



Environmental, Health and Safety Solutions.™



03/26/22

Dewberry c/o NCORR  
1545 Peachtree Street NE, Suite 250  
Atlanta, Georgia 30309

Re: Lead Risk Assessment  
228 US HWY 17 N, Windsor, NC 28438  
EI Project No: IHMO210289.00

**Project Site Address:** 228 US HWY 17 N, Windsor, NC 28438

**NCORR APP ID:** APP-03009, INSP-0009629

**Inspection Date:** 02/21/2022

**Scope of Work:** Lead Risk Assessment

**Lead-Based Paint Inspection:** Lead-Based Paint Found

**Deteriorated Lead-Based Paint:** Yes

**Lead Containing Materials:** Yes

**Lead Dust Hazards:** Yes

**Lead Soil Hazards:** None Found

**Recommendations:** Recommendations for lead-based paint hazards: see Table 6

**Inspector:** Chris Ciappina, North Carolina Risk Assessor #120303

Larry Rockefeller, CIH, CSP  
Director, Industrial Hygiene Services

Tom Majkowksi, NC Risk Assessor #120166  
Director, Quality Control

## 1. Findings:

Table 1: Lead-Based Paint<sup>1</sup>

Room	Side	Component <sup>2</sup>	Substrate	Condition	Color
Bathroom 2	B	Tub	Ceramic	Intact	White

Note(s):

1. Positive results indicate lead in quantities equal to or greater than 1.0 mg/cm<sup>2</sup> and are considered lead-based paint.
2. Samples are taken to represent component types; therefore, it should be assumed that similar component types in the rest of that room or room equivalent also contain lead-based paint.

Table 2: Deteriorated Lead-Based Paint<sup>1</sup>

Room	Side	Component <sup>2</sup>	Substrate	Condition	Color
None Found	N/A	N/A	N/A	N/A	N/A

Note(s):

1. Surfaces in deteriorated condition are considered to be lead-based paint hazards as defined by Title X and should be addressed through abatement or interim controls which are described in Table 6.

Table 3: Lead Containing Materials<sup>2</sup>

Room	Side	Component <sup>2</sup>	Substrate	Condition	Color
Bathroom 2	B	Tub	Ceramic	Intact	White

Note(s):

2. Although not considered to be lead-based paint, these materials when disturbed through destructive measures such as sanding, chipping, grinding, and other sources of friction, can create dust hazards and should be treated through control described in Table 6.

**Table 4: Dust Wipe Sample Analysis**

Sample #	Location	Surface Type	Concentration (ug/ft <sup>2</sup> )	Lead Hazard <sup>1</sup>
DW1	Kitchen	Windowsill	<20.0	No
DW2	Kitchen	Floor	<5.00	No
DW3	Bathroom	Windowsill	63.7	Yes
DW4	Bathroom	Floor	<5.00	No
DW5	Bathroom	Windowsill	<20.0	No
DW6	Bathroom	Floor	<5.00	No
DW7	Bedroom	Windowsill	30.7	Yes
DW8	Bedroom	Floor	<5.00	No
DW9	Q/C	Blank Wipe	<5.00 µg/wipe	No

Note(s):

1. EPA Lead Dust Hazard for Floors: 10 µg/ft<sup>2</sup>

**Table 5: Soil Sample Analysis**

Sample #	Location	Bare/Covered	Concentration (mg/kg)	Lead Hazard <sup>1</sup>
S-1	Sample	Bare	<9.38	No

Note(s):

1. EPA Lead in Soil Hazard for children's play areas with bare residential soil: 400 mg/Kg; bare soil for the remainder of the yard: 1,200 mg/Kg
-

Table 6: Lead Hazard Control Options<sup>1</sup>

Hazard Type	Location	Description	Control <sup>2-5</sup>
Lead Dust Hazard	Bathroom, Bedroom	Windowsill	Cleaning- Clean surfaces using HEPA filtered vacuum and wet cleaning agents to remove leaded dust
Deteriorated Lead Based Paint			Abatement, Enclosure, Encapsulation or Paint Film Stabilization

Note(s):

1. Lead hazard control options include abatement and interim controls.
  2. Paint film stabilization: Wet scrape and prime building components where chipping or peeling is present following acceptable methods.
  3. Replace: Remove and dispose of components in accordance with applicable federal, state and local regulations. Prime coat any new unpainted wood components.
  4. Enclosure: Enclose lead-based paint coated building components with a material that is structurally affixed and deemed to last 20 years.
  5. General Cleaning-Clean using HEPA filtered vacuum and wet wipe impacted surfaces to remove paint chips and lead-dust hazards.
- 

## 2. Limitations:

- No limitations were encountered during the course of this survey
- Exterior windows were inaccessible due to storm window coverings
- No soil was observed along the dripline, therefore no soil sample was collected

## 3. Lead Hazard Control Activities:

All lead abatement activities must be performed in strict compliance with the Department of Housing and Urban Development (HUD) 24 CFR Part 35, and the Environmental Protection Agency (EPA) 40 CFR Part 745 Subpart L.

All contractor's personnel who will disturb lead-based paint during the course of their work on this residence should be informed of the potential danger posed by lead-based paint and should be directed to comply with all applicable federal, state, and local lead abatement regulations.

Table 6 lists each lead hazard identified, along with control options. Highest priority should be given to correcting lead hazards with greater probability of being contacted by children six years of age and under, women who are or may become pregnant, and residents of the home. These include, but are not limited to, deteriorated lead-based paint inside the residence on friction and impact surfaces (windows and doors), other surfaces (i.e. walls or trims) at a height of six feet and below, lead dust hazards, deteriorated lead-based paint on exterior friction and impact surfaces (windows and doors), and lead soil hazards in children's play areas.

If paint condition is intact, no treatment is required at this time. However, ongoing monitoring and maintenance of painted surfaces containing lead-based paint must be performed on a routine basis as paint conditions may deteriorate potentially creating a lead dust hazard. Painted surfaces should be inspected annually and repainted as needed before deterioration occurs. Prior to any scraping or sanding, appropriate measures should be taken to prevent the generation or spreading of paint chips or dust.

#### **4. HUD Notification:**

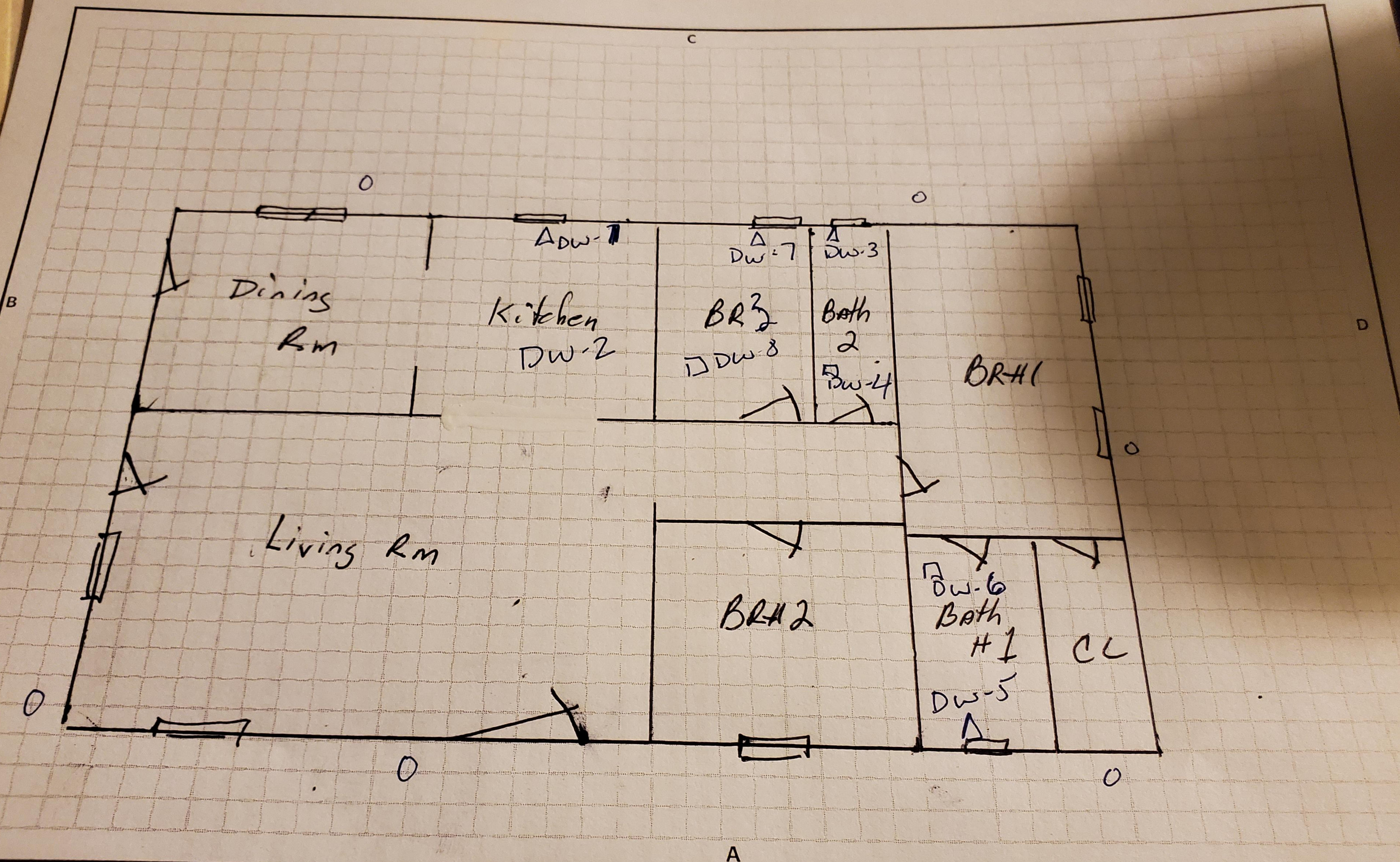
A copy of this summary must be provided to new lessees (tenants) and purchasers of this property under Federal Law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and be made available to new 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 necessary to protect their children from lead-based paint hazards.

#### **3. Lead Hazard Control Activities:**

- **Floor Plan/Diagram**
- **Risk Assessment Forms**
- **XRF Data Sheets/Photo Log**
- **Lab Results/Chain of Custody**
- **Methodology**
- **Lead Hazard Control Options**
- **Definitions**
- **Lead Based Paint Activity Summary (LBPAS)**
- **XRF Analyzer Performance Characteristics Sheet**
- **Certifications and Licensure**

## **ATTACHMENTS**

## **FLOOR PLAN/DIAGRAM**



APP# 03009

228 US Hwy 17N

Windsor, NC

- Site Drawing

D Door  
W Window  
△ Pb Window  
□ Pb Floor  
○ Pb Soil

## **RISK ASSESSMENT FORMS**

**Form 5.0 Questionnaire for a Lead Hazard Risk Assessment of an Individual Occupied Dwelling Unit.**

(To be completed by risk assessor via interview with owner-occupant or, if a rental unit, an adult resident and, for questions 15 & 16, the owner.)

Property address: 228 US 17A, W/nd NC

Apt. No.: \_\_\_\_\_ Unit is: Owner occupied  Renter occupied \_\_\_\_\_  
 Year of construction: 1970 Prior LBP testing? (Y or N) N Owner interview date: 2/26/22  
 Name of owner interviewed: Kerry Maemon Interview date: / /  
 Name of resident interviewed (if rental unit):  
 Name of risk assessor: Chris Wagner

**Children and Children's Habits**

1. Do any children under age 6 live in the home or visit frequently?  Yes  No (If no children under age 6, skip to Question 5.)
2. If yes, how many? 1
3. Please provide the following information about each child under 6 to the extent you can.

	Child 1	Child 2	Child 3	Child 4
(a) Age:	<u>5</u>			
(b) Blood lead level:				
(c) Month/year of blood lead test:				
(d) Location of bedroom:	<u>BR #3</u>			
(e) Main room where child eats:	<u>Kitchen</u>			
(f) Main room where child plays:	<u>Everywhere</u>			
(g) Main room where toys are stored:	<u>All over</u>			
(h) Main locations where child plays outdoors:	<u>Front yard</u>			

*(If a resident child under age 6 has had an elevated blood lead level, an environmental investigation may be necessary [see Chapter 16 of the HUD Guidelines].)*

4. (a) Do any children tend to chew on any painted surfaces, such as interior window sills?
 

Yes  No
- (b) If yes, where? \_\_\_\_\_

Form 5.0 Questionnaire for a Lead Hazard Risk Assessment of an Individual Occupied Dwelling Unit.

(Page 2 of 2)

Property address: 228 US Hwy 17 & W. A Street Apt. No. \_\_\_\_\_

**Other Household Information and Family Use Patterns**

5. Do women of child-bearing age live in the home?  Yes  No  
6. If this home is in a building with other dwelling units, what common areas in the building are used by children?

PLA

7. (a) Which entrance is used most frequently?  
Side Door  
(b) What other entrances are used frequently?  
Front door

8. Which windows are opened most frequently?  
Kitchen + Bed Room + Bath room - (Summer time)

9. (a) Do you use window air conditioners? \*  Yes  No (b) If yes, where?

\*Condensation underneath window air conditioners often causes paint deterioration.

10. (a) Do you or any other household members garden?  Yes  No  
(b) If yes, where is the garden?

11. (a) Are you planning any landscaping activities that will remove grass or ground covering?  Yes  No  
(b) If yes, where?

12. (a) Which areas of the home get cleaned regularly?

Whole house

- (b) Which areas of the home do not get cleaned regularly?

Others

13. (a) Are any household members exposed to lead at work?  Yes  No  
[If no, go to question 14.]  
(b) If yes, are dirty work clothes brought home?  Yes  No  
(c) If they are brought home, who handles are dirty work clothes and where they placed and cleaned?

14. (a) Do you have pets?  Yes  No  
(b) If yes, do these pets go outdoors?

**Building Renovations**

15. (a) Were any building renovations or repainting done here during the past year?  Yes  No  
(b) If yes, what work was done, and when?  
  
(c) Were carpets, furniture and/or family belongings present in the work areas?  Yes  No  
(d) If yes, which items and where were they?  
  
(e) Was construction debris stored in the yard?  Yes  No  
(f) If yes, please describe what, where and how was it stored.

- (a) Are you conducting or planning any building renovations?  Yes  No  
(b) If yes, what work will be done, and when?

## Form 5.1 Building Condition Form for Lead Hazard Risk Assessment.

Property address: 222 US Hwy 17N, Wadsworth, NC  
 Name of property owner: Larry Harmon  
 Name of risk assessor: Chris Gaffin  
 Apt. No. \_\_\_\_\_  
 Date of assessment: 2/26/22

Condition	Yes	No	Comments
Roof missing parts of surfaces (tiles, boards, shingles, etc.)	✓		
Roof has holes or large cracks	✓		
Gutters or downspouts broken	✓		
Chimney masonry cracked, bricks loose or missing, obviously out of plumb	✓		
Exterior or interior walls have obvious large cracks or holes, requiring more than routine pointing (if masonry) or painting	✓		
Exterior siding has missing boards or shingles	✓		<i>3 stains on ceiling, 2 + 3, And living room</i>
Water stains on interior walls or ceilings	✓		
Walls or ceilings deteriorated	✓		
More than "very small" amount of paint in a room deteriorated	✓		
Two or more windows or doors broken, missing, or boarded up	✓		
Porch or steps have major elements broken, missing, or boarded up	✓		
Foundation has major cracks, missing material, structure leans, or visibly unsound	✓		
* Total number	4		

The "very small" amount is the *de minimis* amount under the HUD Lead Safe Housing Rule (24 CFR 5.1350(d)), or the amount of paint that is not "paint in poor condition" under the EPA lead training and certification ("402") rule (40 CFR 745.223).

If the "Yes" column has any checks, the dwelling is usually considered not to be in good condition for the purposes of a risk assessment, and conducting a lead hazard screen is not advisable. However, specific conditions and extenuating circumstances should be considered before determining the final condition of the dwelling and appropriateness of a lead hazard screen. If the "Yes" column has any checks, and a lead hazard screen is to be performed, describe, below, the extenuating circumstances that justify conducting a lead hazard screen.

(including other conditions of concern):

## **XRF DATA SHEETS & PHOTO LOG**

Reading #	Job	Room	Side	Component	Substrate	Condition	Color	Result	PbC	Units
1	228 Us 13N	Calibration						Positive	1.0	mg/cm2
2	228 Us 13N	Calibration						Positive	1.0	mg/cm2
3	228 Us 13N	Calibration						Positive	1.0	mg/cm2
4	228 Us 13N	Dining Room	A	Wall	Wood	Intact	White	Negative	0.0	mg/cm2
5	228 Us 13N	Dining Room	B	Wall	Wood	Intact	White	Negative	0.0	mg/cm2
6	228 Us 13N	Dining Room	C	Wall	Wood	Intact	White	Negative	0.1	mg/cm2
7	228 Us 13N	Dining Room	D	Wall	Wood	Intact	White	Negative	0.0	mg/cm2
8	228 Us 13N	Dining Room	D	Door Casing	Wood	Intact	Grey	Negative	0.0	mg/cm2
9	228 Us 13N	Dining Room	B	Crown Molding	Wood	Intact	Grey	Negative	0.0	mg/cm2
10	228 Us 13N	Dining Room	C	Baseboard	Wood	Intact	Grey	Negative	0.0	mg/cm2
11	228 Us 13N	Dining Room	nan	Ceiling	Wood	Intact	White	Negative	0.0	mg/cm2
12	228 Us 13N	Dining Room	nan	Floor	Wood	Intact	Brown	Negative	0.1	mg/cm2
13	228 Us 13N	Living Room/Kitchen	A	Wall	Wood	Intact	Brown	Negative	0.0	mg/cm2
14	228 Us 13N	Living Room/Kitchen	A	Door	Wood	Intact	Brown	Negative	0.0	mg/cm2
15	228 Us 13N	Living Room/Kitchen	A	Door Casing	Wood	Intact	Brown	Negative	0.0	mg/cm2
16	228 Us 13N	Living Room/Kitchen	A	Crown Molding	Wood	Intact	Brown	Negative	0.0	mg/cm2
17	228 Us 13N	Living Room/Kitchen	A	Window Sill	Wood	Intact	Brown	Negative	0.1	mg/cm2
18	228 Us 13N	Living Room/Kitchen	A	Window Casing	Wood	Intact	Brown	Negative	0.0	mg/cm2
19	228 Us 13N	Living Room/Kitchen	D	Wall	Wood	Intact	Brown	Negative	0.0	mg/cm2
20	228 Us 13N	Living Room/Kitchen	B	Wall	Wood	Intact	White	Negative	0.0	mg/cm2
21	228 Us 13N	Living Room/Kitchen	C	Wall	Wood	Intact	White	Negative	0.0	mg/cm2
22	228 Us 13N	Living Room/Kitchen	C	Window Sill	Wood	Intact	Brown	Negative	0.0	mg/cm2
23	228 Us 13N	Living Room/Kitchen	C	Window Casing	Wood	Intact	Brown	Negative	0.0	mg/cm2
24	228 Us 13N	Living Room/Kitchen	D	Cabinets Door	Wood	Intact	Brown	Negative	0.0	mg/cm2
25	228 Us 13N	Living Room/Kitchen	D	Cabinets Frame	Wood	Intact	Brown	Negative	0.0	mg/cm2
26	228 Us 13N	Bedroom 2	A	Wall	Wood	Intact	Beige	Negative	0.1	mg/cm2
27	228 Us 13N	Bedroom 2	B	Wall	Wood	Intact	Beige	Negative	0.0	mg/cm2
28	228 Us 13N	Bedroom 2	C	Wall	Wood	Intact	Beige	Negative	0.0	mg/cm2
29	228 Us 13N	Bedroom 2	D	Wall	Wood	Intact	Beige	Negative	0.0	mg/cm2
30	228 Us 13N	Bedroom 2	C	Door Casing	Wood	Intact	Brown	Negative	0.1	mg/cm2
31	228 Us 13N	Bedroom 2	C	Door	Wood	Intact	Brown	Negative	0.0	mg/cm2
32	228 Us 13N	House	A	Door	Metal	Intact	Brown	Negative	0.1	mg/cm2
33	228 Us 13N	House	A	Door Casing	Metal	Intact	Brown	Negative	0.3	mg/cm2
34	228 Us 13N	House	A	Wall	Brick	Intact	Beige	Negative	0.0	mg/cm2
35	228 Us 13N	House	A	Soffit	Wood	Intact	White	Negative	0.5	mg/cm2
36	228 Us 13N	House	A	Fascia	Wood	Intact	Brown	Negative	0.0	mg/cm2
37	228 Us 13N	House	A	Window Sill	Metal	Intact	White	Negative	0.2	mg/cm2
38	228 Us 13N	House	A	Window Casing	Metal	Intact	White	Negative	0.2	mg/cm2
39	228 Us 13N	House	A	Window Shutter	Wood	Intact	Brown	Negative	0.0	mg/cm2
40	228 Us 13N	House	B	Window Sill	Metal	Intact	White	Negative	0.2	mg/cm2
41	228 Us 13N	House	B	Window Casing	Metal	Intact	White	Negative	0.1	mg/cm2
42	228 Us 13N	House	B	Wall	Brick	Intact	Beige	Negative	0.2	mg/cm2
43	228 Us 13N	House	B	Wall	Brick	Intact	Red	Negative	0.2	mg/cm2
44	228 Us 13N	House	B	Railing	Metal	Intact	Brown	Negative	0.0	mg/cm2
45	228 Us 13N	House	B	Door Casing	Wood	Intact	Brown	Negative	0.1	mg/cm2
46	228 Us 13N	House	B	Door Step	Wood	Intact	Brown	Negative	0.0	mg/cm2
47	228 Us 13N	House	A	Door	Wood	Intact	Brown	Negative	0.0	mg/cm2
48	228 Us 13N	House	C	Wall	Brick	Intact	Beige	Negative	0.1	mg/cm2
49	228 Us 13N	House	C	Door Casing	Wood	Intact	Brown	Negative	0.0	mg/cm2
50	228 Us 13N	House	C	Window Sill	Metal	Intact	White	Negative	0.1	mg/cm2
51	228 Us 13N	House	C	Window Casing	Metal	Intact	White	Negative	0.2	mg/cm2
52	228 Us 13N	House	D	Window Casing	Metal	Intact	White	Negative	0.2	mg/cm2
53	228 Us 13N	House	D	Window Sill	Metal	Intact	White	Negative	0.1	mg/cm2
54	228 Us 13N	House	D	Wall	Brick	Intact	Beige	Negative	0.1	mg/cm2
55	228 Us 13N	Bedroom 2	A	Window Sill	Wood	Intact	Brown	Negative	0.0	mg/cm2
56	228 Us 13N	Bedroom 3	A	Wall	Wood	Intact	Beige	Negative	0.0	mg/cm2
57	228 Us 13N	Bedroom 3	B	Wall	Wood	Intact	Beige	Negative	0.0	mg/cm2
58	228 Us 13N	Bedroom 3	C	Wall	Wood	Intact	Beige	Negative	0.1	mg/cm2
59	228 Us 13N	Bedroom 3	D	Wall	Wood	Intact	Beige	Negative	0.0	mg/cm2
60	228 Us 13N	Bedroom 3	A	Door	Wood	Intact	Brown	Negative	0.1	mg/cm2
61	228 Us 13N	Bedroom 3	A	Door Casing	Wood	Intact	Brown	Negative	0.0	mg/cm2
62	228 Us 13N	Bedroom 3	C	Window Sill	Wood	Intact	Brown	Negative	0.0	mg/cm2
63	228 Us 13N	Bedroom 3	C	Window Casing	Wood	Intact	Brown	Negative	0.0	mg/cm2
64	228 Us 13N	Bedroom 1	A	Wall	Wood	Intact	White	Negative	0.1	mg/cm2
65	228 Us 13N	Bedroom 1	B	Wall	Wood	Intact	White	Negative	0.0	mg/cm2
66	228 Us 13N	Bedroom 1	C	Wall	Wood	Intact	White	Negative	0.1	mg/cm2
67	228 Us 13N	Bedroom 1	D	Wall	Wood	Intact	White	Negative	0.1	mg/cm2
68	228 Us 13N	Bedroom 1	B	Door	Wood	Intact	Brown	Negative	0.1	mg/cm2
69	228 Us 13N	Bedroom 1	B	Door Casing	Wood	Intact	White	Negative	0.0	mg/cm2
70	228 Us 13N	Bedroom 1	D	Window Sill	Wood	Intact	White	Negative	0.1	mg/cm2
71	228 Us 13N	Bedroom 1	D	Window Casing	Wood	Intact	White	Negative	0.0	mg/cm2
72	228 Us 13N	1/2 Bathroom	A	Wall	Wood	Intact	White	Negative	0.2	mg/cm2
73	228 Us 13N	1/2 Bathroom	B	Wall	Wood	Intact	White	Negative	0.0	mg/cm2
74	228 Us 13N	1/2 Bathroom	C	Wall	Wood	Intact	White	Negative	0.1	mg/cm2
75	228 Us 13N	1/2 Bathroom	D	Wall	Wood	Intact	White	Negative	0.0	mg/cm2
76	228 Us 13N	1/2 Bathroom	A	Door	Wood	Intact	White	Negative	0.0	mg/cm2
77	228 Us 13N	1/2 Bathroom	A	Door Casing	Wood	Intact	White	Negative	0.0	mg/cm2
78	228 Us 13N	1/2 Bathroom	D	Crown Molding	Wood	Intact	White	Negative	0.0	mg/cm2
79	228 Us 13N	1/2 Bathroom	C	Window Sill	Wood	Intact	White	Negative	0.0	mg/cm2
80	228 Us 13N	1/2 Bathroom	C	Baseboard	Wood	Intact	White	Negative	0.0	mg/cm2
81	228 Us 13N	Bathroom 2	A	Wall	Wood	Intact	White	Negative	0.1	mg/cm2
82	228 Us 13N	Bathroom 2	B	Wall	Wood	Intact	White	Negative	0.0	mg/cm2
83	228 Us 13N	Bathroom 2	C	Wall	Wood	Intact	White	Negative	0.1	mg/cm2
84	228 Us 13N	Bathroom 2	D	Wall	Wood	Intact	White	Negative	0.1	mg/cm2
85	228 Us 13N	Bathroom 2	D	Wall	Ceramic	Intact	Blue	Negative	0.0	mg/cm2
86	228 Us 13N	Bathroom 2	C	Wall	Ceramic	Intact	Blue	Negative	0.1	mg/cm2
87	228 Us 13N	Bathroom 2	D	Wall	Ceramic	Intact	Blue	Negative	0.0	mg/cm2
88	228 Us 13N	Bathroom 2	A	Wall	Ceramic	Intact	Blue	Negative	0.0	mg/cm2
89	228 Us 13N	Bathroom 2	A	Door	Wood	Intact	Brown	Negative	0.0	mg/cm2
90	228 Us 13N	Bathroom 2	A	Door Casing	Wood	Intact	Brown	Negative	0.0	mg/cm2
91	228 Us 13N	Bathroom 2	C	Window Sill	Wood	Intact	Brown	Negative	0.0	mg/cm2
92	228 Us 13N	Bathroom 2	B	Tub	Ceramic	Intact	White	Positive	29.0	mg/cm2
93	228 Us 13N	Calibration						Positive	1.2	mg/cm2
94	228 Us 13N	Calibration						Positive	1.2	mg/cm2
95	228 Us 13N	Calibration						Positive	1.2	mg/cm2



Elevation A



Elevation B



Elevation C



Elevation D



Reading 93



Reading 94



Reading 95



Reading 96



Reading 97



Reading 98

## **LAB RESULTS**



## Analysis Report

**Schneider Laboratories Global, Inc**

2512 W. Cary Street • Richmond, Virginia • 23220-5117  
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

**Customer Address** The EI Group, Inc. (NC) (5126)  
2101 Gateway Centre Blvd Suite 200  
Morrisville, NC 27560

**Order #:** 463268

**Matrix** Wipe  
**Received** 03/11/22  
**Analyzed** 03/11/22  
**Reported** 03/14/22

**Project Location Number** Dewberry Rebuild APP #03009  
228 US Hwy 17N Windsor  
IHMO220019.00

Sample ID	Cust. Sample ID	Location	Sample Date	Area	Total	Conc.	RL*
Parameter		Method					
463268-001	DW-1	Kitchen Window Sill	02/26/22				
Lead		EPA 7000B		0.250 ft <sup>2</sup>	<5.00 µg/wipe	<20.0 µg/ft <sup>2</sup>	20.0 µg/ft <sup>2</sup>
463268-002	DW-2	Kitchen Floor	02/26/22				
Lead		EPA 7000B		1.00 ft <sup>2</sup>	<5.00 µg/wipe	<5.00 µg/ft <sup>2</sup>	5.00 µg/ft <sup>2</sup>
463268-003	DW-3	Bath #2 Window Sill	02/26/22				
Lead		EPA 7000B		0.250 ft <sup>2</sup>	15.9 µg/wipe	63.7 µg/ft <sup>2</sup>	20.0 µg/ft <sup>2</sup>
463268-004	DW-4	Bath #2 Floor	02/26/22				
Lead		EPA 7000B		1.00 ft <sup>2</sup>	<5.00 µg/wipe	<5.00 µg/ft <sup>2</sup>	5.00 µg/ft <sup>2</sup>
463268-005	DW-5	Bath #1 Window Sill	02/26/22				
Lead		EPA 7000B		0.250 ft <sup>2</sup>	<5.00 µg/wipe	<20.0 µg/ft <sup>2</sup>	20.0 µg/ft <sup>2</sup>
463268-006	DW-6	Bath #1 Floor	02/26/22				
Lead		EPA 7000B		1.00 ft <sup>2</sup>	<5.00 µg/wipe	<5.00 µg/ft <sup>2</sup>	5.00 µg/ft <sup>2</sup>
463268-007	DW-7	BR #2 Window Sill	02/26/22				
Lead		EPA 7000B		0.250 ft <sup>2</sup>	7.68 µg/wipe	30.7 µg/ft <sup>2</sup>	20.0 µg/ft <sup>2</sup>
463268-008	DW-8	BR #3 Floor	02/26/22				
Lead		EPA 7000B		1.00 ft <sup>2</sup>	<5.00 µg/wipe	<5.00 µg/ft <sup>2</sup>	5.00 µg/ft <sup>2</sup>
463268-009	DW-9	Field Blank	02/26/22				
Lead		EPA 7000B			<5.00 µg/wipe		5.00 µg/wipe

Minimum Total Reporting Limit: 5.0 µg/wipe. All internal QC parameters were met. Unusual sample conditions, if any, are described. Do not reproduce this report except in full. Concentration and \*Reporting Limit (RL) based on areas provided by client. Values are reported to three significant figures. The test results apply to the sample as received. AIHA-LAP, LLC accredited for Lead (Lab ID 100527).



## Analysis Report

**Schneider Laboratories Global, Inc**

2512 W. Cary Street • Richmond, Virginia • 23220-5117  
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

**Customer Address** The EI Group, Inc. (NC) (5126)  
2101 Gateway Centre Blvd Suite 200  
Morrisville, NC 27560

**Order #:** 463268

**Matrix** Wipe  
**Received** 03/11/22  
**Analyzed** 03/11/22  
**Reported** 03/14/22

**Project** Dewberry Rebuild APP #03009  
**Location** 228 US Hwy 17N Windsor  
**Number** IHMO220019.00

Sample ID	Cust. Sample ID	Location	Sample Date	Area	Total	Conc.	RL*
Parameter		Method					

**Analyst MY**  
463268-03/14/22 04:29 PM

Reviewed By **Jennifer Lee**  
Manager

**EPA Lead Clearance**

Location	Level	Unit
Floors	< 10.0	µg/ft <sup>2</sup>
Interior Window Sills	< 100	µg/ft <sup>2</sup>
Window Troughs	< 400	µg/ft <sup>2</sup>

**HUD Lead Clearance**

Location	Level	Unit
Interior Floors	< 10.0	µg/ft <sup>2</sup>
Porch Floors	< 40.0	µg/ft <sup>2</sup>
Interior Window Sills	< 100	µg/ft <sup>2</sup>
Window Troughs	< 100	µg/ft <sup>2</sup>

Minimum Total Reporting Limit: 5.0 µg/wipe. All internal QC parameters were met. Unusual sample conditions, if any, are described. Do not reproduce this report except in full. Concentration and \*Reporting Limit (RL) based on areas provided by client. Values are reported to three significant figures. The test results apply to the sample as received. AIHA-LAP, LLC accredited for Lead (Lab ID 100527).



## Analysis Report

## Schneider Laboratories Global, Inc

2512 W. Cary Street • Richmond, Virginia • 23220-5117  
804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475

**Customer:** The EI Group, Inc. (NC) (5126)  
**Address:** 2101 Gateway Centre Blvd Suite 200  
Morrisville, NC 27560

**Order #:** 463268

**Matrix** Soil  
**Received** 03/11/22  
**Analyzed** 03/14/22  
**Reported** 03/14/22

**PO Number:**

Sample ID	Cust. Sample ID	Location	Sample Date	Weight			
Parameter		Method		Total µg	% / Wt.	Conc.	RL*
463268-010	S-1	Dripline Soil Sample	02/26/22	1070 mg			
Lead		EPA 7000B		<10.0 µg	<0.000938 %	<9.38 mg/kg	9.37 mg/kg

**Analyst: MY**

463268-03/14/22 04:17 PM

Reviewed By: Jennifer Lee

Manager

#### EPA Lead in Residential Soil

Location	Level	Unit
Play Areas	400	mg/kg
Bare Soil Average	1200	mg/kg

Minimum reporting limit: 10.0 µg. EPA does not distinguish between lead-contaminated soil and soil-lead hazards. All internal QC parameters were met. Unusual sample conditions, if any, are described. Do not reproduce this report except in full. Values are reported to three significant figures. PPM = mg/kg | PPB = µg/kg. The test results apply to the sample as received. AIHA-LAP, LLC accredited for Lead (Lab ID 100527).



## SCHNEIDER LABORATORIES GLOBAL, INC.

2512 West Cary Street, Richmond, Virginia 23220-5117  
 804-353-6778 • 800-785-LABS (5227) • Fax 804-359-1475  
[www.slabinc.com](http://www.slabinc.com) • [info@slabinc.com](mailto:info@slabinc.com)

R 19

463268

V1463463268

Job  
UPS  
3/11/2022 10:12:18 AM  
1Z2E2889806 I775040

Submitting Co. 2101 Gateway Centre Blvd. Ste 200	The EI Group, Inc.	State of Collection Acct #	NC	Cert. Required Phone	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO 919-459-5291
Morrisville, NC 27560		Email			
Project Name Project Location Project Number	Dewberry, ReBuild APP# 03009 228 Us Hwy/7W, Windsor IHMO220019.00	PO #			
Collected By	Chris Chappin	Special Instructions:			

Turn Around Time **	Matrix	Tests/Analytes (Select ALL that Apply). Blank spaces are for additional analytes			
<input type="checkbox"/> 2 Hour*	<input type="checkbox"/> Air	Asbestos in Bulk		Metals Total	TCLP
<input type="checkbox"/> Same day*	<input type="checkbox"/> Paint	<input type="checkbox"/> PUM	<input checked="" type="checkbox"/> Lead	<input type="checkbox"/> Lead	<input type="checkbox"/> BACT (MPN/PA)
<input type="checkbox"/> 1 business day	<input checked="" type="checkbox"/> Soil	<input type="checkbox"/> PUM Qualitative	<input type="checkbox"/> RCRA 8 Metals	<input type="checkbox"/> RCRA 8 Metals	<input type="checkbox"/> Mold Direct Exam
<input checked="" type="checkbox"/> 2 business days	<input checked="" type="checkbox"/> Wipe	<input type="checkbox"/> 400 Point Count	<input type="checkbox"/> Chromium VI	<input type="checkbox"/> Full TCLP	<input type="checkbox"/> Allergens
<input type="checkbox"/> 3 business days	<input type="checkbox"/> Bulk	<input type="checkbox"/> 1000 Point Count	<input type="checkbox"/> Mercury	(w/ requires 10 day)	
<input type="checkbox"/> 5 business days	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Gravimetric Prep	<input type="checkbox"/>		
* not available for all tests	<input type="checkbox"/> Ground Water	<input type="checkbox"/> Asbestos in Air	Gravimetric	Miscellaneous	<b>Sub-Contract</b>
** past 3 PM the TAT will begin next business day	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> PCM	<input type="checkbox"/> Total Dust NIOSH 0500	<input type="checkbox"/> Silica FTIR (7602)	<input type="checkbox"/> TEM Chatfield
Please schedule rush tests in advance	<input type="checkbox"/> TSP / PM10	<input type="checkbox"/> PEM-B-Rules	<input type="checkbox"/> Respir. Dust NIOSH 0600	<input type="checkbox"/>	<input type="checkbox"/> TEM AHERR
	<input type="checkbox"/>				<input type="checkbox"/> TEM 7402
					<input type="checkbox"/> Silica XRD (7500)

Sample #	Date Sampled	Time Sampled	Sample Identification (Employee, Bldg, Material, Type*)	Wipe Area	Time <sup>2</sup> Start Stop	Flow Rate <sup>3</sup> Start Stop	Total Air <sup>4</sup>
DW-1	3/16/22	1400	Kitchen - Window S. 11	36 in <sup>2</sup>	N/A N/A	N/A N/A	N/A
DW-2			Kitchen - Floor	144 in <sup>2</sup>			
DW-3			Bath #2 - Window S. 211	36 in <sup>2</sup>			
DW-4			Bath #2 - Floor	144 in <sup>2</sup>			
DW-5			Bath #1 - Window S. 14	36 in <sup>2</sup>			
DW-6			Bath #1 - Floor	144 in <sup>2</sup>			
DW-7			BR #2 - Window S. 14	36 in <sup>2</sup>			
DW-8			Bath #3 - Floor	144 in <sup>2</sup>			
DW-9			Field Blank	N/A			
DW-10			Driveway Soil Sample	N/A			

For Aqueous and Solid samples ensure enough sample is sent for duplicate and spike analysis

\*Type: A=Area, B=Blank, P=Personal, E=Excursion    <sup>2</sup>Beginning/End of Sample Period    <sup>3</sup>Liters/Minute    <sup>4</sup>Volume in Liters [time in min x flow in L/min]Relinquished by: Chris Chappin Signature: CC Date/Time: 2/26/22

! ALL SHADED FIELDS MUST BE FILLED TO AVOID DELAYS !

# METHODOLOGY

## XRF INSPECTION METHODOLOGY

According to HUD/EPA/NCHHCU Guidelines, lead in quantities equal to and greater than 1.0 mg/cm<sup>2</sup> must be present to be considered a lead-based paint. However, detectable lead in quantities less than 1.0 mg/cm<sup>2</sup> may contribute to the development of lead dust hazards even though it is not a lead-based paint hazard according to the HUD/EPA/NCHHCU definition of a lead-based paint.

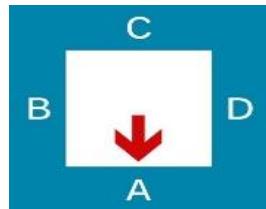
The XRF inspection portion of the risk assessment was accomplished through the measurement of the concentration of lead in paint on any surface determined to have deteriorated paint, be impacted by future renovation activities, and friction surfaces within each room equivalent on both inside the residence and on the exterior surfaces of the residence using an XRF. Determination of paint condition is described below. Only accessible painted and/or varnished surfaces meeting the mentioned criteria were tested using the direct read spectrum analyzer. The inspection was conducted following EPA's work practice standards for conducting lead-based paint activities (40 CFR 745.227), the U.S. Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (Guidelines) with the June 2012 revisions, and all State and local regulations except that a different visible color shall, by itself, result in a separate testing combination for a room equivalent. Samples are taken to represent component types; therefore, it should be assumed that similar component types in the rest of that room or room equivalent also contain lead-based paint. The same is true for negative readings. In addition, all requirements on XRF usage contained in the Performance Characteristics Sheet for the specific XRF being used were followed.

## VIKEN DETECTION PB200I LEAD ANALYZER

The sampling strategy adheres to the EPA Performance Characteristic Sheet for the XRF instrument used, as well as the manufacturer's modifications and recommendations. The XRF used for detection of lead-based paint is the Viken Detection Analyzer. It was manufactured by Viken Detection, headquartered at 21 North Avenue in Burlington, MA, 01803.

Samples may be classified as POS (Positive), NEG (Negative), or NULL (Incomplete). Positive results indicate lead in quantities equal to or greater than 1.0 mg/cm<sup>2</sup> and are considered lead-based paint. Negative results indicate lead in quantities less than 1.0 mg/cm<sup>2</sup> and are not considered lead-based paint. However, detectable lead quantities less than 1.0 mg/cm<sup>2</sup> may lead to the development of lead dust hazards even though it is not a lead-based paint according to the HUD/EPA standard. Incomplete/Null results should be ignored as insufficient data was collected by the XRF during the sample time to determine if the sample is positive or negative (i.e. the instrument slipped or was removed prematurely, terminating the test).

When standing in any four-sided room facing side A, which coincides with the front of the dwelling, side B will be to the right, side C will be to the rear, and side D will be to the left (clockwise from side A).



## RISK ASSESSMENT METHODOLOGY

The lead-based paint risk assessment was performed to determine if the lead-based paint present in the residence presents an immediate hazard. This was accomplished through combining measurements of lead in dust, lead in soil, XRF paint analysis, visual assessment of the residence, assessment of paint condition, and by collecting occupant use information to identify and address lead-based paint hazards.

The risk assessment was performed in accordance with the EPA's work practice standards for conducting lead-based paint activities (40 CFR 745.227), and the U.S. Department of Housing and Urban Development (HUD) Chapter 5, Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (Guidelines) with the 2012 revisions.

## DESCRIPTION OF PAINT CONDITION HAZARD RANKINGS

The paint condition is placed into one of two categories using the risk assessor's professional judgement. These categories are: intact and deteriorated. Based on the approximate surface area of deteriorated paint, the risk assessor then assesses the paint condition as intact or deteriorated.

Hazard ranking protocol was assessed following the HUD Guidelines for Evaluation and Control of Lead-Based Paint Hazards in Housing, dated June 2012. This information is summarized below.

Type of Building Component <sup>1</sup>	Total Area of Deteriorated Paint on Each Component	
	Intact <sup>1</sup>	Deteriorated <sup>2</sup>
Interior/ Exterior building components	Entire surface area is intact	Entire surface area is <b>NOT</b> intact
Interior components with large surface area	Entire surface area is intact	Entire surface area is <b>NOT</b> intact
Interior and exterior components w/ small surface areas	Entire surface area is intact	Entire surface area is <b>NOT</b> intact

---

**Notes:**

1. Indicates each individual building component or side of the building, not the combined surface area of similar components in a room.
2. Indicates surfaces in deteriorated condition are considered to be lead-based paint hazards as defined by Title X and should be addressed through abatement or interim controls which are described in the recommendations in this report.

## **DUST WIPE SAMPLE METHODOLOGY**

Dust wipe samples were collected from single surfaces throughout the residence to identify lead dust hazards. Lead dust hazards can be created from deteriorated lead-based paint on the interior and exterior of the residence, specifically from friction and impact surfaces. Lead dust generated from surfaces on the exterior of the residence can also be tracked inside the residence. These samples were collected from areas where children are most likely to be exposed to dust that may present a lead hazard. Samples from the residence were collected from floors and windowsills/ stools/ troughs throughout the residence.

The EPA has established lead hazard standards for lead in dust under TSCA Section 403 (Residential Lead Hazards). The following level of lead in dust should be considered hazardous and may result in excessive lead exposure and elevated blood lead levels:

10 micrograms per square foot ( $\mu\text{g}/\text{ft}^2$ ) for floors, including carpeted floors  
100  $\mu\text{g}/\text{ft}^2$  for interior windowsills/window stools  
400  $\mu\text{g}/\text{ft}^2$  for interior window troughs (clearance only)

## **SOIL SAMPLE METHODOLOGY**

Soil samples were collected and analyzed to determine the concentration of lead in composite soil samples. The soil samples were collected from areas of bare soil on the property. Each composited soil sample consisted of multiple sub-samples collected over the entire area of bare soil. Soil samples were analyzed by an accredited analytical laboratory and subsequently reported to EI.

The EPA has established lead hazard standards for lead in soil under TSCA Section 403 (Residential Lead Hazards). The following level of lead in soil should be considered hazardous and may result in excessive lead exposure and elevated blood lead levels:

- 400 milligrams per kilogram (mg/Kg) in children's play areas with bare residential soil (e.g., sandboxes, gardens)
- 1,200 mg/Kg (average) in bare soil for the remainder of the yard

## **LABORATORY ANALYSIS**

Samples were shipped to an accredited laboratory via chain of custody protocol. Laboratory analysis of dust wipes samples and soil samples were performed by an EPA NLLAP (National Lead Laboratory Accreditation Program) approved laboratory. Laboratory analysis of the dust wipe samples, and soil samples was performed based on the EPA SW846-7420/ HUD – Flame Atomic Absorption Method.

# LEAD HAZARD CONTROL OPTIONS

Under HUD Guidelines, there are a range of lead hazard control methods that maybe implemented at the property. It is only the responsibility of the Lead-Based Paint Risk Assessor, and The EI Group, Inc. to provide these recommended lead hazard control options. These control measures range from various interim controls (e.g., specialized cleaning, minor wet scraping, and repainting) to abatement measures (e.g., building component replacement, enclosure, and paint removal) that may not, for such reasons as funding limitations, be conducted for some time. EI has endeavored to provide information that will assist the rehabilitating organization and the homeowner in making an informed decision on this complex issue. Ultimately, the rehabilitation program and the homeowner must make the final decision.

## HUD AND EPA DEFINED LEAD HAZARD CONTROL METHODS

**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. (For full EPA definition, see 40 CFR 745.223).

**Cleaning:** The process of using a vacuum and wet cleaning agent(s) to remove leaded dust; the process includes the removal of bulk debris from the work area.

**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.

**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.

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

**High Efficiency Particulate Air (HEPA) filter:** A filter capable of removing particles of 0.3 microns or larger from air at 99.97 percent or greater efficiency.

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

**Interim controls:** A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include, but are not limited to, specialized cleaning, repairs, maintenance, painting, temporary containment, and the establishment and operation of 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. Interim controls that disturb painted surfaces are renovation activities under EPA's Renovation, Repair and Painting Rule.

**Lead-based paint hazard control:** Activities intended to control and eliminate lead-based paint hazards, including but not limited to interim controls and abatement.

**Lead-specific detergent:** A cleaning agent manufactured specifically for cleaning and removing leaded dust or other lead contamination.

**Maintenance:** In the context of lead hazard control, work intended to maintain adequate living or occupancy conditions in target housing or a pre-1978 child-occupied facility; it may have the potential to disturb known or presumed lead-based paint.

**Paint stabilization:** The process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint. Paint stabilization also includes eliminating the cause(s) of paint deterioration, cleanup and clearance.

**Paint removal:** The removal of lead-based paint from surfaces; this may be an abatement strategy, or it may occur as a part of a renovation project.

**Replacement:** A strategy of abatement that involves 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.

**Treatment:** A method designed to control lead-based paint hazards. Treatment includes interim controls, abatement, and removal.

**Trisodium phosphate (TSP) detergent:** A detergent that contains trisodium phosphate. These guidelines do not recommend using TSP.

**Useful life:** The life expectancy of a coating before it requires refinishing or some other form of maintenance.

**Vacuum/wet cleaning/vacuum cycle:** The cleaning cycle that begins with HEPA vacuuming, followed by a wet cleaning with a detergent, followed by a final pass with a HEPA vacuum over the surface.

# DEFINITIONS

**Lead-Based Paint:** Paint that contains 1.0 milligram per centimeter square ( $\text{mg}/\text{cm}^2$ ) of lead or greater. Also measured as greater than 0.5 percent lead or has 5,000 parts per million (ppm) lead by dry weight.

**Lead-Based Paint Hazards:** Housing conditions that cause human exposure to unsafe levels of lead from paint. These conditions include deteriorated lead-based paint; friction, impact or chewable painted surfaces; lead-contaminated dust; or lead-contaminated soil.

## LEAD HAZARD EVALUATION

**Paint Testing:** Testing of specific surfaces, by XRF (x-ray fluorescence) or lab analysis, to determine the lead content of these surfaces, performed by a certified lead-based paint inspector or certified lead-based paint risk assessor.

**Risk Assessment:** A comprehensive evaluation for lead-based paint hazards that includes paint testing, dust and soil sampling, and a visual evaluation. The risk assessment report identifies lead hazards and appropriate lead hazard reduction methods. A certified lead-based paint risk assessor must conduct the assessment.

**Lead Hazard Screen:** A limited risk assessment activity that can be performed instead of a risk assessment in units that meet certain criteria (e.g. good condition). The screen must be performed by a certified lead-based paint risk assessor. If the unit fails the lead hazard screen, a full risk assessment must be performed.

**Clearance Examination:** Clearance is performed after hazard reduction, rehabilitation or maintenance activities to determine if a unit is safe for occupancy. It involves a visual assessment, analysis of dust and soil samples, and preparation of report. A certified lead-based paint risk assessor, lead-based paint inspector, or clearance technician (independent from entity/individual conducting paint stabilization or hazard reduction) conducts clearance.

## LEAD HAZARD REDUCTION

**Paint Film Stabilization:** An interim control method that stabilizes painted surfaces and addressed the underlying cause of deterioration. Steps include repairing defective surfaces, removing loose paint and applying new paint.

**Interim Controls:** Set of measures to temporarily control lead-based paint hazards. Interim control methods must be completed by qualified workers using safe work practices. Follow-up monitoring is needed.

**Standard Treatments:** A complete set of interim control methods that when used together temporarily control all potential lead hazards in a unit. Because they address all conditions, a risk assessment or

other evaluation is not needed. Standard treatments must be completed by qualified workers using safe work practices. As with interim controls, follow-up monitoring is needed.

**Abatement:** Measures to permanently control (i.e. 20 years or more) lead-based paint or lead-based paint hazards.

## **LBP – KEY UNITS OF MEASUREMENT**

**µg (microgram):** A Microgram is 1/1000<sup>th</sup> of a milligram (or one millionth of a gram). To put this unit into perspective, penny weighs 2 grams. To get a microgram, you would need to divide the penny into 2 million pieces. A microgram is one of those two million pieces.

**ft<sup>2</sup> (Square Foot):** One square foot is equal to an area that has a length of one foot (12 inches) and a width of one foot (12 inches).

**µg/dL:** Micrograms per deciliter is used to measure the level of lead in children's blood to establish whether intervention is needed. A deciliter (1/10<sup>th</sup> of liter) is a little less than half a cup. As noted above, a microgram is the same weight as one penny divided into two million parts.

**mg/cm<sup>2</sup>:** Milligrams per square centimeter, used for measuring lead in finished surfaces by XRF machines.

**Percent (%):** Percent by dry weight, a unit of measuring lead in finished surfaces via paint chip sample analysis.

**ppm:** Parts per million, by weight, equivalent to µg/gram (10,000 ppm = 1 percent). Used to measure lead content in paint and soil.

## **LEAD-BASED PAINT STANDARDS**

Definition of Lead-Based Paint – Paint or surface coating that contains at least:

- 1 milligram per centimeters square ( $\text{mg}/\text{cm}^2$ ) of lead;
- 0.5 percent lead; or
- 5,000 parts per million (ppm) lead by dry weight.

## **DUST – THRESHOLDS FOR LEAD-CONTAMINATION (RISK ASSESSMENT/CLEARANCE)**

- Floors: 10 µg/ft<sup>2</sup> (Risk Assessment), 40 µg/ft<sup>2</sup> (Clearance Only)
- Porch Floors (Clearance Only): 40 µg/ft<sup>2</sup>
- Interior Windowsills: 100 µg/ft<sup>2</sup> (Risk Assessment), 250 µg/ft<sup>2</sup> (Clearance Only)
- Window Troughs (Clearance Only): 400 µg/ft<sup>2</sup>

## **SOIL – THRESHOLDS FOR SOIL CONTAMINATION**

- Play areas used by children under age 6: 400 mg/Kg
- Average for other sampled areas:1,200 mg/K

## **LEAD-BASED PAINT ACTIVITY SUMMARY**

## **LEAD-BASED PAINT ACTIVITY SUMMARY**

\*\*Please type or print in ink.\*\*

### **I. TYPE OF ACTIVITY:**

Inspection     Risk Assessment     Lead Hazard Screen

### **II. DATE ACTIVITY COMPLETED: 02/21/2022**

### **III. ACTIVITY LOCATION: 228 US HWY 17 N**

Address: 228 US HWY 17 N

City: Windsor State: NC Zip Code: 28438 County: Columbus

Contact Person: Charles Aly Contact Phone: 678-205-6903

### **IV. ACTIVITY SUMMARY (attach additional pages as needed):**

Table 1: Lead-Based Paint<sup>1</sup>

Room	Side	Component <sup>2</sup>	Substrate	Condition	Color
None	None	None	None	None	None
Room	Side	Component <sup>2</sup>	Substrate	Condition	Color
Bathroom 2	B	Tub	Ceramic	Intact	White

Note(s):

1. Positive results indicate lead in quantities equal to or greater than 1.0 mg/cm<sup>2</sup> and are considered lead-based paint.
2. Samples are taken to represent component types; therefore, it should be assumed that similar component types in the rest of that room or room equivalent also contain lead-based paint.

Table 2: Deteriorated Lead-Based Paint<sup>1</sup>

Room	Side	Component <sup>2</sup>	Substrate	Condition	Color
None	None	None	None	None	None
Room	Side	Component <sup>2</sup>	Substrate	Condition	Color
None Found	N/A	N/A	N/A	N/A	N/A

Note(s):

1. Surfaces in deteriorated condition are considered to be lead-based paint hazards as defined by Title X and should be addressed through abatement or interim controls which are described in Table 6.

**Table 3: Lead Containing Materials<sup>2</sup>**

Room	Side	Component <sup>2</sup>	Substrate	Condition	Color
None	None	None	None	None	None
Room	Side	Component <sup>2</sup>	Substrate	Condition	Color
Bathroom 2	B	Tub	Ceramic	Intact	White

Note(s):

2. Although not considered to be lead-based paint, these materials when disturbed through destructive measures such as sanding, chipping, grinding, and other sources of friction, can create dust hazards and should be treated through control described in Table 6.

**Table 4: Dust Wipe Sample Analysis**

Sample #	Location	Surface Type	Concentration (ug/ft <sup>2</sup> )	Lead Hazard <sup>1</sup>
None	None	None	None	None
Sample #	Location	Surface Type	Concentration (ug/ft <sup>2</sup> )	Lead Hazard <sup>1</sup>
DW1	Kitchen	Windowsill	<20.0	No
DW2	Kitchen	Floor	<5.00	No
DW3	Bathroom	Windowsill	63.7	Yes
DW4	Bathroom	Floor	<5.00	No
DW5	Bathroom	Windowsill	<20.0	No
DW6	Bathroom	Floor	<5.00	No
DW7	Bedroom	Windowsill	30.7	Yes
DW8	Bedroom	Floor	<5.00	No
DW9	Q/C	Blank Wipe	<5.00 µg/wipe	No

Note(s):

1. EPA Lead Dust Hazard for Floors: 10 µg/ft<sup>2</sup>

**Table 5: Soil Sample Analysis**

Sample #	Location	Bare/Covered	Concentration (mg/kg)	Lead Hazard <sup>1</sup>
None	None	None	None	None
Sample #	Location	Bare/Covered	Concentration (mg/kg)	Lead Hazard <sup>1</sup>
S-1	Sample	Bare	<9.38	No

Note(s):

1. EPA Lead in Soil Hazard for children's play areas with bare residential soil: 400 mg/Kg; bare soil for the remainder of the yard: 1,200 mg/Kg
- 

**Table 6: Lead Hazard Control Options<sup>1</sup>**

Hazard Type	Location	Description	Control <sup>2-5</sup>
None	None	None	None
Hazard Type	Location	Description	Control <sup>2-5</sup>
Lead Dust Hazard	Bathroom, Bedroom	Windowsill	Cleaning- Clean surfaces using HEPA filtered vacuum and wet cleaning agents to remove leaded dust
Deteriorated Lead Based Paint			Abatement, Enclosure, Encapsulation or Paint Film Stabilization

Note(s):

1. Lead hazard control options include abatement and interim controls.
  2. Paint film stabilization: Wet scrape and prime building components where chipping or peeling is present following acceptable methods.
  3. Replace: Remove and dispose of components in accordance with applicable federal, state and local regulations. Prime coat any new unpainted wood components.
  4. Enclosure: Enclose lead-based paint coated building components with a material that is structurally affixed and deemed to last 20 years.
  5. General Cleaning-Clean using HEPA filtered vacuum and wet wipe impacted surfaces to remove paint chips and lead-dust hazards.
-

**V. CERTIFIED INSPECTOR OR RISK ASSESSOR**

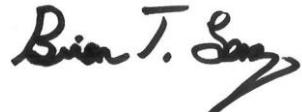
Name: Brian Long NC Lead Cert No.: unknown

Title: Industrial Hygienist

Certified Firm: The EI Group, Inc NC Cert. No: FPB-OO18

Address: 2101 Gateway Centre Blcd. Suite 200 State: NC Zip: 27560

Telephone: 919-657-7500



Signature: \_\_\_\_\_ Date: 02/21/2022

**SUBMIT TO: NC DHHS - HEALTH HAZARDS CONTROL UNIT  
1912 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1912**

Lead-Based Paint Activity Summary(8/05; 7/07)  
Health Hazards Control Unit

## **INSTRUCTIONS FOR COMPLETION OF LEAD-BASED PAINT ACTIVITY SUMMARY**

### **PURPOSE**

A Lead-Based Paint Activity Summary shall be submitted to the North Carolina Lead-Based Paint Hazard Management Program (LHMP) by the certified inspector or risk assessor for each inspection, risk assessment, or lead hazard screen conducted within 45 days of the activity on a form provided or approved by the Program per LHMP Rule 10A NCAC 41C .0807(b).

### **PREPARATION**

All information is to be filled out completely, typed or printed in ink. Pencil is not acceptable. Attachments are also to be typed or printed in ink.

### **INSTRUCTIONS**

- I. Indicate the type of activity that was conducted.
- II. Enter the date the activity was completed.
- III. Enter complete information about the facility where the activity occurred, including facility name, address, city, state, zip code, county, the name of the facility contact, and the contact's telephone number, including area code.
- IV. Summarize the activities that were conducted at the site, including the results of the inspection, risk assessment, or lead hazard screen, and any recommendations resulting from the activity.
- V. Enter the name, NC Lead Certification Number, and title of the individual conducting the activity.

Enter the name of the NC Certified Firm, the NC Firm Certification Number, the firm's address, state, zip code, and telephone number, including area code.

Enter the original signature of the inspector or risk assessor who conducted the activity and the date the Lead-Based Paint Activity Summary was signed.

**Completed Activity Summary with any attachments should be mailed to:**

**NC Department of Health and Human Services  
Health Hazards Control Unit  
1912 Mail Service Center  
(919)707-5950**

**For Overnight/Express Mail:**

**NC Department of Health and Human Services  
Health Hazards Control Unit  
5505 Six Forks Rd, 2nd Floor, Room D-1 Raleigh, NC 27609**

# **XRF ANALYZER PERFORMANCE CHARACTERISTICS SHEET**

## Performance Characteristic Sheet

### 6. EFFECTIVE DATE: December 1, 2015

#### MANUFACTURER AND MODEL:

Make: ***Heuresis***

Models: ***Model Pb200i***

Source: **<sup>57</sup>Co, 5 mCi (nominal – new source)**

## FIELD OPERATION GUIDANCE

### 7. OPERATING PARAMETERS:

Action Level mode

### 8. XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm<sup>2</sup> (inclusive)

#### SUBSTRATE CORRECTION:

Not applicable

### 9. INCONCLUSIVE RANGE OR THRESHOLD:

ACTION LEVEL MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm <sup>2</sup> )
Results 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

Page 1 of 4

## BACKGROUND INFORMATION

### 10. EVALUATION DATA SOURCE AND DATE:

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

### 11. 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.

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

## **13. 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):

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

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

## **14. EVALUATING THE QUALITY OF XRF TESTING:**

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

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

Page 2 of 4

HEURESIS PCS December 2015

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

Compute the Retest Tolerance Limit by the following steps:

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

Calculate the average of the original XRF result and the retest XRF result for 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 readings.

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

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, 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.

## **15. TESTING TIMES:**

In the Action Level paint test mode, the instrument takes the longest time to complete readings close to the Federal standard of 1.0 mg/cm<sup>2</sup>. The table below shows the mean and standard deviation of actual reading times by reading level for paint samples during the November 2015 archive testing. The tested instruments reported readings to one decimal place. No significant differences in reading times by substrate were observed. These times apply only to instruments with the same source strength as those tested (2.0 mCi). Instruments with stronger sources will have shorter reading times and those with weaker sources, longer reading times, than those in the table.

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

HEURESIS PCS December 2015

**16. CLASSIFICATION OF RESULTS:**

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

**17. DOCUMENTATION:**

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

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

## **CERTIFICATIONS AND LICENSURE**

This certification identification card has been issued pursuant to Chapter 130A, Article 19A of the NC General Statutes and is subject to revocation if the holder fails to comply with the requirements of 10A NCAC 41C Section .0800 or if the certification was issued based upon incorrect or inadequate information.

This card is nontransferable and will become invalid if loaned or given to another person for identification. This card will also be invalid if altered or defaced.

This card is the property of the North Carolina Department Health and Human Services. It must be returned to the Department if the holder's certification is revoked or if this card is invalidated. Any person performing regulated lead-based paint abatement activities without current certification shall be subject to legal sanction.

YOU MUST HAVE THIS IDENTIFICATION CARD WITH YOU ON THE JOB.

For information or corrections, direct all inquiries to the following  
Health Hazards Control Unit  
NC Department of Health and Human Services  
Division of Public Health  
1912 Mail Service Center Raleigh, NC 27699-1912  
(919) 707-5950



NORTH CAROLINA LEAD CERTIFICATION			
			
Larry L Rockefeller Jr 14932 New Light Rd Wake Forest , NC 27587			
DOB	SEX	HT	WT
08-11-1975	M	6'0"	250
DISCIPLINE	#	LAST COURSE	EXPIRATION
RISK ASSESSOR	120291	INS 10-20-2020 RIS 10-21-2020	11-30-2021

North Carolina Department of Health and Human Services  
Division of Public Health



**Health Hazards Control Unit**  
*Lead-Based Paint Hazard Management Program*

The EI Group Inc

*I, Issued Lead Firm Certification*

Lead Certification Number - FPPB-0018

*Valid between December 01, 2021 and December 31, 2022*

*Ed Sonnen*

Program Manager

NC Health Hazards Control Unit  
1912 Mail Service Center, Raleigh, NC 27699-1912  
Phone 919-707-5950

## HOMEOWNER RECOVERY PROGRAM

### COVID-19 Risk Certification

**Purpose:** To minimize the risk, exposure and spread of the COVID-19 virus while required program inspections are completed, all ReBuild NC Inspectors (Damage Inspectors, Lead-based Paint Assessors, Asbestos Inspectors, and Environmental Site-Inspectors) should complete this form prior to scheduling an inspection.

**Instructions:** During the initial scheduling call but prior to scheduling an appointment or inspection, the ReBuild NC Inspector should ask the Primary Applicant the four yes/no questions in the COVID-19 Risk and Exposure Questionnaire. The Inspector should document the applicant's answers to each question before signing the certification and uploading the form to the Primary Applicant's active Salesforce inspection record.

If the Primary Applicant answers "Yes" to any of the four questions, the Inspector should not schedule an inspection, but should instead notify the Primary Applicant that they will follow up in fourteen (14) days to schedule the inspection.

**Warning:** Title 18, Section 1001 of the U.S. Code states that a person is guilty of a felony for knowingly and willingly making false or fraudulent statements to any department of the United States government.

APPLICANT INFORMATION		
Applicant Name:		
Application ID Number:	Call Date:	
COVID-19 RISK AND EXPOSURE QUESTIONNAIRE		
1. Have you or anyone in your home returned from travel from any location outside of North Carolina within the last <b>fourteen (14)</b> calendar days?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2. Have you or anyone in your home had close contact with anyone who has traveled from any location outside of North Carolina within the last <b>fourteen (14)</b> calendar days?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3. Have you or anyone in your home had close contact with or cared for someone diagnosed with COVID-19 within the last <b>fourteen (14)</b> calendar days?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4. Have you or anyone in your home experienced any cold or flu-like symptoms (fever, cough, sore throat, respiratory illness, etc.) within the last <b>fourteen (14)</b> calendar days?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

ReBuild NC is a program of the North Carolina Office of Recovery and Resiliency  
Last Updated: July 20, 2020



**CERTIFICATION**

The undersigned hereby certifies:

- The answers herein accurately reflect the statements of the Primary Applicant.
- That I informed the Primary Applicant that he/she is responsible for updating the information provided if a change in circumstances has occurred which impacts the statements herein.
- That I informed the Primary Applicant that if the answer is "Yes" to any of the questions herein, the Inspector may take precautionary measures, rearrange, or possibly postpone the scheduled event to protect program applicants, representatives, and families.
- That I am hereby responsible of any damages caused by the submission of inaccurate or incorrect information.

---

*Inspector Print Name*

---

*Vendor Name*

---

*Inspector Signature*

---

*Date*