International Organization for Standardization: Geneva, Switzerland (1993); see also Taylor, B.N.; Kuyatt, C.E.; *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*; NIST Technical Note 1297, U.S. Government Printing Office: Washington, DC (1994); available at <http://physics.nist.gov/Pubs/>.
- [2] Hahn, G.J.; Meeker, W.Q.; *Statistical Intervals: A Guide for Practitioners*; John Wiley & Sons, Inc., New York, NY (1991).

Certificate Revision History: 24 March 2009 (Extension of certification period); 29 November 1999 (Original certificate date).

Users of this SRM should ensure that the certificate in their possession is current. This can be accomplished by contacting the SRM Program at: telephone (301) 975-2200; fax (301) 926-4751; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX G

GLOSSARY

Abatement - A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. See also Complete Abatement and Interim Controls.

Accessible surface - Any protruding interior or exterior surface, such as an interior window sill, that a young child can mouth or chew.

Accreditation - A formal recognition that an organization, such as a laboratory, is competent to carry out specific tasks or types of tests.

Accredited laboratory -A laboratory that has been evaluated and approved by the National Lead Laboratory Accreditation Program (NLLAP) to perform lead measurement or analysis, usually over a specified period of time.

Apron - A trim board that is installed beneath a window sill.

Area wells - Corrugated metal or concrete barrier walls installed around a basement window to hold back the earth.

Attic access - An opening that is placed in the drywalled ceiling of a home providing access to the attic.

Attic Ventilators - In houses, screened openings provided to ventilate an attic space.

Backing - Frame lumber installed between the wall studs to give additional support for drywall or an interior trim related item, such as handrail brackets, cabinets, and towel bars. In this way, items are screwed and mounted into solid wood rather than weak drywall that may allow the item to break loose from the wall. Carpet backing holds the pile fabric in place.

Balusters -Vertical members in a railing used between a top rail and bottom rail or the stair treads. Sometimes referred to as 'pickets' or 'spindles'.

Balustrade - The rail, posts and vertical balusters along the edge of a stairway or elevated walkway.

Bare soil - Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Barge board - A decorative board covering the projecting rafter (fly rafter) of the gable end. At the cornice, this member is a fascia board.

Base or baseboard - A trim board placed against the wall around the room next to the floor.

Basement window inserts - The window frame and glass unit that is installed in the window buck.

Base shoe - Molding used next to the floor on interior base board. Sometimes called a carpet strip.

Bat - A half-brick.

Batt - A section of fiber-glass or rock-wool insulation measuring 15 or 23 inches wide by four to eight feet long and various thicknesses. Sometimes "faced" (meaning to have a paper covering on one side) or "unfaced" (without paper).

Batten - Narrow strips of wood used to cover joints or as decorative vertical members over plywood or wide boards.

Bay window - Any window space projecting outward from the walls of a building, either square or polygonal in plan.

Beam - A structural member transversely supporting a load. A structural member carrying building loads (weight) from one support to another. Sometimes called a "girder".

Bearing wall - A wall that supports any vertical load in addition to its own weight. **Bearing header** - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Bifold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

Bypass doors - Doors that slide by each other and commonly used as closet doors.

Blocking - Small wood pieces to brace framing members or to provide a nailing base for gypsum board or paneling.

Blood lead threshold - Any blood level greater than or equal to 10 ug/dL as defined by the Centers for Disease Control and Prevention. See also Elevated Blood Lead level (EBL) child.

Brace - An inclined piece of framing lumber applied to wall or floor to strengthen the structure. Often used on walls as temporary bracing until framing has been completed.

Breaker panel - The electrical box that distributes electric power entering the home to each branch circuit (each plug and switch) and composed of circuit breakers.

Brick mold - Trim used around an exterior door jamb that siding butts to.

Brick tie - A small, corrugated metal strip @ 1" X 6"- 8" long nailed to wall sheathing or studs. They are inserted into the grout mortar joint of the veneer brick, and holds the veneer wall to the sheeted wall behind it.

Brick veneer - A vertical facing of brick laid against and fastened to sheathing of a framed wall or tile wall construction.

Building component - Any element of a building that may be painted or have dust on its surface, e.g. walls, stair treads, floors, railings, doors, window sills, etc.

By fold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

By pass doors - Doors that slide by each other and commonly used as closet doors.

Cantilever - An overhang. Where one floor extends beyond and over a foundation wall. For example at a fireplace location or bay window cantilever. Normally, not extending over 2 feet.

Cap - The upper member of a column, pilaster, door cornice, molding, or fireplace.

Cap flashing - The portion of the flashing attached to a vertical surface to prevent water from migrating behind the base flashing.

Casement - Frames of wood or metal enclosing part (or all) of a window sash. May be opened by means of hinges affixed to the vertical edges.

Casement Window - A window with hinges on one of the vertical sides and swings open like a normal door.

Casing - Wood trim molding installed around a door or window opening.

CelotexTM - Black fibrous board that is used as exterior sheathing.

Ceiling joist - One of a series of parallel framing members used to support ceiling loads and supported in turn by larger beams, girders or bearing walls. Also called roof joists.

Cement - The gray powder that is the "glue" in concrete. Portland cement. Also, any adhesive.

Ceramic tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally used in bathtub and shower enclosures and on counter tops.

Certification - The process of testing and evaluating against certain specifications the competence of a person, organization, or other entity in performing a function or service, usually for a specified period of time.

Certified - The designation for contractors who have completed training and other requirements to allow them to safely undertake risk assessments, inspections, or abatement work. Risk assessors, inspectors, and abatement contractors should be certified by the appropriate local, State or Federal agency.

Chair rail - Interior trim material installed about 3-4 feet up the wall, horizontally.

Chalking -The photo-oxidation of paint binders - usually due to weathering - that causes a powder to form on the film surface.

Chase - A framed enclosed space around a flue pipe or a channel in a wall, or through a ceiling for something to lie in or pass through.

Chewed surface - Any painted surface that shows evidence of having been chewed or mouthed by a young child. A chewed surface is usually a protruding, horizontal part of a building, such as an interior window sill. See also Accessible surface.

Chip Board - A manufactured wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing. Also called OSB (Oriented Strand Board) or wafer board.

Cleaning - The process of using a HEP A vacuum and wet cleaning agents to remove leaded dust; the process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to clean lead-contaminated dust from a surface.

Clearance examination - Visual examination and collection of environmental samples by an inspector or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control interventions, or maintenance job that disturbs lead-based paint (or paint suspected of being lead-based). The clearance examination is performed to ensure that lead exposure levels do not exceed standards established by the EPA administrator pursuant to Title IV of the Toxic Substances Control Act, and that any cleaning following such work adequately meets those standards.

Clearance examiner - A person who conducts clearance examinations following lead-based paint hazard control and cleanup work, usually a certified risk assessor or a certified inspector.

Code of Federal Regulations (CFR) - The codification of the regulations of Federal agencies.

Column - A vertical structural compression member which supports loads.

Complete abatement - Abatement of all lead-based paint inside and outside a dwelling or building and reduction of any lead-contaminated dust or soil hazards. All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, reevaluation and on-going monitoring. See also Abatement.

Concrete - The mixture of Portland cement, sand, gravel, and water. Used to make garage and basement floors, sidewalks, patios, foundation walls, etc. It is commonly reinforced with steel rods (rebar) or wire screening (mesh).

Concrete block - A hollow concrete 'brick' often 8" x 8" X 16" in size.

Concrete board - A panel made out of concrete and fiberglass usually used as a tile backing material.

Conduit, electrical - A pipe, usually metal, in which wire is installed.

Containment - A process to protect workers and the environment by controlling exposures to the lead contaminated dust and debris created during abatement.

Corbel - The triangular, decorative and supporting member that holds a mantel or horizontal shelf.

Corner bead - A strip of formed sheet metal placed on outside corners of drywall before applying drywall 'mud'.

Corner boards - Used as trim for the external corners of a house or other frame structure against which the ends of the siding are finished.

Corner braces - Diagonal braces at the corners of the framed structure designed to stiffen and strengthen the wall.

Cornice - Overhang of a pitched roof, usually consisting of a fascia board, a soffit and appropriate trim moldings.

Counter flashing - A metal flashing usually used on chimneys at the roofline to cover shingle flashing and used to prevent moisture entry.

Cove molding - A molding with a concave face used as trim or to finish interior corners.

Crawl space - A shallow space below the living quarters of a house, normally enclosed by the foundation wall and having a dirt floor.

Cross Tee - Short metal "T" beam used in suspended ceiling systems to bridge the spaces between the main beams.

Crown molding - A molding used on cornice or wherever an interior angle is to be covered, especially at the roof and wall corner.

Damper - A metal "door" placed within the fireplace chimney. Normally closed when the fireplace is not in use.

Deteriorated lead-based paint - Any lead-based paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or

otherwise becoming separated from the substrate.

Doorjamb, interior - The surrounding case into which and out of which a door closes and opens. It consists of two upright pieces, called side jambs, and a horizontal head jamb. These 3 jambs have the "door stop" installed on them.

Door stop - The wooden style that the door slab will rest upon when it's in a closed position.

Dormer - An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Downspout - A pipe, usually of metal, for carrying rainwater down from the roofs horizontal gutters.

Drip cap - A molding or metal flashing placed on the exterior topside of a door or window frame to cause water to drip beyond the outside of the frame.

Drywall (or Gypsum Wallboard (GWB), Sheet rock or Plasterboard) -Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The panels are nailed or screwed onto the framing and the joints are taped and covered with a 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Ducts - The heating system. Usually round or rectangular metal pipes installed for distributing warm (or cold) air from the furnace to rooms in the home. Also a tunnel made of galvanized metal or rigid fiberglass, which carries air from the heater or ventilation opening to the rooms in a building.

Dura board, dura rock - A panel made out of concrete and fiberglass usually used as a ceramic tile backing material. Commonly used on bathtub decks. Sometimes called Wonder board.

Dust removal - A form of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed. Depending on the severity of lead-based paint hazards, dust removal may be the primary activity or just one element of a broader control effort.

Eaves - The horizontal exterior roof overhang.

Elevated Blood Lead level (EBL) child - A child who has a blood level greater than or equal to 20 ug/dL or a persistent 15 ug/dL. See also Blood lead threshold.

Encapsulation - Any covering or coating that acts as a barrier between lead-based paint and the environment, the durability of which relies on adhesion and the integrity of the existing bonds between multiple layers of paint and between the paint and the substrate. See also Enclosure.

Enclosure - The use of rigid, durable construction materials that are mechanically fastened to the substrate to act as a barrier between the lead-based paint and the environment.

Escutcheon - An ornamental plate that fits around a pipe extending through a wall or floor to hide the cut out hole.

Evaluation - Risk assessment, paint inspection, reevaluation, investigation, clearance examination, or risk assessment screen.

Exterior work area - For lead hazard control work, the exterior work area includes any exterior building components, such as a porch or stairway; the safety perimeter; and access barriers.

Facing brick - The brick used and exposed on the outside of a wall. Usually these have a finished texture.

Fascia - Horizontal boards attached to rafter/truss ends at the eaves and along gables. Roof drain gutters are attached to the fascia.

Flue - Large pipe through which fumes escape from a gas water heater, furnace, or fireplace.

Friction surface - Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Gable - The end, upper, triangular area of a home, beneath the roof.

Gyp board - Drywall. Wall board or gypsum-A panel (normally 4' X 8', 10', 12', or 16') made with a core of Gypsum (chalk-like) rock, which covers interior walls and ceilings.

Header - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or

other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Hearth - The fireproof area directly in front of a fireplace. The inner or outer floor of a fireplace, usually made of brick, tile, or stone.

Hip - A roof with four sloping sides. The external angle formed by the meeting of two sloping sides of a roof.

Hip roof - A roof that rises by inclined planes from all four sides of a building.

HVAC - An abbreviation for Heat, Ventilation, and Air Conditioning

Impact surface - An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Inspection (of paint) - A surface-by-surface investigation to determine the presence of lead-based paint (in some cases including dust and soil sampling) and a report of the results.

Insulation board, rigid - A structural building board made of coarse wood or cane fiber in 1/2- and 25/32-inch thickness. It can be obtained in various size sheets and densities.

Interim controls- A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include specialized cleaning, repairs, maintenance, painting, temporary containment, and management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land-use controls. See also Monitoring, Reevaluation, and Abatement.

Interior window sill - The portion of the horizontal window ledge that protrudes into the interior of the room, adjacent to the window sash when the window is closed; often called the window stool.

Jamb - The side and head lining of a doorway, window, or other opening. Includes studs as well as the frame and trim.

Joint - The location between the touching surfaces of two members or components joined and held together by nails, glue, cement, mortar, or other means.

Joist - Wooden 2 X 8's, 10's, or 12's that run parallel to one another and support a floor or ceiling, and supported in turn by larger beams, girders, or bearing walls.

Laminated shingles -Shingles that have added dimensionality because of extra layers or tabs, giving a shake-like appearance. May also be called "architectural shingles" or "three-dimensional shingles."

Lath - A building material of narrow wood, metal, gypsum, or insulating board that is fastened to the frame of a building to act as a base for plaster, shingles, or tiles.

Lattice - An open framework of criss-crossed wood or metal strips that form regular, patterned spaces.

Lead - Lead includes metallic lead and inorganic and organic compounds of lead.

Lead-based paint - Any paint, varnish, shellac, or other coating' that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 ug/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis.

Lead-based paint hazard - A condition in which exposure to lead from lead-contaminated dust, lead contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA Administrator under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, deteriorated lead-based paint, leaded dust levels above applicable standards, and bare leaded soil above applicable standards.

Lead-based paint hazard control - Activities to control and eliminate lead-based paint hazards, including interim controls, abatement, and complete abatement.

Lead-contaminated dust - Surface dust in residences that contains an area or mass concentration of lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. Until the EPA standards are set, the HUD-recommended clearance and risk assessment standards for leaded dust are 100 ug/ft² on floors, 500 ug/ft² on interior window sills, and 800 ug/ft² on window troughs. The recommended standard for lead hazard

screens for floors is 50 ug/ft² and for window troughs is 400 ug/ft².

Lead-contaminated soil - Bare soil on residential property that contains lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. The HUD-recommended standard and interim EPA guidance is 400 ug/g for high-contact play areas and 2,000 ug/g in other bare areas of the yard. Soil contaminated with lead at levels greater than or equal to 5,000 ug/g should be abated by removal or paving.

Lead-free dwelling - A lead-free dwelling contains no lead-based paint and has interior dust and exterior soil lead levels below the applicable HUD and EPA standards.

Licensed - Holding a valid license or certification issued by EPA or by an EPA-approved State program pursuant to Title IV of the Toxic Substances Control Act. The license is based on certification for lead-based paint hazard control work. See also Certified.

Louver - A vented opening into the home that has a series of horizontal slats and arranged to permit ventilation but to exclude rain, snow, light, insects, or other living creatures.

Maintenance - Work intended to maintain adequate living conditions in a dwelling, which has the potential to disturb lead-based paint or paint that is suspected of being lead-based.

Mantel - The shelf above a fireplace opening. Also used in referring to the decorative trim around a fireplace opening.

Masonry - Stone, brick, concrete, hollow-tile, concrete block, or other similar building units or materials. Normally bonded together with mortar to form a wall.

Mastic - A pasty material used as a cement (as for setting tile) or a protective coating (as for thermal insulation or waterproofing)

Mg - Milligram; 1/1,000 of a gram.

Microgram - see Ug.

Milligram - see Mg.

Molding - A wood strip having an engraved, decorative surface.

Monitoring - Surveillance to determine (1) that known or suspected lead-based paint is not deteriorating; (2) that lead-based paint hazard controls, such as paint stabilization, enclosure, or encapsulation have not failed, (3) that structural problems do not threaten the integrity of hazard controls or of known or suspected lead-based paint, and (4) that dust lead levels have not risen above applicable levels.

Mortar - A mixture of cement (or lime) with sand and water used in masonry work.

Mullion - A vertical divider in the frame between windows, doors, or other openings.

Muntin - A small member which divides the glass or openings of sash or doors.

Natural finish - A transparent finish which does not seriously alter the original color or grain of the natural wood. Natural finishes are usually provided by sealers, oils, varnishes, water repellent preservatives, and other similar materials.

Newel post -The large starting post to which the end of a stair guard railing or balustrade is fastened.

Oriented Strand Board or OSB -A manufactured 4' X 8' wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood.

Overhang - Outward projecting eave-soffit area of a roof; the part of the roof that hangs out or over the outside wall. See also Cornice.

Paint film stabilization - The process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint; paint film stabilization includes cleanup and clearance.

Paint removal -An abatement strategy that entails the removal of lead-based paint from surfaces. For lead-hazard control work, this can mean using chemicals, heat guns below 1,100 °F, and certain contained abrasive methods. Open-flame burning, open abrasive blasting, and extensive dry scraping are prohibited paint removal methods.

Panel - A thin flat piece of wood, plywood, or similar material, framed by stiles and rails as in a door (or cabinet door), or fitted into grooves of thicker material with molded edges for decorative wall treatment.

Parting stop or strip -A small wood piece used in the side and head jambs of double hung windows to separate the upper sash from the lower sash.

Particle board - Plywood substitute made of course sawdust that is mixed with resin and pressed into sheets. Used for closet shelving, floor underlayment, stair treads, etc.

Partition -A wall that subdivides spaces within any story of a building or room.

Plenum -The main hot-air supply duct leading from a furnace.

Plywood - A panel (normally 4' X 8') of wood made of three or more layers of veneer, compressed and joined with glue, and usually laid with the grain of adjoining plies at right angles to give the sheet strength.

Portland cement -Cement made by heating clay and crushed limestone into a brick and then grinding to a pulverized powder state.

Pressure-treated wood -Lumber that has been saturated with a preservative.

Quarry tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally 6" X 6" X 11/4" thick.

Quarter round -A small trim molding that has the cross section of a quarter circle.

Rafter -Lumber used to support the roof sheeting and roof loads. Generally, 2 X 10's and 2 X 12's are used. The rafters of a flat roof are sometimes called roof joists.

Rake fascia -The vertical face of the sloping end of a roof eave.

Reevaluation - In lead hazard control work, the combination of a visual assessment and collection of environmental samples performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dwelling remains lead-safe.

Register - A grill placed over a heating duct or cold air return.

Renovation - Work that involves construction and/or home or building improvement measures such as window replacement, weatherization, remodeling, and repainting.

Replacement - A strategy of abatement that entails the removal of building components coated with lead-based paint (such as windows, doors, and trim) and the installation of new components free of lead-based paint.

Retaining wall - A structure that holds back a slope and prevents erosion.

Riser -Each of the vertical boards closing the spaces between the treads of stairways.

Risk assessment - An onsite investigation of a residential dwelling to discover any lead-based paint hazard. Risk assessments include an investigation of the age, history, management, and maintenance of the dwelling, and the number of children under age 6 and women of child-bearing age who are residents; a visual assessment; limited environmental sampling (i.e., collection of dust wipe samples, soil samples, and deteriorated paint samples); and preparation of a report identifying acceptable abatement and interim control strategies based on specific conditions.

Risk assessor - A certified individual who has completed training with an accredited training program and who has been certified to (1) perform risk assessments, (2) identify acceptable abatement and interim control strategies for reducing identified lead-based paint hazards, (3) perform clearance testing and reevaluations, and (4) document the successful completion of lead-based paint hazard control activities.

Shake - A wood roofing material, normally cedar or redwood. Produced by splitting a block of the wood along the grain line. Modern shakes are sometimes machine sawn on one side. See shingle.

Shed roof - A roof containing only one sloping plane.

Sheet rock - Drywall-Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Shim - A small piece of scrap lumber or shingle, usually wedge shaped, which when forced behind a furring strip or framing member forces it into position. Also used when installing doors and placed between the door jamb legs and 2 X 4 door trimmers. Metal shims are wafer 1 1/2" X 2" sheet metal of various thickness' used to fill gaps in wood framing

members, especially at bearing point locations.

Shingles - Roof covering of asphalt, asbestos, wood, tile, slate, or other material cut to stock lengths, widths, and thickness'.

Shingles, siding - Various kinds of shingles, used over sheathing for exterior wall covering of a structure.

Shutter - Usually lightweight louvered decorative frames in the form of doors located on the sides of a window. Some shutters are made to close over the window for protection.

Siding - The finished exterior covering of the outside walls of a frame building.

Sill - (1) The 2 X 4 or 2 X 6 wood plate framing member that lays flat against and bolted to the foundation wall (with anchor bolts) and upon which the floor joists are installed. Normally the sill plate is treated lumber. (2) The member forming the lower side of an opening, as a door sill or window sill.

Skylight - A more or less horizontal window located on the roof of a building.

Slab, concrete - Concrete pavement, i.e. driveways, garages, and basement floors.

Slab, door - A rectangular door without hinges or frame.

Soffit - The area below the eaves and overhangs. The underside where the roof overhangs the walls. Usually the underside of an overhanging cornice.

Stair landing - A platform between flights of stairs or at the termination of a flight of stairs. Often used when stairs change direction. Normally no less than 3 ft X 3 ft square.

Stile - An upright framing member in a panel door.

Stool - The flat molding fitted over the window sill between jambs and contacting the bottom rail of the lower sash.

Stops - Moldings along the inner edges of a door or window frame. Also valves used to shut off water to a fixture.

Storm sash or storm window - An extra window usually placed outside of an existing one, as additional protection against cold weather.

String, stringer - A timber or other support for cross members in floors or ceilings. In stairs, the supporting member for stair treads. Usually a 2 X 12 inch plank notched to receive the treads.

Stucco - Refers to an outside plaster finish made with Portland cement as its base.

Stud - A vertical wood framing member, also referred to as a wall stud, attached to the horizontal sole plate below and the top plate above. Normally 2 X 4's or 2 X 6's, 8' long (sometimes 92 5/8"). One of a series of wood or metal vertical structural members placed as supporting elements in walls and partitions.

Subfloor - The framing components of a floor to include the sill plate, floor joists, and deck sheeting over which a finish floor is to be laid.

Substrate - A surface on which paint, varnish, or other coating has been applied or may be applied. Examples of substrates include wood, plaster, metal, and drywall.

Suspended ceiling - A ceiling system supported by hanging it from the overhead structural framing.

Terra cotta - A ceramic material molded into masonry units.

Testing combination - A unique surface to be tested that is characterized by the room equivalent, component and substrate.

Test location - A specific area on a testing combination where XRF instruments will test for lead-based paint.

Threshold - The bottom metal or wood plate of an exterior door frame. Generally they are adjustable to keep a tight fit with the door slab.

Tread - The walking surface board in a stairway on which the foot is placed.

Treated lumber - A wood product which has been impregnated with chemical pesticides such as CCA (Chromated Copper Arsenate) to reduce damage from wood rot or insects. Often used for the portions of a structure which are likely

to be in contact with soil and water. Wood may also be treated with a fire retardant.

Treatment - In residential lead-based paint hazard control work, any method designed to control lead-based paint hazards. Treatment includes interim controls, abatement, and removal.

Trim - Interior- The finish materials in a building, such as moldings applied around openings (window trim, door trim) or at the floor and ceiling of rooms (baseboard, cornice, and other moldings). Also, the physical work of installing interior doors and interior woodwork, to include all handrails, guardrails, stair way balustrades, mantles, light boxes, base, door casings, cabinets, countertops, shelves, window sills and aprons, etc. Exterior- The finish materials on the exterior a building, such as moldings applied around openings (window trim, door trim), siding, windows, exterior doors, attic vents, crawl space vents, shutters, etc. Also, the physical work of installing these materials.

Ug - Micrograms. The prefix micro means 1/1,000,000 (or one-millionth); a microgram is 1/1,000,000 of a gram and 1/1,000 or a milligram.

Veneer - Extremely thin sheets of wood. Also, a thin slice of wood or brick or stone covering a framed wall.

Vent - A pipe or duct which allows the flow of air and gasses to the outside. Also, another word for the moving glass part of a window sash, i.e. window vent.

Wafer board - A manufactured wood panel made out of 1 "- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing.

Water board - Water resistant drywall to be used in tub and shower locations. Normally green or blue colored.

Window frame - The stationary part of a window unit; window sash fits into the window frame and their border.

Window sill - See Interior window sill.

Window trough - For a typical double-hung window, the portion of the exterior window sill between the exterior window sill between the interior window sill (or stool) and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when they are both lowered. Sometimes inaccurately called the window "well." See also Window well.

Window well - The space that provides exterior access and/or light to a window that is below grade, i.e., below the level of the surrounding earth or pavement.

XRF analyzer - An instrument that determines lead concentration in milligrams per square centimeter (mg/cm²) using the principle of x-ray fluorescence (XRF). For lead-based paint inspections, the term XRF analyzer only refers to portable instruments manufactured to analyze paint, and does not refer to laboratory-grade units or portable instruments designed to analyze soil.

Window sash - The operating or movable part of a window; the sash is made of window panes.

Building component terms from www.HomeBuildingManual.com; other terms from the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997).

**LEAD-BASED PAINT INSPECTION
AND
VISUAL ASSESSMENT REPORT**

**UNIT I407
FALCON VILLAGE, TEXAS 78545**

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EXECUTIVE SUMMARY

LCA Environmental, Inc. (LCA) has been authorized to perform a lead-based paint (LBP) evaluation at the single-family residence located at Unit I407 in Falcon Village, Texas. The property was not occupied at the time of the inspection. Readily accessible painted and/or finished components were evaluated according to the protocols described for LBP inspection in the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and applicable Federal, State, and Local regulations.

According to the HUD guidelines, a lead reading by X-Ray Fluorescence (XRF) of 1.0 mg/cm^2 or above is considered positive for the presence of LBP. The State of Texas also uses an action level of 1.0 mg/cm^2 . This action level will be referenced throughout the report.

Components having lead levels at or above the action level are visually assessed for the condition of the surface area. Those LBP surfaces found to be intact at the time of inspection do not require paint stabilization, but should be monitored on an ongoing basis. During the evaluation, XRF testing was performed on at least one location per testing combination, except for interior walls, where four readings were taken (or one on each wall). The XRF testing was conducted using an InnovX Systems, Inc. lead paint analyzer. A surface-by-surface visual assessment of the painted and/or finished surfaces was conducted to determine which lead-coated surfaces/components are deteriorated at or above *de minimis* levels.

The lead-based paint evaluation at this property performed on 21 June 2013 produced the following findings:

Interior Components

- *No LBP was detected at or above 1.0 mg/cm^2 in the interior surfaces tested.*

Exterior Components

- *No LBP was detected at or above 1.0 mg/cm^2 in the exterior surfaces tested.*

1.0 SCOPE OF INSPECTION

1.1 Scope of Work

LCA performed a LBP evaluation (XRF testing and visual assessment) at Unit I407 in Falcon Village, Texas. Mr. Thomas Hale, an EPA-accredited and TDSHS Certified Risk Assessor/Inspector (Texas License Number 2070881), conducted the evaluation on 21 June 2013. Painted and/or finished components were tested according to the protocols described for LBP inspections in the HUD Guidelines Chapter 7 (revised 1997) and applicable Federal, state, and local regulations.

During the evaluation, an action level of 1.0 mg/cm^2 was followed to determine the components that contained LBP, in accordance with Federal, state, and local regulations.

1.2 Training Requirements

All individuals who performed this XRF testing and visual assessment have EPA and/or State licensure as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, along with the principles of radiation safety, in accordance with the work practices of 40 CFR 745, section 227, for States and Indian Tribes.

1.3 Equipment

An industry standard XRF, manufactured by Innov-X Systems, Inc., was utilized during the evaluation. Prior to initial sampling, the instrument was calibrated against the standards of the National Institute of Standards and Testing (NIST).

2.0 METHODOLOGY

2.1 Definitions

A Room Equivalent is an identifiable part of a residence, such as a room, foyer, staircase, hallway, or a house exterior or other exterior area. Exterior areas contain items such as play areas, painted swing sets, painted sandboxes, etc. Small closets or other similar areas adjoining rooms should not be considered as separate room equivalents unless they are obviously dissimilar from the adjoining room equivalent. However, walk-in closets should be considered as separate room equivalents.

Each room equivalent is made up of Components. Components may be located inside or outside a building. For example, components in a room could be its ceiling, floor, walls, a door and its casing, the window sash, and window casings. The Substrate is the material underneath the paint of a component. Although many different substrates exist, HUD guidelines recommend classifying substrates into one of six types: (1) brick; (2) concrete; (3) drywall; (4) metal, (5) plaster; and (6) wood. If the true substrate under investigation is not one of the aforementioned types, HUD guidelines mandate the inspector/risk assessor to select the substrate type that most closely resembles one of the six defined substrate types. For substrates that are layered, such as plaster on concrete, the substrate directly beneath the painted surface is identified during a LBP inspection. A Testing Combination is characterized by the room equivalent, component, and substrate. Visible color may not be an accurate predictor of painting history and is not included in the definition of a testing combination. Components that are coated with paint, varnish, shellac, wallpaper, stain, or other coating should be considered as separate testing combinations. Certain building components that are adjacent to each other and not likely to have different painting histories can be grouped together into a single testing combination as follows:

- Window casings, stops, jambs, and aprons.
- Interior window mullions and window sashes. Interior window components may not be grouped with exterior window components.
- Exterior window mullions and window sashes.
- Door jambs, stops, transoms, casings, and other door parts.

- Door stiles, rails, panels, mullions, and other door parts.
- Baseboards and associated trim (such as quarter-round or other caps).
- Painted electrical sockets, switches, or plates can be grouped with the walls.

The **Test Location** is a specific area on a testing combination where the XRF was used to test for LBP.

NOTE: If present, components covered with vinyl and/or metal sidings were not inspected during the evaluation because the surfaces underneath these components were not visible or accessible. This leaves the possibility that LBP components could be located beneath these coverings.

De minimis levels for deteriorated lead-based paint are defined follows: (1) For a component with a small surface area, such as window sills, or baseboards, 10% of the surface area; (2) For an interior component with a large surface area, such as an interior wall, 2 square feet of the surface area; and (3) For an exterior component with a large surface area, 20 square feet of the surface area.

2.2 Sampling Strategies

According to the HUD guidelines, a lead reading by XRF of 1.0 mg/cm² or above is considered positive for the presence of LBP. An XRF reading below 1.0 mg/cm² is considered negative; however, a reading below 1.0 mg/cm² could still be harmful if proper precautions are not taken during activities that disturb these paint films. If there are any inconclusive readings, a paint-chip sample may be collected for laboratory analysis. Laboratory analysis of samples collected will only be performed by an EPA approved National Lead Laboratory Accreditation Program (NLLAP) laboratory. There is no inconclusive range for laboratory measurements/results.

Only painted, stained, varnished, or wallpapered components of a dwelling are tested during a LBP evaluation. Wall “A” or “1” in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall “A” or “1”, Wall “B” or “2” will always be to your right, Wall “C” or “3” directly to the rear and Wall “D” or “4” to the left. Doors, windows and closets are designated as left, center or right depending on their location on the wall. When more than one window/door is on a wall, features are numbered left to right.

2.3 Assessment Logic

A LBP evaluation is performed by use of the following assessment logic. Any paint found to contain lead below the HUD standard of 1.0 mg/cm², regardless of condition, is considered non-hazardous. Components having lead levels at or above the action level are visually assessed for condition and approximate surface area. The paint condition is placed into one of two categories using the risk assessor’s professional judgment. These categories are: (1) intact (good) and (2) deteriorated (poor), based on the HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 5: Risk Assessment [Table 5-3], June, 1995.

2.4 Calibration of XRF Equipment

The calibration of the instrument is done in accordance with the Performance Characteristic Sheet (PCS) for this instrument. These instruments are calibrated using a calibration standard block of known lead content. Three calibration readings are taken before and after each home is tested to ensure manufacturer's standards are met. If the inspection is longer than four hours, a set of three calibration readings must be taken before the four hours expires, and then an additional three calibration readings taken at the end of the inspection. If for any reason the instruments are not maintaining a consistent calibration reading within the manufacturer's standards for performance on the calibration block supplied by the manufacturer, manufacturer's recommendations are used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it is taken off the site and sent back to the manufacturer for repair and/or re-calibration.

3.0 FINDINGS

3.1 Site Description

The property is located at Unit I407 in Falcon Village, Texas and is a single family dwelling with one residential unit. The home, reportedly constructed in the 1960s, is a single-story dwelling containing approximately 1,300 square feet of living space. The exterior is predominantly composed of vinyl siding over stucco with wood walls at gables and wood soffits and fascia. Window components are metal or brick. Interior finishes include drywall walls, drywall ceilings, with concrete and vinyl flooring.

3.2 Inaccessible Areas

There were no inaccessible areas identified at the time of the inspection.

3.3 Visual Assessment Results

The visual assessment identified the following:

| Item | Identified Yes/No |
|--|-------------------|
| Deteriorating painted surfaces | Yes* |
| Painted surfaces that are chewable, impact joints or subject to friction | Yes |
| Bare soil surface (soil surface that is not covered by pavement or sod or landscaping) | Yes |
| Excessive accumulation of dust on most interior surfaces | Yes** |

* - These painted surfaces were not found to contain LBP.

** - The structure has been unoccupied and open to the elements for an undetermined amount of time.

3.4 Lead-Based Paint Inspection Results

LCA has determined that the following components contain lead in amounts equal to or exceeding 1.0 mg/cm² in the surfaces tested during the LBP inspection:

Interior Components

- *No LBP was detected at or above 1.0 mg/cm² in the interior surfaces tested.*

Exterior Components

- *No LBP was detected at or above 1.0 mg/cm² in the exterior surfaces tested.*

3.5 Summary and Distribution Table

| | |
|--|-----|
| Number of Positive Readings (for Paint Only) | 0 |
| Total Number of Readings | 125 |
| Percent Positive | 0 |

4.0 CONCLUSIONS

No components were found to contain lead exceeding 1.0 mg/cm² (see Section 3.4).

This evaluation was completed in accordance with Lead Safe Housing Rule 24 CFR Part 35 subpart F as amended (2004). The sampling results are presented in Appendix A and notes are presented in Appendix B. The outline of dwelling is drafted in Appendix C. Appendix D contains photographs of the property. Appendix E contains the personal certifications of the inspector. Appendix F contains the PCS sheets for the XRF instrument and Appendix G contains a glossary of terms.

5.0 DISCLOSURE RESPONSIBILITY

A copy of this report must be provided to new lessees (tenants) and purchasers of this property under Federal Law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that children and pregnant women are protected from LBP hazards.

The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard states that “negative” readings (i.e. those below the HUD/EPA definition of what constitutes LBP [1.0 mg/cm²]) **do not** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead free. Although a reading may indicate “negative”, airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

DISCLAIMER

This is our report of a visual survey, and X-Ray Fluorescence (XRF) analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation. No other environmental concerns or conditions were addressed during this evaluation.

APPENDIX A

XRF DATA SHEETS

Unit I407 Falcon Village, Texas

21 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|-------|-----------|
| 1 | Standardization | PASS | | | | | | |
| 2 | Calibration | Positive | 1.03 | | | | | |
| 3 | Lead Paint Fixed-Time | Negative | 0 | Room 1 | Ceiling | Gyp | White | N/A |
| 4 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 5 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 6 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 7 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 8 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 9 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 10 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 11 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 12 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 13 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 14 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 15 | Lead Paint Fixed-Time | Negative | 0 | Room 2 | Ceiling | Gyp | White | N/A |
| 16 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 17 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 18 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 19 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 20 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 21 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 22 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 23 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 24 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 25 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 26 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 27 | Lead Paint Fixed-Time | Negative | 0 | Room 3 | Ceiling | Gyp | White | N/A |
| 28 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 29 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 30 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 31 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 32 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 33 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 34 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 35 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 36 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 37 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 38 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 39 | Lead Paint Fixed-Time | Negative | 0 | Room 4 | Ceiling | Gyp | White | N/A |
| 40 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 41 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 42 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 43 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 44 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 45 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 46 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 47 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 48 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 49 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 50 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 51 | Lead Paint Fixed-Time | Negative | 0 | Room 5 | Ceiling | Gyp | White | N/A |
| 52 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |

Unit I407 Falcon Village, Texas

21 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|----|----------|-------------|-----------|-------|-----------|
| 53 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 54 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 55 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 56 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 57 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 58 | Lead Paint Fixed-Time | Negative | 0 | Room 6 | Ceiling | Gyp | White | N/A |
| 59 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 60 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 61 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 62 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 63 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 64 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 65 | Lead Paint Fixed-Time | Negative | 0 | Room 7 | Ceiling | Gyp | White | N/A |
| 66 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 67 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 68 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 69 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 70 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 71 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 72 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 73 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 74 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 75 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 76 | Lead Paint Fixed-Time | Negative | 0 | Room 8 | Ceiling | Gyp | White | N/A |
| 77 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 78 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 79 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 80 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 81 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 82 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 83 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 84 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | Wood | White | N/A |
| 85 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 86 | Lead Paint Fixed-Time | Negative | 0 | Room 9 | Ceiling | Gyp | White | N/A |
| 87 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 88 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 89 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 90 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 91 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 92 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 93 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 94 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 95 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 96 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 97 | Lead Paint Fixed-Time | Negative | 0 | Room 10 | Ceiling | Gyp | White | N/A |
| 98 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 99 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 100 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 101 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 102 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 103 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 104 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |

Unit I407 Falcon Village, Texas

21 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|------------|-----------------|-----------|-------|-----------|
| 105 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 106 | Lead Paint Fixed-Time | Negative | 0.04 | | Door | Wood | White | N/A |
| 107 | Lead Paint Fixed-Time | Negative | 0.01 | | Doorframe | Wood | White | N/A |
| 108 | Lead Paint Fixed-Time | Negative | 0.03 | Exterior A | Soffit | Wood | White | N/A |
| 109 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | Green | N/A |
| 110 | Lead Paint Fixed-Time | Negative | 0.03 | | Gutter | Metal | Green | N/A |
| 111 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 112 | Lead Paint Fixed-Time | Negative | 0.03 | | Carport Ceiling | Wood | White | N/A |
| 113 | Lead Paint Fixed-Time | Negative | 0.02 | | Column | Wood | Green | N/A |
| 114 | Lead Paint Fixed-Time | Negative | 0.11 | Exterior B | Soffit | Wood | White | N/A |
| 115 | Lead Paint Fixed-Time | Negative | 0.03 | | Fascia | Wood | Green | N/A |
| 116 | Lead Paint Fixed-Time | Negative | 0 | | Gable | Metal | White | N/A |
| 117 | Lead Paint Fixed-Time | Negative | 0.02 | | Wall | Wood | White | N/A |
| 118 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |
| 119 | Lead Paint Fixed-Time | Negative | 0 | Exterior C | Soffit | Wood | White | N/A |
| 120 | Lead Paint Fixed-Time | Negative | 0 | | Fascia | Wood | Green | N/A |
| 121 | Lead Paint Fixed-Time | Negative | 0.03 | | Gutter | Metal | Green | N/A |
| 122 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall | Stucco | White | N/A |
| 123 | Lead Paint Fixed-Time | Negative | 0.01 | Exterior D | Soffit | Wood | White | N/A |
| 124 | Lead Paint Fixed-Time | Negative | 0.02 | | Fascia | Wood | Green | N/A |
| 125 | Lead Paint Fixed-Time | Negative | 0 | | Gable | Metal | White | N/A |
| 126 | Lead Paint Fixed-Time | Negative | 0.01 | | Wall | Wood | White | N/A |
| 127 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | White | N/A |

APPENDIX B

NOTES

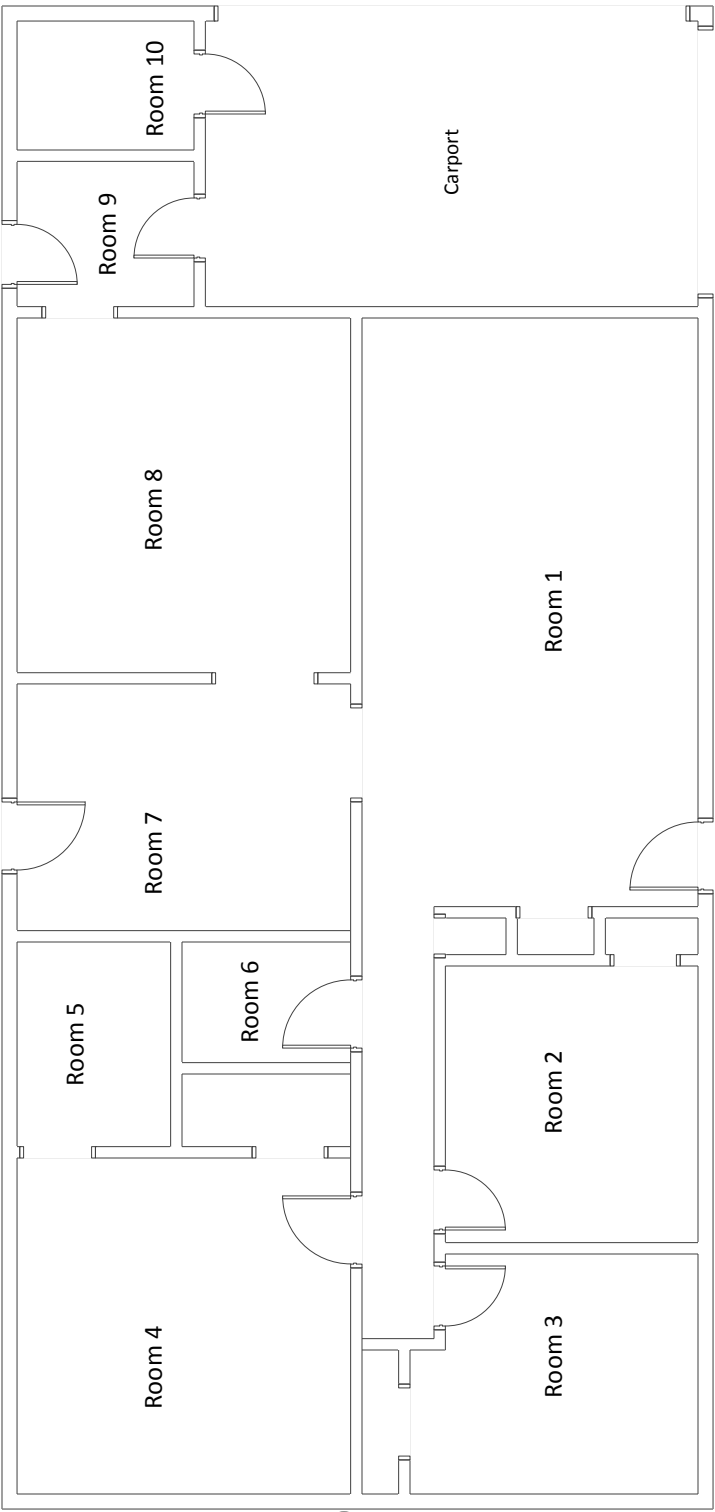
Unit I407, Falcon Village, Texas

| Room | Notes |
|-------------|---|
| Room 1 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 2 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 3 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 4 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 5 | Gyp-board ceiling, gyp-board and ceramic tile walls, ceramic tile floor |
| Room 6 | Gyp-board ceiling, gyp-board and ceramic tile walls, ceramic tile floor |
| Room 7 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 8 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 9 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl sheet flooring |
| Room 10 | Gyp-board ceiling, gyp-board walls, wood baseboards, vinyl flooring |
| Exterior | Wood, stucco, vinyl siding |

APPENDIX C

DRAWING(S)

C

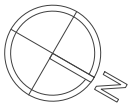


D

A



NOTE: No LBP was found during this LBP Inspection.



NOT TO SCALE

Quanternary Resource Investigations, LLC
Lead-based Paint Inspection
CBP-Owned Housing, Falcon Village, Texas

Figure 1
Unit 1407
Sample Location Plan

Drawn By: EBB Date: 07/02/13

Approved By: TAH Date: 07/02/13

Location: CBP-Owned Housing, Falcon Village, Texas

Source: LCA Field Sketch

LCA Project No.: 130602

Filename: Fig1-1407 Sample Location Plan

APPENDIX D

PHOTOGRAPHS



Photograph 1: View of the front of the structure at Unit 1407, in Falcon Village, Texas. No LBP was found during this inspection.

APPENDIX E

CERTIFICATIONS



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

LYNN CLARK ASSOCIATES INC

is certified to perform as a

Lead Firm

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, appearing to read "David L. Laakey".

David L. Laakey, M.D.
Commissioner of Health

License Number: 2110555

Control Number 6528

Expiration Date: 6/12/2015

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

THOMAS A HALE

is certified to perform as a

Lead Risk Assessor

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, reading "David L. Lakey".

David L. Lakey, M.D.
Commissioner of Health

License Number: 2070881

Expiration Date: 5/5/2013

Void After Expiration Date

VOID IF ALTERED

Control Number 6610

NON-TRANSFERABLE

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Inspector Refresher

Conducted at Hurst, Texas on December 3, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/03/2012

Certificate Number: 12046 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

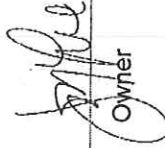
has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Risk Assessor Refresher

Conducted at Hurst, Texas on December 4, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/04/2012

Certificate Number: 12030 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

APPENDIX F

NIST – CERTIFICATE OF ANALYSIS



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material[®] 2573

Lead Paint Film

For Portable X-Ray Fluorescence Analyzers – Nominal 1.0 mg/cm²
(Color Code: Red)

This Standard Reference Material (SRM) is intended for checking the calibration of portable, hand-held, x-ray fluorescence analyzers when testing for lead in paint coatings on interior and exterior building surfaces. A unit of SRM 2573 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, red-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2570, is also provided. The blank is coated with a lead-free, lacquer layer on a white polyester sheet of the same thickness as the lead paint samples. All sheets are over-coated with a clear, thin, plastic laminate to protect the surface from abrasion. SRM 2573 and SRM 2570 are two of a set of six paint films (SRM 2570 to SRM 2575) available as SRM 2579a.

The certified values for lead for this SRM and the blank, SRM 2570, are reported in Table 1 in units of mg/cm². These values are based on measurements by isotope dilution inductively-coupled plasma mass spectrometry.

Table 1. Certified Lead Values

| Level | Color Code | Lead Concentration, in mg/cm ² |
|----------|---------------|---|
| SRM 2570 | White (Blank) | <0.001 |
| SRM 2573 | Red | 1.040 ± 0.064 |

The uncertainty of each certified value is expressed as an expanded uncertainty, U , at the 95 % level of confidence and is calculated according to the method described in the ISO Guide [1,2]. Because of variability in the paint film between different sheets of each SRM, the uncertainties are 95 % prediction intervals. The expanded uncertainty is calculated as $U = ku_c$, where u_c is intended to represent, at the level of one standard deviation, the combined uncertainty due to material variability and measurement uncertainty. The coverage factor, k , is determined from the Student's t -distribution corresponding to the calculated effective degrees of freedom and 95 % level of confidence.

Expiration of Certification: The certification of SRM 2573 is valid, within the measurement uncertainties specified, until **01 July 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Use"). The certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet) will facilitate notification.

The overall direction and coordination of the analytical measurements leading to certification were performed by G.C. Turk and J.D. Fassett of the NIST Analytical Chemistry Division. Analytical measurements were performed by K.E. Murphy, J.R. Sieber, A.F. Marlow, L.J. Wood, P.R. Seo, and M. Lankosz of the NIST Analytical Chemistry Division. The SRM was fabricated under the direction of J.R. Sieber of the NIST Analytical Chemistry Division.

Stephen A. Wise, Chief
Analytical Chemistry Division

Robert L. Watters, Jr., Chief
Measurement Services Division

Gaithersburg, MD 20899
Certificate Issue Date: 24 March 2009
See Certificate Revision History on Last Page

Statistical consultation for this SRM was provided by E.S. Lagergren and N.F. Zhang of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Measurement Services Division.

NOTICE AND WARNING TO USERS

NOTE: This SRM contains lead, as a lead chromate pigment, which is toxic and a suspected carcinogen to the lung and kidney. The SRM must be handled with care and disposed of according to the U.S. Environmental Protection Agency (EPA) practices and procedures.

INSTRUCTIONS FOR USE

The SRM sheet must first be removed from the plastic sleeve in which it is stored and then positioned so that the side labeled with the NIST logo and SRM number faces the x-ray source. For best results, the size of the x-ray beam from the field unit should irradiate an area of the SRM that is at least 2.5 cm in diameter and is centered on the sheet. Care must be exercised not to compromise the protective plastic laminate which prevents scratching or chipping of the painted surface and the potential release of dust containing lead. Upon completion of the measurement, the SRM must be re-stored in the plastic sleeve provided. It is also recommended that this SRM be stored indoors at ambient room temperature and away from direct sunlight when not in use.

Stability: This SRM is considered to be stable during the period of certification. NIST will monitor the SRM and will report any significant changes in certification to the purchaser. Return of the attached registration card will facilitate notification.

PREPARATION

SRM Preparation: The paint-coated, polyester sheets were prepared by an automated coating process at a commercial facility under contract to NIST. Known concentrations of a lead chromate pigment were dispersed in a commercial paint vehicle to prepare the lead paints. A lead-free, organic tint was added to each paint mixture to give the desired color. A thin, protective overlay of plastic laminate was applied to each paint film. The attenuation of lead $L_{3-}M_{4,5}$ ($L\alpha_{1,2}$) X-rays due to the protective overlay does not exceed 2 % relative, while that of $K-L_{2,3}$ ($K\alpha_{1,2}$) x-rays commonly used for field measurement is negligible.

REFERENCES

- [1] ISO; *Guide to the Expression of Uncertainty in Measurement*; ISBN 92-67-10188-9, 1st ed., International Organization for Standardization: Geneva, Switzerland (1993); see also Taylor, B.N.; Kuyatt, C.E.; *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*; NIST Technical Note 1297, U.S. Government Printing Office: Washington, DC (1994); available at <http://physics.nist.gov/Pubs/>.
- [2] Hahn, G.J.; Meeker, W.Q.; *Statistical Intervals: A Guide for Practitioners*; John Wiley & Sons, Inc., New York, NY (1991).

Certificate Revision History: 24 March 2009 (Extension of certification period); 29 November 1999 (Original certificate date).

Users of this SRM should ensure that the certificate in their possession is current. This can be accomplished by contacting the SRM Program at: telephone (301) 975-2200; fax (301) 926-4751; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX G

GLOSSARY

Abatement - A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. See also Complete Abatement and Interim Controls.

Accessible surface - Any protruding interior or exterior surface, such as an interior window sill, that a young child can mouth or chew.

Accreditation - A formal recognition that an organization, such as a laboratory, is competent to carry out specific tasks or types of tests.

Accredited laboratory -A laboratory that has been evaluated and approved by the National Lead Laboratory Accreditation Program (NLLAP) to perform lead measurement or analysis, usually over a specified period of time.

Apron - A trim board that is installed beneath a window sill.

Area wells - Corrugated metal or concrete barrier walls installed around a basement window to hold back the earth.

Attic access - An opening that is placed in the drywalled ceiling of a home providing access to the attic.

Attic Ventilators - In houses, screened openings provided to ventilate an attic space.

Backing - Frame lumber installed between the wall studs to give additional support for drywall or an interior trim related item, such as handrail brackets, cabinets, and towel bars. In this way, items are screwed and mounted into solid wood rather than weak drywall that may allow the item to break loose from the wall. Carpet backing holds the pile fabric in place.

Balusters -Vertical members in a railing used between a top rail and bottom rail or the stair treads. Sometimes referred to as 'pickets' or 'spindles'.

Balustrade - The rail, posts and vertical balusters along the edge of a stairway or elevated walkway.

Bare soil - Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Barge board - A decorative board covering the projecting rafter (fly rafter) of the gable end. At the cornice, this member is a fascia board.

Base or baseboard - A trim board placed against the wall around the room next to the floor.

Basement window inserts - The window frame and glass unit that is installed in the window buck.

Base shoe - Molding used next to the floor on interior base board. Sometimes called a carpet strip.

Bat - A half-brick.

Batt - A section of fiber-glass or rock-wool insulation measuring 15 or 23 inches wide by four to eight feet long and various thicknesses. Sometimes "faced" (meaning to have a paper covering on one side) or "unfaced" (without paper).

Batten - Narrow strips of wood used to cover joints or as decorative vertical members over plywood or wide boards.

Bay window - Any window space projecting outward from the walls of a building, either square or polygonal in plan.

Beam - A structural member transversely supporting a load. A structural member carrying building loads (weight) from one support to another. Sometimes called a "girder".

Bearing wall - A wall that supports any vertical load in addition to its own weight. **Bearing header** - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Bifold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

Bypass doors - Doors that slide by each other and commonly used as closet doors.

Blocking - Small wood pieces to brace framing members or to provide a nailing base for gypsum board or paneling.

Blood lead threshold - Any blood level greater than or equal to 10 ug/dL as defined by the Centers for Disease Control and Prevention. See also Elevated Blood Lead level (EBL) child.

Brace - An inclined piece of framing lumber applied to wall or floor to strengthen the structure. Often used on walls as temporary bracing until framing has been completed.

Breaker panel - The electrical box that distributes electric power entering the home to each branch circuit (each plug and switch) and composed of circuit breakers.

Brick mold - Trim used around an exterior door jamb that siding butts to.

Brick tie - A small, corrugated metal strip @ 1" X 6"- 8" long nailed to wall sheathing or studs. They are inserted into the grout mortar joint of the veneer brick, and holds the veneer wall to the sheeted wall behind it.

Brick veneer - A vertical facing of brick laid against and fastened to sheathing of a framed wall or tile wall construction.

Building component - Any element of a building that may be painted or have dust on its surface, e.g. walls, stair treads, floors, railings, doors, window sills, etc.

By fold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

By pass doors - Doors that slide by each other and commonly used as closet doors.

Cantilever - An overhang. Where one floor extends beyond and over a foundation wall. For example at a fireplace location or bay window cantilever. Normally, not extending over 2 feet.

Cap - The upper member of a column, pilaster, door cornice, molding, or fireplace.

Cap flashing - The portion of the flashing attached to a vertical surface to prevent water from migrating behind the base flashing.

Casement - Frames of wood or metal enclosing part (or all) of a window sash. May be opened by means of hinges affixed to the vertical edges.

Casement Window - A window with hinges on one of the vertical sides and swings open like a normal door.

Casing - Wood trim molding installed around a door or window opening.

CelotexTM - Black fibrous board that is used as exterior sheathing.

Ceiling joist - One of a series of parallel framing members used to support ceiling loads and supported in turn by larger beams, girders or bearing walls. Also called roof joists.

Cement - The gray powder that is the "glue" in concrete. Portland cement. Also, any adhesive.

Ceramic tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally used in bathtub and shower enclosures and on counter tops.

Certification - The process of testing and evaluating against certain specifications the competence of a person, organization, or other entity in performing a function or service, usually for a specified period of time.

Certified - The designation for contractors who have completed training and other requirements to allow them to safely undertake risk assessments, inspections, or abatement work. Risk assessors, inspectors, and abatement contractors should be certified by the appropriate local, State or Federal agency.

Chair rail - Interior trim material installed about 3-4 feet up the wall, horizontally.

Chalking -The photo-oxidation of paint binders - usually due to weathering - that causes a powder to form on the film surface.

Chase - A framed enclosed space around a flue pipe or a channel in a wall, or through a ceiling for something to lie in or pass through.

Chewed surface - Any painted surface that shows evidence of having been chewed or mouthed by a young child. A chewed surface is usually a protruding, horizontal part of a building, such as an interior window sill. See also Accessible surface.

Chip Board - A manufactured wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing. Also called OSB (Oriented Strand Board) or wafer board.

Cleaning - The process of using a HEP A vacuum and wet cleaning agents to remove leaded dust; the process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to clean lead-contaminated dust from a surface.

Clearance examination - Visual examination and collection of environmental samples by an inspector or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control interventions, or maintenance job that disturbs lead-based paint (or paint suspected of being lead-based). The clearance examination is performed to ensure that lead exposure levels do not exceed standards established by the EPA administrator pursuant to Title IV of the Toxic Substances Control Act, and that any cleaning following such work adequately meets those standards.

Clearance examiner - A person who conducts clearance examinations following lead-based paint hazard control and cleanup work, usually a certified risk assessor or a certified inspector.

Code of Federal Regulations (CFR) - The codification of the regulations of Federal agencies.

Column - A vertical structural compression member which supports loads.

Complete abatement - Abatement of all lead-based paint inside and outside a dwelling or building and reduction of any lead-contaminated dust or soil hazards. All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, reevaluation and on-going monitoring. See also Abatement.

Concrete - The mixture of Portland cement, sand, gravel, and water. Used to make garage and basement floors, sidewalks, patios, foundation walls, etc. It is commonly reinforced with steel rods (rebar) or wire screening (mesh).

Concrete block - A hollow concrete 'brick' often 8" x 8" X 16" in size.

Concrete board - A panel made out of concrete and fiberglass usually used as a tile backing material.

Conduit, electrical - A pipe, usually metal, in which wire is installed.

Containment - A process to protect workers and the environment by controlling exposures to the lead contaminated dust and debris created during abatement.

Corbel - The triangular, decorative and supporting member that holds a mantel or horizontal shelf.

Corner bead - A strip of formed sheet metal placed on outside corners of drywall before applying drywall 'mud'.

Corner boards - Used as trim for the external corners of a house or other frame structure against which the ends of the siding are finished.

Corner braces - Diagonal braces at the corners of the framed structure designed to stiffen and strengthen the wall.

Cornice - Overhang of a pitched roof, usually consisting of a fascia board, a soffit and appropriate trim moldings.

Counter flashing - A metal flashing usually used on chimneys at the roofline to cover shingle flashing and used to prevent moisture entry.

Cove molding - A molding with a concave face used as trim or to finish interior corners.

Crawl space - A shallow space below the living quarters of a house, normally enclosed by the foundation wall and having a dirt floor.

Cross Tee - Short metal "T" beam used in suspended ceiling systems to bridge the spaces between the main beams.

Crown molding - A molding used on cornice or wherever an interior angle is to be covered, especially at the roof and wall corner.

Damper - A metal "door" placed within the fireplace chimney. Normally closed when the fireplace is not in use.

Deteriorated lead-based paint - Any lead-based paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or

otherwise becoming separated from the substrate.

Doorjamb, interior - The surrounding case into which and out of which a door closes and opens. It consists of two upright pieces, called side jambs, and a horizontal head jamb. These 3 jambs have the "door stop" installed on them.

Door stop - The wooden style that the door slab will rest upon when it's in a closed position.

Dormer - An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Downspout - A pipe, usually of metal, for carrying rainwater down from the roofs horizontal gutters.

Drip cap - A molding or metal flashing placed on the exterior topside of a door or window frame to cause water to drip beyond the outside of the frame.

Drywall (or Gypsum Wallboard (GWB), Sheet rock or Plasterboard) -Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The panels are nailed or screwed onto the framing and the joints are taped and covered with a 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Ducts - The heating system. Usually round or rectangular metal pipes installed for distributing warm (or cold) air from the furnace to rooms in the home. Also a tunnel made of galvanized metal or rigid fiberglass, which carries air from the heater or ventilation opening to the rooms in a building.

Dura board, dura rock - A panel made out of concrete and fiberglass usually used as a ceramic tile backing material. Commonly used on bathtub decks. Sometimes called Wonder board.

Dust removal - A form of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed. Depending on the severity of lead-based paint hazards, dust removal may be the primary activity or just one element of a broader control effort.

Eaves - The horizontal exterior roof overhang.

Elevated Blood Lead level (EBL) child - A child who has a blood level greater than or equal to 20 ug/dL or a persistent 15 ug/dL. See also Blood lead threshold.

Encapsulation - Any covering or coating that acts as a barrier between lead-based paint and the environment, the durability of which relies on adhesion and the integrity of the existing bonds between multiple layers of paint and between the paint and the substrate. See also Enclosure.

Enclosure - The use of rigid, durable construction materials that are mechanically fastened to the substrate to act as a barrier between the lead-based paint and the environment.

Escutcheon - An ornamental plate that fits around a pipe extending through a wall or floor to hide the cut out hole.

Evaluation - Risk assessment, paint inspection, reevaluation, investigation, clearance examination, or risk assessment screen.

Exterior work area - For lead hazard control work, the exterior work area includes any exterior building components, such as a porch or stairway; the safety perimeter; and access barriers.

Facing brick - The brick used and exposed on the outside of a wall. Usually these have a finished texture.

Fascia - Horizontal boards attached to rafter/truss ends at the eaves and along gables. Roof drain gutters are attached to the fascia.

Flue - Large pipe through which fumes escape from a gas water heater, furnace, or fireplace.

Friction surface - Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Gable - The end, upper, triangular area of a home, beneath the roof.

Gyp board - Drywall. Wall board or gypsum-A panel (normally 4' X 8', 10', 12', or 16') made with a core of Gypsum (chalk-like) rock, which covers interior walls and ceilings.

Header - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or

other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Hearth - The fireproof area directly in front of a fireplace. The inner or outer floor of a fireplace, usually made of brick, tile, or stone.

Hip - A roof with four sloping sides. The external angle formed by the meeting of two sloping sides of a roof.

Hip roof - A roof that rises by inclined planes from all four sides of a building.

HVAC - An abbreviation for Heat, Ventilation, and Air Conditioning

Impact surface - An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Inspection (of paint) - A surface-by-surface investigation to determine the presence of lead-based paint (in some cases including dust and soil sampling) and a report of the results.

Insulation board, rigid - A structural building board made of coarse wood or cane fiber in 1/2- and 25/32-inch thickness. It can be obtained in various size sheets and densities.

Interim controls- A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include specialized cleaning, repairs, maintenance, painting, temporary containment, and management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land-use controls. See also Monitoring, Reevaluation, and Abatement.

Interior window sill - The portion of the horizontal window ledge that protrudes into the interior of the room, adjacent to the window sash when the window is closed; often called the window stool.

Jamb - The side and head lining of a doorway, window, or other opening. Includes studs as well as the frame and trim.

Joint - The location between the touching surfaces of two members or components joined and held together by nails, glue, cement, mortar, or other means.

Joist - Wooden 2 X 8's, 10's, or 12's that run parallel to one another and support a floor or ceiling, and supported in turn by larger beams, girders, or bearing walls.

Laminated shingles -Shingles that have added dimensionality because of extra layers or tabs, giving a shake-like appearance. May also be called "architectural shingles" or "three-dimensional shingles."

Lath - A building material of narrow wood, metal, gypsum, or insulating board that is fastened to the frame of a building to act as a base for plaster, shingles, or tiles.

Lattice - An open framework of criss-crossed wood or metal strips that form regular, patterned spaces.

Lead - Lead includes metallic lead and inorganic and organic compounds of lead.

Lead-based paint - Any paint, varnish, shellac, or other coating' that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 ug/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis.

Lead-based paint hazard - A condition in which exposure to lead from lead-contaminated dust, lead contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA Administrator under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, deteriorated lead-based paint, leaded dust levels above applicable standards, and bare leaded soil above applicable standards.

Lead-based paint hazard control - Activities to control and eliminate lead-based paint hazards, including interim controls, abatement, and complete abatement.

Lead-contaminated dust - Surface dust in residences that contains an area or mass concentration of lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. Until the EPA standards are set, the HUD-recommended clearance and risk assessment standards for leaded dust are 100 ug/ft² on floors, 500 ug/ft² on interior window sills, and 800 ug/ft² on window troughs. The recommended standard for lead hazard

screens for floors is 50 ug/ft² and for window troughs is 400 ug/ft².

Lead-contaminated soil - Bare soil on residential property that contains lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. The HUD-recommended standard and interim EPA guidance is 400 ug/g for high-contact play areas and 2,000 ug/g in other bare areas of the yard. Soil contaminated with lead at levels greater than or equal to 5,000 ug/g should be abated by removal or paving.

Lead-free dwelling - A lead-free dwelling contains no lead-based paint and has interior dust and exterior soil lead levels below the applicable HUD and EPA standards.

Licensed - Holding a valid license or certification issued by EPA or by an EPA-approved State program pursuant to Title IV of the Toxic Substances Control Act. The license is based on certification for lead-based paint hazard control work. See also Certified.

Louver - A vented opening into the home that has a series of horizontal slats and arranged to permit ventilation but to exclude rain, snow, light, insects, or other living creatures.

Maintenance - Work intended to maintain adequate living conditions in a dwelling, which has the potential to disturb lead-based paint or paint that is suspected of being lead-based.

Mantel - The shelf above a fireplace opening. Also used in referring to the decorative trim around a fireplace opening.

Masonry - Stone, brick, concrete, hollow-tile, concrete block, or other similar building units or materials. Normally bonded together with mortar to form a wall.

Mastic - A pasty material used as a cement (as for setting tile) or a protective coating (as for thermal insulation or waterproofing)

Mg - Milligram; 1/1,000 of a gram.

Microgram - see Ug.

Milligram - see Mg.

Molding - A wood strip having an engraved, decorative surface.

Monitoring - Surveillance to determine (1) that known or suspected lead-based paint is not deteriorating; (2) that lead-based paint hazard controls, such as paint stabilization, enclosure, or encapsulation have not failed, (3) that structural problems do not threaten the integrity of hazard controls or of known or suspected lead-based paint, and (4) that dust lead levels have not risen above applicable levels.

Mortar - A mixture of cement (or lime) with sand and water used in masonry work.

Mullion - A vertical divider in the frame between windows, doors, or other openings.

Muntin - A small member which divides the glass or openings of sash or doors.

Natural finish - A transparent finish which does not seriously alter the original color or grain of the natural wood. Natural finishes are usually provided by sealers, oils, varnishes, water repellent preservatives, and other similar materials.

Newel post -The large starting post to which the end of a stair guard railing or balustrade is fastened.

Oriented Strand Board or OSB -A manufactured 4' X 8' wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood.

Overhang - Outward projecting eave-soffit area of a roof; the part of the roof that hangs out or over the outside wall. See also Cornice.

Paint film stabilization - The process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint; paint film stabilization includes cleanup and clearance.

Paint removal -An abatement strategy that entails the removal of lead-based paint from surfaces. For lead-hazard control work, this can mean using chemicals, heat guns below 1,100 °F, and certain contained abrasive methods. Open-flame burning, open abrasive blasting, and extensive dry scraping are prohibited paint removal methods.

Panel - A thin flat piece of wood, plywood, or similar material, framed by stiles and rails as in a door (or cabinet door), or fitted into grooves of thicker material with molded edges for decorative wall treatment.

Parting stop or strip -A small wood piece used in the side and head jambs of double hung windows to separate the upper sash from the lower sash.

Particle board - Plywood substitute made of course sawdust that is mixed with resin and pressed into sheets. Used for closet shelving, floor underlayment, stair treads, etc.

Partition -A wall that subdivides spaces within any story of a building or room.

Plenum -The main hot-air supply duct leading from a furnace.

Plywood - A panel (normally 4' X 8') of wood made of three or more layers of veneer, compressed and joined with glue, and usually laid with the grain of adjoining plies at right angles to give the sheet strength.

Portland cement -Cement made by heating clay and crushed limestone into a brick and then grinding to a pulverized powder state.

Pressure-treated wood -Lumber that has been saturated with a preservative.

Quarry tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally 6" X 6" X 11/4" thick.

Quarter round -A small trim molding that has the cross section of a quarter circle.

Rafter -Lumber used to support the roof sheeting and roof loads. Generally, 2 X 10's and 2 X 12's are used. The rafters of a flat roof are sometimes called roof joists.

Rake fascia -The vertical face of the sloping end of a roof eave.

Reevaluation - In lead hazard control work, the combination of a visual assessment and collection of environmental samples performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dwelling remains lead-safe.

Register - A grill placed over a heating duct or cold air return.

Renovation - Work that involves construction and/or home or building improvement measures such as window replacement, weatherization, remodeling, and repainting.

Replacement - A strategy of abatement that entails the removal of building components coated with lead-based paint (such as windows, doors, and trim) and the installation of new components free of lead-based paint.

Retaining wall - A structure that holds back a slope and prevents erosion.

Riser -Each of the vertical boards closing the spaces between the treads of stairways.

Risk assessment - An onsite investigation of a residential dwelling to discover any lead-based paint hazard. Risk assessments include an investigation of the age, history, management, and maintenance of the dwelling, and the number of children under age 6 and women of child-bearing age who are residents; a visual assessment; limited environmental sampling (i.e., collection of dust wipe samples, soil samples, and deteriorated paint samples); and preparation of a report identifying acceptable abatement and interim control strategies based on specific conditions.

Risk assessor - A certified individual who has completed training with an accredited training program and who has been certified to (1) perform risk assessments, (2) identify acceptable abatement and interim control strategies for reducing identified lead-based paint hazards, (3) perform clearance testing and reevaluations, and (4) document the successful completion of lead-based paint hazard control activities.

Shake - A wood roofing material, normally cedar or redwood. Produced by splitting a block of the wood along the grain line. Modern shakes are sometimes machine sawn on one side. See shingle.

Shed roof - A roof containing only one sloping plane.

Sheet rock - Drywall-Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Shim - A small piece of scrap lumber or shingle, usually wedge shaped, which when forced behind a furring strip or framing member forces it into position. Also used when installing doors and placed between the door jamb legs and 2 X 4 door trimmers. Metal shims are wafer 1 1/2" X 2" sheet metal of various thickness' used to fill gaps in wood framing

members, especially at bearing point locations.

Shingles - Roof covering of asphalt, asbestos, wood, tile, slate, or other material cut to stock lengths, widths, and thickness'.

Shingles, siding - Various kinds of shingles, used over sheathing for exterior wall covering of a structure.

Shutter - Usually lightweight louvered decorative frames in the form of doors located on the sides of a window. Some shutters are made to close over the window for protection.

Siding - The finished exterior covering of the outside walls of a frame building.

Sill - (1) The 2 X 4 or 2 X 6 wood plate framing member that lays flat against and bolted to the foundation wall (with anchor bolts) and upon which the floor joists are installed. Normally the sill plate is treated lumber. (2) The member forming the lower side of an opening, as a door sill or window sill.

Skylight - A more or less horizontal window located on the roof of a building.

Slab, concrete - Concrete pavement, i.e. driveways, garages, and basement floors.

Slab, door - A rectangular door without hinges or frame.

Soffit - The area below the eaves and overhangs. The underside where the roof overhangs the walls. Usually the underside of an overhanging cornice.

Stair landing - A platform between flights of stairs or at the termination of a flight of stairs. Often used when stairs change direction. Normally no less than 3 ft X 3 ft square.

Stile - An upright framing member in a panel door.

Stool - The flat molding fitted over the window sill between jambs and contacting the bottom rail of the lower sash.

Stops - Moldings along the inner edges of a door or window frame. Also valves used to shut off water to a fixture.

Storm sash or storm window - An extra window usually placed outside of an existing one, as additional protection against cold weather.

String, stringer - A timber or other support for cross members in floors or ceilings. In stairs, the supporting member for stair treads. Usually a 2 X 12 inch plank notched to receive the treads.

Stucco - Refers to an outside plaster finish made with Portland cement as its base.

Stud - A vertical wood framing member, also referred to as a wall stud, attached to the horizontal sole plate below and the top plate above. Normally 2 X 4's or 2 X 6's, 8' long (sometimes 92 5/8"). One of a series of wood or metal vertical structural members placed as supporting elements in walls and partitions.

Subfloor - The framing components of a floor to include the sill plate, floor joists, and deck sheathing over which a finish floor is to be laid.

Substrate - A surface on which paint, varnish, or other coating has been applied or may be applied. Examples of substrates include wood, plaster, metal, and drywall.

Suspended ceiling - A ceiling system supported by hanging it from the overhead structural framing.

Terra cotta - A ceramic material molded into masonry units.

Testing combination - A unique surface to be tested that is characterized by the room equivalent, component and substrate.

Test location - A specific area on a testing combination where XRF instruments will test for lead-based paint.

Threshold - The bottom metal or wood plate of an exterior door frame. Generally they are adjustable to keep a tight fit with the door slab.

Tread - The walking surface board in a stairway on which the foot is placed.

Treated lumber - A wood product which has been impregnated with chemical pesticides such as CCA (Chromated Copper Arsenate) to reduce damage from wood rot or insects. Often used for the portions of a structure which are likely

to be in contact with soil and water. Wood may also be treated with a fire retardant.

Treatment - In residential lead-based paint hazard control work, any method designed to control lead-based paint hazards. Treatment includes interim controls, abatement, and removal.

Trim - Interior- The finish materials in a building, such as moldings applied around openings (window trim, door trim) or at the floor and ceiling of rooms (baseboard, cornice, and other moldings). Also, the physical work of installing interior doors and interior woodwork, to include all handrails, guardrails, stair way balustrades, mantles, light boxes, base, door casings, cabinets, countertops, shelves, window sills and aprons, etc. Exterior- The finish materials on the exterior a building, such as moldings applied around openings (window trim, door trim), siding, windows, exterior doors, attic vents, crawl space vents, shutters, etc. Also, the physical work of installing these materials.

Ug - Micrograms. The prefix micro means 1/1,000,000 (or one-millionth); a microgram is 1/1,000,000 of a gram and 1/1,000 or a milligram.

Veneer - Extremely thin sheets of wood. Also, a thin slice of wood or brick or stone covering a framed wall.

Vent - A pipe or duct which allows the flow of air and gasses to the outside. Also, another word for the moving glass part of a window sash, i.e. window vent.

Wafer board - A manufactured wood panel made out of 1 "- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing.

Water board - Water resistant drywall to be used in tub and shower locations. Normally green or blue colored.

Window frame - The stationary part of a window unit; window sash fits into the window frame and their border.

Window sill - See Interior window sill.

Window trough - For a typical double-hung window, the portion of the exterior window sill between the exterior window sill between the interior window sill (or stool) and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when they are both lowered. Sometimes inaccurately called the window "well." See also Window well.

Window well - The space that provides exterior access and/or light to a window that is below grade, i.e., below the level of the surrounding earth or pavement.

XRF analyzer - An instrument that determines lead concentration in milligrams per square centimeter (mg/cm²) using the principle of x-ray fluorescence (XRF). For lead-based paint inspections, the term XRF analyzer only refers to portable instruments manufactured to analyze paint, and does not refer to laboratory-grade units or portable instruments designed to analyze soil.

Window sash - The operating or movable part of a window; the sash is made of window panes.

Building component terms from www.HomeBuildingManual.com; other terms from the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997).

**LEAD-BASED PAINT INSPECTION
AND
VISUAL ASSESSMENT REPORT**

**UNIT L101
FALCON VILLAGE, TEXAS 78545**

Prepared for:

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LCA Project Number 130602

3 July 2013

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EXECUTIVE SUMMARY

LCA Environmental, Inc. (LCA) has been authorized to perform a lead-based paint (LBP) evaluation at the single-family residence located at Unit L101 in Falcon Village, Texas. The property was not occupied at the time of the inspection. Readily accessible painted and/or finished components were evaluated according to the protocols described for LBP inspection in the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and applicable Federal, State, and Local regulations.

According to the HUD guidelines, a lead reading by X-Ray Fluorescence (XRF) of 1.0 mg/cm² or above is considered positive for the presence of LBP. The State of Texas' Texas Environmental Lead Reduction Rules (TELRR) lists an action level of 1.0 mg/cm². This action level will be referenced throughout the report.

Components identified as having lead levels at or above the action level are visually assessed for the condition of the surface area. LBP surfaces found to be intact at the time of inspection do not require paint stabilization, but should be monitored on an ongoing basis. During the evaluation, XRF testing was performed on at least one location per testing combination, except for interior walls, where four readings were taken (or one on each wall). The XRF testing was conducted using an Innov-X Systems, Inc. lead paint analyzer. A surface-by-surface visual assessment of the painted and/or finished surfaces was conducted to determine which lead-coated surfaces/components are deteriorated at or above *de minimis* levels.

The lead-based paint evaluation at this property performed on 18 June 2013 produced the following results:

LCA has determined that there is LBP at or above *de minimis* levels at the property. The following component(s) were determined to contain lead in amounts equal to or exceeding 1.0 mg/cm² in the surfaces tested:

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|--------------------|-----------------------|------------|-----------|-----------|-------|--------------|
| 123 | Positive | 1.00 | Room 9 | Wall B | Gyp. | White | Intact |
| 150 | Positive | 1.05 | Exterior C | Fascia | Wood | Brown | Deteriorated |

See Appendix C (Drawings) and Appendix D (Photographs) for further detail regarding the location and extent of identified LBP.

1.0 SCOPE OF INSPECTION

1.1 Scope of Work

LCA performed a LBP evaluation (XRF testing and visual assessment) at Unit L101 in Falcon Village, Texas. Mr. Thomas Hale, an EPA-accredited and TDSHS Certified Risk Assessor/Inspector (Texas License Number 2070881), conducted the evaluation on 18 June 2013. Painted and/or finished components were tested according to the protocols described for LBP inspections in the HUD Guidelines Chapter 7 (revised 1997) and applicable Federal, state, and local regulations.

During the evaluation, the HUD/TELRR action level of 1.0 mg/cm² was the regulatory benchmark utilized to identify components that contained LBP.

1.2 Training Requirements

All individuals who performed this XRF testing and visual assessment are EPA accredited and hold State licensure as Lead Inspector/Risk Assessors and have been trained in the use, calibration and maintenance of the XRF, and the principles of radiation safety (in accordance with the work practices of 40 CFR 745, section 227, for States and Indian Tribes).

1.3 Equipment

An industry standard XRF, manufactured by Innov-X Systems, Inc., was utilized during the evaluation. Prior to initial sampling, the instrument was calibrated against the standards of the National Institute of Standards and Testing (NIST).

2.0 METHODOLOGY

2.1 Definitions

A Room Equivalent is an identifiable part of a residence, such as a room, foyer, staircase, hallway, or a house exterior or other exterior area. Exterior areas contain items such as play areas, painted swing sets, painted sandboxes, etc. Small closets or other similar areas adjoining rooms were not considered as separate room equivalents unless they are obviously dissimilar from the adjoining room equivalent. However, walk-in closets were considered as separate room equivalents.

Each room equivalent is made up of Components. Components may be located inside or outside a building. For example, components in a room could be its ceiling, floor, walls, a door and its casing, the window sash, and window casings. The Substrate is the material underneath the paint of a component. Although many different substrates exist, HUD guidelines recommend classifying substrates into one of six types: (1) brick; (2) concrete; (3) drywall; (4) metal; (5) plaster; and (6) wood. If the true substrate under investigation is not one of the aforementioned types, HUD guidelines mandate the inspector/risk assessor to select the substrate type that most closely resembles one of the six defined substrate types. For substrates that are layered, such as plaster on concrete, the substrate directly beneath the painted surface is identified during a LBP inspection. A Testing Combination is characterized by the room equivalent, component, and substrate. Visible color may not be an accurate predictor of painting history and was not included in the definition of a testing combination. Components that are coated with paint, varnish, shellac, wallpaper, stain, or other coating were considered as separate testing combinations. Certain building components adjacent to each other and not likely to have different painting histories were grouped together into a single testing combination as follows:

- Window casings, stops, jambs, and aprons.
- Interior window mullions and window sashes. Interior window components may not be grouped with exterior window components.
- Exterior window mullions and window sashes.

- Door jambs, stops, transoms, casings, and other door parts.
- Door stiles, rails, panels, mullions, and other door parts.
- Baseboards and associated trim (such as quarter-round or other caps).
- Painted electrical sockets, switches, or plates can be grouped with the walls.

The **Test Location** is a specific area on a testing combination where the XRF was used to test for LBP.

NOTE: If present, components covered with vinyl and/or metal sidings were not inspected during the evaluation because the surfaces underneath these components were not visible or accessible. This leaves the possibility that LBP components could be located beneath these coverings.

De minimis levels for deteriorated lead-based paint are defined as follows: (1) for a component with a small surface area, such as window sills, or baseboards, 10% of the surface area; (2) for an interior component with a large surface area, such as an interior wall, 2 square feet of the surface area; and (3) for an exterior component with a large surface area, 20 square feet of the surface area.

2.2 Sampling Strategies

According to the HUD guidelines, a lead reading by XRF of 1.0 mg/cm^2 or above is considered positive for the presence of LBP. An XRF reading below 1.0 mg/cm^2 is considered negative; however, a reading below 1.0 mg/cm^2 could still be harmful if proper precautions are not taken during activities that disturb these paint films. If there are any inconclusive readings, a paint-chip sample may be collected for laboratory analysis. Laboratory analysis of samples collected will only be performed by an EPA approved National Lead Laboratory Accreditation Program (NLLAP) laboratory. No inconclusive range exists for laboratory measurements/results.

Only painted, stained, varnished, or wallpapered components of a dwelling are tested during a LBP evaluation. Wall “A” or “1” in each room is the wall where the front entrance door opening is located (or aligned with street). Going clockwise and facing Wall “A” or “1”, Wall “B” or “2” will always be to your right, Wall “C” or “3” directly to the rear and Wall “D” or “4” to the left. Doors, windows and closets are designated as left, center or right depending on their location on the wall. When more than one window/door is on a wall, features are numbered left to right.

2.3 Assessment Logic

Any paint found to contain lead below the HUD standard of 1.0 mg/cm^2 , regardless of condition, is considered non-hazardous. Components having lead levels at or above the action level are visually assessed for condition and approximate surface area. Paint condition is established within one of two categories according to the risk assessor’s professional judgment: (1) intact (good) and (2) deteriorated (poor), based on the HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 5: Risk Assessment [Table 5-3], June, 1995.

2.4 Calibration of XRF Equipment

The calibration of the instrument must be done in accordance with the NIST-Certificate of Analysis for this instrument. These instruments will be calibrated using a calibration standard block of known lead content. Calibration readings will be taken before and after each home is tested to ensure manufacturer's standards are met. If the inspection takes longer than four hours, a calibration reading must be taken prior to the end of the four hour period, and then an additional calibration reading taken at the end of the inspection. If, for any reason, the instruments are not maintaining a consistent calibration reading within the manufacturer's standards for performance on the calibration block supplied by the manufacturer, manufacturer's recommendations will be used to bring the instrument into calibration. If the instrument cannot be brought back into calibration, it must be taken off the site and sent back to the manufacturer for repair, re-calibration, or replacement.

3.0 FINDINGS

3.1 Site Description

The property is located at Unit L101 in Falcon Village, Texas and is a single family dwelling with one residential unit. The home, reportedly constructed in the 1960s, is a single-story dwelling containing approximately 1,200 square feet of living space. The exterior is predominantly composed of vinyl siding over stucco and wood walls at gables and wood soffits and fascia. Window components are metal or brick. Interior finishes include drywall and CMU walls, drywall ceilings, with concrete and vinyl flooring.

3.2 Inaccessible Areas

The following areas were inaccessible at the time of the inspection and should be assumed positive for the purposes of this report:

- No inaccessible painted surfaces were noted at the time of the site visit.

3.3 Visual Assessment Results

The visual assessment identified the following:

| Item | Identified Yes/No |
|--|----------------------|
| Deteriorating painted surfaces | Yes |
| Painted surfaces that are chewable, impact joints or subject to friction | Yes* |
| Bare soil surface (soil surface that is not covered by pavement or sod or landscaping) | Yes |
| Excessive accumulation of dust on most interior surfaces | Yes** |

* - These painted surfaces were not found to contain LBP.

** - The structure has been unoccupied and open to the elements for an undetermined amount of time.

3.4 Lead-Based Paint Inspection Results

The following components contain lead in amounts equal to or exceeding 1.0 mg/cm² in the surfaces tested during this LBP inspection:

| Reading | Pass Fail Standard | Pb mg/cm ² | Location | Component | Substrate | Color | Condition |
|---------|--------------------|-----------------------|------------|-----------|-----------|-------|--------------|
| 123 | Positive | 1.00 | Room 9 | Wall B | Gyp. | White | Intact |
| 150 | Positive | 1.05 | Exterior C | Fascia | Wood | Brown | Deteriorated |

3.5 Summary and Distribution Table

| | |
|--|-------|
| Number of Positive Readings (for Paint Only) | 2 |
| Total Number of Readings | 156 |
| Percent Positive | 1.28% |

4.0 CONCLUSIONS

The components reported in Sections 3.4 and 3.5 were found “positive” for lead, as defined by the EPA and HUD as containing lead in concentrations equal to or greater than 1.0 mg/cm².

According to Chapter 7 HUD guidelines, if one testing building component combination (i.e. window, door) is positive for lead in an interior or exterior room equivalent, then all other similar testing combinations in those areas should also be assumed positive for lead. The converse should be true for negative readings. All inaccessible areas are assumed to be positive for LBP, even though they were not tested. Any inaccessible areas encountered during the LBP evaluation are noted in Section 3.2.

Given that the lead evaluation results indicated the presence of LBP, the owner or prospective owner may wish to obtain the services of a lead-based paint Risk Assessor, licensed in Texas, to help understand the positive results. If this building will remain unoccupied until demolition, a risk assessment is not necessary. The landfill where the construction debris will be disposed should be advised that LBP is present on some of the construction debris. (The landfill may require chemical testing for lead leachability before accepting the debris into its disposal facility.)

This evaluation was completed in accordance with Lead Safe Housing Rule 24 CFR Part 35 subpart F as amended (2004). The sampling results are presented in Appendix A and notes are presented in Appendix B. The outline of dwelling is drafted in Appendix C. Appendix D contains photographs of the property. Appendix E contains the personal certifications of the inspector. Appendix F contains the PCS sheets for the XRF instrument and Appendix G contains a glossary of terms.

Those components which were found to contain LBP and which were in intact (i.e., stable) condition should be monitored by the owner and occupant of the dwelling; any further deterioration of components or components that are already in poor condition should undergo corrective action to maintain the LBP surface. In addition, some painted surfaces may contain levels of lead below 1.0 mg/cm²; these components could create lead dust or lead-contaminated soil hazards if the paint is turned into dust by abrasion, scraping, sanding or friction. If stable conditions of intact paint surfaces become destabilized, these conditions will need to be addressed in the future. If any

construction or modernization work is done on the premises, this report should be given to the contractors, as well as to any future tenants or owners.

In compliance with HUD's Final Rule, potential hazards resulting from LBP must be subjected to corrective action to stabilize all deteriorated LBP in housing built before 1978, unless the property is exempt. Paint stabilization repairs any defect in the substrate and/or in building components that are causing the paint deterioration, removes all loose paint and other material from the surface to be treated utilizing lead-safe work practices, and, in most cases, applies a new protective coating or paint. Any stabilization/construction activities which affect the existing paint films (including sanding and demolition) must be initiated by workers who have received proper training in the handling of lead-contaminated materials.

Upon completion of paint stabilization activities, HUD requires a clearance examination to determine that the paint stabilization efforts were performed adequately. A clearance examination will include a visual assessment of all surfaces that were determined to be defective during the initial evaluation, and collection of dust and soil composite samples. It should be determined that the deteriorated paint surfaces have been eliminated and that no settled dust hazards or paint chips exist in the interior or exterior. The clearance report must be signed by a Certified/Licensed Lead Inspector or Risk Assessor.

LCA understands that the Project Site structure is slated for demolition. Based on the results of the asbestos inspection performed by LCA on 18 June 2013, the identified LBP surface at the Project Site is also identified as asbestos-containing material (ACM). Prior to commencement of demolition at the Project Site, the identified ACM, as well as the identified LBP components, should be properly removed by an EPA-accredited Asbestos Abatement Contractor following procedures designed and monitored by an EPA-accredited Asbestos Project Designer. Lead-safe work practices should be included in the abatement project design.

5.0 DISCLOSURE RESPONSIBILITY

A copy of this report must be provided to new lessees (tenants) and purchasers of this property under Federal Regulations (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that children and pregnant women are protected from LBP hazards.

The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard states that "negative" readings (i.e. those below the HUD/EPA definition of what constitutes LBP [1.0 mg/cm^2]) **do not** relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard, and should not be interpreted as lead free. Although a reading may indicate "negative", airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible Exposure Limit (PEL) depending on the work activity.

DISCLAIMER

This is our report of a visual survey, and XRF analysis of the readily accessible areas of this building and tested components. The presence or absence of LBP or LBP hazards applies only to the tested or assessed surfaces on the date of the field visit and it should be understood that conditions may change due to deterioration or maintenance. The results and material conditions noted within this report were accurate at the time of the evaluation and in no way reflect the conditions at the property after the date of the evaluation. No other environmental concerns or conditions were addressed during this evaluation.

APPENDIX A

XRF DATA SHEETS

Unit L101 Falcon Village, Texas

18 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|---------|-----------|
| 1 | Standardization | PASS | | | | | | |
| 2 | Calibration | Positive | 1.19 | | | | Red | |
| 3 | Lead Paint Fixed-Time | Negative | 0 | Room 1 | Ceiling | Gyp | White | N/A |
| 4 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | CMU | White | N/A |
| 5 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 6 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 7 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | CMU | White | N/A |
| 8 | Lead Paint Fixed-Time | Negative | 0.02 | | Trim A | Wood | White | N/A |
| 9 | Lead Paint Fixed-Time | Negative | 0 | | Trim B | Wood | White | N/A |
| 10 | Lead Paint Fixed-Time | Negative | 0.01 | | Trim C | Wood | White | N/A |
| 11 | Lead Paint Fixed-Time | Negative | 0.01 | | Trim D | Wood | White | N/A |
| 12 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 13 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 14 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 15 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 16 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | CMU | White | N/A |
| 17 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 18 | Lead Paint Fixed-Time | Negative | 0.05 | | Doorframe | Wood | White | N/A |
| 19 | Lead Paint Fixed-Time | Negative | 0 | Room 2 | Ceiling | Gyp | White | N/A |
| 20 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | CMU | White | N/A |
| 21 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 22 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 23 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 24 | Lead Paint Fixed-Time | Negative | 0.03 | | Trim A | Wood | White | N/A |
| 25 | Lead Paint Fixed-Time | Negative | 0 | | Trim B | Wood | White | N/A |
| 26 | Lead Paint Fixed-Time | Negative | 0.05 | | Trim C | Wood | White | N/A |
| 27 | Lead Paint Fixed-Time | Negative | 0.01 | | Trim D | Wood | White | N/A |
| 28 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 29 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 30 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 31 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 32 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | CMU | White | N/A |
| 33 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | Varnish | N/A |
| 34 | Lead Paint Fixed-Time | Negative | 0.04 | | Doorframe | Wood | White | N/A |
| 35 | Lead Paint Fixed-Time | Negative | 0 | Room 3 | Ceiling | Gyp | White | N/A |
| 36 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | CMU | White | N/A |
| 37 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | CMU | White | N/A |
| 38 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 39 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 40 | Lead Paint Fixed-Time | Negative | 0 | | Trim A | Wood | White | N/A |
| 41 | Lead Paint Fixed-Time | Negative | 0 | | Trim B | Wood | White | N/A |
| 42 | Lead Paint Fixed-Time | Negative | 0 | | Trim C | Wood | White | N/A |
| 43 | Lead Paint Fixed-Time | Negative | 0 | | Trim D | Wood | White | N/A |
| 44 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 45 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 46 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 47 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 48 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | CMU | White | N/A |
| 49 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | Varnish | N/A |
| 50 | Lead Paint Fixed-Time | Negative | 0.05 | | Doorframe | Wood | White | N/A |
| 51 | Lead Paint Fixed-Time | Negative | 0 | Room 4 | Ceiling | Gyp | White | N/A |
| 52 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 53 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | CMU | White | N/A |

Unit L101 Falcon Village, Texas

18 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|----------|-------------|-----------|---------|-----------|
| 54 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | CMU | White | N/A |
| 55 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 56 | Lead Paint Fixed-Time | Negative | 0 | | Trim A | Wood | White | N/A |
| 57 | Lead Paint Fixed-Time | Negative | 0 | | Trim B | Wood | White | N/A |
| 58 | Lead Paint Fixed-Time | Negative | 0.02 | | Trim C | Wood | White | N/A |
| 59 | Lead Paint Fixed-Time | Negative | 0 | | Trim D | Wood | White | N/A |
| 60 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 61 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 62 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 63 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 64 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | CMU | White | N/A |
| 65 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | Varnish | N/A |
| 66 | Lead Paint Fixed-Time | Negative | 0.09 | | Doorframe | Wood | White | N/A |
| 67 | Lead Paint Fixed-Time | Negative | 0 | Room 5 | Ceiling | Gyp | White | N/A |
| 68 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 69 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 70 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | Gyp | White | N/A |
| 71 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 72 | Lead Paint Fixed-Time | Negative | 0 | | Trim A | Wood | White | N/A |
| 73 | Lead Paint Fixed-Time | Negative | 0 | | Trim B | Wood | White | N/A |
| 74 | Lead Paint Fixed-Time | Negative | 0 | | Trim C | Wood | White | N/A |
| 75 | Lead Paint Fixed-Time | Negative | 0 | | Trim D | Wood | White | N/A |
| 76 | Lead Paint Fixed-Time | Negative | 0.01 | | Windowsill | CMU | White | N/A |
| 77 | Lead Paint Fixed-Time | Negative | 0.07 | | Door | Wood | Varnish | N/A |
| 78 | Lead Paint Fixed-Time | Negative | 0 | | Doorframe | Wood | White | N/A |
| 79 | Lead Paint Fixed-Time | Negative | 0 | Room 6 | Ceiling | Gyp | White | N/A |
| 80 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | Gyp | White | N/A |
| 81 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 82 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | CMU | White | N/A |
| 83 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 84 | Lead Paint Fixed-Time | Negative | 0 | | Trim A | Wood | White | N/A |
| 85 | Lead Paint Fixed-Time | Negative | 0 | | Trim B | Wood | White | N/A |
| 86 | Lead Paint Fixed-Time | Negative | 0 | | Trim C | Wood | White | N/A |
| 87 | Lead Paint Fixed-Time | Negative | 0.01 | | Trim D | Wood | White | N/A |
| 88 | Lead Paint Fixed-Time | Negative | 0.04 | | Baseboard A | Wood | White | N/A |
| 89 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 90 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 91 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 92 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | CMU | White | N/A |
| 93 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 94 | Lead Paint Fixed-Time | Negative | 0.08 | | Doorframe | Wood | White | N/A |
| 95 | Lead Paint Fixed-Time | Negative | 0.05 | | Shelves | Wood | White | N/A |
| 96 | Lead Paint Fixed-Time | Negative | 0 | Room 7 | Ceiling | Gyp | White | N/A |
| 97 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | Gyp | White | N/A |
| 98 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | CMU | White | N/A |
| 99 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | Gyp | White | N/A |
| 100 | Lead Paint Fixed-Time | Negative | 0 | | Trim B | Wood | White | N/A |
| 101 | Lead Paint Fixed-Time | Negative | 0 | | Trim C | Wood | White | N/A |
| 102 | Lead Paint Fixed-Time | Negative | 0 | | Trim D | Wood | White | N/A |
| 103 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 104 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 105 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard D | Wood | White | N/A |
| 106 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | Varnish | N/A |

Unit L101 Falcon Village, Texas

18 June 2013

| Reading | Mode | Pass Fail Standard | Pb | Location | Component | Substrate | Color | Condition |
|---------|-----------------------|--------------------|------|------------|-----------------|-----------|---------|--------------|
| 107 | Lead Paint Fixed-Time | Negative | 0.09 | | Doorframe | Wood | White | N/A |
| 108 | Lead Paint Fixed-Time | Negative | 0 | Room 8 | Ceiling | Gyp | White | N/A |
| 109 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | CMU | White | N/A |
| 110 | Lead Paint Fixed-Time | Negative | 0 | | Wall B | CMU | White | N/A |
| 111 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | CMU | White | N/A |
| 112 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | CMU | White | N/A |
| 113 | Lead Paint Fixed-Time | Negative | 0 | | Trim A | Wood | White | N/A |
| 114 | Lead Paint Fixed-Time | Negative | 0.01 | | Trim B | Wood | White | N/A |
| 115 | Lead Paint Fixed-Time | Negative | 0.02 | | Trim C | Wood | White | N/A |
| 116 | Lead Paint Fixed-Time | Negative | 0 | | Trim D | Wood | White | N/A |
| 117 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | CMU | White | N/A |
| 118 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 119 | Lead Paint Fixed-Time | Negative | 0.06 | | Doorframe | Wood | White | N/A |
| 120 | Lead Paint Fixed-Time | Negative | 0 | | Shelves | Wood | White | N/A |
| 121 | Lead Paint Fixed-Time | Negative | 0 | Room 9 | Ceiling | Gyp | White | N/A |
| 122 | Lead Paint Fixed-Time | Negative | 0 | | Wall A | CMU | White | N/A |
| 123 | Lead Paint Fixed-Time | Positive | 1 | | Wall B | Gyp | White | Intact |
| 124 | Lead Paint Fixed-Time | Negative | 0 | | Wall C | CMU | White | N/A |
| 125 | Lead Paint Fixed-Time | Negative | 0 | | Wall D | CMU | White | N/A |
| 126 | Lead Paint Fixed-Time | Negative | 0 | | Trim A | Wood | White | N/A |
| 127 | Lead Paint Fixed-Time | Negative | 0.04 | | Trim B | Wood | White | N/A |
| 128 | Lead Paint Fixed-Time | Negative | 0 | | Trim C | Wood | White | N/A |
| 129 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard A | Wood | White | N/A |
| 130 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard B | Wood | White | N/A |
| 131 | Lead Paint Fixed-Time | Negative | 0 | | Baseboard C | Wood | White | N/A |
| 132 | Lead Paint Fixed-Time | Negative | 0 | | Windowsill | CMU | White | N/A |
| 133 | Lead Paint Fixed-Time | Negative | 0 | | Door | Wood | White | N/A |
| 134 | Lead Paint Fixed-Time | Negative | 0.08 | | Doorframe | Wood | White | N/A |
| 135 | Lead Paint Fixed-Time | Negative | 0 | | Cabinets | Wood | Varnish | N/A |
| 136 | Lead Paint Fixed-Time | Negative | 0 | | Furrdown | Gyp | White | N/A |
| 137 | Lead Paint Fixed-Time | Negative | 0.08 | Exterior A | Soffitt | Wood | Brown | N/A |
| 138 | Lead Paint Fixed-Time | Negative | 0 | | Carport Ceiling | Wood | White | N/A |
| 139 | Lead Paint Fixed-Time | Negative | 0.17 | | Column | Wood | Brown | N/A |
| 140 | Lead Paint Fixed-Time | Negative | 0.09 | | Column | Wood | White | N/A |
| 141 | Lead Paint Fixed-Time | Negative | 0.01 | | Framework | Wood | White | N/A |
| 142 | Lead Paint Fixed-Time | Negative | 0.12 | | Fascia | Wood | Brown | N/A |
| 143 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Pink | N/A |
| 144 | Lead Paint Fixed-Time | Negative | 0.12 | Exterior B | Soffitt | Wood | Brown | N/A |
| 145 | Lead Paint Fixed-Time | Negative | 0.68 | | Fascia | Wood | Brown | N/A |
| 146 | Lead Paint Fixed-Time | Negative | 0.06 | | Gable | Wood | Brown | N/A |
| 147 | Lead Paint Fixed-Time | Negative | 0.15 | | Wall | Wood | Brown | N/A |
| 148 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Pink | N/A |
| 149 | Lead Paint Fixed-Time | Negative | 0.09 | Exterior C | Soffitt | Wood | Brown | N/A |
| 150 | Lead Paint Fixed-Time | Positive | 1.05 | | Fascia | Wood | Brown | Deteriorated |
| 151 | Lead Paint Fixed-Time | Negative | 0.07 | | Porch Ceiling | Wood | Brown | N/A |
| 152 | Lead Paint Fixed-Time | Negative | 0.09 | | Column | Wood | Brown | N/A |
| 153 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Pink | N/A |
| 154 | Lead Paint Fixed-Time | Negative | 0.11 | Exterior D | Wall | Wood | Brown | N/A |
| 155 | Lead Paint Fixed-Time | Negative | 0.07 | | Soffitt | Wood | Brown | N/A |
| 156 | Lead Paint Fixed-Time | Negative | 0.93 | | Fascia | Wood | Brown | N/A |
| 157 | Lead Paint Fixed-Time | Negative | 0.08 | | Gable | Wood | Brown | N/A |
| 158 | Lead Paint Fixed-Time | Negative | 0 | | Wall | Stucco | Pink | N/A |

APPENDIX B

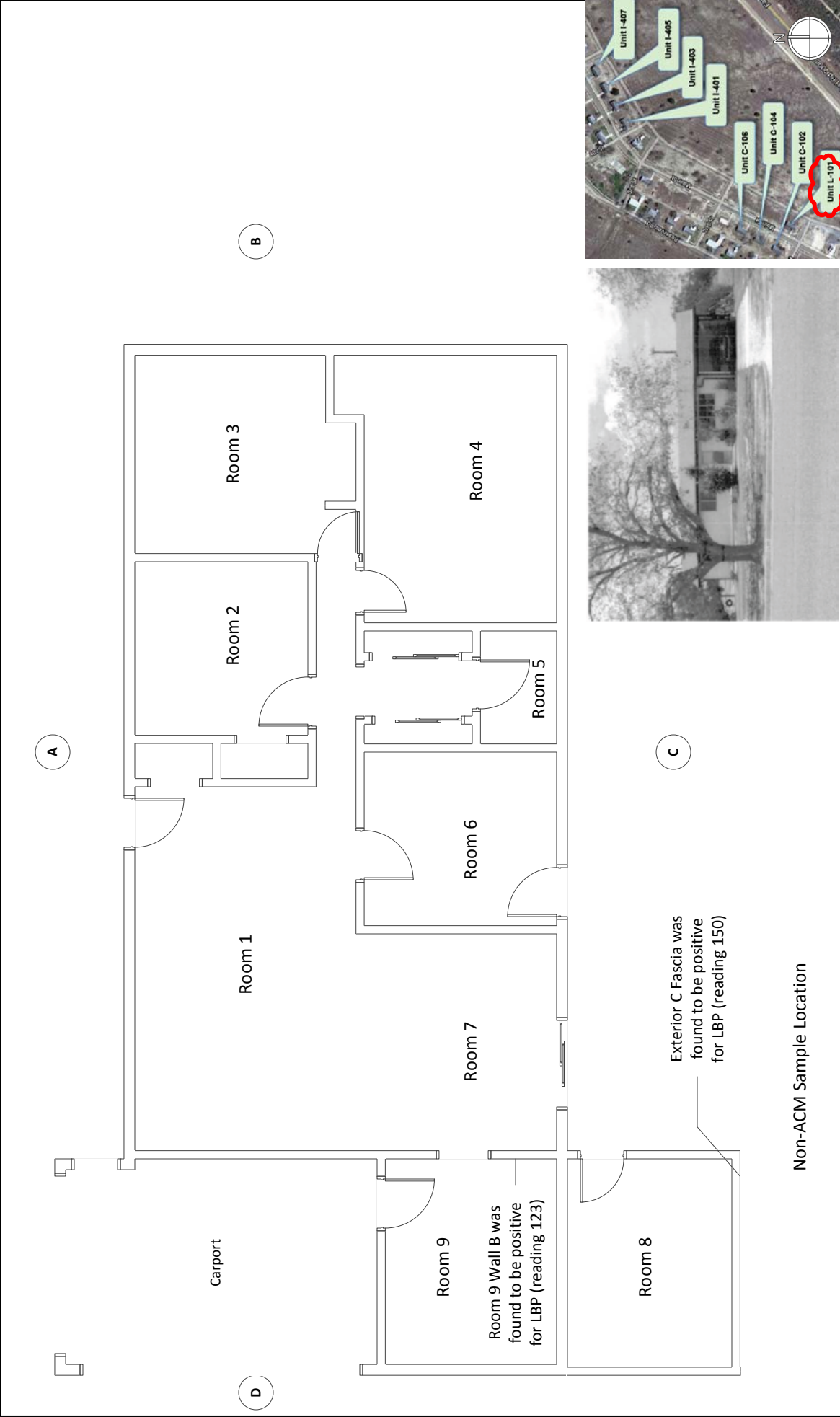
NOTES



Unit L101, Falcon Village, Texas

| Room | Notes |
|-------------|--|
| Room 1 | Gyp-board ceiling, gyp-board and CMU walls, wood trim and baseboards, vinyl sheet flooring |
| Room 2 | Gyp-board ceiling, gyp-board and CMU walls, wood trim and baseboards, vinyl sheet flooring |
| Room 3 | Gyp-board ceiling, gyp-board and CMU walls, wood trim and baseboards, vinyl sheet flooring |
| Room 4 | Gyp-board ceiling, gyp-board and CMU walls, wood trim and baseboards, vinyl sheet flooring |
| Room 5 | Gyp-board ceiling, gyp-board and ceramic tile walls, wood trim, ceramic tile floor |
| Room 6 | Gyp-board ceiling, gyp-board and CMU walls, wood trim and baseboards, vinyl sheet flooring |
| Room 7 | Gyp-board ceiling, gyp-board and CMU walls, wood trim and baseboards, vinyl sheet flooring |
| Room 8 | Gyp-board ceiling, CMU walls, wood trim and baseboards, concrete floor |
| Room 9 | Gyp-board ceiling, gyp-board and CMU walls, wood trim and baseboards, vinyl sheet flooring |
| Exterior | Wood, stucco, vinyl siding |

APPENDIX C

DRAWING(S)



| | | | | |
|---|----------------|---|--|--|
|  | |  | <p>Quanternary Resource Investigations, LLC Lead-based Paint Inspection CBP-Owned Housing, Falcon Village, Texas</p> | <p>Figure 1 Unit L101 Sample Location Plan</p> |
| | | NOT TO SCALE | | |
| Drawn By: EBB | Date: 07/02/13 | Location: CBP-Owned Housing, Falcon Village, Texas | | |
| Approved By: TAH | Date: 07/02/13 | Source: LCA Field Sketch | | |
| | | LCA Project No.: 130602 | | |
| | | Filename: Fig1-L101 Sample Location Plan | | |

APPENDIX D

PHOTOGRAPHS



Photograph 1: View of the front of Unit L101, in Falcon Village, Texas.



Photograph 2: View of Room 9 Wall B which was found to be positive for LBP.



Photograph 3: View of Exterior C Fascia which was found to be positive for LBP.

APPENDIX E

CERTIFICATIONS



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

LYNN CLARK ASSOCIATES INC

is certified to perform as a

Lead Firm

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, appearing to read "David L. Laakey".

David L. Laakey, M.D.
Commissioner of Health

License Number: 2110555

Control Number 6528

Expiration Date: 6/12/2015

(Void After Expiration Date)

VOID IF ALTERED NON-TRANSFERABLE



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

Be it known that

THOMAS A HALE

is certified to perform as a

Lead Risk Assessor

in the State of Texas and is hereby governed by the rights, privileges and responsibilities set forth in Texas Occupations Code, Chapter 1955 and Title 25, Texas Administrative Code, Chapter 295 relating to Texas Environmental Lead Reduction, as long as this license is not suspended or revoked.

A handwritten signature in cursive script, reading "David L. Lakey".

David L. Lakey, M.D.
Commissioner of Health

License Number: 2070881

Expiration Date: 5/5/2013

Void After Expiration Date

VOID IF ALTERED

Control Number 6610

NON-TRANSFERABLE

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Inspector Refresher

Conducted at Hurst, Texas on December 3, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/03/2012

Certificate Number: 12046 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

GEBCO ASSOCIATES

certifies that

Thomas A. Hale

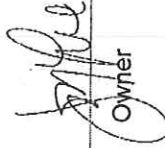
has successfully completed and passed the exam given on the final day for the
Environmental Training Program entitled

Lead Risk Assessor Refresher

Conducted at Hurst, Texas on December 4, 2012

This course is the EPA Model Curriculum based on the Residential Lead-based Paint Hazard Reduction Act of 1992 (Title X), the HUD Guidelines for the evaluation and Control of Lead-based Paint Hazards in Housing, June 1995, and the EPA Lead Final Rule (40 CFR 745), August 29,




Owner


Instructor: Joseph Londt

Date of Issue 12/04/2012

Certificate Number: 12030 0455

GEBCO's Training Programs are provided in cooperation with federal and state regulatory agencies, and fulfill all applicable requirements for accreditation. GEBCO is licensed for Asbestos Training under the Texas Asbestos Health Protection Rules.

GEBCO Associates, LP * 815 Trailwood Dr, Suite 200 * Hurst, TX 76053 * (817)268-4006

APPENDIX F

NIST – CERTIFICATE OF ANALYSIS



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material[®] 2573

Lead Paint Film

For Portable X-Ray Fluorescence Analyzers – Nominal 1.0 mg/cm²
(Color Code: Red)

This Standard Reference Material (SRM) is intended for checking the calibration of portable, hand-held, x-ray fluorescence analyzers when testing for lead in paint coatings on interior and exterior building surfaces. A unit of SRM 2573 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, red-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2570, is also provided. The blank is coated with a lead-free, lacquer layer on a white polyester sheet of the same thickness as the lead paint samples. All sheets are over-coated with a clear, thin, plastic laminate to protect the surface from abrasion. SRM 2573 and SRM 2570 are two of a set of six paint films (SRM 2570 to SRM 2575) available as SRM 2579a.

The certified values for lead for this SRM and the blank, SRM 2570, are reported in Table 1 in units of mg/cm². These values are based on measurements by isotope dilution inductively-coupled plasma mass spectrometry.

Table 1. Certified Lead Values

| Level | Color Code | Lead Concentration, in mg/cm ² |
|----------|---------------|---|
| SRM 2570 | White (Blank) | <0.001 |
| SRM 2573 | Red | 1.040 ± 0.064 |

The uncertainty of each certified value is expressed as an expanded uncertainty, U , at the 95 % level of confidence and is calculated according to the method described in the ISO Guide [1,2]. Because of variability in the paint film between different sheets of each SRM, the uncertainties are 95 % prediction intervals. The expanded uncertainty is calculated as $U = ku_c$, where u_c is intended to represent, at the level of one standard deviation, the combined uncertainty due to material variability and measurement uncertainty. The coverage factor, k , is determined from the Student's t -distribution corresponding to the calculated effective degrees of freedom and 95 % level of confidence.

Expiration of Certification: The certification of SRM 2573 is valid, within the measurement uncertainties specified, until **01 July 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Use"). The certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet) will facilitate notification.

The overall direction and coordination of the analytical measurements leading to certification were performed by G.C. Turk and J.D. Fassett of the NIST Analytical Chemistry Division. Analytical measurements were performed by K.E. Murphy, J.R. Sieber, A.F. Marlow, L.J. Wood, P.R. Seo, and M. Lankosz of the NIST Analytical Chemistry Division. The SRM was fabricated under the direction of J.R. Sieber of the NIST Analytical Chemistry Division.

Stephen A. Wise, Chief
Analytical Chemistry Division

Robert L. Watters, Jr., Chief
Measurement Services Division

Gaithersburg, MD 20899
Certificate Issue Date: 24 March 2009
See Certificate Revision History on Last Page

Statistical consultation for this SRM was provided by E.S. Lagergren and N.F. Zhang of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Measurement Services Division.

NOTICE AND WARNING TO USERS

NOTE: This SRM contains lead, as a lead chromate pigment, which is toxic and a suspected carcinogen to the lung and kidney. The SRM must be handled with care and disposed of according to the U.S. Environmental Protection Agency (EPA) practices and procedures.

INSTRUCTIONS FOR USE

The SRM sheet must first be removed from the plastic sleeve in which it is stored and then positioned so that the side labeled with the NIST logo and SRM number faces the x-ray source. For best results, the size of the x-ray beam from the field unit should irradiate an area of the SRM that is at least 2.5 cm in diameter and is centered on the sheet. Care must be exercised not to compromise the protective plastic laminate which prevents scratching or chipping of the painted surface and the potential release of dust containing lead. Upon completion of the measurement, the SRM must be re-stored in the plastic sleeve provided. It is also recommended that this SRM be stored indoors at ambient room temperature and away from direct sunlight when not in use.

Stability: This SRM is considered to be stable during the period of certification. NIST will monitor the SRM and will report any significant changes in certification to the purchaser. Return of the attached registration card will facilitate notification.

PREPARATION

SRM Preparation: The paint-coated, polyester sheets were prepared by an automated coating process at a commercial facility under contract to NIST. Known concentrations of a lead chromate pigment were dispersed in a commercial paint vehicle to prepare the lead paints. A lead-free, organic tint was added to each paint mixture to give the desired color. A thin, protective overlay of plastic laminate was applied to each paint film. The attenuation of lead $L_{3-}M_{4,5}$ ($L\alpha_{1,2}$) X-rays due to the protective overlay does not exceed 2 % relative, while that of $K-L_{2,3}$ ($K\alpha_{1,2}$) x-rays commonly used for field measurement is negligible.

REFERENCES

- [1] ISO; *Guide to the Expression of Uncertainty in Measurement*; ISBN 92-67-10188-9, 1st ed., International Organization for Standardization: Geneva, Switzerland (1993); see also Taylor, B.N.; Kuyatt, C.E.; *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*; NIST Technical Note 1297, U.S. Government Printing Office: Washington, DC (1994); available at <http://physics.nist.gov/Pubs/>.
- [2] Hahn, G.J.; Meeker, W.Q.; *Statistical Intervals: A Guide for Practitioners*; John Wiley & Sons, Inc., New York, NY (1991).

Certificate Revision History: 24 March 2009 (Extension of certification period); 29 November 1999 (Original certificate date).

Users of this SRM should ensure that the certificate in their possession is current. This can be accomplished by contacting the SRM Program at: telephone (301) 975-2200; fax (301) 926-4751; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX G

GLOSSARY

Abatement - A measure or set of measures designed to permanently eliminate lead-based paint hazards or lead-based paint. Abatement strategies include the removal of lead-based paint, enclosure, encapsulation, replacement of building components coated with lead-based paint, removal of lead contaminated dust, and removal of lead-contaminated soil or overlaying of soil with a durable covering such as asphalt (grass and sod are considered interim control measures). All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, monitoring. See also Complete Abatement and Interim Controls.

Accessible surface - Any protruding interior or exterior surface, such as an interior window sill, that a young child can mouth or chew.

Accreditation - A formal recognition that an organization, such as a laboratory, is competent to carry out specific tasks or types of tests.

Accredited laboratory -A laboratory that has been evaluated and approved by the National Lead Laboratory Accreditation Program (NLLAP) to perform lead measurement or analysis, usually over a specified period of time.

Apron - A trim board that is installed beneath a window sill.

Area wells - Corrugated metal or concrete barrier walls installed around a basement window to hold back the earth.

Attic access - An opening that is placed in the drywalled ceiling of a home providing access to the attic.

Attic Ventilators - In houses, screened openings provided to ventilate an attic space.

Backing - Frame lumber installed between the wall studs to give additional support for drywall or an interior trim related item, such as handrail brackets, cabinets, and towel bars. In this way, items are screwed and mounted into solid wood rather than weak drywall that may allow the item to break loose from the wall. Carpet backing holds the pile fabric in place.

Balusters -Vertical members in a railing used between a top rail and bottom rail or the stair treads. Sometimes referred to as 'pickets' or 'spindles'.

Balustrade - The rail, posts and vertical balusters along the edge of a stairway or elevated walkway.

Bare soil - Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Barge board - A decorative board covering the projecting rafter (fly rafter) of the gable end. At the cornice, this member is a fascia board.

Base or baseboard - A trim board placed against the wall around the room next to the floor.

Basement window inserts - The window frame and glass unit that is installed in the window buck.

Base shoe - Molding used next to the floor on interior base board. Sometimes called a carpet strip.

Bat - A half-brick.

Batt - A section of fiber-glass or rock-wool insulation measuring 15 or 23 inches wide by four to eight feet long and various thicknesses. Sometimes "faced" (meaning to have a paper covering on one side) or "unfaced" (without paper).

Batten - Narrow strips of wood used to cover joints or as decorative vertical members over plywood or wide boards.

Bay window - Any window space projecting outward from the walls of a building, either square or polygonal in plan.

Beam - A structural member transversely supporting a load. A structural member carrying building loads (weight) from one support to another. Sometimes called a "girder".

Bearing wall - A wall that supports any vertical load in addition to its own weight. **Bearing header** - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Bifold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

Bypass doors - Doors that slide by each other and commonly used as closet doors.

Blocking - Small wood pieces to brace framing members or to provide a nailing base for gypsum board or paneling.

Blood lead threshold - Any blood level greater than or equal to 10 ug/dL as defined by the Centers for Disease Control and Prevention. See also Elevated Blood Lead level (EBL) child.

Brace - An inclined piece of framing lumber applied to wall or floor to strengthen the structure. Often used on walls as temporary bracing until framing has been completed.

Breaker panel - The electrical box that distributes electric power entering the home to each branch circuit (each plug and switch) and composed of circuit breakers.

Brick mold - Trim used around an exterior door jamb that siding butts to.

Brick tie - A small, corrugated metal strip @ 1" X 6"- 8" long nailed to wall sheathing or studs. They are inserted into the grout mortar joint of the veneer brick, and holds the veneer wall to the sheathed wall behind it.

Brick veneer - A vertical facing of brick laid against and fastened to sheathing of a framed wall or tile wall construction.

Building component - Any element of a building that may be painted or have dust on its surface, e.g. walls, stair treads, floors, railings, doors, window sills, etc.

By fold door - Doors that are hinged in the middle for opening in a smaller area than standard swing doors. Often used for closet doors.

By pass doors - Doors that slide by each other and commonly used as closet doors.

Cantilever - An overhang. Where one floor extends beyond and over a foundation wall. For example at a fireplace location or bay window cantilever. Normally, not extending over 2 feet.

Cap - The upper member of a column, pilaster, door cornice, molding, or fireplace.

Cap flashing - The portion of the flashing attached to a vertical surface to prevent water from migrating behind the base flashing.

Casement - Frames of wood or metal enclosing part (or all) of a window sash. May be opened by means of hinges affixed to the vertical edges.

Casement Window - A window with hinges on one of the vertical sides and swings open like a normal door.

Casing - Wood trim molding installed around a door or window opening.

CelotexTM - Black fibrous board that is used as exterior sheathing.

Ceiling joist - One of a series of parallel framing members used to support ceiling loads and supported in turn by larger beams, girders or bearing walls. Also called roof joists.

Cement - The gray powder that is the "glue" in concrete. Portland cement. Also, any adhesive.

Ceramic tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally used in bathtub and shower enclosures and on counter tops.

Certification - The process of testing and evaluating against certain specifications the competence of a person, organization, or other entity in performing a function or service, usually for a specified period of time.

Certified - The designation for contractors who have completed training and other requirements to allow them to safely undertake risk assessments, inspections, or abatement work. Risk assessors, inspectors, and abatement contractors should be certified by the appropriate local, State or Federal agency.

Chair rail - Interior trim material installed about 3-4 feet up the wall, horizontally.

Chalking -The photo-oxidation of paint binders - usually due to weathering - that causes a powder to form on the film surface.

Chase - A framed enclosed space around a flue pipe or a channel in a wall, or through a ceiling for something to lie in or pass through.

Chewed surface - Any painted surface that shows evidence of having been chewed or mouthed by a young child. A chewed surface is usually a protruding, horizontal part of a building, such as an interior window sill. See also Accessible surface.

Chip Board - A manufactured wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing. Also called OSB (Oriented Strand Board) or wafer board.

Cleaning - The process of using a HEP A vacuum and wet cleaning agents to remove leaded dust; the process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to clean lead-contaminated dust from a surface.

Clearance examination - Visual examination and collection of environmental samples by an inspector or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control interventions, or maintenance job that disturbs lead-based paint (or paint suspected of being lead-based). The clearance examination is performed to ensure that lead exposure levels do not exceed standards established by the EPA administrator pursuant to Title IV of the Toxic Substances Control Act, and that any cleaning following such work adequately meets those standards.

Clearance examiner - A person who conducts clearance examinations following lead-based paint hazard control and cleanup work, usually a certified risk assessor or a certified inspector.

Code of Federal Regulations (CFR) - The codification of the regulations of Federal agencies.

Column - A vertical structural compression member which supports loads.

Complete abatement - Abatement of all lead-based paint inside and outside a dwelling or building and reduction of any lead-contaminated dust or soil hazards. All of these strategies require preparation; cleanup; waste disposal; post-abatement clearance testing; recordkeeping; and, if applicable, reevaluation and on-going monitoring. See also Abatement.

Concrete - The mixture of Portland cement, sand, gravel, and water. Used to make garage and basement floors, sidewalks, patios, foundation walls, etc. It is commonly reinforced with steel rods (rebar) or wire screening (mesh).

Concrete block - A hollow concrete 'brick' often 8" x 8" X 16" in size.

Concrete board - A panel made out of concrete and fiberglass usually used as a tile backing material.

Conduit, electrical - A pipe, usually metal, in which wire is installed.

Containment - A process to protect workers and the environment by controlling exposures to the lead contaminated dust and debris created during abatement.

Corbel - The triangular, decorative and supporting member that holds a mantel or horizontal shelf.

Corner bead - A strip of formed sheet metal placed on outside corners of drywall before applying drywall 'mud'.

Corner boards - Used as trim for the external corners of a house or other frame structure against which the ends of the siding are finished.

Corner braces - Diagonal braces at the corners of the framed structure designed to stiffen and strengthen the wall.

Cornice - Overhang of a pitched roof, usually consisting of a fascia board, a soffit and appropriate trim moldings.

Counter flashing - A metal flashing usually used on chimneys at the roofline to cover shingle flashing and used to prevent moisture entry.

Cove molding - A molding with a concave face used as trim or to finish interior corners.

Crawl space - A shallow space below the living quarters of a house, normally enclosed by the foundation wall and having a dirt floor.

Cross Tee - Short metal "T" beam used in suspended ceiling systems to bridge the spaces between the main beams.

Crown molding - A molding used on cornice or wherever an interior angle is to be covered, especially at the roof and wall corner.

Damper - A metal "door" placed within the fireplace chimney. Normally closed when the fireplace is not in use.

Deteriorated lead-based paint - Any lead-based paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or

otherwise becoming separated from the substrate.

Doorjamb, interior - The surrounding case into which and out of which a door closes and opens. It consists of two upright pieces, called side jambs, and a horizontal head jamb. These 3 jambs have the "door stop" installed on them.

Door stop - The wooden style that the door slab will rest upon when it's in a closed position.

Dormer - An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Downspout - A pipe, usually of metal, for carrying rainwater down from the roofs horizontal gutters.

Drip cap - A molding or metal flashing placed on the exterior topside of a door or window frame to cause water to drip beyond the outside of the frame.

Drywall (or Gypsum Wallboard (GWB), Sheet rock or Plasterboard) -Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The panels are nailed or screwed onto the framing and the joints are taped and covered with a 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Ducts - The heating system. Usually round or rectangular metal pipes installed for distributing warm (or cold) air from the furnace to rooms in the home. Also a tunnel made of galvanized metal or rigid fiberglass, which carries air from the heater or ventilation opening to the rooms in a building.

Dura board, dura rock - A panel made out of concrete and fiberglass usually used as a ceramic tile backing material. Commonly used on bathtub decks. Sometimes called Wonder board.

Dust removal - A form of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed. Depending on the severity of lead-based paint hazards, dust removal may be the primary activity or just one element of a broader control effort.

Eaves - The horizontal exterior roof overhang.

Elevated Blood Lead level (EBL) child - A child who has a blood level greater than or equal to 20 ug/dL or a persistent 15 ug/dL. See also Blood lead threshold.

Encapsulation - Any covering or coating that acts as a barrier between lead-based paint and the environment, the durability of which relies on adhesion and the integrity of the existing bonds between multiple layers of paint and between the paint and the substrate. See also Enclosure.

Enclosure - The use of rigid, durable construction materials that are mechanically fastened to the substrate to act as a barrier between the lead-based paint and the environment.

Escutcheon - An ornamental plate that fits around a pipe extending through a wall or floor to hide the cut out hole.

Evaluation - Risk assessment, paint inspection, reevaluation, investigation, clearance examination, or risk assessment screen.

Exterior work area - For lead hazard control work, the exterior work area includes any exterior building components, such as a porch or stairway; the safety perimeter; and access barriers.

Facing brick - The brick used and exposed on the outside of a wall. Usually these have a finished texture.

Fascia - Horizontal boards attached to rafter/truss ends at the eaves and along gables. Roof drain gutters are attached to the fascia.

Flue - Large pipe through which fumes escape from a gas water heater, furnace, or fireplace.

Friction surface - Any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.

Gable - The end, upper, triangular area of a home, beneath the roof.

Gyp board - Drywall. Wall board or gypsum-A panel (normally 4' X 8', 10', 12', or 16') made with a core of Gypsum (chalk-like) rock, which covers interior walls and ceilings.

Header - (a) A beam placed perpendicular to joists and to which joists are nailed in framing for a chimney, stairway, or

other opening. (b) A wood lintel. (c) The horizontal structural member over an opening (for example over a door or window).

Hearth - The fireproof area directly in front of a fireplace. The inner or outer floor of a fireplace, usually made of brick, tile, or stone.

Hip - A roof with four sloping sides. The external angle formed by the meeting of two sloping sides of a roof.

Hip roof - A roof that rises by inclined planes from all four sides of a building.

HVAC - An abbreviation for Heat, Ventilation, and Air Conditioning

Impact surface - An interior or exterior surface (such as surfaces on doors) subject to damage by repeated impact or contact.

Inspection (of paint) - A surface-by-surface investigation to determine the presence of lead-based paint (in some cases including dust and soil sampling) and a report of the results.

Insulation board, rigid - A structural building board made of coarse wood or cane fiber in 1/2- and 25/32-inch thickness. It can be obtained in various size sheets and densities.

Interim controls- A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include specialized cleaning, repairs, maintenance, painting, temporary containment, and management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land-use controls. See also Monitoring, Reevaluation, and Abatement.

Interior window sill - The portion of the horizontal window ledge that protrudes into the interior of the room, adjacent to the window sash when the window is closed; often called the window stool.

Jamb - The side and head lining of a doorway, window, or other opening. Includes studs as well as the frame and trim.

Joint - The location between the touching surfaces of two members or components joined and held together by nails, glue, cement, mortar, or other means.

Joist - Wooden 2 X 8's, 10's, or 12's that run parallel to one another and support a floor or ceiling, and supported in turn by larger beams, girders, or bearing walls.

Laminated shingles -Shingles that have added dimensionality because of extra layers or tabs, giving a shake-like appearance. May also be called "architectural shingles" or "three-dimensional shingles."

Lath - A building material of narrow wood, metal, gypsum, or insulating board that is fastened to the frame of a building to act as a base for plaster, shingles, or tiles.

Lattice - An open framework of criss-crossed wood or metal strips that form regular, patterned spaces.

Lead - Lead includes metallic lead and inorganic and organic compounds of lead.

Lead-based paint - Any paint, varnish, shellac, or other coating' that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 ug/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis.

Lead-based paint hazard - A condition in which exposure to lead from lead-contaminated dust, lead contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA Administrator under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, deteriorated lead-based paint, leaded dust levels above applicable standards, and bare leaded soil above applicable standards.

Lead-based paint hazard control - Activities to control and eliminate lead-based paint hazards, including interim controls, abatement, and complete abatement.

Lead-contaminated dust - Surface dust in residences that contains an area or mass concentration of lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. Until the EPA standards are set, the HUD-recommended clearance and risk assessment standards for leaded dust are 100 ug/ft² on floors, 500 ug/ft² on interior window sills, and 800 ug/ft² on window troughs. The recommended standard for lead hazard

screens for floors is 50 ug/ft² and for window troughs is 400 ug/ft².

Lead-contaminated soil - Bare soil on residential property that contains lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. The HUD-recommended standard and interim EPA guidance is 400 ug/g for high-contact play areas and 2,000 ug/g in other bare areas of the yard. Soil contaminated with lead at levels greater than or equal to 5,000 ug/g should be abated by removal or paving.

Lead-free dwelling - A lead-free dwelling contains no lead-based paint and has interior dust and exterior soil lead levels below the applicable HUD and EPA standards.

Licensed - Holding a valid license or certification issued by EPA or by an EPA-approved State program pursuant to Title IV of the Toxic Substances Control Act. The license is based on certification for lead-based paint hazard control work. See also Certified.

Louver - A vented opening into the home that has a series of horizontal slats and arranged to permit ventilation but to exclude rain, snow, light, insects, or other living creatures.

Maintenance - Work intended to maintain adequate living conditions in a dwelling, which has the potential to disturb lead-based paint or paint that is suspected of being lead-based.

Mantel - The shelf above a fireplace opening. Also used in referring to the decorative trim around a fireplace opening.

Masonry - Stone, brick, concrete, hollow-tile, concrete block, or other similar building units or materials. Normally bonded together with mortar to form a wall.

Mastic - A pasty material used as a cement (as for setting tile) or a protective coating (as for thermal insulation or waterproofing)

Mg - Milligram; 1/1,000 of a gram.

Microgram - see Ug.

Milligram - see Mg.

Molding - A wood strip having an engraved, decorative surface.

Monitoring - Surveillance to determine (1) that known or suspected lead-based paint is not deteriorating; (2) that lead-based paint hazard controls, such as paint stabilization, enclosure, or encapsulation have not failed, (3) that structural problems do not threaten the integrity of hazard controls or of known or suspected lead-based paint, and (4) that dust lead levels have not risen above applicable levels.

Mortar - A mixture of cement (or lime) with sand and water used in masonry work.

Mullion - A vertical divider in the frame between windows, doors, or other openings.

Muntin - A small member which divides the glass or openings of sash or doors.

Natural finish - A transparent finish which does not seriously alter the original color or grain of the natural wood. Natural finishes are usually provided by sealers, oils, varnishes, water repellent preservatives, and other similar materials.

Newel post -The large starting post to which the end of a stair guard railing or balustrade is fastened.

Oriented Strand Board or OSB -A manufactured 4' X 8' wood panel made out of 1"- 2" wood chips and glue. Often used as a substitute for plywood.

Overhang - Outward projecting eave-soffit area of a roof; the part of the roof that hangs out or over the outside wall. See also Cornice.

Paint film stabilization - The process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint; paint film stabilization includes cleanup and clearance.

Paint removal -An abatement strategy that entails the removal of lead-based paint from surfaces. For lead-hazard control work, this can mean using chemicals, heat guns below 1,100 °F, and certain contained abrasive methods. Open-flame burning, open abrasive blasting, and extensive dry scraping are prohibited paint removal methods.

Panel - A thin flat piece of wood, plywood, or similar material, framed by stiles and rails as in a door (or cabinet door), or fitted into grooves of thicker material with molded edges for decorative wall treatment.

Parting stop or strip -A small wood piece used in the side and head jambs of double hung windows to separate the upper sash from the lower sash.

Particle board - Plywood substitute made of course sawdust that is mixed with resin and pressed into sheets. Used for closet shelving, floor underlayment, stair treads, etc.

Partition -A wall that subdivides spaces within any story of a building or room.

Plenum -The main hot-air supply duct leading from a furnace.

Plywood - A panel (normally 4' X 8') of wood made of three or more layers of veneer, compressed and joined with glue, and usually laid with the grain of adjoining plies at right angles to give the sheet strength.

Portland cement -Cement made by heating clay and crushed limestone into a brick and then grinding to a pulverized powder state.

Pressure-treated wood -Lumber that has been saturated with a preservative.

Quarry tile - A man-made or machine-made clay tile used to finish a floor or wall. Generally 6" X 6" X 11/4" thick.

Quarter round -A small trim molding that has the cross section of a quarter circle.

Rafter -Lumber used to support the roof sheeting and roof loads. Generally, 2 X 10's and 2 X 12's are used. The rafters of a flat roof are sometimes called roof joists.

Rake fascia -The vertical face of the sloping end of a roof eave.

Reevaluation - In lead hazard control work, the combination of a visual assessment and collection of environmental samples performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dwelling remains lead-safe.

Register - A grill placed over a heating duct or cold air return.

Renovation - Work that involves construction and/or home or building improvement measures such as window replacement, weatherization, remodeling, and repainting.

Replacement - A strategy of abatement that entails the removal of building components coated with lead-based paint (such as windows, doors, and trim) and the installation of new components free of lead-based paint.

Retaining wall - A structure that holds back a slope and prevents erosion.

Riser -Each of the vertical boards closing the spaces between the treads of stairways.

Risk assessment - An onsite investigation of a residential dwelling to discover any lead-based paint hazard. Risk assessments include an investigation of the age, history, management, and maintenance of the dwelling, and the number of children under age 6 and women of child-bearing age who are residents; a visual assessment; limited environmental sampling (i.e., collection of dust wipe samples, soil samples, and deteriorated paint samples); and preparation of a report identifying acceptable abatement and interim control strategies based on specific conditions.

Risk assessor - A certified individual who has completed training with an accredited training program and who has been certified to (1) perform risk assessments, (2) identify acceptable abatement and interim control strategies for reducing identified lead-based paint hazards, (3) perform clearance testing and reevaluations, and (4) document the successful completion of lead-based paint hazard control activities.

Shake - A wood roofing material, normally cedar or redwood. Produced by splitting a block of the wood along the grain line. Modern shakes are sometimes machine sawn on one side. See shingle.

Shed roof - A roof containing only one sloping plane.

Sheet rock - Drywall-Wall board or gypsum- A manufactured panel made out of gypsum plaster and encased in a thin cardboard. Usually 1/2" thick and 4' x 8' or 4' x 12' in size. The 'joint compound'. 'Green board' type drywall has a greater resistance to moisture than regular (white) plasterboard and is used in bathrooms and other "wet areas".

Shim - A small piece of scrap lumber or shingle, usually wedge shaped, which when forced behind a furring strip or framing member forces it into position. Also used when installing doors and placed between the door jamb legs and 2 X 4 door trimmers. Metal shims are wafer 1 1/2" X 2" sheet metal of various thickness' used to fill gaps in wood framing

members, especially at bearing point locations.

Shingles - Roof covering of asphalt, asbestos, wood, tile, slate, or other material cut to stock lengths, widths, and thickness'.

Shingles, siding - Various kinds of shingles, used over sheathing for exterior wall covering of a structure.

Shutter - Usually lightweight louvered decorative frames in the form of doors located on the sides of a window. Some shutters are made to close over the window for protection.

Siding - The finished exterior covering of the outside walls of a frame building.

Sill - (1) The 2 X 4 or 2 X 6 wood plate framing member that lays flat against and bolted to the foundation wall (with anchor bolts) and upon which the floor joists are installed. Normally the sill plate is treated lumber. (2) The member forming the lower side of an opening, as a door sill or window sill.

Skylight - A more or less horizontal window located on the roof of a building.

Slab, concrete - Concrete pavement, i.e. driveways, garages, and basement floors.

Slab, door - A rectangular door without hinges or frame.

Soffit - The area below the eaves and overhangs. The underside where the roof overhangs the walls. Usually the underside of an overhanging cornice.

Stair landing - A platform between flights of stairs or at the termination of a flight of stairs. Often used when stairs change direction. Normally no less than 3 ft X 3 ft square.

Stile - An upright framing member in a panel door.

Stool - The flat molding fitted over the window sill between jambs and contacting the bottom rail of the lower sash.

Stops - Moldings along the inner edges of a door or window frame. Also valves used to shut off water to a fixture.

Storm sash or storm window - An extra window usually placed outside of an existing one, as additional protection against cold weather.

String, stringer - A timber or other support for cross members in floors or ceilings. In stairs, the supporting member for stair treads. Usually a 2 X 12 inch plank notched to receive the treads.

Stucco - Refers to an outside plaster finish made with Portland cement as its base.

Stud - A vertical wood framing member, also referred to as a wall stud, attached to the horizontal sole plate below and the top plate above. Normally 2 X 4's or 2 X 6's, 8' long (sometimes 92 5/8"). One of a series of wood or metal vertical structural members placed as supporting elements in walls and partitions.

Subfloor - The framing components of a floor to include the sill plate, floor joists, and deck sheathing over which a finish floor is to be laid.

Substrate - A surface on which paint, varnish, or other coating has been applied or may be applied. Examples of substrates include wood, plaster, metal, and drywall.

Suspended ceiling - A ceiling system supported by hanging it from the overhead structural framing.

Terra cotta - A ceramic material molded into masonry units.

Testing combination - A unique surface to be tested that is characterized by the room equivalent, component and substrate.

Test location - A specific area on a testing combination where XRF instruments will test for lead-based paint.

Threshold - The bottom metal or wood plate of an exterior door frame. Generally they are adjustable to keep a tight fit with the door slab.

Tread - The walking surface board in a stairway on which the foot is placed.

Treated lumber - A wood product which has been impregnated with chemical pesticides such as CCA (Chromated Copper Arsenate) to reduce damage from wood rot or insects. Often used for the portions of a structure which are likely

to be in contact with soil and water. Wood may also be treated with a fire retardant.

Treatment - In residential lead-based paint hazard control work, any method designed to control lead-based paint hazards. Treatment includes interim controls, abatement, and removal.

Trim - Interior- The finish materials in a building, such as moldings applied around openings (window trim, door trim) or at the floor and ceiling of rooms (baseboard, cornice, and other moldings). Also, the physical work of installing interior doors and interior woodwork, to include all handrails, guardrails, stair way balustrades, mantles, light boxes, base, door casings, cabinets, countertops, shelves, window sills and aprons, etc. Exterior- The finish materials on the exterior a building, such as moldings applied around openings (window trim, door trim), siding, windows, exterior doors, attic vents, crawl space vents, shutters, etc. Also, the physical work of installing these materials.

Ug - Micrograms. The prefix micro means 1/1,000,000 (or one-millionth); a microgram is 1/1,000,000 of a gram and 1/1,000 or a milligram.

Veneer - Extremely thin sheets of wood. Also, a thin slice of wood or brick or stone covering a framed wall.

Vent - A pipe or duct which allows the flow of air and gasses to the outside. Also, another word for the moving glass part of a window sash, i.e. window vent.

Wafer board - A manufactured wood panel made out of 1 "- 2" wood chips and glue. Often used as a substitute for plywood in the exterior wall and roof sheathing.

Water board - Water resistant drywall to be used in tub and shower locations. Normally green or blue colored.

Window frame - The stationary part of a window unit; window sash fits into the window frame and their border.

Window sill - See Interior window sill.

Window trough - For a typical double-hung window, the portion of the exterior window sill between the exterior window sill between the interior window sill (or stool) and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when they are both lowered. Sometimes inaccurately called the window "well." See also Window well.

Window well - The space that provides exterior access and/or light to a window that is below grade, i.e., below the level of the surrounding earth or pavement.

XRF analyzer - An instrument that determines lead concentration in milligrams per square centimeter (mg/cm²) using the principle of x-ray fluorescence (XRF). For lead-based paint inspections, the term XRF analyzer only refers to portable instruments manufactured to analyze paint, and does not refer to laboratory-grade units or portable instruments designed to analyze soil.

Window sash - The operating or movable part of a window; the sash is made of window panes.

Building component terms from www.HomeBuildingManual.com; other terms from the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997).

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