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## LEAD-BASED PAINT INSPECTION REPORT

**PREPARED FOR THE FOLLOWING PROPERTY:**



1218 NE 46th Court  
Ocala, FL 34470

**PERFORMED ON:**  
November 29, 2023

**PERFORMED AND PREPARED BY:**

A handwritten signature in cursive script that reads "Debra Koontz".

Debra Koontz  
Certified Risk Assessor  
LBP-R-1191376-2

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**November 29, 2023**

Re: Lead-Based Paint Inspection Report

Property Address: **1218 NE 46th Court, Ocala, FL 34470**

Property Owner: **Dianna Hankins**

Phone: **352-208-6744**

Dear Client:

Please find enclosed the lead-based paint inspection report for the property located at **1218 NE 46th Court, Ocala, FL 34470**. The survey was performed within the current acceptable industry guidelines, Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and EPA regulations.

DK Environmental & Construction Services, Inc. (DKE) conducted the lead-based paint inspection services at the above-referenced site on **November 29, 2023**.

DKE used an RMD LPA-1 X-Ray Fluorescence (XRF) lead paint analyzer to sample paint for lead. XRF instrument serial #2737 (resourced on April 21, 2021) was used on this job.

Licensed EPA Lead Risk Assessor Debra Koontz (License No. LBP-R-1191376-2, expiration date 09/06/2024) performed the inspection services.

**At the specific time and date of the inspection services, DK Environmental & Construction Services, Inc. detected no lead-based paint in the property.**

If you have any questions or concerns regarding this report, please feel free to contact us at (407)614-4572.

Sincerely,

A handwritten signature in black ink that reads "Debra Koontz".

Debra Koontz, President

DK Environmental & Construction Services, Inc.

## II. Executive Summary

DKE was authorized to perform a lead-based paint (LBP) inspection of the property located at **1218 NE 46th Court, Ocala, FL 34470**. DKE tested all painted components according to the specifications described in the protocols for Lead Based Paint testing in the Housing and Urban Development (HUD) Guidelines Chapter 7 (revised 1997) and all applicable Federal, State, and Local regulations.

DKE's scope of services involved XRF testing as well as a surface-by-surface visual inspection of all painted surfaces throughout the entire property to determine which lead-based paint surfaces/components are deteriorated (above de minimis level). All accessible, painted building components (that potentially contain lead-based paint) were tested utilizing X-Ray Fluorescence (XRF) Analysis. The data collected is in Appendix V. Wall "A" in each room is the wall where the front entrance door opening is located (or aligned with the street). Going clockwise and facing wall "A", wall "B" will always be to your right, Wall "C" directly to the rear and wall "D" to the left.

DKE tested a total of **one hundred and thirty-two (132) surfaces via XRF analysis and six (6) calibrations. Zero (0) were found to contain lead at levels greater than or equal to the regulatory level of 1.0 mg/cm<sup>2</sup>**. These surfaces are identified in Section III: G. This report represents all field data, observations and findings related to the lead inspection performed in the above referenced property. The results, assessments and findings stated in this report are representative of the conditions observed in this property at the time of the inspection services.

This inspection measures lead in both deteriorated and intact paint surfaces. The procedure involved taking readings from representative surfaces throughout the testing area or room. The most common primary analytical method for detecting lead in paint is X-Ray Fluorescence (XRF). The XRF instrument is used because of its demonstrated abilities to accurately determine the amount of lead that is present without disturbing the painted surfaces as well as its high speed and relatively low cost per sample.

Some building components may have been inaccessible at the time of the inspection services, or were not tested because they were covered by other building materials (paneling, tile, siding, etc.). It is possible that painted surfaces may be hidden by these materials. Such surfaces should be assumed to contain lead-based paint, or should be tested by a licensed lead-based paint inspector or risk assessor.

### **III. Scope of Inspection**

#### **A. Building Background**

The property located at **1218 NE 46th Court, Ocala, FL 34470** is an approximately **1,548** square feet building (1 unit), built in **1965**. No history of renovations, repairs, or painting was provided to DKE during the inspection services.

#### **B. Preface**

DKE was authorized to perform lead-based paint testing of the above referenced property to determine the possible presence, condition, location and amount of lead-based paint. The testing was conducted on **November 29, 2023** from 11:43am to 1:52pm.

#### **C. Training**

All inspectors utilized by DKE have EPA/State licensure and are licensed Lead Risk Assessors who have passed the "HUD Visual Assessment Course". All Lead Risk Assessors utilized by DKE have also been trained in the use, calibration and maintenance of the X-Ray Fluorescence (XRF) equipment they currently use, along with necessary principles of Radiation Safety.

#### **D. Equipment**

An RMD LPA-1 X-Ray Fluorescence (XRF) lead paint analyzer, serial #2737 was used on this job.

#### **E. Inspection Company**

The inspection services were performed by an inspector/risk assessor employed by DK Environmental & Construction Services, Inc., 8786 Sonoma Coast Drive, Winter Garden, FL 34787, telephone number (407)614-4572.

#### **F. Methods**

The calibration of the type of X-Ray Fluorescence (XRF) is done in accordance with the Performance Characteristic Sheet (PCS) for this instrument. These XRF instruments are calibrated using a calibration standard block of known lead content. Three calibration readings are taken before and after each property is tested to insure 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 instrument is 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.

## G. Findings

Property Address: **1218 NE 46th Court, Ocala, FL 34470**

DKE tested a total of **one hundred and thirty-two (132) surfaces via XRF analysis and six (6) calibrations. Zero (0) were found to contain lead at levels greater than or equal to the regulatory level of 1.0 mg/cm<sup>2</sup> in paint in the surfaces tested:**

**At the specific time and date of the inspection services, DK Environmental & Construction Services, Inc. detected no lead-based paint in the property.**

## H. Conclusions

No lead-based paint was identified, as defined by Environmental Protection Agency/Department of Housing and Urban Development (EPA/HUD) as containing lead-in concentrations greater than or equal to 1.0 mg/cm<sup>2</sup>.

When evaluating this report, it is assumed that according to Chapter 7 HUD guidelines, that if one testing combination (i.e. window, door) is positive for lead in an interior or exterior room equivalent, that all other similar testing combinations in those areas are assumed to be positive. The same is true for negative readings. All inaccessible areas are assumed to be positive, even though they were not able to be tested. Inaccessible areas are noted in Section V – XRF Results.

If the lead evaluation results indicate the presence of lead-based paint, the prospective owner may wish to obtain, at *the prospective owner's expense*, additional services of a lead-based paint inspector or risk assessor, certified for the State in which the property is located, to help understand the positive results. This person would review this report and might make additional recommendations about lead hazard control actions. Interpretations and possible actions may vary when only a few readings indicate the presence of lead-based paint.

This inspection was done in accordance with Lead Safe Housing Rule 24 CFR Part 35 subpart J as amended June 21, 2004. The sample results are presented in Appendix V.

The surface conditions ranged from "Intact" to "Deteriorated" at the time of the inspection. Upon completion of lead hazard reduction activities, A clearance examination is required to determine that the lead hazard reduction efforts were

performed adequately. "Paint Film Stabilization" means to repair any defect in the substrate, or any defect in a building component, that is causing the paint deterioration, to remove all loose paint and other loose material from the surface to be treated using lead-safe work practices, and to apply a new protective coating of paint.

A Clearance Examination would include a visual evaluation of all surfaces that were determined to be defective during the initial inspection, and collection of dust samples. It should be determined that the deteriorated paint surfaces have been corrected and that no settled dust lead hazards exist in the dwelling or unit. The clearance report must be signed by a certified/licensed Lead Inspector/Risk Assessor.

Painted surfaces found to be intact during the inspection which contain levels of lead greater than or equal to 1.0 mg/cm<sup>2</sup> could create lead hazards if the paint is turned into dust by abrasion, scraping, or sanding. If conditions of intact paint surfaces become destabilized, these conditions will need to be addressed. If any future construction or modernization work is done on the premises, this report should be given to the contractors as well as the tenants.

#### **IV. DISCLOSURE RESPONSIBILITY AND DISCLAIMER**

##### **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 parents have the information they need to protect their children from lead-based paint hazards.

##### **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 lead-based paint or lead-based paint hazards applies only to the tested or assessed surfaces on the date of the field visit. It should be understood that conditions noted within this report were accurate at the time of the inspection services and in no way reflect the conditions at the property after the date of the inspection services. No other environmental concerns were addressed during the inspection services.

**V. XRF Results**



## 1218 NE 46th Court, Ocala, FL 34470

Read No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Paint Color	Lead (mg/cm <sup>2</sup> )	Mode
Interior Room 001 Living Rm									
004	A	Wall	U Lft		I	Plaster	white	0.0	QM
005	B	Wall	U Lft		I	Plaster	white	-0.1	QM
009	C	closet wall	Rgt		I	Plaster	white	0.1	QM
011	C	cl shf suppo	Rgt		I	Wood	white	0.1	QM
006	C	Wall	U Lft		I	Plaster	white	-0.2	QM
013	C	Baseboard	Rgt		I	Wood	white	0.1	QM
010	C	Door	Rgt	Door	I	Wood	white	0.1	QM
012	C	Door	Rgt	Jamb	I	Wood	white	0.0	QM
007	D	Wall	U Lft		I	Plaster	white	0.0	QM
008	D	Ceiling	Lft		I	Plaster	white	0.5	QM
Interior Room 002 Hallway									
014	B	Wall	U Ctr		I	Plaster	white	0.0	QM
016	C	Wall	U Ctr		I	Plaster	white	-0.1	QM
017	C	Ceiling	Ctr		I	Plaster	white	0.5	QM
018	D	closet wall	Ctr		I	Plaster	white	0.0	QM
019	D	cl shf suppo	Ctr		I	Wood	white	-0.1	QM
015	D	Wall	U Ctr		I	Plaster	white	-0.1	QM
022	D	Baseboard	Ctr		I	Wood	white	0.3	QM
020	D	Door	Ctr	Jamb	I	Wood	white	0.0	QM
021	D	Door	Ctr	Door	I	Wood	white	-0.2	QM
Interior Room 003 Bedroom A									
028	A	closet wall	Ctr		I	Plaster	white	-0.4	QM
029	A	cl shf suppo	Ctr		I	Wood	white	-0.1	QM
024	A	Wall	U Ctr		I	Plaster	white	0.0	QM
025	B	Wall	U Lft		I	Plaster	white	-0.2	QM
026	C	Wall	U Ctr		I	Plaster	white	-0.1	QM
027	C	Ceiling	Ctr		I	Plaster	white	0.5	QM
023	D	Wall	U Ctr		I	Plaster	white	-0.2	QM
030	D	Baseboard	Rgt		I	Wood	white	0.2	QM
031	D	Door	Rgt	Jamb	I	Wood	white	0.2	QM
032	D	Door	Rgt	Door	I	Wood	white	-0.2	QM
Interior Room 004 Bedroom B									
036	A	closet wall	Ctr		I	Plaster	white	0.0	QM
037	A	cl shf suppo	Ctr		I	Wood	white	0.0	QM
051	A	cl shf suppo	Ctr		I	Wood	white	-0.1	QM
052	A	closet wall	Ctr		I	Plaster	white	-0.2	QM
038	A	Wall	U Lft		I	Plaster	white	-0.1	QM
045	A	Wall	U Rgt		I	Plaster	white	-0.1	QM
050	A	Baseboard	Rgt		D	Wood	white	0.0	QM
048	A	Door	Rgt	Door	D	Wood	white	-0.2	QM
049	A	Door	Rgt	Jamb	D	Wood	white	0.1	QM
039	B	Wall	U Lft		I	Plaster	white	-0.3	QM
046	B	Wall	U Rgt		I	Plaster	white	-0.2	QM
047	C	Wall	U Lft		I	Plaster	white	-0.2	QM
040	C	Wall	U Ctr		I	Plaster	white	0.3	QM
041	D	Wall	U Ctr		I	Plaster	white	0.0	QM
044	D	Wall	U Rgt		I	Plaster	white	0.0	QM
035	D	Baseboard	Rgt		I	Wood	white	0.2	QM
042	D	Ceiling	Ctr		I	Plaster	white	0.1	QM
033	D	Door	Rgt	Door	I	Wood	white	-0.2	QM
034	D	Door	Rgt	Jamb	D	Wood	white	-0.2	QM
Interior Room 005 Bedroom C									
043	D	Ceiling	Ctr		I	Plaster	white	0.1	QM

Read No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Paint Color	Lead (mg/cm <sup>2</sup> )	Mode
Interior Room 006 Bathroom									
053	A	Wall	U Lft		I	Plaster	white	0.0	QM
054	B	Wall	U Rgt		I	Plaster	white	-0.1	QM
058	B	Baseboard	Rgt		I	Wood	white	0.3	QM
055	C	Wall	U Rgt		I	Plaster	white	0.0	QM
059	C	Door	Rgt	Door	I	Wood	white	-0.2	QM
060	C	Door	Rgt	Jamb	I	Wood	white	0.2	QM
056	D	Wall	U Rgt		I	Plaster	white	-0.2	QM
057	D	Ceiling	Rgt		I	Plaster	white	0.1	QM
061	D	Window	Rgt	Sill	I	Wood	white	0.2	QM
Interior Room 007 Bathroom									
062	A	Wall	U Ctr		I	Plaster	white	-0.1	QM
063	B	Wall	U Ctr		I	Plaster	white	-0.2	QM
067	B	Door	Ctr	Door	I	Wood	white	-0.2	QM
068	B	Door	Ctr	Jamb	D	Wood	white	0.1	QM
064	C	Wall	U Lft		D	Plaster	white	0.3	QM
065	D	Wall	U Ctr		I	Plaster	white	-0.1	QM
066	D	Ceiling	Ctr		I	Plaster	white	-0.2	QM
Interior Room 008 Kitchen									
071	A	Wall	U Ctr		I	Plaster	white	-0.1	QM
072	B	Wall	U Ctr		I	Plaster	white	0.0	QM
073	B	Ceiling	Ctr		I	Plaster	white	-0.1	QM
069	C	Wall	U Ctr		I	Plaster	white	-0.1	QM
070	D	Wall	U Ctr		I	Plaster	white	0.1	QM
074	D	Baseboard	Ctr		I	Wood	white	0.1	QM
Interior Room 009 Office									
079	A	Wall	U Ctr		I	Wood	white	0.5	QM
080	A	Ceiling	Ctr		I	Plaster	white	0.0	QM
083	A	Window	Ctr	Sill	I	Wood	white	0.0	QM
076	B	Wall	U Ctr		I	Wood	white	0.5	QM
075	B	Baseboard	Ctr		I	Wood	white	0.2	QM
077	C	Wall	U Ctr		I	Wood	white	0.2	QM
078	D	Wall	U Ctr		I	Wood	white	0.5	QM
081	D	Door	Lft	Jamb	D	Wood	white	0.1	QM
082	D	Door	Lft	Door	D	Wood	white	-0.1	QM
Interior Room 010 Game Room									
090	A	Crown Mldg	Lft		I	Wood	brown	-0.1	QM
085	A	Cing Beam	Ctr		I	Wood	brown	0.5	QM
084	A	Ceiling	Ctr		I	Plaster	white	0.3	QM
086	B	Wall	U Ctr		I	Block	tan	0.1	QM
087	C	Wall	U Lft		I	Block	tan	0.0	QM
089	D	cabinet	Lft		I	Wood	stain	0.1	QM
088	D	Wall	U Lft		I	Block	tan	0.3	QM
Interior Room 011 Laundry Rm									
096	A	Shelf	Ctr		I	Wood	white	0.0	QM
091	A	Wall	U Ctr		I	Block	white	0.2	QM
097	A	Door	Rgt	Door	I	Wood	white	-0.1	QM
098	A	Door	Rgt	Jamb	I	Wood	white	0.3	QM
092	B	Wall	U Ctr		I	Block	white	0.2	QM
093	C	Wall	U Ctr		I	Block	white	0.2	QM
099	C	Window	Ctr	Sill	I	Wood	white	0.1	QM
094	D	Wall	U Ctr		I	Block	white	0.0	QM
095	D	Ceiling	Ctr		I	Plaster	white	0.1	QM

Read No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Paint Color	Lead (mg/cm <sup>2</sup> )	Mode
Interior Room 012 Breezeway									
101	A	Wall	U Ctr		I	Block	tan	0.4	QM
105	A	Ceiling	Ctr		I	Wood	white	0.1	QM
104	B	Wall	L Lft		I	Block	tan	0.2	QM
100	B	Window	Ctr	Sill	I	Block	tan	0.7	QM
102	D	closet wall	Lft		I	Block	tan	0.0	QM
103	D	Wall	L Rgt		I	Block	tan	-0.1	QM
106	D	Baseboard	Rgt		I	Wood	stain	-0.2	QM
Interior Room 013 Pet Room									
108	A	cabinet	Lft		I	Wood	white	0.1	QM
112	A	Clng Beam	Lft		I	Wood	tan	-0.2	QM
109	A	Wall	U Lft		I	Block	white	0.3	QM
107	A	Ceiling	Lft		I	Wood	stain	0.7	QM
110	B	Wall	U Lft		I	Block	white	0.0	QM
114	C	Baseboard	Lft		I	Wood	stain	0.3	QM
113	C	Door	Rgt	Jamb	I	Wood	stain	0.3	QM
111	D	Wall	L Rgt		I	Block	white	0.0	QM
Interior Room 014 Pet Room									
115	A	Wall	U Lft		I	Block	tan	0.2	QM
116	B	Wall	L Lft		I	Block	tan	0.6	QM
118	C	post	Rgt		I	Metal	white	0.6	QM
117	D	Wall	L Rgt		I	Block	tan	0.4	QM
015 Shed									
119	B	Wall	U Ctr		I	Block	tan	0.1	QM
016 Exterior									
133	A	Porch Ceilin	Ctr		I	Wood	white	0.5	QM
135	A	Fascia	Rgt		I	Metal	brown	0.2	QM
130	A	Wall	U Ctr		I	Block	tan	0.1	QM
134	A	Soffit	Rgt		D	Wood	white	0.0	QM
129	A	Window	Ctr	Sill	I	Concrete	brown	0.6	QM
131	A	Door	Lft	Door	D	Wood	tan	-0.1	QM
132	A	Door	Lft	Jamb	I	Wood	tan	-0.3	QM
127	B	Fascia	Lft		I	Metal	brown	0.1	QM
125	B	Wall	L Ctr		D	Block	tan	0.3	QM
126	B	Soffit	Ctr		D	Wood	white	0.5	QM
128	B	Window	Lft	Sill	I	Concrete	brown	0.0	QM
123	C	Wall	U Ctr		I	Block	tan	0.7	QM
124	C	Window	Ctr	Sill	I	Concrete	brown	0.5	QM
122	D	Fascia	Lft		I	Metal	brown	0.0	QM
120	D	Wall	U Lft		I	Block	tan	0.0	QM
121	D	Soffit	Lft		I	Wood	white	0.1	QM
Calibration Readings									
001								0.9	TC
002								1.0	TC
003								1.0	TC
136								1.0	TC
137								0.9	TC
138								1.0	TC

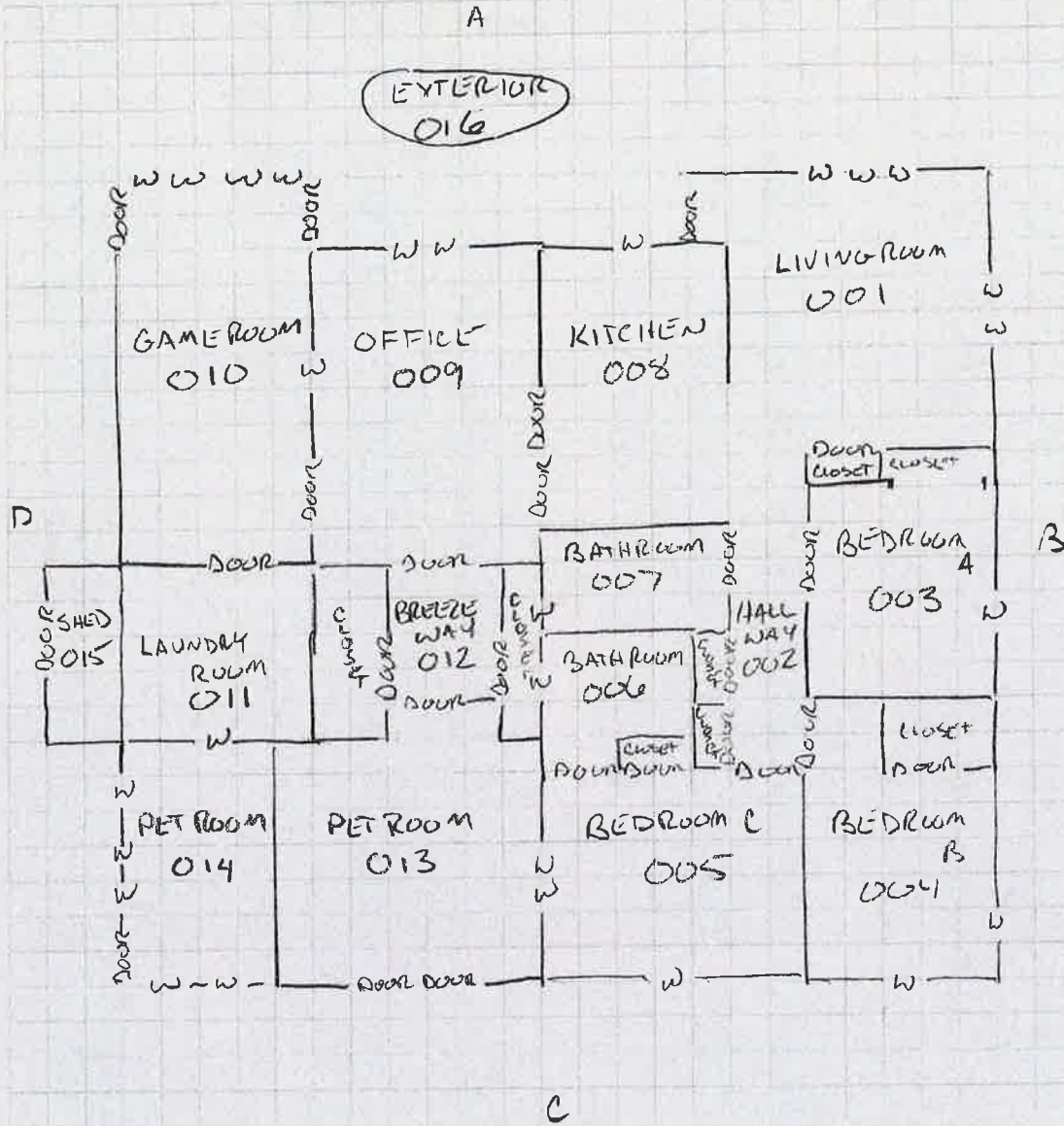
---- End of Readings ----

**VI. Drawings/Floor Plans**



DK Environmental & Construction Services, Inc.  
8786 Sonoma Coast Drive, Winter Garden, FL 34787  
407-614-4572 814-243-1927  
dkenvironmental@yahoo.com

SITE PLAN



Case # 11701143

Address 1218 NE 46<sup>th</sup> Ct  
Ocala, FL 34470

**VII. Property Photographs**

**1218 NE 46th Court, Ocala, FL 34470**



Exterior(016) A-Wall



Exterior(016) B-Wall



Exterior(016) C-Wall



Exterior(016) D-Wall

**VIII. License/Certification**



# United States Environmental Protection Agency

This is to certify that



Debra L. Koontz

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Inspector

## In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires May 13, 2024

LBP-I-191376-1

Certification #

April 29, 2021

Issued On



Adrienne Priselic, Manager, Toxics Office

Land Division

# United States Environmental Protection Agency

This is to certify that



Debra L. Koontz

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

## In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires September 06, 2024

LBP-R-191376-2

Certification #

August 18, 2021

Issued On



Adrienne Priselic, Manager, Toxics Office

and Division

**IX. XRF Performance Characteristics Sheet**

## Performance Characteristic Sheet

EFFECTIVE DATE: October 24, 2000

EDITION NO.: 4

**MANUFACTURER AND MODEL:**Make: *Radiation Monitoring Devices*Model: *LPA-1*Source: *<sup>57</sup>Co*

Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above for instruments sold or serviced after June 26, 1995. For other instruments, see prior editions.

### FIELD OPERATION GUIDANCE

**OPERATING PARAMETERS**

Quick mode or nominal 30-second standard mode readings.

**XRF CALIBRATION CHECK LIMITS**0.7 to 1.3 mg/cm<sup>2</sup> (inclusive)**SUBSTRATE CORRECTION:**For XRF results below 4.0 mg/cm<sup>2</sup>, substrate correction is recommended for:

Metal using 30-second standard mode readings.

None using quick mode readings.

Substrate correction is not needed for:

Brick, Concrete, Drywall, Plaster, and Wood using 30-second standard mode readings

Brick, Concrete, Drywall, Metal, Plaster, and Wood using quick mode readings

**THRESHOLDS:**

30-SECOND STANDARD MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm <sup>2</sup> )
Results corrected for substrate bias on metal substrate only	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	0.9
	Plaster	1.0
	Wood	1.0

QUICK MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm <sup>2</sup> )
Readings not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

RMD LPA-1, PCS Edition 4, Page 2 of 4

## BACKGROUND INFORMATION

### EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations in July 1995. The instrument that performed testing in September had a new source installed in June 1995 with 12 mCi initial strength.

### OPERATING PARAMETERS:

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

### XRF CALIBRATION CHECK:

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

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

### SUBSTRATE CORRECTION VALUE COMPUTATION

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

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

Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm<sup>2</sup>. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

For each substrate type (the 1.02 mg/cm<sup>2</sup> NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\text{Correction value} = (1\text{st} + 2\text{nd} + 3\text{rd} + 4\text{th} + 5\text{th} + 6\text{th Reading}) / 6 - 1.02 \text{ mg/cm}^2$$

Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

### EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use either 15-second readings or 60-second readings.

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

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

Compute the Retest Tolerance Limit by the following steps:

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

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

Square the average for each testing combination.

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

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

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

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

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

Compute the average of all ten original XRF results.

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

Find the absolute difference of the two averages.

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

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

#### **BIAS AND PRECISION:**

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with reported laboratory results less than 4.0 mg/cm<sup>2</sup> lead. The data which were used to determine the bias and precision estimates given in the table below have the following properties. During the July 1995 testing, there were 15 test locations with a laboratory-reported result equal to or greater than 4.0 mg/cm<sup>2</sup> lead. Of these, one 30-second standard mode reading was less than 1.0 mg/cm<sup>2</sup> and none of the quick mode readings were less than 1.0 mg/cm<sup>2</sup>. The instrument that tested in July is representative of instruments sold or serviced after June 26, 1995. These data are for illustrative purposes only. Actual bias must be determined on the site. Results provided above already account for bias and precision. Bias and precision ranges are provided to show the variability found between machines of the same model.

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30-SECOND STANDARD MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm <sup>2</sup> )	PRECISION (mg/cm <sup>2</sup> )
0.0 mg/cm <sup>2</sup>	Brick	0.0	0.1
	Concrete	0.0	0.1
	Drywall	0.1	0.1
	Metal	0.3	0.1
	Plaster	0.1	0.1
	Wood	0.0	0.1
0.5 mg/cm <sup>2</sup>	Brick	0.0	0.2
	Concrete	0.0	0.2
	Drywall	0.0	0.2
	Metal	0.2	0.2
	Plaster	0.0	0.2
	Wood	0.0	0.2
1.0 mg/cm <sup>2</sup>	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.0	0.3
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.0	0.3
2.0 mg/cm <sup>2</sup>	Brick	-0.1	0.4
	Concrete	-0.1	0.4
	Drywall	-0.1	0.4
	Metal	0.1	0.4
	Plaster	-0.1	0.4
	Wood	-0.1	0.4

Precision at 1 standard deviation.

**CLASSIFICATION RESULTS:**

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristics Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

**DOCUMENTATION:**

An EPA document titled *Methodology for XRF Performance Characteristic Sheet* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD. A HUD document titled *A Nonparametric Method for Estimating the 5th and 95th Percentile Curves of Variable-Time XRF Readings Based on Monotone Regression* provides supplemental information on the methodology for variable-time XRF instruments. A copy of this document can be obtained from the HUD lead web site, [www.hud.gov/lea](http://www.hud.gov/lea).

This edition of the XRF Performance Characteristic Sheet was developed by QuanTech, Inc., under a contract from the U.S. Department of Housing and Urban Development (HUD). HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*

**X. 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, record keeping, and, if applicable, monitoring. See also **Complete Abatement** and **Interim controls**.

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

**Accuracy:** The degree of agreement between an observed value and an accepted reference value (a "true" value); a data quality indicator. Accuracy includes a combination of random errors (Precision) and systematic errors (bias) due to sampling and analysis.

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

**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, windowsills, etc.

**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 safely allow them to undertake risk assessments, inspections, or abatement work. Risk assessors, inspectors, and Abatement Contractors should be certified by the appropriate local, State, or Federal agency.

**Chewable surface:** See **Chewed surface**.

**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 windowsill.

**Cleaning:** The process of using 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, or, in some circumstances, a Sampling Technician, and analysis by an accredited laboratory upon completion of an abatement project, interim control intervention, 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.

**Common area:** A room or area that is accessible to all residents in a community (e.g. hallways or lobbies). In general, any area not kept locked.

**Composite sample:** A single sample made up of individual subsamples. Analysis of a composite sample produces the arithmetic mean of all subsamples.



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

**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, flaking, worn, chalking, alligating, cracking, or otherwise becoming separated from the substrate.

**Disposal (of waste):** The discharge, deposit, injection, dumping, spilling, leaking, or placement of solid or liquid waste on land or in water so that none of its constituents can pollute the environment by being emitted into the air or discharged into a body of water, including groundwater.

**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.

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

**Examination:** See **Clearance Examination**.

**Federal Register (FR):** A daily Federal publication that contains proposed and final regulations, rules, and notices.

**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.

**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, Reevaluations, and Abatement**.

**Interior windowsill:** 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.

**Latex:** A waterborne emulsion paint made with synthetic binders, such as 100% acrylic, vinyl acrylic, terpolymer, or styrene acrylic. A stable emulsion of polymers and pigment in water.

**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/cm<sup>2</sup> (milligrams of lead per square centimeter of surface) as measured by XRF or laboratory analysis, or 0.5% by weight (5,000ug/g, 5,000 ppm (parts per million), or 5,000 mg/kg) as measured by laboratory analysis (Local definitions may vary.)

**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 hazards 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 concentration of lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. As of April 01, 2017, EPA standards for lead dust for risk assessments are  $\geq 10$  ug/ft<sup>2</sup> (micrograms of lead per square foot) for floors, and  $\geq 100$  ug/ft<sup>2</sup> for interior windowsills. The EPA standard for clearance are  $< 10$  ug/ft<sup>2</sup> for floors, 100 ug/ft<sup>2</sup> for windowsills, and 100 ug/ft<sup>2</sup> for window troughs. Porch floors are also wiped during final clearance, with a lead dust clearance action level of  $< 40$  ug/ft<sup>2</sup>.

**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 standard is 400 ug/g in play areas and 1,200 ug/g in the rest of the property.

**Leaded dust:** See **Lead-contaminated dust**.

**Licensed:** Holding a valid license or certification issued by the 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**.

**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.

**Mean:** The arithmetic average of a series of numerical data values. For example, the algebraic sum of the data values divided by the number of data values.

**Microgram (ug):** 1/1,000,000 of a gram. Used to measure weight.

**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, and (3) that structural problems do not threaten the integrity of hazard controls.

**Owner:** A person, firm, corporation, guardian, conservator, receiver, trustee, executor, government agency or entity, or other judicial officer who, alone or with others, owns, holds, or controls the freehold or leasehold title or part of the title to property, with or without actually possessing it. This definition includes a vendee who possesses the title, but does not include a mortgagee or an Owner of a reversionary interest under a ground rent lease.

**Paint inspector:** An individual who has completed training from an accredited program and been licensed or certified by the appropriate State or local agency to (1) perform inspections to determine and report the presence of lead-based paint on a surface-by-surface basis through onsite testing, (2) report the findings of such an inspection, (3) collect environmental samples for laboratory analysis, (4) perform clearance testing, and optionally (5) document successful compliance with lead-based paint hazard control requirements or standards.

**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, sandblasting, extensive dry scraping, and stripping in a poorly ventilated space using a volatile stripper are prohibited paint removal methods. Hydroblasting is not recommended.

**Plastic:** See **Polyethylene plastic**.

**Polyethylene plastic:** All references to polyethylene plastic refer to 6 mil plastic sheeting or polyethylene bags (or double bags if using 4 mil polyethylene bags), or any other thick plastic material shown to demonstrate at least the equivalent dust contamination performance. Plastic used to contain waste should be capable of completely containing the waste and, after being properly sealed, should remain leak tight with no visible signs of discharge during movement or relocation.

**Polyurethane:** An exceptionally hard and wear-resistant coating (created by the reaction of polyols with a multifunctional isocyanate). Often used to seal wood floors following lead-based paint hazard control work and cleaning.

**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.

**Removal:** See **Paint removal**.

**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.

**Resident:** A person who lives in a dwelling.

**Risk assessment:** An onsite investigation of a residential dwelling to discover any lead-based paint hazards. 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 childbearing 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.

**Site:** The land or body of water where a facility is located or an activity is conducted. The site includes adjacent land used in connection with the facility or activity.

**Soil:** See **Bare soil**.

**Spectrum analyzer:** A type of XRF analyzer that provides the operator with a plot of the energy and intensity, or counts of both K and L x-ray spectra, as well as a calculated lead concentration. See also **XRF analyzer**.

**Standard deviation:** A measure of the precision of a reading. The spread of the deviation from the mean. The smaller the standard deviation, the more precise the analysis. The standard deviation is calculated by first obtaining the mean, or the arithmetic average, of all of the readings. A formula is then used to calculate how much the individual values vary from the mean – the standard deviation is the square root of the arithmetic average of the squares of the deviation from the mean. Many hand calculators have an automatic standard deviation function. See also **Mean**.

**Subsample:** A representative portion of a sample. A subsample may be either a field sample or a laboratory sample. A subsample is often combined with other subsamples to produce a composite sample. See also **Composite sample**.

**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.

**Substrate effect:** The radiation returned to an XRF analyzer by the paint, substrate, or underlying material, in addition to the radiation returned by any lead present. This radiation, when counted as lead x-rays by an XRF analyzer contributes to substrate equivalent lead (bias). The inspector may have to compensate for this effect when using XRF analyzers. See also **XRF analyzer**.

**Substrate Equivalent Lead (SEL):** The XRF measurement taken on an unpainted surface, used to calculate the corrected lead concentration on a surface by using the following formula: Apparent Lead Concentration-Substrate Equivalent Lead = Corrected Lead Concentration. See also **XRF analyzer**.

**Target housing:** Any residential unit constructed before 1978, except dwellings that do not contain bedrooms or dwellings that were developed specifically for the elderly or persons with disabilities, unless a child younger than 6 resides or is expected to reside in the dwelling. In the case of jurisdictions that banned the sale or use of lead-based paint before 1978, the Secretary of HUD may designate an earlier date for defining target housing.

**Test location:** A specific area on a testing combination where XRF instruments will test for lead-based paint.

**Trained:** Successful completion of a training course in a particular discipline. For lead hazards control work, the training course must be accredited by the EPA or by an EPA-approved State program, pursuant to Title IV of the Toxic Substances Control Act.

**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.

**Trough:** See **Window trough**.

**Windowsill:** See **Interior windowsill**.

**Window trough:** For a typical double-hung window, the portion of the exterior windowsill between the interior windowsill (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".

**Worker:** An individual who has completed training in an accredited program to perform lead-based paint hazard control in housing.

**Worksite:** Any interior or exterior area where lead-based paint hazard control work takes place.

**XRF analyzer:** An instrument that determines lead concentration in milligrams per square centimeter (mg/cm<sup>2</sup>) using the principle of x-ray fluorescence (XRF). Two types of field portable XRF analyzers are used – direct readers and spectrum analyzers. For this lead-based paint inspection, the term XRF analyzer only refers to portable instruments manufactured to analyze paint, that have a HUD Performance Characteristic Sheet, and are interpreted in accordance with the Performance Characteristic Sheet. It does not refer here to laboratory-grade units or portable instruments designed to analyze soil.



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## ASBESTOS SURVEY REPORT

**PREPARED FOR THE FOLLOWING PROPERTY:**



1218 NE 46th Court  
Ocala, FL 34470

**PERFORMED ON:**

November 29, 2023

**PERFORMED AND PREPARED BY:**

Chris Ritko  
Asbestos Building Inspector  
193196

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**Confidentiality Notice:** This Asbestos Survey Report is intended only for the use of the individual or entity addressed, and may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If you are not the intended recipient or responsible for delivering this report to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this report, in whole or in part, is prohibited. If you have received this report in error, please notify us immediately. Thank you.

## I. INTRODUCTION

**Property Address:** 1218 NE 46th Court  
Ocala, FL 34470

**Property Owner:** Dianna Hankins

**Survey Performed For:** City of Ocala, Community Development Services  
201 SE 3<sup>rd</sup> Street, 2<sup>nd</sup> Floor, Ocala, FL 34471

**Survey Performed By:** Chris Ritko, Asbestos Building Inspector

**Company:** DK Environmental & Construction Services  
8786 Sonoma Coast Drive  
Winter Garden, FL 34787  
407-614-4572

**Date of On-Site Survey:** November 29, 2023

**Date of Report:** December 06, 2023

DK Environmental & Construction Services, Inc. (DKE) has completed a limited Asbestos Survey at the property address listed above. This report contains the results of the Survey. The purpose of this Survey was to identify the presence of asbestos-containing materials that may be disturbed during planned renovation. This limited Asbestos Survey report presents data that describes the location of asbestos-containing material (ACM) identified in the subject property. This Survey was conducted on site by an EPA trained professional asbestos building inspector.

This report is intended for the exclusive use of our client. The findings are relevant to the conditions observed during the physical process of performing the Survey. These findings should not be treated as absolute, nor should they be relied upon to represent conditions at significantly later dates.

We appreciate the opportunity to provide environmental consulting services to your organization. If you have any questions or need additional assistance, please call (321)401-5094.



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Chris Ritko  
Asbestos Building Inspector  
193196



## II. SURVEY SUMMARY

On November 29, 2023 an Asbestos Survey was performed at 1218 NE 46th Court, Ocala, FL 34470. The property is a single-family detached dwelling. It is approximately 1,548 square feet and was constructed in 1965.

The purpose of this Survey was to identify the presence of asbestos-containing materials that may be disturbed during planned renovation. Limited bulk samples were collected and AHERA protocols were adhered to.

The Asbestos Survey consisted of three basic procedures: 1) conducting a visual inspection of the property; 2) identifying homogeneous areas (HAs) of suspect surfacing, thermal system insulation, and miscellaneous materials; and 3) sampling accessible, friable, and non-friable suspect materials. Some building components may have been inaccessible at the time of this screening, or were not tested because they were covered by other building materials (paneling, tile, siding, etc.). It is possible that ACMs may be hidden by these materials.

The property was visually inspected for the presence of building materials that are suspected to contain asbestos. With regard to asbestos, bulk material samples were collected and analyzed for asbestos content. These services were performed exercising the customary skill and competence of consulting professionals in the relevant disciplines in this region.

Bulk samples of identified suspect ACM were collected and placed into individual containers for transport to a National Voluntary Lab Accreditation Program (NVLAP)/American Industrial Hygiene Association (AIHA)-accredited laboratory for analysis. The collection of bulk samples consisted of physically removing a small piece of material and placing it in a marked, airtight container. The sample container identification numbers were also recorded in the field notes.

## III. ASBESTOS OVERVIEW

Asbestos is a generic name given to a fibrous variety of naturally occurring minerals that have been used for many years in commercial products, based on specific properties of the minerals. Asbestos occurs in fiber bundles, which are composed of long and thin fibers that can be easily separated from one another. These mineral products possess high tensile strength, flexibility, resistance to chemical and thermal degradation, and high electrical resistance. The minerals are easily woven into various types of textiles, fabrics, cloths, sheets, panels, or mixed into adhesives, coatings, surfacing materials and cement products. Typically asbestos-containing building materials (ACBM) are segregated into three categories: Thermal System Insulation (TSI) usually found on pipes, boilers, and HVAC ducts; surfacing materials such as sprayed or troweled-on fireproofing and insulation, and plasters; and miscellaneous materials including vinyl composite floor tiles, floor sheeting, adhesives, roofing materials, window glazing and cement products.

*Friable* asbestos-containing material (ACM), is defined as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. (Sec. 61.141)

*Nonfriable* ACM is any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. EPA also defines two categories of nonfriable ACM, Category I and Category II nonfriable ACM, which are described later in this guidance.

*"Regulated Asbestos-Containing Material"* (RACM) is (a) friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The EPA's National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations and the Florida Department of Environmental Protection (FDEP) Asbestos program regulate the removal and disposal of asbestos-containing building materials (any material containing more than 1% asbestos).

Potential effects on workers or occupants in buildings where asbestos-containing materials (ACM) are present may occur when exposure to asbestos fibers is caused by deterioration, damage or renovation disturbance of ACMs. Federal regulations pertaining to asbestos include 40 Code of Federal Regulations (CFR) 763 (a subchapter of the Toxic Substance Control Act (TSCA)); Occupational Safety and Health Act (OSHA) 29 CFR 1910 Subpart Z and 29 CFR 1926 Subpart Z.

***Asbestos NESHAP regulations must be followed for demolitions and/or renovations of facilities with at least 260 linear feet of regulated asbestos-containing materials (RACM) on pipes, 160 square feet of regulated asbestos-containing materials on other facility components, or at least 35 cubic feet of facility components where the amount of RACM previously removed from pipes and other facility components could not be measured before stripping. If dimensions fall below these thresholds, Asbestos NESHAP regulations need not be followed for demolition and/or renovation activities.***

#### IV. LIMITATIONS

This report has been prepared to assist in evaluating the potential presence of asbestos-containing material in the property. The objective of this assessment was to perform the work with care, exercising the customary skill and competence of consulting professionals in the relevant disciplines in this region. The conclusions presented in this report are professional opinions based upon visual observations of the site at the time of DKE's investigation and the results of laboratory analysis. The opinions presented herein apply to site conditions existing at the time of our investigation and those reasonably foreseeable. DKE cannot act as insurers, and no express or implied representation or warrant is included or intended in our report except that our work was performed, within the limits prescribed by our client, with the customary thoroughness and competence of our profession at the time and place the services were rendered. DKE cannot and will not warrant that this Asbestos Survey that was requested by the client will satisfy the dictates of, or provide a legal defense in connection with, any environmental laws or regulations. It is the responsibility of the client to know and abide by all applicable laws, regulations, and standards. The results reported and conclusions reached by DKE are solely for the benefit of the client. The results and opinions in this report, based solely upon the conditions found on the property as of the date of the Survey, will be valid only as of the date of the Survey.

Please note that the test results relate only to those homogeneous materials tested. If conditions or materials, other than those addressed in this report are encountered during the planned renovation/demolition activities, DKE should be contacted to assess the potential impact of these materials or conditions relative to the findings or recommendations included herein. The survey was performed by observing suspect materials throughout the structure where accessible. DKE must emphasize that it is not possible to look within every location of a building. The visual survey documents only general locations of suspect materials but does not determine exact boundaries. Concealed locations of asbestos may exist at the subject property, and the levels may vary from those stated in this report. There may be variations in the composition of materials which appear similar. Materials may be hidden from view and not accessible. No attempt was made to disassemble equipment or demolish structural elements and finishes as this is beyond the scope of our authorized services. Visual observations were made only at safe and convenient locations. Due to these limitations, wall voids, flooring under carpet, building cavities and mechanical equipment, and other areas may contain unreported asbestos-containing materials. Suspect materials not previously identified in this report may be encountered during any renovation/demolition activity. These materials should be assumed asbestos containing material until sample collection and subsequent analysis prove otherwise. Unsafe structures should be assumed to contain asbestos materials unless the suspect material is noted as sampled. All fire doors should be assumed asbestos containing material since disassembly of locks and/or other work to access the door insulation is not possible.

## V. ANALYTICAL RESULTS

Samples were analyzed by Hayes Microbial Consulting in Midlothian, VA. Hayes Microbial Consulting is an American Industrial Hygiene Association (AIHA)-accredited laboratory.

All samples were analyzed utilizing Polarized Light Microscopy (PLM) according to EPA Method 600/R-93/116. Any material that contains greater than one percent asbestos is considered an ACM and must be handled according to the Occupational Safety and Health Administration (OSHA), EPA and applicable state and local regulations.

The following table contains information regarding bulk samples found to contain asbestos by definition. The laboratory report has also been included at the end of this report.

<b>Bulk Collection and Sample Analysis Results</b>						
<i>Sample Number</i>	<i>Description</i>	<i>Condition</i>	<i>Friable</i>	<i>Asbestos Percent and Type</i>	<i>Location/ Amount</i>	<i>NESHAP Category</i>
1218-1-1	Plaster/Skim Coat/White	Intact	Yes	None Detected	Typical Interior Walls/Ceilings	NA
1218-1-1	Plaster/Rough Coat/Cream	Intact	Yes	None Detected	Typical Interior Walls/Ceilings	NA
1218-1-2	Plaster/Skim Coat/White	Intact	Yes	None Detected	Typical Interior Walls/Ceilings	NA
1218-1-2	Plaster/Rough Coat/Gray	Intact	Yes	None Detected	Typical Interior Walls/Ceilings	NA
1218-1-3	Plaster/Skim Coat/White	Intact	Yes	None Detected	Typical Interior Walls/Ceilings	NA
1218-1-3	Plaster/Rough Coat/Gray	Intact	Yes	None Detected	Typical Interior Walls/Ceilings	NA
1218-2-1	Duct Mastic/White	Intact	No	None Detected	Typical Interior HVAC	NA
1218-2-2	Duct Mastic/White	Intact	No	None Detected	Typical Interior HVAC	NA
1218-2-3	Duct Mastic/White	Intact	No	None Detected	Typical Interior HVAC	NA
1218-3-1	Asphalt Shingle/Beige	Intact	No	None Detected	Typical Exterior Roof	NA
1218-3-1	Tar/Black	Intact	No	None Detected	Typical Exterior Roof	NA

### **Bulk Collection and Sample Analysis Results**

<i>Sample Number</i>	<i>Description</i>	<i>Condition</i>	<i>Friable</i>	<i>Asbestos Percent and Type</i>	<i>Location/ Amount</i>	<i>NESHAP Category</i>
1218-3-2	Asphalt Shingle/Black	Intact	No	None Detected	Typical Exterior Roof	NA
1218-3-2	Tar/Black	Intact	No	None Detected	Typical Exterior Roof	NA

## **VI. ASBESTOS RECOMMENDATIONS**

***Asbestos NESHAP regulations must be followed for demolitions and/or renovations of facilities with at least 260 linear feet of regulated asbestos-containing materials (RACM) on pipes, 160 square feet of regulated asbestos-containing materials on other facility components, or at least 35 cubic feet of facility components where the amount of RACM previously removed from pipes and other facility components could not be measured before stripping. If dimensions fall below these thresholds, Asbestos NESHAP regulations need not be followed for demolition and/or renovation activities.***

The EPA and NESHAP recommend that a point-counting procedure be utilized for confirmation of asbestos percentage in friable materials that are visually estimated by PLM methodology to contain less than 10% asbestos. The 400 Point Count Procedure referenced in EPA 600/M4-82-020 (1987) and EPA 600/R-93/116 (1993) is commonly employed. Without the material being point counted or if point counting determined that material contains greater than one percent asbestos, it would be deemed an asbestos containing material and would need to be removed by a Florida licensed asbestos contractor prior to disturbance.

Disturbances to Asbestos Containing Materials:

- Should be performed by a Florida Licensed Asbestos Abatement Contractor
- U.S. Occupational Safety and Health Administration (OSHA) regulations apply to the disturbance of material; containing any percentage of asbestos fibers as outlined in 29 CFR 1926.1101-OSHA's Asbestos Standard for the Construction Industry. The contractor will need to comply with the specific training, duties and responsibilities outlined in this CFR.
- OSHA 29 CFR 1910.1001. OSHA 29 CFR 1910.1001 requires the communication of information concerning asbestos hazards. Employees engaged in work activities with installed ACM may be exposed to asbestos

fibers. The owner or operator should take the necessary steps to reduce the potential for disturbance.

EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) is applicable to amounts of asbestos that contains at least 260 linear feet on pipes or at least 160 square feet on other facility components, or (ii) At least 35 cubic feet off facility components where the length or area could not be measured previously.

The EPA's National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations and the Florida Department of Environmental Protection (DEP) Asbestos program regulate the removal and disposal of asbestos-containing building materials. The Florida Department of Environmental Protection (DEP) administers an asbestos removal program under Chapter 62-257, Florida Administrative Code. The Asbestos NESHAP has been adopted by reference in section 62-204.800, Florida Administrative Code. The program's intent is to minimize the release of asbestos fibers during activities involving the processing, handling, and disposal of asbestos-containing material.

The regulations of these agencies require the removal of friable asbestos-containing materials prior to extensive renovation or demolition projects, and the removal of non-friable asbestos-containing materials that may be rendered friable in the course of renovation or demolition projects. Only a Florida licensed asbestos contractor using properly trained, certified, and licensed asbestos workers can perform asbestos removal projects in Florida. Air monitoring during and after abatement activities is also recommended to document the fiber levels inside and outside the abatement work area.

The asbestos NESHAP requires that an asbestos trained person be on site i.e. 40 CFR 61.145 (c) (8) states in part "no RACM shall be stripped, removed, or otherwise handled or disturbed at a facility regulated by this section unless at least one on-site representative, such as a foreman or management level person or other authorized person, trained in the provisions of this regulation and the means of complying with them is present."

DEP recommends that this "trained person" be on site when non-friable ACM is present so that developing problems can be caught early and corrected without delay. In addition, the regulations require the owner of the building and/or the operator to notify the applicable DEP District Office or Local Pollution Control Agency before any demolition, or before renovations of buildings that contain a certain threshold amount of asbestos or asbestos containing materials.

Florida requires the submission of a 10-Day Notification for all renovations and demolitions of facilities with at least 260 linear feet of regulated asbestos-containing materials (RACM), 160 square feet of regulated asbestos containing materials on other facility components, or at least 35 cubic feet off facility components. Asbestos waste requires disposal at an approved solid waste disposal facility.

Local agencies may also have specific requirements for demolition/renovation projects involving asbestos-containing building materials.

OSHA 29 CFR 1910.1001 requires the communication of information concerning asbestos hazards. Employees engaged in work activities with installed ACM may be exposed to asbestos fibers. The owner or operator should take the necessary steps to reduce the potential for disturbance.

29 CFR 1926.1101- OSHA's Asbestos Standard for the Construction Industry does apply to the abatement, renovation and/or demolition of all buildings identified with asbestos containing material. The contractor will need to comply with the specific training, duties and responsibilities outlined in this CFR.

If asbestos containing materials identified within, or on, the property will be disturbed or otherwise caused to become friable within the scope of the renovation, they should be removed from the structures prior to the maneuvers taking place according to applicable regulations.

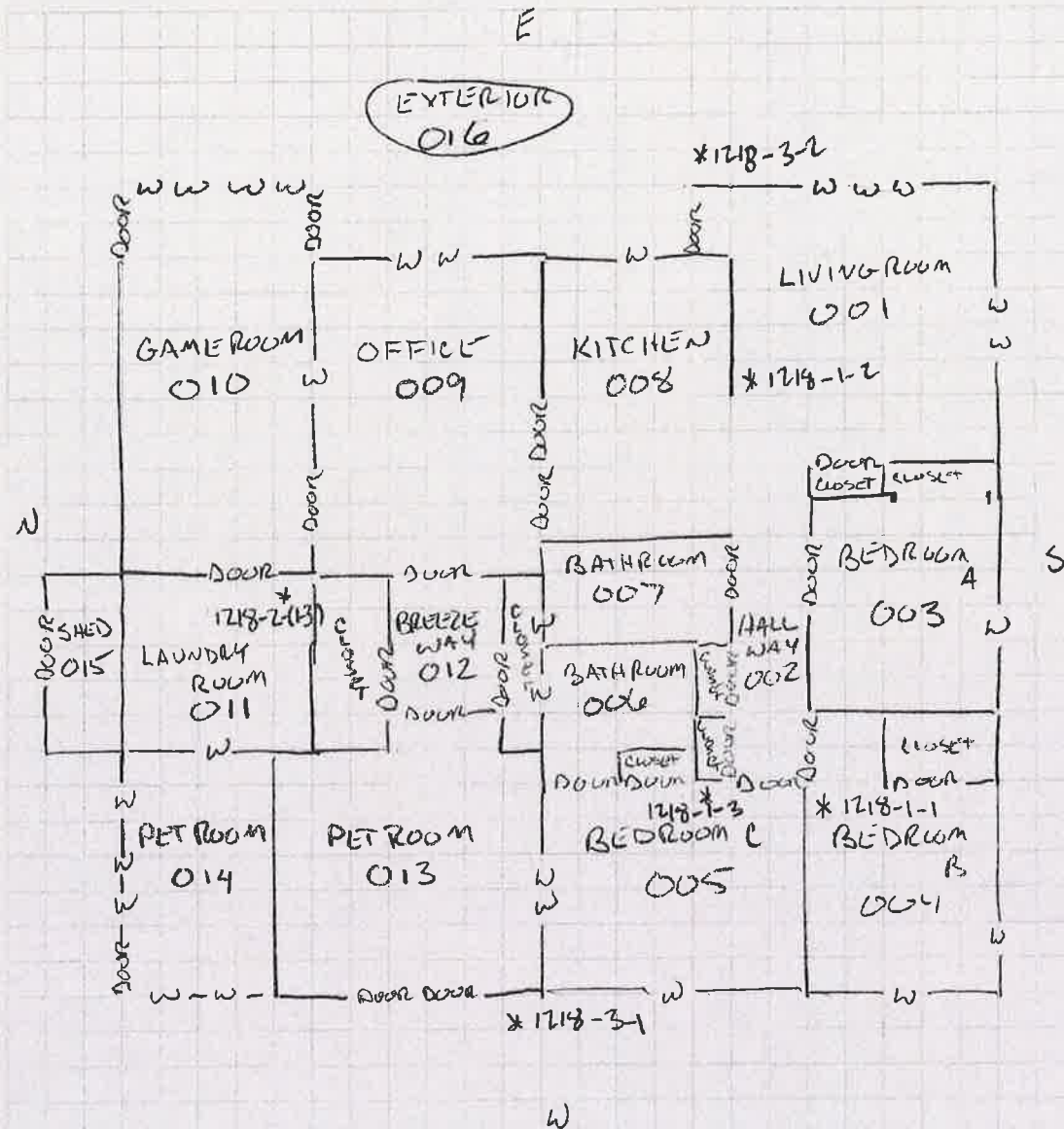
No other recommendations regarding asbestos containing materials are required at this time. In the event concealed building materials are discovered during future renovation or demolition activities, which are suspected to contain asbestos, the materials should be sampled and analyzed to confirm the presence of asbestos prior to the disturbing such materials.

### VII. SURVEY FORMS



DK Environmental & Construction Services, Inc.  
8786 Sonoma Coast Drive, Winter Garden, FL 34787  
407-614-4572 814-243-1927  
dkenvironmental@yahoo.com

### SITE PLAN



Case # 11291143

Address 1218 NE 46<sup>th</sup> Ct  
Ocala, FL 34470



### VIII. SITE PHOTOGRAPHS



1218-1  
Plaster  
Typical Interior Walls/Ceilings



1218-2  
Duct Mastic  
Typical Interior HVAC



1218-3  
Asphalt Shingle/Tar  
Typical Exterior Roof

IX. LICENSING



## X. GLOSSARY

**Active waste disposal site:** any disposal site other than an inactive site.

**Adequately wet:** sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

**Asbestos:** the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite.

**Asbestos-containing waste materials:** mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.

**Asbestos mill:** any facility engaged in converting, or in any intermediate step in converting, asbestos ore into commercial asbestos. Outside storage of asbestos material is not considered a part of the asbestos mill.

**Asbestos tailings:** any solid waste that contains asbestos and is a product of asbestos mining or milling operations.

**Asbestos waste from control devices:** any waste material that contains asbestos and is collected by a pollution control device.

**Category I nonfriable asbestos-containing material (ACM):** asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy.

**Category II nonfriable ACM:** any material, excluding Category I nonfriable ACM, containing more than 1 percent asbestos as determined using the methods specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

**Commercial asbestos:** any material containing asbestos that is extracted from ore and has value because of its asbestos content.

**Cutting:** to penetrate with a sharp-edged instrument and includes sawing, but

does not include shearing, slicing, or punching.

**Demolition:** the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

**Emergency renovation operation:** a renovation operation that was not planned but results from a sudden, unexpected event that, if not immediately attended to, presents a safety or public health hazard, is necessary to protect equipment from damage, or is necessary to avoid imposing an unreasonable financial burden. This term includes operations necessitated by nonroutine failures of equipment.

**Fabricating:** any processing (e.g., cutting, sawing, drilling) of a manufactured product that contains commercial asbestos, with the exception of processing at temporary sites (field fabricating) for the construction or restoration of facilities. In the case of friction products, fabricating includes bonding, debonding, grinding, sawing, drilling, or other similar operations performed as part of fabricating.

**Facility:** any institutional, commercial, public, industrial, or residential structure, installation, or building (including any structure, installation, or building containing condominiums or individual dwelling units operated as a residential cooperative, but excluding residential buildings having four or fewer dwelling units); any ship; and any active or inactive waste disposal site. For purposes of this definition, any building, structure, or installation that contains a loft used as a dwelling is not considered a residential structure, installation, or building. Any structure, installation or building that was previously subject to this subpart is not excluded, regardless of its current use or function.

**Facility component:** any part of a facility including equipment.

**Friable asbestos material:** any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

**Fugitive source:** any source of emissions not controlled by an air pollution control device.

**Glove bag:** a sealed compartment with attached inner gloves used for the handling of asbestos-containing materials. Properly installed and used, glove bags provide a small work area enclosure typically used for small-scale asbestos stripping operations. Information on glove-bag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health

Administration's (OSHA's) final rule on occupational exposure to asbestos (appendix G to 29 CFR 1926.58).

**Grinding:** to reduce to powder or small fragments and includes mechanical chipping or drilling.

**In poor condition:** the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.

**Inactive waste disposal site:** any disposal site or portion of it where additional asbestos-containing waste material has not been deposited within the past year. Installation means any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of the same owner or operator (or owner or operator under common control).

**Leak-tight:** solids or liquids cannot escape or spill out. It also means dust-tight.

**Malfunction:** any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner so that emissions of asbestos are increased. Failures of equipment shall not be considered malfunctions if they are caused in any way by poor maintenance, careless operation, or any other preventable upset conditions, equipment breakdown, or process failure.

**Manufacturing:** the combining of commercial asbestos-or, in the case of woven friction products, the combining of textiles containing commercial asbestos-with any other material(s), including commercial asbestos, and the processing of this combination into a product. Chlorine production is considered a part of manufacturing.

**Natural barrier:** a natural object that effectively precludes or deters access. Natural barriers include physical obstacles such as cliffs, lakes or other large bodies of water, deep and wide ravines, and mountains. Remoteness by itself is not a natural barrier.

**Nonfriable asbestos-containing material:** any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

**Nonscheduled renovation operation:** a renovation operation necessitated by the routine failure of equipment, which is expected to occur within a given period based on past operating experience, but for which an exact date cannot be predicted.

**Outside air:** the air outside buildings and structures, including, but not limited to, the air under a bridge or in an open air ferry dock.

**Owner or operator of a demolition or renovation activity:** any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises the demolition or renovation operation, or both.

**Particulate asbestos material:** finely divided particles of asbestos or material containing asbestos.

**Planned renovation operations:** a renovation operation, or a number of such operations, in which some RACM will be removed or stripped within a given period of time and that can be predicted. Individual nonscheduled operations are included if a number of such operations can be predicted to occur during a given period of time based on operating experience.

**Regulated asbestos-containing material (RACM):** (a) Friable asbestos material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

**Remove:** to take out RACM or facility components that contain or are covered with RACM from any facility.

**Renovation:** altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.

**Resilient floor covering:** asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing more than 1 percent asbestos as determined using polarized light microscopy according to the method specified in appendix E, subpart E, 40 CFR part 763, Section 1, Polarized Light Microscopy.

**Roadways:** surfaces on which vehicles travel. This term includes public and private highways, roads, streets, parking areas, and driveways.

**Strip:** to take off RACM from any part of a facility or facility components.

**Structural member:** any load-supporting member of a facility, such as beams and load supporting walls; or any nonload-supporting member, such as ceilings and nonload-supporting walls.

**Visible emissions:** any emissions, which are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material, or from any asbestos milling, manufacturing, or fabricating operation. This does not include condensed, uncombined water vapor.

**Waste generator:** any owner or operator of a source covered by this subpart whose act or process produces asbestos-containing waste material.

**Waste shipment record:** the shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

**Working day:** Monday through Friday and includes holidays that fall on any of the days Monday through Friday.



#23052589

Analysis Report prepared for

# DK Environmental & Construction Services, Inc.

8786 Sonoma Coast Drive  
Winter Garden, FL 34787

Phone: (814) 243-1927

1218 NE 46th CT  
Ocala, FL 34470

Collected: November 29, 2023  
Received: December 4, 2023  
Reported: December 5, 2023



EPA Laboratory ID: VA01419

We would like to thank you for trusting Hayes Microbial for your analytical needs!  
We received 8 samples by US Mail in good condition for this project on December 4th, 2023.

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. Information supplied by the customer can affect the validity of results. These results apply only to the samples as received. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC.

All information provided to Hayes Microbial is confidential information relating to our customers and their clients. We will not disclose, copy, or distribute any information verbally or written, except to those designated by the customer(s). We take confidentiality very seriously. No changes to the distribution list will be made without the express consent of the customer.

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial. In no event, shall Hayes Microbial or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of the use of these test results.

Steve Hayes, BSMT (ASCP)  
Laboratory Director  
Hayes Microbial Consulting, LLC.



Lab ID: #188863



DPH License: #PH-0198



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#23052589

**Asbestos PLM Bulk**  
 EPA 600/R-93/116; EPA 40 CFR Appendix E to Subpart E of Part 763

Inhibit D - Lead-Based Paint Inspection Report

#	Sample	Material Description	Non-Fibrous	Non-Asbestos Fibers	Asbestos Fibers
1	1218-1-1 - Plaster / Walls Ceiling / Typ Interior	Homogenous / Skim Coat / White	100%		None Detected
2	1218-1-2 - Plaster / Walls Ceiling / Typ Interior	Heterogenous / Rough Coat / Cream	100%		None Detected
3	1218-1-3 - Plaster / Walls Ceiling / Typ Interior	Homogenous / Skim Coat / White	100%		None Detected
4	1218-2-1 - Duct Mastic / Interior	Heterogenous / Rough Coat / Gray	100%		None Detected
5	1218-2-2 - Duct Mastic / Interior	Homogenous / Mastic / White	97%	3% Cellulose Fibers	None Detected
6	1218-2-3 - Duct Mastic / Interior	Homogenous / Mastic / White	97%	3% Cellulose Fibers	None Detected
7	1218-3-1 - Roof Shingle / Tar / Typ Exterior	Homogenous / Shingle / Beige	95%	5% Fiberglass	None Detected
8	1218-3-2 - Roof Shingle / Tar / Typ Exterior	Homogenous / Tar / Black	100%		None Detected
		Homogenous / Shingle / Black	95%	5% Fiberglass	None Detected
		Homogenous / Tar / Black	100%		None Detected

D. 49

Contract# CDS/240559A

Collected: Nov 29, 2023

Received: Dec 4, 2023

Reported: Dec 5, 2023

Project Analyst:  
 Brian Keith, 

Reviewed By:

  
 David McDonald, PHR

Date:  
 12 - 04 - 2023

Date:  
 12 - 05 - 2023



3005 East Boundary Terrace, Suite F. Midlothian, VA. 23112 (804) 562-3435 contact@hayesmicrobial.com

**Asbestos Analysis Information**

Exhibit D - Lead-Based Paint Inspection Report

<b>Analysis Details</b>	All samples were received in acceptable condition unless otherwise noted on the report. This report must not be used by the client to claim product certification, approval, or endorsement by AIHA, NIST, NVLAP, NY ELAP, or any agency. The results relate only to the items tested. Hayes Microbial Consulting reserves the right to dispose of all samples after a period of 60 days in compliance with state and federal guidelines.
<b>PLM Analysis</b>	All Polarized Light Microscopy (PLM) results include an inherent uncertainty of measurement associated with estimating percentages by PLM. Materials with interfering matrix, low asbestos content, or small fiber size may require additional analysis via TEM Analysis.
<b>TEM Analysis</b>	Analysis by TEM is capable of providing positive identification of asbestos type(s) and semi-quantitation of asbestos content.
<b>Definitions</b>	'None Detected' - Below the detected reporting limit of 1% unless point counting is performed, then the detected reporting limit is .25%.
<b>New York ELAP</b>	Per NY ELAP198.6 (NOB), TEM is the only reliable method to declare an NOB material as Non-Asbestos Containing.  Any NY ELAP samples that are subcontracted to another laboratory will display the name and ELAP Lab Identification number in the report page heading of those samples. The original report provided to Hayes Microbial Consulting is available upon request.



