
February 5, 2025

Diane Czarnecki
Industrial Hygienist
Facilities Management Division
GSA Public Buildings Service - Heartland Region
U.S. General Services Administration
2300 Main Street, Kansas City, MO 64108

**RE: Goodfellow Federal Center
Metals in Settled Dust Sampling – Building 106
4300 Goodfellow Boulevard
St. Louis, Missouri 63120
OCCU-TEC Project No. 925001**

Dear Ms. Czarnecki:

Thank you for the opportunity to assist the General Services Administration (GSA) with the metals in settled dust sampling investigation of Building 106 located at the Goodfellow Federal Center (GFC), in St. Louis, Missouri. OCCU-TEC, Inc. (OCCU-TEC) understands that the purpose of the investigation was to provide additional sampling data of existing environmental conditions that are present at GFC that could adversely impact the health and safety of building occupants as well as workers at the facility. The following report summarizes the sample collection activities, and the laboratory analytical results of samples submitted.

On January 13, 2025, OCCU-TEC personnel, including a Missouri licensed lead risk assessor, conducted settled dust sampling for the presence of seven of the Resource Conservation and Recovery Act (RCRA) target metals (lead, arsenic, barium, cadmium, total chromium, selenium, and silver) from various surfaces within occupied spaces within the building. Surfaces sampled included floors, working surfaces, and surfaces above 70 inches that are not subjected to regular cleaning. The purpose of this testing was to further characterize the presence and concentration of target metals in occupied areas and determine if current cleaning efforts are sufficient to limit the accumulation of surface dust.

The proposed sampling scheme, the number of samples, the sample distribution and general methodology were developed by GSA and OCCU-TEC. Specific sample locations were determined by OCCU-TEC personnel while on-site.

Metals in Settled Dust Sampling

Metals in settled dust sampling was limited to only those areas within occupied spaces that may be routinely accessed by building personnel. Closed office spaces, mechanical rooms, basements, penthouses, tunnels and other mechanical spaces were not included in the testing.

Dust wipe sampling was conducted in accordance with ASTM Standard E1728/E1728M-24: Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination. ASTM Standard E1728/E1728M-24 is consistent with the methodology described in the Housing and Urban Development Guidelines and 40 CFR 745.63. The Brookhaven National Laboratory's Surface Wipe Sampling Procedure (IH75190) was also used as a guideline.

A representative surface area of approximately one (1) square foot (SF) was measured and delineated with prefabricated, plastic templates which were thoroughly cleaned after each use. 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. The wipe samples were then placed into labeled, clean laboratory-supplied plastic centrifuge tubes with screw on caps. Dust wipe samples were submitted to Environmental Hazards Services, LLC (EHS) in Richmond, Virginia for Inductively Coupled Plasma (ICP) analysis of metals analysis using Environmental Protection Agency (EPA) Method SW846 350B/7420.

Results of the dust wipe samples collected from the building indicate that three (3) of the thirty-six (36) samples contained concentrations of target metals above laboratory detection limits. The following table identifies the range of results for each of the seven metals that were analyzed. **Samples with a "<" sign indicate that the results were below the reportable limit.**

Analysis	Lowest Concentration (µg/sq. ft.)	Highest Concentration (µg/sq. ft.)	Clean Area Limit (µg/sq. ft.)
Arsenic	<2.50	<2.50	62
Barium	<0.50	3.12	3,094
Cadmium	<0.10	<0.10	31
Total Chromium	<1.00	<1.00	3,094
Lead	<0.70	4.28	10
Selenium	<2.50	<2.50	1,236
Silver	<0.50	<0.50	62

None of the wipe samples exceeded the Clean Area Limit for any of the target metals.

OCCU-TEC appreciates the opportunity to work with GSA on this project. If you have any questions concerning this report, or if we may be of any additional service, please feel free to contact us.

Sincerely,

(b) (6)

Jeff T. Smith
Senior Project Manager

(b) (6)

Kevin Heriford
Director of Environmental Health and
Safety (QA/QC)

Appendices:

- A – Sample Summary Table
- B – Laboratory Analysis Report
- C – Professional Accreditation

APPENDIX A – SAMPLE SUMMARY TABLE

Appendix A

Sample Summary Table

Building 106 Wipe Sample Results Summary Table						
Sample Number	Location	Area Description	Analyte	Result	Units	Clean Area Limit*
106-W-01	East Guard Station	Countertop	Arsenic	< 2.50	µg/ft ²	62
			Barium	< 0.50	µg/ft ²	3,094
			Cadmium	< 0.10	µg/ft ²	31
			Chromium	< 1.00	µg/ft ²	3,094
			Lead	< 0.66	µg/ft ²	10
			Selenium	< 2.50	µg/ft ²	1,236
			Silver	< 0.50	µg/ft ²	62
106-W-02	Field Blank		Arsenic	< 2.50	µg	
			Barium	< 0.50	µg	
			Cadmium	< 0.10	µg	
			Chromium	< 1.00	µg	
			Lead	< 0.50	µg	
			Selenium	< 2.50	µg	
			Silver	< 0.50	µg	
106-W-03	West side of building	Floor	Arsenic	< 2.50	µg/ft ²	62
			Barium	3.12	µg/ft ²	3,094
			Cadmium	< 0.10	µg/ft ²	31
			Chromium	< 1.00	µg/ft ²	3,094
			Lead	4.28	µg/ft ²	10
			Selenium	< 2.50	µg/ft ²	1,236
			Silver	< 0.50	µg/ft ²	62

* Clean Area Limit per Brookhaven IH75190=OSHA Housekeeping Limit $[(\text{PEL } (\mu\text{g}/\text{m}^3) \times 10 \text{ m}^3/100\text{cm}^2) \times 929\text{cm}^2/\text{sq. ft.}] / 15$. Lead clean area limit: Brookhaven references EPA/HUD limit for floors, set at 10 µg/sq. ft. as of January 2020.

** Indicates results at or above the Clean Area Limit

APPENDIX B – LABORATORY ANALYSIS REPORT



7469 Whitepine Rd
North Chesterfield, VA 23237
Telephone: 800.347.4010

Wipe Metals Analysis Report

Client: OCCU-Tec Inc
2604 NE Industrial Drive
Suite 230
North Kansas City, MO 64117

Report Number: 25-01-02711

Received Date: 01/16/2025

Analyzed Date: 01/22/2025

Reported Date: 01/24/2025

Project/Test Address: GSA Goodfellow Complex

Client Number:

202507

Fax Number:

Laboratory Results

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft ²)	Total Metal (ug)	Concentration (ug/ft ²)	Narrative ID
25-01-02711-001	106-W-01	Arsenic (As)	1.00	<2.50	<2.5	
		Barium (Ba)	1.00	<0.500	<0.50	
		Cadmium (Cd)	1.00	<0.100	<0.10	
		Chromium (Cr)	1.00	<1.00	<1.0	
		Lead (Pb)	1.00	0.660	0.66	
		Selenium (Se)	1.00	<2.50	<2.5	
		Silver (Ag)	1.00	<0.500	<0.50	
25-01-02711-002	106-W-02	Arsenic (As)		<2.50	---	
		Barium (Ba)		<0.500	---	
		Cadmium (Cd)		<0.100	---	
		Chromium (Cr)		<1.00	---	

Environmental Hazards Services, L.L.C

Client Number: 202507

Report Number: 25-01-02711

Project/Test Address: GSA Goodfellow Complex

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft²)	Total Metal (ug)	Concentration (ug/ft²)	Narrative ID
25-01-02711-003	106-W-03	Lead (Pb)		<0.500	---	
		Selenium (Se)		<2.50	---	
		Silver (Ag)		<0.500	---	
		Arsenic (As)	1.00	<2.50	<2.5	
		Barium (Ba)	1.00	3.12	3.1	
		Cadmium (Cd)	1.00	<0.100	<0.10	
		Chromium (Cr)	1.00	<1.00	<1.0	
		Lead (Pb)	1.00	4.28	4.3	
		Selenium (Se)	1.00	<2.50	<2.5	
		Silver (Ag)	1.00	<0.500	<0.50	

Environmental Hazards Services, L.L.C

Client Number: 202507

Report Number: 25-01-02711

Project/Test Address: GSA Goodfellow Complex

Lab Sample Number	Client Sample Number	Analyte:	Wipe Area (ft ²)	Total Metal (ug)	Concentration (ug/ft ²)	Narrative ID
Sample Narratives:						

Analyst: Carlos Gonzalez

Method: EPA SW846 3050B/6010D

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Reviewed By Authorized Signatory:

Tasha Eaddy

QA/QC Clerk

Sample Results denoted with a "less than" (<) sign contains less than the reporting limit based on a 50mL volume. The reporting limit for Lead is 0.5ug.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Unless otherwise noted, samples are reported without a dry weight correction. Sample location, description, area, volume, etc., was provided by the client. If the report does not contain the result for a field blank, it is due to the fact that the client did not include a field blank with their samples. These sample results do not reflect blank correction. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.

Legend	ug = microgram	ug/ft ² = micrograms per square foot
	mL = milliliter	ft ² = square foot

ENVIRONMENTAL HAZARDS SERVICES, LLC

Metals Chain of Custody Form

Page 1 of 1

Company Name	OCCU-TEC Inc.	Account #	202507
Company Address	2604 NE Industrial Drive Suite 230	City/State/Zip	North Kansas City, MO 64117
Phone	816-231-5580	Email	jarnold@occutech.com

Project Name / Testing Address	GSA Goodfellow Complex
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PO Number	925001	Collected By	Justin Arnold
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Turn-Around Time	<input checked="" type="radio"/> 5 Day <input type="radio"/> 3 Day <input type="radio"/> 2 Day <input type="radio"/> 1 Day <input type="radio"/> Same Day / Weekend - Must Call Ahead
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LAB NUMBER	Client Sample ID	Collection Date & Time	METALS						Other Metals	PARTICULATES					AIR			WIPES	
			Pb-TCLP	TCLP RCRA 8	RCRA 8 Total	Toxic Metal Profile	Welding Fume Profile	TX 11 TCLP	CA 17 Total		Total Nuisance Dust	Respirable Dust	TSP Gravimetric	TSP Pb	PM-10	Total Time	Flow Rate	Vol.	AREA
																Min.	L/min	Total Liters	Circle Unit of Measurement Used cm or in
1	106-W-01	1/13/25 0912								Ag, As, Ba, Cd, Cr, Pb, Se									12 x 12
2	106-W-02	1/13/25 0930																	- x -
3	104-W-03	1/13/25 0839																	12 x 12
4	106-A-01	1/13/25 909-														281	2.54	712.34	x
5	106-A-02	1/13/25 NA														-	-	-	x
6																			x
7																			x
8																			x
9																			x
10																			x
11																			x
12																			x
13																			x
14																			x
15																			x

Released By:	Justin Arnold	Date:		Time:	
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Signature:	(b) (6)
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LAB USE ONLY - BELOW THIS LINE

Received By: DBallen

Signature: (b) (6)

Date: 1/16/25 Time: 2:05

☐ AM ☒ PM

☐ Portal Contact Added

25-01-02711



Due Date:
01/24/2025
(Friday)
AE

P

7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010

RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

APPENDIX C – PROFESSIONAL ACCREDITATION

STATE OF MISSOURI
DEPARTMENT OF HEALTH AND SENIOR SERVICES

LEAD ABATEMENT OCCUPATION LICENSE

Issued to:

Justin Arnold

The person, firm or corporation whose name appears on this certificate has fulfilled the requirements for licensure as set forth in the Missouri Revised Statutes 701.300-701.338, as long as not suspended or revoked, and is hereby authorized to engage in the activity listed below.

Lead Risk Assessor
Category of License

Issuance Date: **8/27/2024**
Expiration Date: **8/27/2026**
License Number: **120611-300003622**

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Paula F. Nickelson
Director
Department of Health and Senior Services

Lead Licensing Program, PO Box 570, Jefferson City, MO 65102