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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 ( $\mu\text{g}/\text{sq. ft.}$ )
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,

(b) (6)

Justin Arnold, CIEC  
Project Manager



(b) (6)

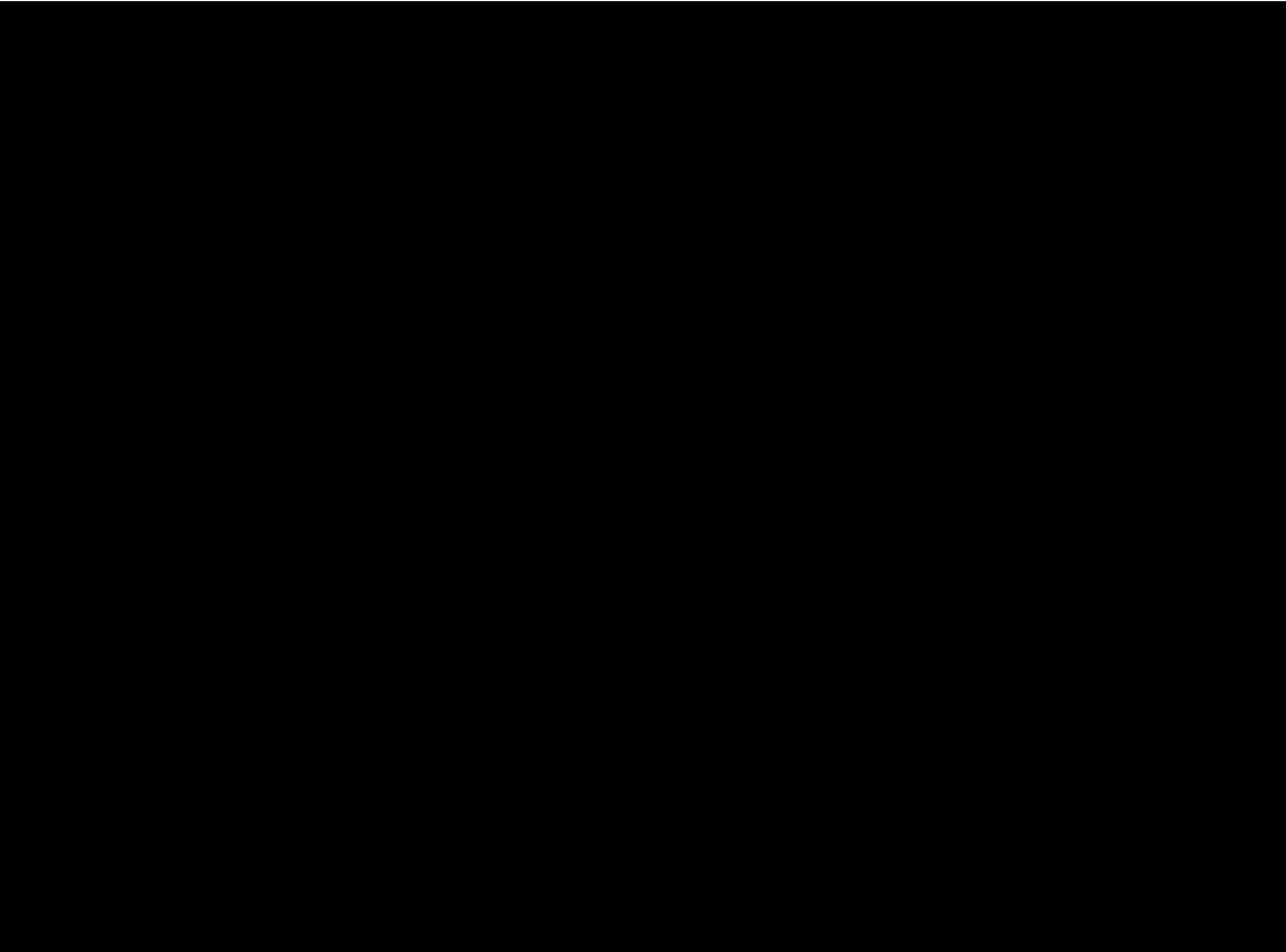
Kevin Heriford  
Environmental Operations Manager (QA/QC)

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)

NIOSH 7300/EPA SW-846 3050B



<b>Client:</b> OCCU-TEC Inc. 2604 NE Industrial Drive, Suite 230 North Kansas City, MO 64117	<b>Attn:</b> Justin Arnold	<b>Lab Order ID:</b> 71933414 <b>Date Received:</b> 01/16/2020 <b>Date Reported:</b> 01/23/2020
<b>Project:</b> 919103		<b>Page:</b> 1 of 1

Sample ID	Description	Area (ft <sup>2</sup> )	*Element	Reporting Limit (µg)	Concentration (µg)	Concentration (µg/ft <sup>2</sup> )
Lab Sample ID	Lab Notes					
012020-MetW-106-01  71933414IPW_1	Field Blank	-	Ag	0.50	< 0.50	--
			As	0.50	< 0.50	--
			Ba	0.75	< 0.75	--
			Cd	0.050	< 0.050	--
			Pb	0.25	< 0.25	--
			Se	1.3	< 1.3	--
012020-MetW-106-02  71933414IPW_2	Guard Station Floor - West Side	1	Ag	0.50	< 0.50	< 0.50
			As	0.50	< 0.50	< 0.50
			Ba	3.8	17	17
			Cd	0.050	0.49	0.49
			Pb	0.25	13	13
			Se	1.3	< 1.3	< 1.3

Athena Summa

**Analyst**

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**Lab Director**

\* SAI is AIHA ELLAP accredited for Pb only for dust wipe metals.

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 SAI. 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.





# **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

Issuance Date: **6/11/2018**  
Expiration Date: **6/11/2020**  
License Number: **120611-300003622**

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