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November 6, 2019

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

**RE: Goodfellow Federal Center – Bldg. # 115 Air Sampling for Total Chromium  
Project # 919103**

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, OCCU-TEC, Inc. (OCCU-TEC) conducted air sampling for the presence of total chromium at Building #115 of the Goodfellow Federal Center (GFC) located at 4300 Goodfellow Federal Boulevard in St. Louis, Missouri. Sampling was completed in response to the ongoing environmental condition assessment at the GFC which is documented at the GFC Reading Room located at:  
<https://www.gsa.gov/portal/content/212361>.

Air sampling was conducted to determine the current levels of total chromium in representative locations throughout the building. Air sampling at Bldg. #115 was conducted on September 23, 2019 by Mr. Austin O'Byrne of OCCU-TEC.

**METHODOLOGY**

Air sampling for chromium was collected on 37-millimeter (mm) cassettes with 0.5 micrometer ( $\mu\text{m}$ ) polyvinyl chloride (PVC) filters using powered air sampling pumps in accordance with National Institute for Occupational Safety and Health (NIOSH) sampling methods. Samples were collected in a method sufficient to collect a minimum sample volume of 300 liters. Air samples were submitted under chain-of-custody to Scientific Analytical Institute, Inc. (SAI), for independent analysis of chromium in accordance with

NIOSH Method 7300. SAI is accredited by the American Industrial Hygiene Association (AIHA) utilizing the Industrial Hygiene Proficiency Analytical Testing (IHPAT) program. SAI's IHPAT Laboratory ID is 173190.

Air sampling for the presence of chromium was conducted at four (4) distinct locations within Building #115. A total of five (5) samples were obtained including field blanks. Sample location diagrams are attached as Appendix B. The air sampling professional's Missouri Lead license is included in Appendix D.

## **RESULTS AND DISCUSSION**

A summary table of all sampling locations is included in Appendix A. The complete laboratory report for the air sampling from Scientific Analytical Institute is attached in Appendix C.

All results were below the Agency for Toxic Substances and Disease Registry (ATSDR) minimum risk level (MRL), the NIOSH recommended exposure limit (REL) and the laboratory's reporting limit (RL).

## **LIMITATIONS**

The scope of this assessment was limited in nature. OCCU-TEC collected samples from a select number of locations in an effort to minimize cost while providing a general overview of the air quality at the site. Samples were only analyzed for chromium in accordance with the scope of services requested by GSA. OCCU-TEC is not responsible for potential contaminants not identified in this report.

This report was prepared for the sole use of GSA. Reliance by any party other than GSA is expressly forbidden without OCCU-TEC's written permission. Any parties relying on the report, with OCCU-TEC's written permission, are bound by the terms and conditions outlined in the original proposal as if said proposal was prepared for them.

OCCU-TEC appreciates the opportunity to work with the 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)

Jeff T. Smith  
Senior Project Manager

(b) (6)

Austin O'Byrne  
Environmental Scientist (QA/QC)

#### **ATTACHMENTS**

Appendix A, Sample Summary by Location  
Appendix B, Sample Location Diagrams  
Appendix C, Laboratory Analytical Results and Chain of Custody Documentation  
Appendix D, Qualifications and Licenses



# **Appendix A**

## Sample Summary by Location



**Goodfellow Federal Center - Building # 115 - Air Sample Data**

Sample Number	Location	Analyte	Result ( $\mu\text{g}/\text{m}^3$ )	Minimal Risk Level *(MRL) ( $\mu\text{g}/\text{m}^3$ )	Recommended Exposure Limit** (REL) ( $\mu\text{g}/\text{m}^3$ )
115-Cr-01	Front Desk	Chromium	< 1.20	5.00	500.00
115-Cr-02	Storage Desk	Chromium	< 1.20	5.00	500.00
115-Cr-03	Aerobics Room	Chromium	< 1.20	5.00	500.00
115-Cr-04	Education Classroom	Chromium	< 1.20	5.00	500.00
115-Cr-05	Field Blank	Chromium	< 1.20	5.00	500.00

\* MRLs are Agency for Toxic Substances and Disease Registry (ATSDR) estimates of the amount of a chemical a person can eat, drink, or breathe each day without a detectable risk to health

\*\*RELs are based on Appendix C (Supplementary Exposure Limits) of the National Institute for Occupational Safety and Health (NIOSH) Pocket Guide to Chemical Hazards, DHHS (NIOSH) Publication No. 2005-149. Revised September 2007.

Indicates results at or above MRL

# **Appendix B**

## Sample Location Diagrams



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**Figure 1: Air Sample Location Maps—Bldg. 115**  
Goodfellow Federal Center  
4300 Goodfellow Boulevard  
St. Louis, Missouri  
Project Number: 919103

# **Appendix C**

## Laboratory Analytical Results and Chain of Custody Documentation

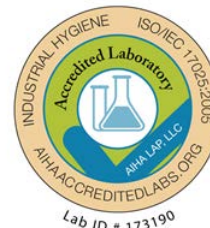






# Airborne Metals Concentration by Inductively-Coupled Plasma Analysis (ICP)

NIOSH Method 7303



**Client:** OCCU-TEC Inc.  
2604 NE Industrial Drive, Ste 230  
North Kansas City, MO 64117

**Attn:** Justin Arnold

**Lab Order ID:** 71925146  
**Date Received:** 09/27/2019  
**Date Reported:** 10/03/2019  
**Date Amended:** 10/08/2019

**Project:** 919103.001 GFC

**Page:** 1 of 1

Sample ID	Description	Volume (L)	Element	Reporting Limit (µg)	Concentration (µg)	Concentration (µg/m <sup>3</sup> )
Lab Sample ID	Lab Notes					
115-Cr-01	Front Desk	403.2	Cr	0.50	< 0.50	< 1.2
71925146IPA_1						
115-Cr-02	Storage Desk	403.2	Cr	0.50	< 0.50	< 1.2
71925146IPA_2						
115-Cr-03	Aerobics room – Storage cabinet	403.2	Cr	0.50	< 0.50	< 1.2
71925146IPA_3						
115-Cr-04	Ed. Classroom	403.2	Cr	0.50	< 0.50	< 1.2
71925146IPA_4						
115-Cr-05	FB	-	Cr	0.50	< 0.50	-
71925146IPA_5						

**Melissa Ferrell**

**Analyst**

**(b) (6)**

**Lab Director**

This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by AIHA or any other agency of the U.S. government. Scientific Analytical Institute participates in the AIHA IHPAT program. IHPAT Laboratory ID: 173190. Unless otherwise noted blank sample correction was not performed on analytical results. MDLs are available upon request. Reporting limits stated above.



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

Lab Use Only  
 Lab Order ID: 71925146  
 Client Code: \_\_\_\_\_

Company Contact Information	
Company: OCCU-TEC Inc.	Contact: Justin Arnold
Address: 2604 NE Industrial Drive, Suite 230	Phone ☐: 816-810-3276
North Kansas City, MO 64117	Fax ☐: 816-994-3478
	Email : jarnold@occutec.com

Billing/Invoice Information	Turn Around Times <sup>^</sup>	
SAME <input checked="" type="checkbox"/>	90 Min. <input type="checkbox"/>	48 Hours <input type="checkbox"/>
Company:	3 Hours <input type="checkbox"/>	72 Hours <input type="checkbox"/>
Contact:	6 Hours <input type="checkbox"/>	96 Hours <input type="checkbox"/>
Address:	12 Hours <input type="checkbox"/>	120 Hours <input checked="" type="checkbox"/>
	24 Hours <input type="checkbox"/>	144 <sup>+</sup> Hours <input type="checkbox"/>
	^TATs not available for certain test types	
PO Number:		
Project Name/Number:	919083.001 GFC	

Industrial Hygiene Test Types	
Silica as Alpha Quartz (XSZ)* <input type="checkbox"/>	With Respirable Dust (XDZ) <input type="checkbox"/>
Silica as Cristobalite (XSC)* <input type="checkbox"/>	With Respirable Dust (XDC) <input type="checkbox"/>
Silica as Tridymite (XST)* <input type="checkbox"/>	With Respirable Dust (XDT) <input type="checkbox"/>
Silica as Alpha Quartz, Cristobalite, Tridymite (XSA)* <input type="checkbox"/>	
With Respirable Dust (XDA) <input type="checkbox"/>	
Silica Bulk (XSI)* <input type="checkbox"/>	
Bulk Phase ID/Whole Rock (XUK) <input type="checkbox"/>	
Total Dust NIOSH Method 0500 (GTD) <input type="checkbox"/>	
Respirable Dust NIOSH Method 0600 (GRD) <input type="checkbox"/>	
PCM NIOSH 7400-A Rules (PCM) <input type="checkbox"/>	
B Rules (PCB) <input type="checkbox"/>	TWA (PTA) <input type="checkbox"/>
TEM NIOSH 7402 (Asbestos) (TNI) <input type="checkbox"/>	
Hexavalent Chromium (OSHA ID-215) (Note if from spray paint operations) <input type="checkbox"/>	
Metals (NIOSH 7300) (Specify Metals Under Comments) <input type="checkbox"/>	
Other: NIOSH 7300 <input checked="" type="checkbox"/>	
* Modified NIOSH 7500. OSHA ID 142	

Sample ID #	Description/Location	Volume/Area	Comments
115-Cr-01	Front desk	403.2 L	Cr
115-Cr-02	Storage desk	↓ N/A	Cr
115-Cr-03	Aerobics room - Storage cabinet		Cr
115-Cr-04	Ed. Classroom		Cr
115-Cr-05	FB		Cr
			Cr
			Cr
			Cr
			Cr
			Cr
			Cr
			Cr
			Cr
			Cr
			Cr
			Cr
			Cr

Accepted   
 Rejected

Total # of Samples \_\_\_\_\_

Relinquished by	Date/Time	Received by	Date/Time
(b) (6)	9/24/19 17:00	(b) (6)	9/27 10:30a

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# **Appendix D**

## Qualifications and Licenses



**STATE OF MISSOURI  
DEPARTMENT OF HEALTH AND SENIOR SERVICES**

**LEAD OCCUPATION LICENSE REGISTRATION**

Issued to:

**Austin G. O'Byrne**

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: **12/10/2018**  
Expiration Date: **12/10/2020**  
License Number: **181210-300005671**

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

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