

Riverside, MO 64150 Telephone: 816.231.5580 Fax: 816.231.5641 www.occutec.com

February 14, 2019

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

RE: Goodfellow Federal Center - Metals in Air Investigation
Building - #104F
4300 Goodfellow Boulevard
St. Louis, Missouri 63120
OCCU-TEC Project No. 918004

Dear Ms. Czarnecki:

Thank you for the opportunity to assist the General Services Administration (GSA) with the Resource Conservation and Recovery Act (RCRA) metals air sampling investigation of the above referenced buildings located at the Goodfellow Federal Center, in St. Louis, Missouri. OCCU-TEC understands that the purpose of the investigation was to provide sampling data regarding pre-existing conditions noted in investigation reports previously prepared for the facility. The following report summarizes the sample collection activities and the laboratory analytical results of the samples submitted.

On January 11, 2019, Missouri licensed air sampling professionals from OCCU-TEC conducted air sampling for the presence of seven of the RCRA metals including Silver, Arsenic, Barium, Cadmium, Chromium, Lead, and Selenium. Sampling was conducted on Building #104F.

The proposed sampling scheme, the numbers of samples, sample distribution and general methodology was developed based on previous investigation methodology and in coordination with the GSA. Sample locations were determined by OCCU-TEC field personnel while on-site.

Resource Conservation and Recovery Act Metals Air Sampling

Air sampling for RCRA metals was collected on 37-millimeter (mm) cassettes with 0.8 micrometer (μm) mixed cellulose ester (MCE) 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 RCRA metals 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.

Results of the air sampling are summarized in the table below by identifying the range of results for Building #104F for each of the seven metals that were sampled. Samples with a "<" sign indicate that the results were below the laboratory's method reporting limit.

Analysis	Lowest	Highest
	Concentration	Concentration
	$(\mu g/m^3)$	$(\mu g/m^3)$
Silver (Ag)	< 0.68	< 0.68
Arsenic (As)	< 0.68	< 0.68
Barium (Ba)	< 0.01	< 0.01
Cadmium (Cd)	< 0.068	< 0.068
Total Chromium (Cr) *	< 0.68	3.0
Lead (Pb)	< 0.35	< 0.35
Selenium (Se)	< 0.68	< 0.68

^{*} The laboratory reported trace amounts of total chromium above the laboratory detection limit on many samples, including field blanks. According to the lab, low levels of Chromium can be found as a contaminant in varying levels on MCE filters for different manufacturers and lots.

Results of the air samples collected indicate that **all** the air samples collected from Building #104F contained concentrations of RCRA metals below the laboratory's method reporting limit and the OSHA Permissible Exposure Limit (PEL) with the exception of total Chromium. As previously noted, the elevated total chromium results were likely due to contaminated MCE filter media. Sample locations and the corresponding results are summarized in the laboratory analytical results that are included in Appendix A. The air sampling professional's Missouri Lead license is in included in Appendix B.

It should be noted that this air sampling investigation was only a screening of airborne RCRA metals and should not be interpreted or used to determine compliance or non-compliance with OSHA personnel monitoring regulations.

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.





Jeff T. Smith Senior Project Manager



Kevin Heriford Project Manager (QA/QC)

Appendices:

A: Laboratory Analytical Results and Chain of Custody Documentation

B: Qualifications and Licenses

Appendix A

Laboratory Analytical Report and Chain of Custody

Documentation





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



NIOSH Method 7300

Client: Occu-Tec, Inc.

100 NW Business Park Ln.

Riverside, MO 64150

Project: 6FC-104F

Attn: Kevin Heriford

Lab Order ID: Date Received: 71901037 01/15/2019

Date Reported:

01/15/2019 01/25/2019

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Sample ID	Description	Volume	Element	Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(L)	Liement	Limit (µg)	Concentration (μg)	(μg/m ³)
			Ag	0.25	< 0.25	< 0.68
			As	0.25	< 0.25	< 0.68
104F-META18-01			Ba	0.038	< 0.038	< 0.10
104F-WIETAT6-01		367.5	Cd	0.025	< 0.025	< 0.068
			Cr	0.25	0.63	1.7
			Pb	0.13	< 0.13	< 0.35
71901037IPA_1			Se	0.25	< 0.25	< 0.68
			Ag	0.25	< 0.25	< 0.68
	Lower Level		As	0.25	< 0.25	< 0.68
102E-META18-02	North		Ba	0.038	< 0.038	< 0.10
102E-META18-02	Office Space	367.5	Cd	0.025	< 0.025	< 0.068
			Cr	0.25	< 0.25	< 0.68
			Pb	0.13	< 0.13	< 0.35
71901037IPA_2			Se	0.25	< 0.25	< 0.68
	_		Ag	0.25	< 0.25	< 0.68
	Lower Level		As	0.25	< 0.25	< 0.68
102E-META18-03	Hallway		Ba	0.038	< 0.038	< 0.10
102E-WIETA18-03	by Mater	367.5	Cd	0.025	< 0.025	< 0.068
		307.3	Cr	0.25	0.68	1.9
			Pb	0.13	< 0.13	< 0.35
71901037IPA_3			Se	0.25	< 0.25	< 0.68

Melissa Ferrell (9)

Analyst

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.



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



NIOSH Method 7300

Attn:

Client: Occu-Tec, Inc.

__

Kevin Heriford

Lab Order ID:

71901037 01/15/2019

100 NW Business Park Ln. Riverside, MO 64150

Date Received: Date Reported:

01/15/2019

Project: 6FC-104F

Page:

2 of 3

Sample ID	Description	Volume	Element	Reporting	Concentration	Concentration	
Lab Sample ID	Lab Notes	(L)	Element	Limit (µg)	(μg)	$(\mu g/m^3)$	
		Lower level	Ag	0.25	< 0.25	< 0.68	
			As	0.25	< 0.25	< 0.68	
102E-META18-04			Ba	0.038	< 0.038	< 0.10	
102E-META16-04	Elevator Lobby	367.5	Cd	0.025	< 0.025	< 0.068	
	LODDy		Cr	0.25	0.59	1.6	
			Pb	0.13	< 0.13	< 0.35	
71901037IPA_4			Se	0.25	< 0.25	< 0.68	
			Ag	0.25	< 0.25	< 0.68	
	Uper	367.5	As	0.25	< 0.25	< 0.68	
102E-META18-05	Level		Ba	0.038	< 0.038	< 0.10	
102E-ME1A18-03	Elevator		Cd	0.025	< 0.025	< 0.068	
Lobby	Lobby		Cr	0.25	1.1	3.0	
			Pb	0.13	< 0.13	< 0.35	
71901037IPA_5			Se	0.25	< 0.25	< 0.68	
	Upper			Ag	0.25	< 0.25	< 0.68
	Level		As	0.25	< 0.25	< 0.68	
102E-META18-06	Hallway outside		Ba	0.038	< 0.038	< 0.10	
102E-ME1A18-00	Oak	367.5	Cd	0.025	< 0.025	< 0.068	
	Room		Cr	0.25	0.56	1.5	
			Pb	0.13	< 0.13	< 0.35	
71901037IPA_6			Se	0.25	< 0.25	< 0.68	

Melissa Ferrell (9)

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Sample ID	Description	Volume	Element	Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(L)	Liement	Limit (µg)	(μg)	$(\mu g/m^3)$
			Ag	0.25	< 0.25	< 0.68
	Upper		As	0.25	< 0.25	< 0.68
102E-META18-07	Level Vacant		Ba	0.038	< 0.038	< 0.10
102E-META16-07	Room	367.5	Cd	0.025	< 0.025	< 0.068
			Cr	0.25	0.51	1.4
			Pb	0.13	< 0.13	< 0.35
71901037IPA_7			Se	0.25	< 0.25	< 0.68
			Ag	0.25	< 0.25	< 0.68
	Unner		As	0.25	< 0.25	< 0.68
102E-META18-08	Level		Ba	0.038	< 0.038	< 0.10
102E-ME1A18-08	Stairwell		Cd	0.025	< 0.025	< 0.068
			Cr	0.25	0.45	1.2
			Pb	0.13	< 0.13	< 0.35
71901037IPA_8			Se	0.25	< 0.25	< 0.68
			Ag	0.25	< 0.25	
			As	0.25	< 0.25	
102E META 19 00	Dlaula		Ba	0.038	< 0.038	
102E-META18-09	Blank	-	Cd	0.025	< 0.025	
			Cr	0.25	0.53	
			Pb	0.13	< 0.13	
71901037IPA_9			Se	0.25	< 0.25	

Melissa Ferrell (9)	(b) (b)
Analyst	Lab Director

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Contact Information

Scientific Analytical Institute

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

Lab Use Only	MANIAM
Lab Order ID	71901037
Client Code:	
Cheff Code:	

Billing/Invoice Information

Company Name: Qu	ulf he	-	Company: 5	an	<i>c</i> .	
Address: 100 Nu		ask In	Address:			
hiverside	MO 64150					
			Contact: Acco	unh	s Payable	
Contact: Kevin	Ker. ford		Phone :			
	825-0628		Fax :			
	994-3466		Email : Ap	20	center.co.	M
	iford @ occur	ec.com				•
	918009		Turn Aroun	d Ti	imes	
Project Name/Number:	OFC - 104 F		3 Hours		72 Hours	
			6 Hours		96 Hours	
Lead Test Types	-		12 Hours		120 Hours	
Paint Chips by Flame AA (PBP)	Soil by Flame AA (PBS)	Other 🔀	24 Hours		144+ Hours	M
Wipe by Flame AA (PBW)	Air by Flame AA (PBA)	ACRA 8 Metals	48 Hours		Standard	
Sample ID #	Descripti	on/Location	Volume/Area		Comments	
Sample ID #	Descripti		Volume/Area		Comments	
	Descripti				Comments	-
104 F - ME+A17 - 01	Descripti		367.5		Comments	-
104 F - ME+A17 - 01	Descripti		367.5		Comments	700
104 F - META 18-02 104 F - META 18-03	Descripti		367.5 367.5 367.5		Comments	÷-
104 F - ME+A17 - 01 104 F - ME+A18 - 02 104 F - METH 15 - 03 104 F - METH 15 - 04 104 F - METH 15 - 05 104 F - METH 06	Descripti		367.5 367.5 367.5		Comments	***
104F-METAIT-01 104F-METAIT-02 104F-METAIT-03 104F-METAIT-04 104F-METAIT-05	Descripti		367.5 367.5 367.5 367.5 367.5		Comments	*
104 F - ME+A17 - 01 104 F - ME+A18 - 02 104 F - METH 15 - 03 104 F - METH 15 - 04 104 F - METH 15 - 05 104 F - METH 06			367.5 367.5 367.5 367.5 367.5 367.5		Comments	***
104 F - META 18 - 01 104 F - META 18 - 02 104 F - META 18 - 03 104 F - META 18 - 04 104 F - META 18 - 05 104 F - META 18 - 06 104 F - META - 07	Blank		367.5 367.5 367.5 367.5 367.5 367.5		Comments	*-
104F-METAIT-01 104F-METAIT-02 104F-METAIT-03 104F-METAIT-04 104F-METAIT-05 104F-METAIT-05 104F-METAIT-07			367.5 367.5 367.5 367.5 367.5 367.5		Comments	*-

Total Number of Samples

Accepted

Rejected

Relinquished by	Date/Time	Received by	Date/Time
(b) (6)	1-14/16	(b) (6)	1.15 8:30 AM
·			Page 1 of 1

Appendix B 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





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

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