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February 3, 2025

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 110  
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 Resource Conservation and Recovery Act (RCRA) metals in air sampling investigation of the above referenced buildings located at the Goodfellow Federal Complex, in St. Louis, Missouri. OCCU-TEC understands that the purpose of the investigation was to provide sampling data regarding existing conditions to supplement previous investigation reports prepared for the facility. The following report summarizes the sample collection activities, and the laboratory analytical results for the samples submitted.

On January 8, 2025, a Missouri licensed air sampling professional 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 within the occupied areas of Building 110.

The proposed sampling scheme, the numbers of samples, sample distribution and general methodology was developed based on previous investigation methodology and coordination with the GSA. Sample locations and samples collected from discretionary 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 ( $\mu\text{m}$ ) 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 500 liters. Air samples were submitted under chain-of-custody to Environmental Hazards Services, LLC (EHS) in Richmond, Virginia for independent analysis of RCRA metals according to NIOSH Method 7300. EHS is accredited by the American Industrial Hygiene Association (AIHA) utilizing the Industrial Hygiene Proficiency Analytical Testing (IHPAT) program. EHS's IHPAT Laboratory ID is LAP-100420.

Results of the air sampling are summarized in the table below by identifying the range of results for building 110 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 Concentration ( $\mu\text{g}/\text{m}^3$ )	Highest Concentration ( $\mu\text{g}/\text{m}^3$ )
Arsenic	<0.26	<0.26
Barium	<0.26	<0.26
Cadmium	<0.051	<0.051
Chromium	<1.3	<1.3
Lead	<0.26	<0.26
Selenium	<1.3	<1.3
Silver	<0.26	<0.26

Results of the air samples collected indicate that all of the air samples collected from Building 110 contained concentrations of RCRA metals below the laboratory's method reporting limit or the OSHA Permissible Exposure Limit (PEL). Sample locations and the corresponding result are summarized in the enclosed in

the laboratory analytical results are included in the attached tables. The air sampling professional's Missouri Lead license is included in Appendix A.

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. GSA may choose to compare results with guidance limits from additional organizations for risk evaluation, including but not limited to the American Conference of Governmental Industrial Hygienists (ACGIH) and/or the World Health Organization (WHO).

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 EH&S Depts. (QA/QC)

Appendices:

- A: Air Sample Results Summary Table
- B: Laboratory Analytical Results and Chain of Custody Documentation
- C: Qualifications and Licenses

## APPENDIX A

### AIR SAMPLE RESULTS SUMMARY TABLE

Appendix A  
Sample Summary Table

Building 110 Air Sample Results Summary Table				
Sample ID	Location	Analyte	Concentration (ug/m <sup>3</sup> )	Recommended Limits <sup>1</sup> (ug/m <sup>3</sup> )
110-A-01	Shop - east side	Arsenic	<0.26	10
		Barium	<0.26	500
		Cadmium	<0.051	5
		Chromium	<1.3	500
		Lead <sup>2</sup>	<0.26	1
		Selenium	<1.3	200
		Silver	<0.26	10
110-A-02	Shop - south side	Arsenic	<0.26	10
		Barium	<0.26	500
		Cadmium	<0.051	5
		Chromium	<1.3	500
		Lead <sup>2</sup>	<0.26	1
		Selenium	<1.3	200
		Silver	<0.26	10
110-A-03	Shop - west side	Arsenic	<0.26	10
		Barium	<0.26	500
		Cadmium	<0.051	5
		Chromium	<1.3	500
		Lead <sup>2</sup>	<0.26	1
		Selenium	<1.3	200
		Silver	<0.26	10
110-A-04	Pegasus Office - west side	Arsenic	<0.26	10
		Barium	<0.26	500
		Cadmium	<0.051	5
		Chromium	<1.3	500
		Lead <sup>2</sup>	<0.26	1
		Selenium	<1.3	200
		Silver	<0.26	10
110-A-05	Pegasus Office - east side	Arsenic	<0.26	10
		Barium	<0.26	500
		Cadmium	<0.051	5
		Chromium	<1.3	500
		Lead <sup>2</sup>	<0.26	1
		Selenium	<1.3	200
		Silver	<0.26	10
110-A-06	Field Blank	Arsenic	<0.15 ug	10
		Barium	<0.03 ug	500
		Cadmium	<0.75 ug	5
		Chromium	<0.15 ug	500
		Lead <sup>2</sup>	<0.75 ug	1
		Selenium	<0.75 ug	200
		Silver	<0.15 ug	10

Appendix A  
Sample Summary Table

Notes:

<sup>1</sup>Limits equal to the OSHA Permissible Exposure Limits (PELs)

<sup>2</sup> Limits equal to the World Health Organization (WHO) Ambient Air Limit

APPENDIX B

LABORATORY ANALYTICAL RESULTS AND CHAIN OF CUSTODY  
DOCUMENTATION



7469 Whitepine Rd  
North Chesterfield, VA 23237  
Telephone: 800.347.4010

## Air Metals Analysis Report

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

Report Number: 25-01-02700

Received Date: 01/16/2025

Reported Date: 01/24/2025

Project/Test Address: GSA Goodfellow Complex

Client Number:  
202507

Fax Number:

# Laboratory Results

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m <sup>3</sup> )	Narrative ID
25-01-02700-001		01/23/2025	Arsenic (As)	599.4	<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	
			Cadmium (Cd)		<0.030	<0.051	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.26	
25-01-02700-002		01/23/2025	Arsenic (As)	599	<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	
			Cadmium (Cd)		<0.030	<0.051	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.26	
25-01-02700-003		01/23/2025	Arsenic (As)	598.8	<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	
			Cadmium (Cd)		<0.030	<0.051	



# Environmental Hazards Services, L.L.C

Client Number: 202507

Report Number: 25-01-02700

Project/Test Address: GSA Goodfellow Complex

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m³)	Narrative ID
25-01-02700-004		01/23/2025	Chromium (Cr)	594.2	<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.26	
			Arsenic (As)		<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	
			Cadmium (Cd)		<0.030	<0.051	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
25-01-02700-005		01/23/2025	Silver (Ag)	591.4	<0.15	<0.26	
			Arsenic (As)		<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	
			Cadmium (Cd)		<0.030	<0.051	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
25-01-02700-006		01/23/2025	Silver (Ag)	0	<0.15	---	
			Arsenic (As)		<0.15	---	
			Barium (Ba)		<0.15	---	
			Cadmium (Cd)		<0.030	---	
			Chromium (Cr)		<0.75	---	
			Lead (Pb)		<0.15	---	
			Selenium (Se)		<0.75	---	
			Silver (Ag)		<0.15	---	

# Environmental Hazards Services, L.L.C

Client Number: 202507

Report Number: 25-01-02700

Project/Test Address: GSA Goodfellow Complex

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m <sup>3</sup> )	Narrative ID
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Sample Narratives:

Method: NIOSH 7300M  
Analyst: Carlos Gonzalez

(b) (6)

Reviewed By Authorized Signatory:

*Tasha Eaddy*  
QA/QC Clerk

Sample Results denoted with a "less than" (<) sign contains less than the reporting limit for each particular metal, based on a 15mL volume. The reporting limit is 0.03ug for Cadmium, 0.15ug for Arsenic, Barium, Lead and Silver, and 0.75ug for Chromium and Selenium.

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 mL = milliliter	ug/m <sup>3</sup> = micrograms per cubic meter L= Liters
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# 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									
PO Number		925001				Collected By		Justin Arnold			
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									

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	Circle Unit of Measurement Used cm or in
																Min.	L/min	Total Liters		
1	110-A-01	1/14/25 0949-							Ag, As, Ba, Cd, Cr, Pb, Se						234	2.54	599.4		x	
2	110-A-02	0952-												234	2.54	599		x		
3	110-A-03	0954-												233	2.57	598.8		x		
4	110-A-04	0959-												232	2.57	596.2		x		
5	110-A-05	1001-												231	2.56	591.4		x		
6	110-A-06													NA	NA	NA		x		
7																		x		
8																		x		
9																		x		
10																		x		
11																		x		
12																		x		
13																		x		
14																		x		
15																		x		

Released By: Justin Arnold		Date: 1/15/25		Time: 1530	
Signature: (b) (6)					

LAB USE ONLY - BELOW THIS LINE

Received By: DPK  
 Signature: (b) (6)  
 Date: 1/16/25 Time: 156 ☐ AM ☒ PM  
☐ Portal Contact Added

25-01-02700



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](http://www.leadlab.com)

APPENDIX C

QUALIFICATIONS AND LICENSES

***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**

(b) (6)

Paula F. Nickelson  
Director  
Department of Health and Senior Services

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