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January 23, 2020

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. 919103

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 15<sup>th</sup>, 2020, a team of OCCU-TEC personnel including a Missouri licensed lead risk assessor conducted settled dust sampling for the presence of six (6) of the Resource Conservation and Recovery Act (RCRA) target metals (lead, arsenic, barium, cadmium, selenium, and silver) from various surfaces within tenant-occupied areas within the building. The purpose of this testing was to further characterize the presence and concentration of target metals in common tenant-occupied areas of the building.

The proposed sampling scheme, the number of samples, the sample distribution and general methodology was 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 conducted within only within tenant-occupied areas. 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 CRF 745.63. The Brookhaven National Laboratory's Surface Wipe Sampling Procedure (IH75190) was also used as a guideline.

Dust wipe sampling for the target metals was conducted on a variety of representative surfaces that have the potential of being disturbed by building occupants. A representative surface area of approximately one square foot (1 SF) was measured and delineated with prefabricated, disposable templates. 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 Scientific Analytical Institute, Inc. (SAI) in Greensboro, North Carolina for Inductively Coupled Plasma (ICP) analysis of metals analysis using Environmental Protection Agency (EPA) method SW846 350B/7420.

Results of the dust wipe sample collected from the building indicate that the sample contained concentrations of target metals above laboratory detection limits. The following table identifies the range of results for each of the six metals that were analyzed. Samples with a "<" sign indicate that the results were below the reportable limit.

Analysis	Concentration
	(µg/sq. ft.)
Silver	< 0.50
Arsenic	< 0.50
Barium	17
Cadmium	0.49
Lead	13
Selenium	<1.3

The sample collected contained target metals below the Brookhaven recommended levels.

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,



Justin Arnold, CIEC Project Manager



(b) (6)

Kevin Heriford
Environmental Operations Manager (QA/QC)

### Appendices:

A - Sample Location Diagram

B - Laboratory Analysis Reports

C - Licenses



**Appendix A**Sample Location Diagrams



Figure 1: Air Sample Location Maps—Bldg. 106

Goodfellow Federal Center

4300 Goodfellow Boulevard

St. Louis, Missouri

Project Number: 919103

EXEMPTION (b)(7)(F)

Appendix B
Laboratory Analytical Results and Chain of Custody Documentation



### **Dust Wipe Metals Concentration** by Inductively-Coupled Plasma Analysis (ICP)



01/16/2020

**Date Received:** 

### NIOSH 7300/EPA SW-846 3050B

**Client:** OCCU-TEC Inc. Lab Order ID: 71933414 Attn: Justin Arnold

2604 NE Industrial Drive, Suite 230

North Kansas City, MO 64117

**Date Reported:** 01/23/2020 1 of 1 **Project:** 919103 Page:

Sample ID	Description	Amaa		Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	Area (ft²)	*Element	Limit (µg)	Concentration (μg)	Concentration (μg/ft²)
		Ag	0.50	< 0.50		
012020-MetW-	Field Blank		As	0.50	< 0.50	
106-01	rieid Dialik		Ba	0.75	< 0.75	
		-	Cd	0.050	< 0.050	
71933414IPW 1			Pb	0.25	< 0.25	
/19554141FW_1			Se	1.3	< 1.3	
			Ag	0.50	< 0.50	< 0.50
012020-MetW- Guard Station		As	0.50	< 0.50	< 0.50	
106-02	106-02 Floor - West Side	1	Ba	3.8	17	17
		1	Cd	0.050	0.49	0.49
710224141011/ 2		Pb 0.25 13	13			
71933414IPW_2			Se	1.3	< 1.3	< 1.3

	(b) (6)
Athena Summa	
Analyst	Lab Director

Unless otherwise noted blank sample correction was not performed on analytical results. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAL MDLs are available upon request. Time-weighted average (TWA) calculations are based on customer supplied data and valid only for samples included in the specified TWA group. Scientific Analytical Institute participates in the AIHA ELPAT program. ELPAT Laboratory ID: 173190.

<sup>\*</sup> SAI is AIHA ELLAP accredited for Pb only for dust wipe metals.



Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313 lab@sailab.com www.sailab.com

Lab Use Only Lab Order ID:	71933414
Client Code: _	

<b>Company Cont</b>	act Information			In	dustrial Hygiene Test Ty	pes
Company: OCCU-		Contact: Justin Arnold		Silica as Alpha Quartz (XSZ)*  With Respirable Dust (XDZ)		) 🗆
Address: 2604 NE	ress: 2604 NE Industrial Drive, Suite 230 Phone □:816-810-3276		810-3276	Silica as Cristobalite (XSC)*  With Respirable Dust (XDC)		
North Kansas City, MO 64117 Fax □:816-994-		94-3478	Cities on Trial miles (VCT)			
		Email :jarnolde	@occutec.com	Silica (XSA	as Alpha Quartz, Cristobalite, Tridyn	nite
Billing/Invoice	Information	Turn Aro	und Times	Silica	Bulk (XSI)*	TE
SAME		90 Min.	48 Hours	Bulk	Phase ID/Whole Rock (XUK)	
Company:		3 Hours	72 Hours	Total	Dust SH Method 0500 (GTD)	
Contact:		6 Hours	96 Hours	Respirable Dust NIOSH Method 0600 (GRD)		
Address:		12 Hours	120 Hours		NIOSH 7400-A Rules (PCM)	
	1	24 Hours	144 <sup>+</sup> Hours	BR	tules (PCB) TWA (PTA)	
		TATs not available	for certain test types	TEM	NIOSH 7402 (Asbestos) (TNI)	
PO Number:				Hexavalent Chromium (OSHA ID-215) (Note if from spray paint operations)		
Project Name/Nu	mber: 919103			Meta	ls (NIOSH 7300) (Specify Metals er Comments)	×
				Other		
Sample ID # 012020-MetW-106-01	Description/I	Location	Volume/a		*Modified NIOSH 7500 OSHA ID 14  Comments  Ag, As, Ba, Cd, Pb	
012020-MetW-106-01					Comments	, Se
012020-MetW-106-01	Field Blank		NA		Comments Ag, As, Ba, Cd, Pb	, Se
012020-MetW-106-01	Field Blank		NA		Comments Ag, As, Ba, Cd, Pb	, Se
012020-MetW-106-01	Field Blank		NA	Area	Comments Ag, As, Ba, Cd, Pb	, Se
012020-MetW-106-01	Field Blank		NA	Area	Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb	, Se
012020-MetW-106-01	Field Blank		NA	Area	Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb	, Se
012020-MetW-106-01 012020-MetW-106-02	Field Blank Guard Station Floor - West S	side	NA	Area	Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb	, Se
012020-MetW-106-01 012020-MetW-106-02	Field Blank Guard Station Floor - West S	Side  Se/Time   (b)	NA 1 SF	Area	Comments Ag, As, Ba, Cd, Pb Ag, As, Ba, Cd, Pb Cepted Total # of Samples 2	me, Se

# Appendix C Qualifications and Licenses

# STATE OF MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES

# **LEAD OCCUPATION LICENSE REGISTRATION**

Issued to:

# Justin E. 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

6/11/2018 Issuance Date: 6/11/2020 **Expiration Date:** 

120611-300003622 License Number:





Randall W. Williams, MD, FACOG Director Department of Health and Senior Services

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