



June 25, 2018

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 #104E
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 Complex, in St. Louis, Missouri. OCCU-TEC, Inc. (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 April 24, 2018, Missouri licensed air sampling professionals from OCCU-TEC conducted air sampling for the presence of seven (7) of the RCRA metals including Silver, Arsenic, Barium, Cadmium, Chromium, Lead, and Selenium at Building 104E.

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 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 (µm) mixed cellulose ester (MCE) filters using powered air sampling pumps in accordance with National Institute for Occupational Safety and Health (NIOSH) sampling methodology. 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 according to NIOSH Method 7300. SAI is accredited by the American Industrial Hygiene Association (AIHA) utilizing the Industrial Hygiene Proficiency Analytical Testing (IHPAT) program. SAI’s AIHA IHPAT Laboratory identification number is 173190.

Results of the air sampling are summarized in the table below by identifying the range of results for Building 104E for each of the seven (7) metals that were sampled. **Samples with a “<” sign indicate that the results were below the laboratory’s method reporting limit.**

| Analysis | Lowest Concentration (µg/m³) | Highest Concentration (µg/m³) |
|-------------------|------------------------------|-------------------------------|
| Silver Ag | <6.2 | <6.2 |
| Arsenic As | <0.31 | <0.31 |
| Barium Ba | <0.062 | <0.062 |
| Cadmium Cd | <0.062 | <0.062 |
| Total Chromium Cr | 0.90 | 1.5 |
| Lead Pb | <0.31 | <0.31 |
| Selenium Se | <0.62 | <0.62 |

Results indicate that **all** of the ten (10) air samples collected from Building 104E contained concentrations of RCRA metals below the OSHA Permissible Exposure Limit (PEL). Sample locations and the corresponding result are summarized in the enclosed laboratory analytical report. The air sampling professional’s Missouri Lead license is 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.

Sincerely,

(b) (6)

Jeff T. Smith
Senior Project Manager

(b) (6)

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: 918004.002

Attn: Justin Arnold

Lab Order ID: 11811098
Date Received: 05/04/2018
Date Reported: 05/14/2018
Page: 1 of 4

| Sample ID | Description | Volume (L) | Element | Reporting Limit (µg) | Concentration (µg) | Concentration (µg/m ³) |
|----------------|----------------------------------|------------|---------|----------------------|--------------------|------------------------------------|
| Lab Sample ID | Lab Notes | | | | | |
| 104E-MetA18-01 | 1 st Floor Column M51 | 323.2 | Ag | 2.0 | <2.0 | <6.2 |
| | | | As | 0.10 | <0.10 | <0.31 |
| | | | Ba | 0.020 | <0.020 | <0.062 |
| | | | Cd | 0.020 | <0.020 | <0.062 |
| | | | Cr | 0.20 | 0.40 | 1.2 |
| | | | Pb | 0.10 | <0.10 | <0.31 |
| 11811098ICP_1 | | | Se | 0.20 | <0.20 | <0.62 |
| 104E-MetA18-02 | 1 st Floor Column L50 | 323.2 | Ag | 2.0 | <2.0 | <6.2 |
| | | | As | 0.10 | <0.10 | <0.31 |
| | | | Ba | 0.020 | <0.020 | <0.062 |
| | | | Cd | 0.020 | <0.020 | <0.062 |
| | | | Cr | 0.20 | 0.40 | 1.2 |
| | | | Pb | 0.10 | <0.10 | <0.31 |
| 11811098ICP_2 | | | Se | 0.20 | <0.20 | <0.62 |
| 104E-MetA18-03 | 1 st Floor Column O47 | 323.2 | Ag | 2.0 | <2.0 | <6.2 |
| | | | As | 0.10 | <0.10 | <0.31 |
| | | | Ba | 0.020 | <0.020 | <0.062 |
| | | | Cd | 0.020 | <0.020 | <0.062 |
| | | | Cr | 0.20 | 0.39 | 1.2 |
| | | | Pb | 0.10 | <0.10 | <0.31 |
| 11811098ICP_3 | | | Se | 0.20 | <0.20 | <0.62 |

Taylor Davis

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.



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: 918004.002

Attn: Justin Arnold

Lab Order ID: 11811098
Date Received: 05/04/2018
Date Reported: 05/14/2018
Page: 2 of 4

| Sample ID | Description | Volume (L) | Element | Reporting Limit (µg) | Concentration (µg) | Concentration (µg/m ³) |
|----------------|----------------------------------|------------|---------|----------------------|--------------------|------------------------------------|
| Lab Sample ID | Lab Notes | | | | | |
| 104E-MetA18-04 | 1 st Floor Column O44 | 323.2 | Ag | 2.0 | <2.0 | <6.2 |
| | | | As | 0.10 | <0.10 | <0.31 |
| | | | Ba | 0.020 | <0.020 | <0.062 |
| | | | Cd | 0.020 | <0.020 | <0.062 |
| | | | Cr | 0.20 | 0.42 | 1.3 |
| | | | Pb | 0.10 | <0.10 | <0.31 |
| 11811098ICP_4 | | | Se | 0.20 | <0.20 | <0.62 |
| 104E-MetA18-05 | 2 nd Floor Column M43 | 323.2 | Ag | 2.0 | <2.0 | <6.2 |
| | | | As | 0.10 | <0.10 | <0.31 |
| | | | Ba | 0.020 | <0.020 | <0.062 |
| | | | Cd | 0.020 | <0.020 | <0.062 |
| | | | Cr | 0.20 | 0.32 | 0.99 |
| | | | Pb | 0.10 | <0.10 | <0.31 |
| 11811098ICP_5 | | | Se | 0.20 | <0.20 | <0.62 |
| 104E-MetA18-06 | 2 nd Floor Column L46 | 323.2 | Ag | 2.0 | <2.0 | <6.2 |
| | | | As | 0.10 | <0.10 | <0.31 |
| | | | Ba | 0.020 | <0.020 | <0.062 |
| | | | Cd | 0.020 | <0.020 | <0.062 |
| | | | Cr | 0.20 | 0.40 | 1.2 |
| | | | Pb | 0.10 | <0.10 | <0.31 |
| 11811098ICP_6 | | | Se | 0.20 | <0.20 | <0.62 |

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

NIOSH Method 7300



| | | | | |
|----------------------------|---|----------------------------|----------------------------------|--|
| Client: | Occu-Tec, Inc 100 NW Business Park Ln Riverside, MO 64150 | Attn: Justin Arnold | Lab Order ID: 11811098 | |
| | | | Date Received: 05/04/2018 | |
| | | | Date Reported: 05/14/2018 | |
| Project: 918004.002 | | | Page: 3 of 4 | |

| Sample ID | Description | Volume (L) | Element | Reporting Limit (µg) | Concentration (µg) | Concentration (µg/m³) |
|----------------------|----------------------------------|------------|---------|----------------------|--------------------|-----------------------|
| <i>Lab Sample ID</i> | <i>Lab Notes</i> | | | | | |
| 104E-MetA18-07 | 2 nd Floor Column M49 | 323.2 | Ag | 2.0 | <2.0 | <6.2 |
| | | | As | 0.10 | <0.10 | <0.31 |
| | | | Ba | 0.020 | <0.020 | <0.062 |
| | | | Cd | 0.020 | <0.020 | <0.062 |
| | | | Cr | 0.20 | 0.50 | 1.5 |
| | | | Pb | 0.10 | <0.10 | <0.31 |
| 11811098ICP_7 | | | Se | 0.20 | <0.20 | <0.62 |
| 104E-MetA18-08 | 2 nd Floor Column P50 | 323.2 | Ag | 2.0 | <2.0 | <6.2 |
| | | | As | 0.10 | <0.10 | <0.31 |
| | | | Ba | 0.020 | <0.020 | <0.062 |
| | | | Cd | 0.020 | <0.020 | <0.062 |
| | | | Cr | 0.20 | 0.42 | 1.3 |
| | | | Pb | 0.10 | <0.10 | <0.31 |
| 11811098ICP_8 | | | Se | 0.20 | <0.20 | <0.62 |
| 104E-MetA18-09 | Exterior Roof | 323.2 | Ag | 2.0 | <2.0 | <6.2 |
| | | | As | 0.10 | <0.10 | <0.31 |
| | | | Ba | 0.020 | <0.020 | <0.062 |
| | | | Cd | 0.020 | <0.020 | <0.062 |
| | | | Cr | 0.20 | 0.29 | 0.90 |
| | | | Pb | 0.10 | <0.10 | <0.31 |
| 11811098ICP_9 | | | Se | 0.20 | <0.20 | <0.62 |

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

NIOSH Method 7300



| | | | |
|-----------------|---|----------------------------|----------------------------------|
| Client: | Occu-Tec, Inc 100 NW Business Park Ln Riverside, MO 64150 | Attn: Justin Arnold | Lab Order ID: 11811098 |
| | | | Date Received: 05/04/2018 |
| | | | Date Reported: 05/14/2018 |
| Project: | 918004.002 | | Page: 4 of 4 |

| Sample ID | Description | Volume (L) | Element | Reporting Limit (µg) | Concentration (µg) | Concentration (µg/m ³) |
|----------------------|------------------|------------|---------|----------------------|--------------------|------------------------------------|
| <i>Lab Sample ID</i> | <i>Lab Notes</i> | | | | | |
| 104E-MetA18-10 | Blank | 0 | Ag | 2.0 | <2.0 | -- |
| | | | As | 0.10 | <0.10 | -- |
| | | | Ba | 0.020 | <0.020 | -- |
| | | | Cd | 0.020 | <0.020 | -- |
| | | | Cr | 0.20 | 0.45 | -- |
| | | | Pb | 0.10 | <0.10 | -- |
| 11811098ICP_10 | | | Se | 0.20 | <0.20 | -- |

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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: 11811088
 Client Code: _____

| Company Contact Information | |
|------------------------------------|----------------------------|
| Company: Occu-Tec | Contact: Justin Arnold |
| Address: 100 NW Business Park Lane | Phone: 816-810-3276 |
| Riverside, MO 64150 | Fax: 816-994-3478 |
| | Email: jarnald@occutec.com |

| 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: PCRA 8 U.S. 45 NIOSH 7300 OSHA 125 | <input checked="" type="checkbox"/> |

| Billing/Invoice Information | Turn Around Times [^] | |
|--|--|--|
| 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 type="checkbox"/> |
| | 24 Hours <input type="checkbox"/> | 144 ⁺ Hours <input checked="" type="checkbox"/> |
| | [^] TATs not available for certain test types | |
| PO Number: 232018061 | | |
| Project Name/Number: 918004.002 | | |

| Sample ID # | Description/Location | Volume/Area | Comments |
|----------------|-----------------------------------|-------------|--|
| 104E-McHA18-01 | 1 st Floor Column M 51 | 323.2 L | |
| 104E-McHA18-02 | 1 st Floor Column L 50 | 323.2 L | |
| 104E-McHA18-03 | 1 st Floor Column O 47 | 323.2 L | |
| 104E-McHA18-04 | 1 st Floor Column O 44 | 323.2 L | |
| 104E-McHA18-05 | 2 nd Floor Column M 43 | 323.2 L | |
| 104E-McHA18-06 | 2 nd Floor Column L 46 | 323.2 L | |
| 104E-McHA18-07 | 2 nd Floor Column M 49 | 323.2 L | |
| 104E-McHA18-08 | 2 nd Floor Column P 50 | 323.2 L | |
| 104E-McHA18-09 | Exterior Roof | 323.2 L | Accepted <input checked="" type="checkbox"/> |
| 104E-McHA18-10 | BLANK | - | Rejected <input type="checkbox"/> |

Total # of Samples 10

| Relinquished by | Date/Time | Received by | Date/Time |
|-----------------|------------|-------------|--------------|
| (b) (6) | 11-30-2018 | (b) (6) | 5/4 10:30 AM |

Appendix B

Qualifications and Licenses





Missouri Department of Health and Senior Services

P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010
RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466

Peter Lyskowski
Acting Director



Jeremiah W. (Jay) Nixon
Governor

May 27, 2016

Justin Arnold
Occu-Tec, Inc.
100 NW Business Park Lane
Riverside, MO 64150

Dear Licensee:

After review of your renewal application for a license with the Missouri Department of Health and Senior Services' Lead Licensing Program, your application for a Lead Risk Assessor license has been approved.

Enclosed is your Lead Risk Assessor license certificate and photo identification badge. Please have your identification badge with you at all times while conducting lead abatement activities.

Note the date your Lead Risk Assessor license expires. A renewal application and information will be mailed to you approximately three months before your license expiration date and will need to be completed and submitted 60 days prior to the expiration date.

A requirement of renewing your application will be attending a Lead Risk Assessor refresher class. A list of Missouri accredited lead abatement training providers will be included in your renewal packet. Additional information on training and lead abatement in general can be found at <http://health.mo.gov/safety/leadlicensing/index.php>.

Please contact the Lead Licensing Program at (573) 526-5873 or (888) 837-0927 if you have any questions concerning this letter or on lead abatement regulations in general.

Sincerely,

(b) (6)

Angie DeBroeck
Lead Licensing Program

AKD:ss

Enclosures



www.health.mo.gov

Healthy Missourians for
The Missouri Department of Health and Senior Services will be the lead

Expiration Date: N/A

Certificate Number: 7070111MOASP13670

Training Date: 7/1/2011

Missouri State Certificate for Asbestos Related Occupations

issued by Department of Natural Resources

P.O. Box 176

Jefferson City, MO 65102

Phone (573) 751-4817

Justin E. Arnold

has successfully completed the requirements for certification as a AIR SAMPLING PROFESSIONAL. This Missouri State Certification is subject to review and the director may deny, suspend or revoke the certification per RSMo chapter 643.230.

(b) (6)

7/5/2011

Date

Director of Air Pollution Control Program

