



Service Disabled Veteran Owned Small Business



**LEAD-BASED PAINT ASSESSMENT REPORT  
FOR 5D DIALYSIS RENOVATION PROJECT**

**JOHN L. MCCLELLAN MEMORIAL HOSPITAL  
43000 West 7th Street  
Little Rock, AR**

**VA256-14-J-0987**

PREPARED FOR:

Central Arkansas Veterans Affairs Healthcare System  
2200 Fort Roots Drive  
North Little Rock, AR 72114

Prepared By:

BES Design/Build, LLC  
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## **Executive Summary**

### Site Name:

John L. McClellan Memorial Hospital  
(Building 1 South/JLM)  
4300 West 7<sup>th</sup> Street  
Little Rock, AR 72205

### Name of Inspector(s):

Charles J. Fairchild  
BES Design/Build, LLC  
Industrial Hygienist

### Project Description and Activities:

July 7, 2014, BES Design/Build, LLC (BES) conducted a Lead-Based Paint (LBP) Assessment which included collecting paint chip samples analysis of LBP content at the John L. McClellan Memorial Hospital (JLM) located at 4300 W. 7<sup>th</sup> Street in Little Rock, Arkansas. The area of the assessment included the identified project area for the 5D Dialysis project.

### Findings and Results:

None of the fourteen (14) paint samples were determined to be equal to or greater than 0.5 parts per million ( $\mu\text{g/g}$ ) by weight as determined by laboratory analysis.

## **Introduction**

This report summarizes findings and recommendations regarding the potential presence of Lead-Based Paint (LBP) at John L. McClellan Memorial Hospital (JLM) 5D Dialysis project area, located at 4300 W. 7<sup>th</sup> Street in Little Rock, Arkansas. BES Design/Build, LLC. (BES) Industrial Hygienist, Charles J. Fairchild, performed the on-sitestudy to: 1) identify painted/glazed surfaces and materials, and 2) to conduct bulk samples for laboratory analysis. The on-site investigation was performed on July 7, 2014.

## **Purpose of Study**

The purpose of this study was to confirm or deny the presence of lead-based paint on the building materials and surfaces intended to be disturbed, or likely to be disturbed during the course of future renovation or demolition projects, to identify the location of the LBP, to provide response action recommendations, and to facilitate the renovation or demolition schedule.

## **Regulatory Summary**

The Environmental Protection Agency (EPA) defines lead-based paint (LBP) as paint with a lead content equal to or in excess of 1.0 mg/cm<sup>2</sup> or 0.5 parts per million by weight. The Occupational Safety & Health Administration (OSHA) regulates lead exposure during all construction work including, but not limited to, the following:

- Demolition or salvage of structures where lead or materials containing lead are present;
- Removal or encapsulation of materials containing lead;
- New construction, alteration, repair or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- Installation of products containing lead;
- Lead contamination/emergency cleanup;
- Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed, and
- Maintenance operations associated with the construction activities.

OSHA Standard 29 CFR 1926.62 requires the use of engineering controls, work practices, and personal protective equipment to reduce or eliminate employee exposure to lead. OSHA states that construction work (including renovation, maintenance, and demolition) carried-out on structures coated with paint that have lead concentrations lower than HUD can still result in airborne lead concentrations in excess of regulatory limits. For this reason, OSHA has not defined lead-containing paint, but states that paint having any measureable level of lead may pose a substantial exposure hazard during construction work, depending upon the work performed.

## Analytical Methodology

The LBP assessment by collecting bulk samples of paint material directly from the substrate to which is attached, including all layers of paint on that particular surface.

Sampling results were obtained from each sampling area. The sampling locations were determined by the color of paint, substrate, and location within the site. The sample results are reported in milligrams of lead per square centimeter (mg/cm<sup>2</sup>). The sample locations are selected by room, wall, component, component location, substrate, paint color and appearance. Sample results are provided in following table:

Sample No.	Location	Component	Substrate	Color	Result(%wt)
5D-01	C529	Wall	Drywall	Light Grey	<.0091
5D-02	C528	Wall	Drywall	Light Grey	<.0094
5D-03	C528	Wall	Drywall	Light Grey	<.0096
5D-04	S55	Door Frame	Metal	Light Grey	<.0086
5D-05	5D104	Door Frame	Metal	Light Grey	<.0096
5D-06	5D109	Wall	Drywall	Tan	<.0099
5D-07	5D118A	Wall	Drywall	Light Green	<.0088
5D-08	5D123	Wall	Drywall	Blue w/ multiple layers	<.0092
5D-09	5D120	Door Frame	Metal	Dark Green	<.013
5D-10	C58	Window Sill	Drywall	Burnt Orange	<.0096
5D-11	C58	Wall	Drywall	Beige	<.0091
5D-12	C531	Door Frame	Metal	White w/ multiple layers	<.009
5D-13	5D139	Wall	Drywall	White w/ multiple layers	<.0095
5D-14	C531	Door Frame	Metal	White w/ multiple layers	<.0097

## Findings

Based on the Department of Housing and Urban Development (HUD) guidelines, a laboratory analysis of a paint chip sample equal to or greater than 0.5 percent lead by weight (% wt), or an XRF sample equal to or greater than 1.0 mg/cm<sup>2</sup> is considered to be the action level at which the paint is considered to be LBP. None of the fourteen (14) samples were equal to or greater than 0.5 percent lead by weight (% wt). The following building components exhibited sample results containing lead concentrations greater than 1.0 mg/cm<sup>2</sup>:

- None

## **Conclusions and recommendations**

### **Lead Based Paint:**

HUD guidelines state that paint containing a lead concentration greater than or equal to 0.5% wt by laboratory analysis or 1.0 mg/cm<sup>2</sup> of lead by XRF is considered to be LBP. OSHA's Lead in Construction Standard, 29 CFR 1926.62, was intended to apply to any detectable concentration of lead in paint by laboratory analysis. OSHA's only accepted methodology for determining an employee's exposure to airborne lead contaminants is through personal air monitoring. Any paint with detectable concentrations of lead, by XRF or laboratory analysis that is subjected to cutting, abrading, welding, scraping, and/or sanding, must be handled in accordance with 29 CFR 1926.62 to prevent employee exposure.

### **Disclaimer**

Conclusions presented are based on results of random samples taken from what appear to be homogeneous materials. BES Design/Build, LLC and its contracted entities are responsible for the collection of the samples in accordance with industry standards. However, inferences drawn from sampling are subject to error, and the company is not responsible for this error.

This Report Prepared by:

---

Charles J. Fairchild  
Industrial Hygienist

# APPENDIX A

# SanAir Technologies Laboratory

## Analysis Report

prepared for

**BES Design/Build, LLC**

Report Date: 7/7/2014  
Project Name: CAVAHS  
Project #: 5D Dialysis  
SanAir ID#: 14017478



NVLAP LAB CODE 200870-0



Certification # 652931



License # LAB0166



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# SanAir Technologies Laboratory, Inc.

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**BES Design/Build, LLC  
356 Decatur Dr  
Summerville, SC 29483**

July 7, 2014

SanAir ID # 14017478  
Project Name: CAVAHS  
Project Number: 5D Dialysis

Dear Jeff Fairchild,

We at SanAir would like to thank you for the work you recently submitted. The 14 sample(s) were received on Monday, July 07, 2014 via FedEx. The final report(s) is enclosed for the following sample(s): 5D-01, 5D-02, 5D-03, 5D-04, 5D-05, 5D-06, 5D-07, 5D-08, 5D-09, 5D-10, 5D-11, 5D-12, 5D-13, 5D-14.

These results only pertain to this job and should not be used in the interpretation of any other job. This report is only complete in its entirety. Refer to the listing below of the pages included in a complete final report.

Sincerely,

Stephanie Hobaugh  
Lead Laboratory Manager  
SanAir Technologies Laboratory

Final Report Includes:

- Cover Letter
- Analysis Pages
- Disclaimers and Additional Information

sample conditions:

14 sample(s) in Good condition



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SanAir ID Number

## 14017478

FINAL REPORT

**Name:** BES Design/Build, LLC  
**Address:** 356 Decatur Dr  
Summerville, SC 29483

**Project Number:** 5D Dialysis  
**P.O. Number:**  
**Project Name:** CAVAHS

**Collected Date:** 7/3/2014  
**Received Date:** 7/7/2014 8:25:00 AM  
**Report Date:** 7/7/2014 4:44:44 PM  
**Analyst:** Lane, Jennifer

## Lead Paint Analysis

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-001	5D-01 / Light Grey Paint C529 Wall Drywall	<1	0.1103	90.7	<90.7 $\mu\text{g/g}$ (ppm)	<0.0091 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-002	5D-02 / Light Grey Paint C528 Wall Drywall	<1	0.1066	93.8	<93.8 $\mu\text{g/g}$ (ppm)	<0.0094 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-003	5D-03 / Light Grey Paint C528 Wall Drywall	<1	0.104	96.2	<96.2 $\mu\text{g/g}$ (ppm)	<0.0096 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-004	5D-04 / Light Grey Paint S55 Door Frame Metal	<1	0.1164	85.9	<85.9 $\mu\text{g/g}$ (ppm)	<0.0086 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-005	5D-05 / Light Grey Paint 5D104 Door Frame Metal	<1	0.1043	95.9	<95.9 $\mu\text{g/g}$ (ppm)	<0.0096 % By Weight

## Certification

Signature:   
Date: 7/7/2014

Reviewed:    
Date: 7/7/2014



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**Analyst:** Lane, Jennifer

## Paint Analysis

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-006	5D-06 / Tan Paint  5D109 Wall Drywall	<1	0.1011	98.9	<98.9 $\mu\text{g/g}$ (ppm)	<0.0099 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-007	5D-07 / Light Green  Paint 5D118A Wall Drywall	<1	0.1136	88	<88 $\mu\text{g/g}$ (ppm)	<0.0088 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-008	5D-08 / Blue W/  Multiple Layers Paint 5D123 Wall Drywall	<1	0.1078	92.8	<92.8 $\mu\text{g/g}$ (ppm)	<0.0093 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-009	5D-09 / Dark Green  Paint 5D120 Door Frame Metal	<1	0.0768	130.2	<130.2 $\mu\text{g/g}$ (ppm)	<0.013 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-010	5D-10 / Burnt Orange  Paint C58 Window Sill Drywall	<1	0.1044	95.8	<95.8 $\mu\text{g/g}$ (ppm)	<0.0096 % By Weight

## Certification

Signature:

Date: 7/7/2014

Reviewed:

Date: 7/7/2014



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## Paint Analysis

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-011	5D-11 / Beige Paint  C58 Wall Drywall	<1	0.1105	90.5	<90.5 $\mu\text{g/g}$ (ppm)	<0.0091 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-012	5D-12 / White W/  Multiple Layers Paint C531 Door Frame Metal	<1	0.1106	90.4	<90.4 $\mu\text{g/g}$ (ppm)	<0.009 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-013	5D-13 / White W/  Multiple Layers Paint 5D139 Drywall	<1	0.105	95.2	<95.2 $\mu\text{g/g}$ (ppm)	<0.0095 % By Weight

Test Method: SW846/3050B/7000B

NOTE:  $\mu\text{g/g}=\text{ppm}$

Sample	Description	$\mu\text{g Pb}$ in Sample	Sample Size (grams)	Calculated RL	Sample Result	Sample Result
14017478-014	5D-14 / White W/  Multiple Layers Paint C531 Door Frame Metal	<1	0.1033	96.8	<96.8 $\mu\text{g/g}$ (ppm)	<0.0097 % By Weight

Method Reporting Limit <10  $\mu\text{g}/0.1 \text{ g}$  paint

SanAir Technologies Laboratory, Inc participates in the AIHA ELPAT for environmental Lead.

AIHA Lab Id: 162952

### Certification

Signature:

Date: 7/7/2014

Reviewed:

Date: 7/7/2014



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## ORGANISM DESCRIPTIONS

*The descriptions of the organisms presented are derived from various reference materials. The laboratory report is based on the data derived from the samples submitted and no interpretation of the data, as to potential, or actual, health effects resulting from exposure to the numbers of organisms found, can be made by laboratory personnel. Any interpretation of the potential health effects of the presence of this organism must be made by qualified professional personnel with first hand knowledge of the sample site, and the problems associated with that site.*

### Disclaimer

- Results relate only to the items tested
- Results are not corrected for blanks
- All quality control results are acceptable unless otherwise noted
- SanAir Technologies Laboratory, Inc is not responsible for sample collection or interpretation made by others
- This report does not constitute endorsement by AIHA/NVLAP and/or any other U.S. governmental Agencies; and may not be certified by every local, state or federal regulatory agencies

### Lead Exposure Limits

#### Air

1.5 $\mu\text{g}/\text{m}^3$	EPA National Ambient Air Quality Standard (Quality Time – Weight Average)
30 $\mu\text{g}/\text{m}^3$	OSHA Action Level (8-hour time weighted average)
50 $\mu\text{g}/\text{m}^3$	OSHA Permissible Exposure Limit (General Industry)
50 $\mu\text{g}/\text{m}^3$	OSHA Permissible Exposure Limit (Construction)

#### Dust

40 $\mu\text{g}/\text{ft}^2$	HUD Clearance Level for Floors
250 $\mu\text{g}/\text{ft}^2$	HUD Clearance Level for Interior Window Sills
400 $\mu\text{g}/\text{ft}^2$	HUD Clearance Level for Window Troughs

#### Water

15 ppb ( $\mu\text{g}/\text{liter}$ )	EPA Maximum Containment Level
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#### Paint

0.5% by weight	HUD definition of lead based paint
1.0 $\text{mg}/\text{cm}^2$	
5000 ppm	

#### Soil

400 ppm	HUD-Play areas and high-contact areas for children
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#### Hazardous Waste

5 ppm	Analyzed as “leachable” using Toxicity Characteristic Leachate Procedure (TCLP)
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