



July 9, 2021

Diane Czarnecki
Industrial Hygienist
Facilities Management Division
GSA Public Buildings Service – Heartland Region
2300 Main Street
Kansas City, MO 64108

Re: Goodfellow Federal Center – Rooftop Equipment Lead Wipe Sampling
Project No. 121244

Dear Ms. Czarnecki:

Thank you for the opportunity to provide the General Services Administration (GSA) with the above referenced environmental sampling activities. The following is our report.

INTRODUCTION

As requested, Burns & McDonnell conducted dust wipe sampling and testing for lead on various rooftop equipment at the Goodfellow Federal Center located at 4300 Goodfellow Boulevard in St. Louis, Missouri. Sampling was completed to help characterize potential lead dust exposure hazards. Dust wipe sampling was conducted on June 29, 2021, by Emily Ahlemeyer of Burns & McDonnell.

DUST WIPE SAMPLING FOR LEAD

Dust wipe sampling was conducted in accordance with ASTM Standard E1728-16: Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination. ASTM Standard E1728-16 is consistent with the methodology described in the Housing and Urban Development Guidelines and 40 CFR 745.63.

Wipe sampling for lead was conducted on a variety of representative surfaces of mechanical equipment located on rooftops. A representative surface area was measured and delineated. The dust wipe samples were collected using dedicated dust wipe cloths meeting ASTM standards. Each dust wipe cloth was pre-moistened and individually wrapped. Each sample was collected by wiping in a back and forth “S” pattern over a measured sampling area. Then, the wipe was folded over itself and the area was wiped again in a direction perpendicular to the first wipe orientation. Then, the wipe was folded over itself and the perimeter of the area was wiped. The wipe samples were then placed into labeled, sealed containers. Dust wipe samples were submitted to EMSL Analytical, Inc. in St. Louis, MO for Lead in Dust by Flame Atomic Absorption analysis using Environmental Protection Agency (EPA) method SW846-7000B.

Dust wipe sampling for the presence of lead was conducted at eight (8) distinct locations on building rooftops. Buildings sampled included 102E, 103, 103F, 104, 104E, and 105. A total of

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nine (9) samples were obtained including one (1) field blank sample. Of the four (4) samples that had detectable levels of lead, four (4) of them exceeded the lead clean area limit.

1. A sample taken from the interior belt access panel of kitchen exhaust fan 1 on the rooftop of building 103F had 41 $\mu\text{g}/\text{ft}^2$ of lead.
2. A sample taken from the top of the north exhaust fan on the rooftop of building 104 had 23 $\mu\text{g}/\text{ft}^2$ of lead.
3. A sample taken from the slanted exhaust area near the filters of air handling unit E on the rooftop of building 104E had 15 $\mu\text{g}/\text{ft}^2$ of lead.
4. A sample taken from the interior compartment of an old air handling unit on the rooftop of building 103 had 34 $\mu\text{g}/\text{ft}^2$ of lead.

LIMITATIONS

The scope of this assessment was limited in nature. Burns & McDonnell collected samples from a representative number of surfaces in an effort to minimize cost while providing a general overview of site conditions. Sample locations do not encompass all equipment surfaces at the site. Additionally, samples were only analyzed for a select number of potential contaminants likely to affect the surfaces. Burns & McDonnell is not responsible for potential contaminants not identified in this report.

Burns & McDonnell appreciates the opportunity to work GSA on this project. Please contact us if you have any questions regarding this report or if we may be of any additional service.

Sincerely,

(b) (6)



Matt Shanahan, CHMM
Project Manager

Attachments:

Appendix A - Laboratory Report



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Information in Appendix A is not accessible for people using screen reader technology. If this information is required, it can be furnished upon request by contacting 816-223-6198 or r6environmental@gsa.gov.

APPENDIX A – LABORATORY REPORT



EMSL Analytical, Inc.

100 Green Park Industrial Court, Saint Louis, MO 63123
Phone/Fax: (314) 577-0150 / (314) 776-3313
<http://www.EMSL.com> saintlouislaboratory@emsl.com

EMSL Order: 392106432
CustomerID: BURN50
CustomerPO:
ProjectID:

Attn: **Emily Ahlemeyer**
Burns & McDonnell
9400 Ward Parkway
Kansas City, MO 64114

Phone: (314) 302-4661
Fax: (816) 822-3028
Received: 6/29/2021 01:54 PM
Collected:

Project: **GFC / 121244**

Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)*

Client SampleDescription	Collected	Analyzed	Area Sampled	RDL	Lead Concentration
102E-W-01 392106432-0001		7/7/2021	144 in ²	10 µg/ft ²	<10 µg/ft ²
103F-W-01 392106432-0002		7/7/2021	144 in ²	10 µg/ft ²	<10 µg/ft ²
103F-W-02 392106432-0003		7/7/2021	140 in ²	10 µg/ft ²	41 µg/ft ²
104-W-01 392106432-0004		7/7/2021	144 in ²	10 µg/ft ²	23 µg/ft ²
104-W-02 392106432-0005		7/7/2021	144 in ²	10 µg/ft ²	<10 µg/ft ²
104E-W-01 392106432-0006		7/7/2021	168 in ²	8.6 µg/ft ²	15 µg/ft ²
105-W-01 392106432-0007		7/7/2021	144 in ²	10 µg/ft ²	<10 µg/ft ²
FB 392106432-0008		7/7/2021	N/A	10 µg/wipe	<10 µg/wipe
103-W-01 392106432-0009		7/7/2021	144 in ²	10 µg/ft ²	34 µg/ft ²

(b) (6)

Jeff Siria, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Analysis following Lead in Dust by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 10 ug/wipe. Ug/wipe = ug/ft2 x area sampled in ft2. Unless noted, results in this report are not blank corrected. The lab is not responsible for data reported in ug/ft2 which is dependent upon the area provided by non-lab personnel. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.
Samples analyzed by EMSL Analytical, Inc. Saint Louis, MO AIHA-LAP, LLC-ELLAP Accredited #102636

Initial report from 07/07/2021 13:29:04



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Lead (Pb) Chain of Custody
EMSL Order ID (Lab Use Only):

PHONE ()
FAX ()

392106432

Company: Burns & McDonnell		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments*	
Street: 9400 Ward Parkway		Third Party Billing requires written authorization from third party	
City: Kansas City, MO	State/Province: MO	Zip/Postal Code: 64114	Country: USA
Report To (Name): Emily Ahlemeyer		Telephone #: 314-302-4661	
Email Address: eaahlemeyer@burnsmcd.com		Fax #: —	Purchase Order: —
Project Name/Number: GFC/121244		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
U.S. State Samples Taken: MO		CT Samples: <input checked="" type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

Turnaround Time (TAT) Options* - Please Check

3 Hour
 6 Hour
 24 Hour
 48 Hour
 72 Hour
 86 Hour
 1 Week
 2 Week

*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm ² <input type="checkbox"/> ppm (mg/kg)	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300M/NIOSH 7303	ICP-OES	0.5 µg/filter	<input type="checkbox"/>
Wipe* ASTM <input checked="" type="checkbox"/> non ASTM <input type="checkbox"/> *If no box checked, non-ASTM Wipe assumed	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input checked="" type="checkbox"/>
	SW846-6010B or C	ICP-OES	1.0 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1311/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
SPLP	SW846-1312/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1312/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
TTLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
STLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO ₃ pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO ₃ pH < 2 <input type="checkbox"/>	EPA 200.6	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	<input type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: Emily Ahlemeyer Signature of Sampler: (b) (6)

Sample #	Location	Volume/Area	Date/Time Sampled
— see attached —			

Client Sample #s	(b) (6)	Total # of Samples:	9
Relinquished (Client):	(b) (6)	Date:	6/29/2021
Received (Lab):	(b) (6)	Time:	1:54
Comments:		Date:	6-29-21
		Time:	1:54 w/

