

## Summary

Individuals who have successfully received the H.U.D. approved lead safe work practice class should perform any hazards addressed on this property. A state licensed lead professional should do the lead removal. Refer to the Indiana State Law that may have additional requirements depending on scope of work.

A lead-based paint risk assessment was conducted on March 3, 2009 at 915 Tyrone Road, Michigan City, Indiana, for [redacted] This property was built in the 1950's. If the homeowner/landlord is different than occupants that reside in the residence or the individual that requested the Risk Assessment the information is located on the Initial Contact Interview Pages.

[redacted] conducted the risk assessment with several dust samples (*EPA Hazard Levels: Floor—40 micrograms per ft<sup>2</sup>/Window Sill—250 micrograms per ft<sup>2</sup>/Window Well—400 micrograms per ft<sup>2</sup>*), composite soil sampling, and a portable x-ray florescent environmental analyzer (XRF) [XRF Serial Number: XLP300A-7413]. The XRF analyzer is a nondestructive method of testing paint and provides immediate results for each test conducted, and if paint contains lead equal to or greater than 1.0 mg/cm<sup>2</sup>, it is considered to be lead-based paint. This sampling was taken to come to the following conclusions.

While the building and its paint are in relatively **extremely good** condition overall, the risk assessment showed that lead hazards exist in the following locations:

*—There are no lead dust levels that exceed H.U.D. guidelines.*

*—There are no lead soil levels around the dripline of the house that exceed H.U.D. guidelines.*

### LEAD-BASED PAINT & HAZARDS SUMMARY

#### EXTERIOR:

##### HOUSE:

- If any exterior siding or aluminum trim is ever removed all painted surfaces must be assumed positive.

#### INTERIOR:

- If any interior inaccessible components (paneling, drop ceiling, wall boards, and etc.) are ever removed all painted surfaces must be assumed positive.

There has not been any previous lead-based paint testing at this dwelling, although a lead-based paint inspection of all painted surfaces is always recommended so that potential lead problems can be monitored before they become hazardous. Soil lead levels were *below* interim control levels of 1200 micrograms/gram (bare soil areas to H.U.D. and EPA interim levels of 400 micrograms/gram for contact areas and 1200 micrograms/gram for areas children are not likely to contact) and *are not a hazard*.

**All LBP hazards are considered equally severe and all hazards should be addressed in a timely fashion. Any level of lead exposure is considered hazardous.**

The Risk Assessor has decided to recommend the following control measures, which are all acceptable based on H.U.D.'s 1995 Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing:

**Interim Controls**      *Designed to temporarily reduce human exposure*

- x Specialized cleaning/wet washing using detergents that have phosphates added is preferred until the affected components are at minimum repaired.
- x Painting is required to close hazard on areas chipping and peeling.
- x Temporary containment while work is performed is required.
- x Ongoing monitoring of these areas will be required to minimize hazards and reduce human exposure.
- x Resident education should continue to all future owners and occupants.

**Interim Control Measures Apply at Minimum to all Hazards Identified**

- x Cover all work areas with 6 mil plastic to contain debris.
- x Complete prerequisite repairs to control moisture or substrate problems that contributed to the hazard.
- x Remove all loose surface contaminants wetting surface to minimize dust, use HEPA sander when possible.
- x Apply primer to affected surfaces.
- x Apply topcoat of paint and clean all work areas.
- x Typically low in cost.
- x Use workers with H.U.D. safe work practice training certificate or license.

**Dust Removal Applies to All Work Areas**

- x Extensive cleaning using HEPA vacuums and wet washing is recommended and required to pass clearance.
- x Use a wash bucket and a rinse bucket using disposable rags and be sure not to double dip the rags. Work horizontal surfaces from top to the floor. Work your way out of the room doing about a three-foot section at a time, once with the soap water and once with the rinse bucket. You must dispose of rags each time for a thorough cleaning.
- x Must control source of dust so sometimes ductwork will need to be cleaned and sometimes a room will need to be cleaned twice.
- x Takes place at the conclusion of interim control or abatement measures and before clearance sampling.
- x Designed to reduce occupant exposure and leave behind a clean environment.
- x Effective only if surfaces can be cleaned - the areas that components are not replaced occupant should dust frequently particularly around the older windows and doors.
- x When replacing windows, be sure to clean new wells/ troughs, sills, and floors once job is complete and each evening before shutting the job down.
- x Concrete floors are sometimes better to paint after cleaning, surface is porous and lead dust is sometimes hard to remove.
- x Hardwood floors are better to seal since they are porous and retain lead dust.
- x Clearance sampling will be required.

**Lead Hazard Control Practices Accepted by H.U.D.**

- x Use wet methods or limited dry scraping and sanding. Mist surfaces before scraping and sanding. Continue to mist while working. Dry scraping or sanding of very small areas (for example, around light switches or outlets) may be done if flat surfaces below these

areas are covered with protective sheeting. These methods should be avoided on areas larger than 10% of component, 2 square feet per room, or 20 square feet on exterior surfaces, and workers must have adequate respiratory protection.

- x Mist before drilling and cutting to reduce dust creation and keep dust from becoming airborne and spreading beyond the work area. Due to it being dangerous to use water with electrical tools consider the use of foam (such as shaving cream) when cutting or drilling to reduce dust generation.
- x Controlled sanding or grinding with HEPA vacuum attachment is acceptable. If the sanding or grinding machines are "shrouded," which means surrounded with a barrier that prevents dust from flying out around the perimeter, AND attached to a HEPA vacuum, they can be used. Because some dust may still blow out around the perimeter, workers near the machine should wear half-mask respirators rated by NIOSH as N100 (or HEPA) at a minimum. Also, the work area must be completely isolated if the machine is used inside. Because these tools can create high levels of dust and require additional precautions it is advisable to receive further training, if not already received, before using this method.
- x Chemical stripping not using methylene chloride paint strippers. Chemical strippers can be dangerous and should be used with great caution. Types of strippers range from citrus-based (safer) to more dangerous caustic strippers. Use of chemical strippers may trigger additional training, notification, and record keeping requirements under the OSHA Hazard Communication Standard. Follow the manufacturer's directions when using any chemical stripper.
- x The use of a heat gun set below 1,100 degrees F may be used with caution. It is recommended for small areas only, such as the edge of a door, the top of a window stool, or the friction surface of a window jamb.
- x Scoring paint before separating components helps prevent paint from chipping when a paint seal is broken.
- x Prying and pulling apart components and pulling nails instead of pounding create less dust and fewer paint chips. Vise grips may be useful when pulling nails.
- x Removal of paint using contained pressure washing and/or contained abrasive blasting within a protective enclosure to prevent the spread of paint chips, dust, and debris may be done. This method requires additional precautions and should only be used by certified lead abatement workers.

**Lead Hazard Control Practices Prohibited or Not-Recommended by H.U.D.**

- x Paint removal practices that are either prohibited or not recommended in the H.U.D. Guidelines for the evaluation and control of lead base paint hazards in housing:  
Settings in which interim controls are generally not appropriate.  
H.U.D. chose to ban or not recommend these methods because they create excessive lead dust and because alternative methods are available that are effective and less expensive.
- x Open flame burning or torching. Open torches, infrared scorches, electric irons, and heat guns operating above 1,100 degrees F. all may cause the release of lead fumes, which can poison workers. The fallout from the volatilized lead can also be very difficult to clean up. Heat guns operating below 1,100 degrees F. are acceptable, although they are recommended only for small areas.

- x Machine sanding grinding without HEPA vacuum exhaust equipment. Circular, reciprocating, belt and palm sanding of leaded surfaces can generate a large amount of leaded dust. Sanders and grinders should not be used unless the release of dust is controlled by the use of HEPA vacuum exhaust equipment attached to the tools.
- x Abrasive blasting or sandblasting w/out HEPA exhaust equipment. Like sanders, abrasive blasters will release a large amount of leaded dust into the environment unless HEPA vacuum local exhaust equipment is used.
- x Uncontained hydro blasting or high-pressure washing. Power washing often leaves leaded paint chips and dust on soil and exterior pathways. Hydro blasting should not be used unless all runoff will be contained and filtered.
- x Dry scraping/sanding (except for limited areas). Extensive use of dry scraping or sanding generates a significant amount of leaded dust, which is hard to contain. Surfaces should be wetted prior to scraping/sanding so that the dispersal of dust is limited. Of course, some areas, such as surfaces near electrical circuits, should not be wetted.
- x Methylene chloride paint strippers. Methylene chloride can cause liver and kidney damage and carbon monoxide poisoning, and it is suspected to cause cancer. Air-purifying respirators with organic vapor cartridges do not provide adequate protection. (If respirators are required, they must be of the supplied-air or self-contained variety.) If chemical paint removers will be used, they should not contain methylene chloride and should preferably be used off-site.

#### **Waste Management**

- x All residential waste may go to a Class D landfill in the State of Indiana.

#### **Worker Protection**

- x Respirator with fit testing on request as required by the contractor.
- x Eye protection.
- x Clothing protection (tyvek suits).

#### **Occupant Protection**

- x Clean up, HEPA vacuum, wet wash daily before leaving job particularly by windows and other hazard areas.
- x Occupants vacate unit when the only bath, kitchen, or sleep area are affected on interim controls, and the work and clean up cannot be completed in eight hours shift.
- x Cover belongings with six mil plastic and seal with tape.
- x Always seal off work areas and cover work areas with 6 mil plastic and seal off ductwork during work, particularly HVAC returns.

#### **Clearance Testing**

- x Visual examination with no visible paint chips around interior or exterior of house.
- x Wipe sampling with no visible dust on clearance examination and dust levels must be below the acceptable levels set by EPA in order to pass clearance.
- x Soil testing applies to soils with lead levels above 5,000 p.p.m.

#### **Priority Attention for Immediate Hazards**

- x Dust levels **do not exceed** state & federal guidelines.
- x Soil levels **do not exceed** H.U.D. guidelines.

**WARNING: DUST SAMPLES WERE NOT TAKEN BY EVERY WINDOW OR IN EVERY ROOM. ALL AREAS NOT SAMPLED SHOULD BE ASSUMED TO CONTAIN LEAD DUST AND SHOULD BE DUSTED FREQUENTLY BY OCCUPANT.**

**Cost Estimation Regarding Hazard Control Options \$0.00, this estimate may vary per contractor and area. It is recommended that 2-3 estimates be obtained from contractors licensed and/or proficient in these types of repairs.**

**Reevaluation:** The normal reevaluation schedule for the interim control measures used in this property is twelve months. Because the *dust levels and soil levels* do not exceed the H.U.D. Standards the dwelling should be reevaluated by **September 2010**, eighteen months from today's date.

LEI has agreed to share the result of this report with the owner and provide the family with the EPA brochure "Protect Your Family From Lead in Your Home".

**NOTICE TO ALL OCCUPANTS AND HOME OWNERS:** All surfaces on the dwelling were not tested for lead. If any remodeling is done painted surfaces should be analyzed before remodeling begins. If the test result of the component reads negative this does not mean that lead based paint is not present in that component. It simply means that, that component is under the H.U.D. action level of 1.0mg/cm<sup>2</sup> therefore before disturbing any painted surface consult a lead professional.

By acceptance of this report the receiver agrees the risk  
assessor, agents and or contractors liability is limited to the field sampling date only identified on  
the front of this report.

- \* **Licensing Requirements:** Indiana requires that you have a Lead Abatement Contractor's license if you conduct an abatement of lead-based paint. Abatement occurs when the project you conduct is designed to permanently eliminate lead-based paint hazards. Abatement is defined as component replacement, paint removal, encapsulation, or enclosure. See the Indiana rules 326 IAC 23 and IC 13-17-14 for details on the requirements. If you fail to comply with these, you may be subject to civil penalties of \$25,000 per day per violation and criminal penalties or a Class D Felony and a minimum fine of \$5,000 per day per violation.

If interim control procedures are used instead of abatement procedures in eliminating lead-based paint hazards a Trained and Certified Lead-Safe Work Practice individual should be employed to complete the task(s). Clearance by an Indiana licensed Risk Assessor/Inspector.

"The Federal Residential Lead-Based Paint Hazard Reduction Act, 42 U.S.C. 4852d, requires sellers and landlords of most residential housing built before 1978 to disclose all available records and reports concerning lead-based paint and/or lead-based paint hazards, including the test results contained in this notice, to purchasers and tenants at the time of sale or lease or upon lease renewal. This disclosure must occur even if hazard reduction or abatement has been completed. Failure to disclose these test results is a violation of the U.S. Department of Housing and Urban Development and U.S. Environmental Protection Agency regulations at 24 CFR Part 35 and 40 CFR Part 745 and can result in a fine of up to \$11,000 per violation. To find out more information about your obligations under federal lead-based paint requirements, call 1-800-424-LEAD or go to the web to [www.epa.gov/lead](http://www.epa.gov/lead) or [www.hud.gov/offices/lead/index.com](http://www.hud.gov/offices/lead/index.com)."

To obtain more information regarding the dangers of lead poisoning contact the National Lead Information Clearinghouse at 1-800-424-LEAD.

If you have any questions please contact

at our toll free number

the Indiana Childhood Lead  
Poisoning Prevention at 800-433-0746 or 317-233-0746, or your local health department. If you have  
additional questions regarding Lead Safe Work Practices you may call

# DIAGRAMS

## Exterior

Site Address: 915 Turm  
Michigan City, IN

Block: 3-3 09

Risk Address: \_\_\_\_\_

- Numbered Abbreviations For Use
- 1-48
  - CHL
  - CLB
  - AMB
  - BRK
  - DR
  - GR
  - EV
  - LN
  - SLB
  - PA
  - SB
  - TV
  - Bedroom
  - Children's Bedroom
  - Master Bedroom
  - Bedroom
  - Dining Room
  - Garage
  - Living Room
  - Living Room (Two Family Home)
  - Bedroom (Pumice Water Closet)
  - Por Area
  - Storage Area (Chloro Fluoro Sheat)
  - Utility Room (Laundry Room With Wash)

Site Name: 7413

Start # 1 End # 60

Start Cont # 1-3

Risk Code 58-60

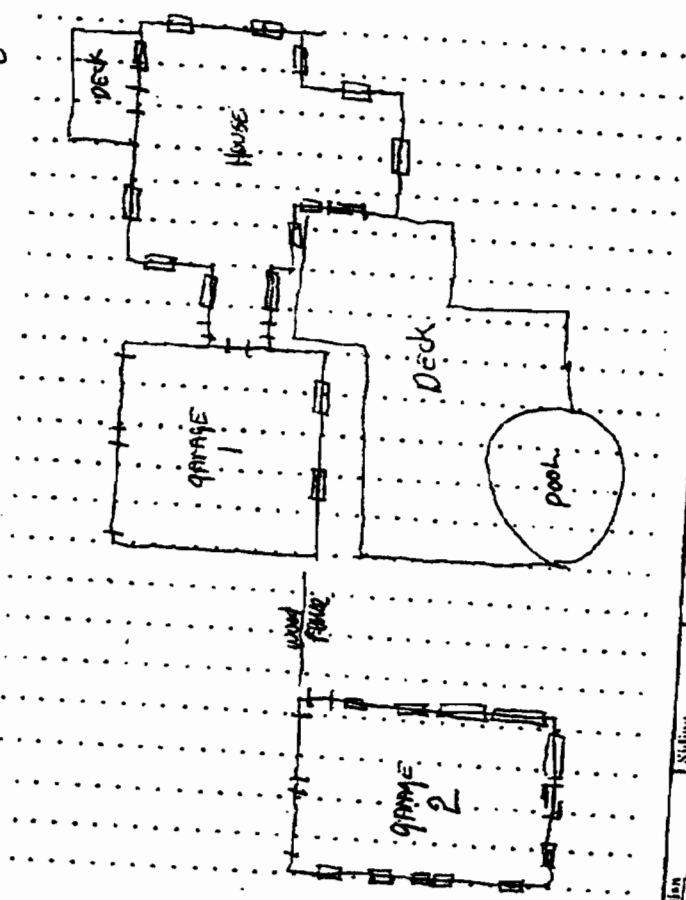
Paint Chips Around Perimeter: Y

Photo # \_\_\_\_\_

**LEAD RISK ASSESSMENT SITE DESCRIPTION**

# of Units: 1  
 # of Bedrooms: 3

EXTERIOR

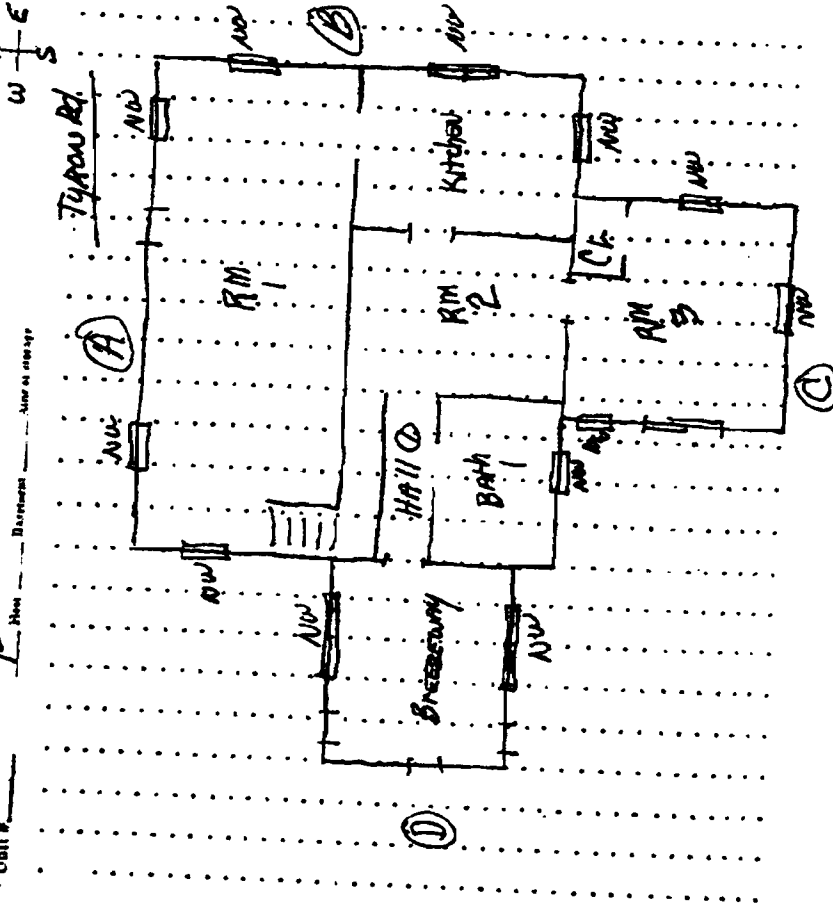
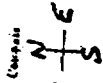


<input type="checkbox"/> One <input type="checkbox"/> Two <input type="checkbox"/> Three <input type="checkbox"/> Basement	<input checked="" type="checkbox"/> Attached <input type="checkbox"/> Detached <input type="checkbox"/> Other	<input type="checkbox"/> Foundation <input type="checkbox"/> Finished <input type="checkbox"/> Under <input type="checkbox"/> Brick	<input type="checkbox"/> Non-painted <input type="checkbox"/> Concrete <input type="checkbox"/> Other	<input type="checkbox"/> Sliding <input type="checkbox"/> Wood <input type="checkbox"/> Metal <input type="checkbox"/> Other	<input type="checkbox"/> Sill/Lead Trim <input type="checkbox"/> Wood <input type="checkbox"/> Metal <input type="checkbox"/> Other	<input type="checkbox"/> Vinyl <input type="checkbox"/> Brick <input type="checkbox"/> Other	<input type="checkbox"/> Windows <input type="checkbox"/> Wood <input type="checkbox"/> Metal <input type="checkbox"/> Other	<input type="checkbox"/> Vinyl <input type="checkbox"/> Wood <input type="checkbox"/> Metal <input type="checkbox"/> Other	<input type="checkbox"/> Deck <input type="checkbox"/> Enclosed <input type="checkbox"/> Covered <input type="checkbox"/> Open <input type="checkbox"/> Deck <input type="checkbox"/> Other	<input type="checkbox"/> Deck <input type="checkbox"/> Enclosed <input type="checkbox"/> Covered <input type="checkbox"/> Open <input type="checkbox"/> Deck <input type="checkbox"/> Other	<input type="checkbox"/> Deck <input type="checkbox"/> Enclosed <input type="checkbox"/> Covered <input type="checkbox"/> Open <input type="checkbox"/> Deck <input type="checkbox"/> Other
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# wood post/sill

Site Address: 915 Tyrone Rd  
Michigan City, IN  
 Unit #: 3-309

**LEAD RISK ASSESSMENT SITE DESCRIPTION**



State Agency: \_\_\_\_\_

Standard Abbreviations: See List

- BBK Bed-room
- CBR Children's bedroom
- BRK Break-room
- BTH Bath
- CK Kitchen
- CLF Closets
- GR Garage
- LA Living room
- LR Living room
- PA Porch area
- SWP Storage area
- UB Utility

Site Detail:

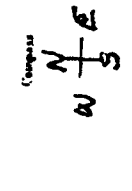
Lead Levels:

Light Moderate Heavy

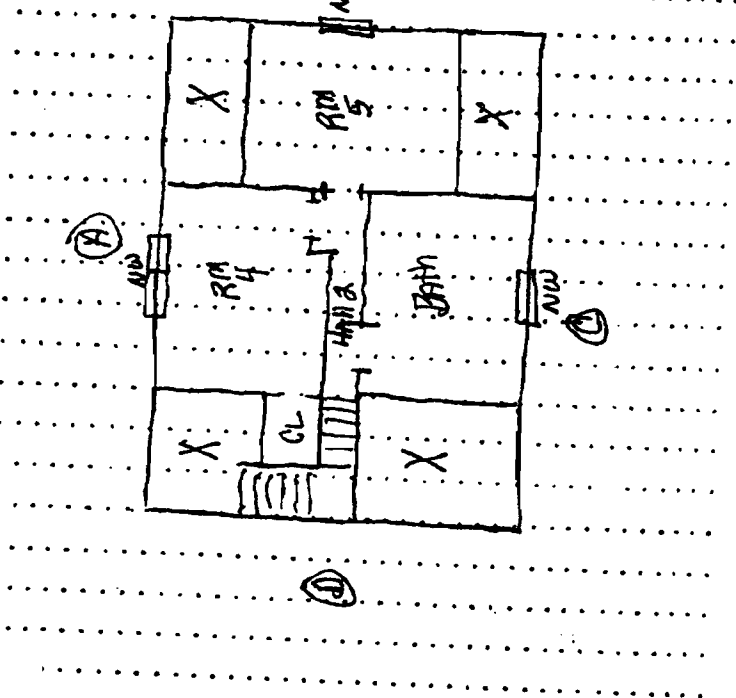
BATH & KITCHEN UNDER  
ONE POUND OF LEAD IS IN  
OLD WOODEN CABINETS AND  
IN WALLS WITH VINYL FLOOR  
TRIM IS AM/50 IS USED  
(PAPER, W/ & RED)

Site Address: ~~XXXXXXXXXX~~  
 City: ~~XXXXXXXXXX~~  
 State: ~~XXXXXXXXXX~~  
 Zip: ~~XXXXXXXXXX~~  
 Michigan City, IN  
 3-3-09

**LEAD RISK ASSESSMENT SITE DESCRIPTION**



Unit # \_\_\_\_\_  
 Access/Entrance \_\_\_\_\_  
 Staircase \_\_\_\_\_  
 Elevator \_\_\_\_\_  
 Air or Other \_\_\_\_\_

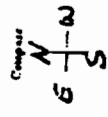


- Most Apparent: \_\_\_\_\_  
 Standard Abbreviations for Use:  
 BR: Bedroom  
 CBDR: Children's Bedroom  
 S-BDR: Second Bedroom  
 BATH: Bathroom  
 DIR: Dining Room  
 U-4: Utility, e.g., laundry  
 KT: Kitchen  
 LR: Living Room, den, family room  
 Mch: Mechanical Room, e.g., furnace, boiler  
 PA: Porch, patio  
 ST: Staircase  
 TM: Tummy Room, e.g., toilet, shower

Dust Levels:  
 Light Moderate Heavy  
 Floors are CP & tile  
 windows are wood  
 doors are wood  
 Trends: assess on CP

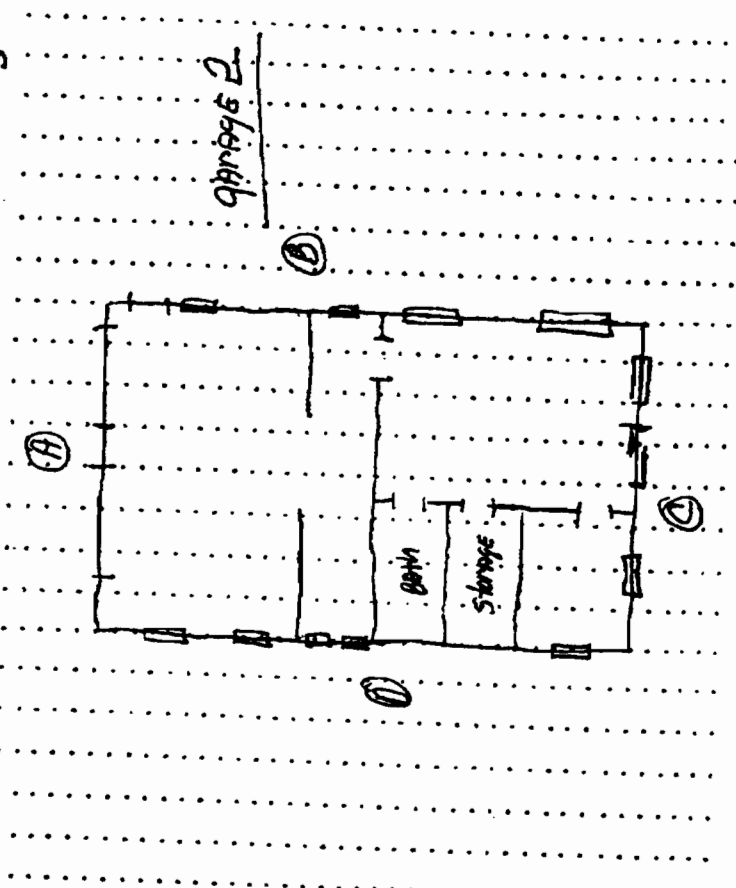
**LEAD RISK ASSESSMENT SITE DESCRIPTION**  
Area Design Number

Site Address: 915 Tyson  
Washington City, DC  
Date: 5-3-88



Unit # \_\_\_\_\_ Plot \_\_\_\_\_ Basement \_\_\_\_\_ Area of map \_\_\_\_\_

- Room Abbreviations Key:
- BRK Bed room
  - CLUB Club or lounge
  - ADLR Adjoining living room
  - BAH Bathroom
  - FRG Fridge room
  - CLL Closets
  - TRG Trunk room
  - STG Storage room
  - LAH Laundry room
  - PA Pantry
  - MB Master bedroom
  - MBR Master bedroom
  - MBL Master bedroom
  - MBD Master bedroom
  - MBE Master bedroom
  - MBF Master bedroom
  - MBG Master bedroom
  - MBH Master bedroom
  - MBI Master bedroom
  - MBJ Master bedroom
  - MBK Master bedroom
  - MBL Master bedroom
  - MBM Master bedroom
  - MBN Master bedroom
  - MBO Master bedroom
  - MBP Master bedroom
  - MBQ Master bedroom
  - MBR Master bedroom
  - MBS Master bedroom
  - MBT Master bedroom
  - MBU Master bedroom
  - MBV Master bedroom
  - MBW Master bedroom
  - MBX Master bedroom
  - MBY Master bedroom
  - MBZ Master bedroom



Dust Levels: Light Moderate Heavy

All windows are  
open.  
Flood on CRT tube/corner  
W/old car material removed  
Structure was built circa  
1978  
ERT work started  
March 1988

**XRF Results**



40	3/3/2009 11:19	PAINT	1.42	mg / cm ^2	Final	FENCE	WOOD	A	POOR	TAN	OUTSIDE	915 TYRON RD	Negative
41	3/3/2009 11:20	PAINT	1.42	mg / cm ^2	Final	DECK RAILING CAP	WOOD	C	POOR	TAN	OUTSIDE	915 TYRON RD	Negative
42	3/3/2009 11:20	PAINT	1.42	mg / cm ^2	Final	DECK FLOOR	WOOD	C	POOR	TAN	OUTSIDE	915 TYRON RD	Negative
43	3/3/2009 11:21	PAINT	1.9	mg / cm ^2	Final	DR JAMB	WOOD	D	POOR	WHITE	OUTSIDE	915 TYRON RD	Negative
44	3/3/2009 11:22	PAINT	1.42	mg / cm ^2	Final	WIN SASH	WOOD	C	POOR	WHITE	EXT. GARAGE	915 TYRON RD	Negative
45	3/3/2009 11:25	PAINT	0.95	mg / cm ^2	Final	PLAY EQUIPT	WOOD		POOR	WHITE	OUTSIDE	915 TYRON RD	Null
46	3/3/2009 11:25	PAINT	1.42	mg / cm ^2	Final	PLAY EQUIPT	WOOD		POOR	WHITE	OUTSIDE	915 TYRON RD	Negative
47	3/3/2009 11:25	PAINT	1.42	mg / cm ^2	Final	PLAY EQUIPT	WOOD		POOR	WHITE	OUTSIDE	915 TYRON RD	Negative
48	3/3/2009 11:26	PAINT	1.43	mg / cm ^2	Final	WALL/MIDDLE	DRYWALL	B	POOR	BEIGE	INT. GARAGE 2	915 TYRON RD	Negative
49	3/3/2009 11:26	PAINT	1.43	mg / cm ^2	Final	WALL/MIDDLE	DRYWALL	B	POOR	BEIGE	INT. GARAGE 2	915 TYRON RD	Negative
50	3/3/2009 11:26	PAINT	1.9	mg / cm ^2	Final	WALL/MIDDLE	DRYWALL	B	POOR	GREEN	INT. GARAGE 2	915 TYRON RD	Negative
51	3/3/2009 11:27	PAINT	2.37	mg / cm ^2	Final	WALL/MIDDLE	DRYWALL	B	POOR	GREEN	INT. GARAGE 2	915 TYRON RD	Negative
52	3/3/2009 11:27	PAINT	1.42	mg / cm ^2	Final	WALL/MIDDLE	DRYWALL		POOR	BLUE	INT. GARAGE 2	915 TYRON RD	Negative
53	3/3/2009 11:27	PAINT	1.43	mg / cm ^2	Final	WALL/MIDDLE	DRYWALL		POOR	WHITE	INT. GARAGE 2	915 TYRON RD	Negative
54	3/3/2009 11:28	PAINT	2.37	mg / cm ^2	Final	WALL/MIDDLE	DRYWALL		POOR	TAN	INT. GARAGE 2	915 TYRON RD	Negative
55	3/3/2009 11:28	PAINT	1.43	mg / cm ^2	Final	WIN SILL	WOOD	D	POOR	WHITE	INT. GARAGE 2	915 TYRON RD	Negative
56	3/3/2009 11:28	PAINT	1.43	mg / cm ^2	Final	WIN SILL	WOOD	B	POOR	WHITE	INT. GARAGE 2	915 TYRON RD	Negative
57	3/3/2009 11:29	PAINT	1.9	mg / cm ^2	Final	DR	WOOD	D	POOR	BEIGE	INT. GARAGE 2	915 TYRON RD	Negative
58	3/3/2009 11:32	PAINT	9.03	mg / cm ^2	Final		CALIBRATE					915 TYRON RD	Positive
59	3/3/2009 11:33	PAINT	8.58	mg / cm ^2	Final		CALIBRATE					915 TYRON RD	Positive
60	3/3/2009 11:33	PAINT	9.98	mg / cm ^2	Final		CALIBRATE					915 TYRON RD	Positive