



July 8, 2024

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. 105 Air Sampling
Project No. 121244

Dear Ms. Czarnecki:

Thank you for the opportunity to provide the General Services Administration (GSA) with the Resource Conservation and Recovery Act (RCRA) metals air sampling investigation of the above referenced building located at the Goodfellow Federal Complex, in St. Louis, Missouri. Burns & McDonnell 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 air-sample collection activities and the laboratory analytical results of the samples submitted.

METHODOLOGY

On June 3, 4, and 7, 2024, Ashley Anstaett, Tas Uddin, Eric Wenger of Burns & McDonnell conducted area air-sampling for the presence of seven (7) of the RCRA metals including arsenic, barium, cadmium, chromium, lead, selenium, and silver. Sampling was conducted in various locations throughout Building 105.

The sampling plan, number 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 sampling personnel while on-site.

Air samples for RCRA metals were collected on 37-millimeter (mm) cassettes with 0.8 micrometer (μm) mixed cellulose ester (MCE) filters, using powered air sampling pumps, in accordance with the National Institute for Occupational Safety and Health (NIOSH) Method 7300. The sampling strategy included collecting a minimum sample volume of 500 liters based on the calibrated pump flow rate and sample duration. Air samples were submitted under chain-of-custody to Environmental Hazards Services, LLC (EHS) in Richmond, Virginia for independent analysis of 7 RCRA metals according to NIOSH method 7300. EHS is accredited under the American Industrial Hygiene Association (AIHA) Industrial Hygiene Laboratory Accreditation Program (IHLAP) program, identification number LAP-100420.

Diane Czarnecki
 Facilities Management Division
 July 8, 2024
 Page 2

RESULTS AND DISCUSSION

Results of the air sampling are summarized in the table below by identifying the range of results for Building 105 for each of the seven (7) metals that were sampled. Results indicate that all 27 air samples collected from Building 105 and analyzed for RCRA metals were below their respective OSHA Permissible Exposure Limit (PEL), as based on a time-weighted-average.

Table 1. Summary of Air Sampling Results

Analyte	Lowest Concentration ^(a) ($\mu\text{g}/\text{m}^3$) ^(b)	Highest Concentration ^(a) ($\mu\text{g}/\text{m}^3$) ^(b)	Permissible Exposure Limit (PEL) ($\mu\text{g}/\text{m}^3$) ^(b)
Arsenic	<0.24	<0.27	10
Barium	<0.24	<0.27	500
Cadmium	<0.048	<0.054	5
Chromium (Total)	<1.2	<1.4	500
Lead	<0.24	<0.27	1
Selenium	<1.2	<1.4	200
Silver	<0.24	<0.27	10

Notes:

- (a) Samples with a “<” sign indicate that the results were below the laboratory’s reporting limit, which varies based on sample air volume.
- (b) $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter of air.

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).

A summary table of all sampling results by location is included in Appendix A. The complete laboratory report for the air sampling from EHS is attached in Appendix B.

LIMITATIONS

The scope of this assessment was limited as follows. Burns & McDonnell 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. Sample locations do not encompass every indoor space at the site. Additionally, based on previous sampling history, samples were only analyzed for a select number of potential contaminants likely to affect the air quality at the site. Burns &



Diane Czarnecki
Facilities Management Division
July 8, 2024
Page 3

McDonnell is not responsible for potential contaminants not identified in this report. This report was prepared for the sole use of GSA.

Burns & McDonnell 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)

Matt Shanahan, CHMM
Project Manager

Attachments:

- Appendix A – Results Summary by Location
- Appendix B – Air Sample Laboratory Report

Information in Appendices A and B is not accessible for people using screen reader technology. If this information is required, it can be furnished upon request by contacting 816-223-6198 or r6environmental@gsa.gov.

APPENDIX A – RESULTS SUMMARY BY LOCATION

Appendix A

Results Summary by Location

Sample Number	Location	Analyte	Result	Units	Recommended Limits ¹
105-A-01	1st floor, south entrance, top of drinking fountain	Arsenic	< 0.26	µg/m ³	10
		Barium	< 0.26	µg/m ³	500
		Cadmium	< 0.052	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.26	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.26	µg/m ³	10
105-A-02	1st floor, top of cabinet at column F53	Arsenic	< 0.26	µg/m ³	10
		Barium	< 0.26	µg/m ³	500
		Cadmium	< 0.052	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.26	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.26	µg/m ³	10
105-A-03	1st floor, metal shelf at column H49	Arsenic	< 0.27	µg/m ³	10
		Barium	< 0.27	µg/m ³	500
		Cadmium	< 0.054	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead ²	< 0.27	µg/m ³	1
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.27	µg/m ³	10
105-A-04	1st floor, top of corrosive cabinet at column C47	Arsenic	< 0.27	µg/m ³	10
		Barium	< 0.27	µg/m ³	500
		Cadmium	< 0.053	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead ²	< 0.27	µg/m ³	1
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.27	µg/m ³	10
105-A-05	1st floor, south office, top of refrigerator at column B51	Arsenic	< 0.27	µg/m ³	10
		Barium	< 0.27	µg/m ³	500
		Cadmium	< 0.053	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead ²	< 0.27	µg/m ³	1
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.27	µg/m ³	10
105-A-06	1st floor, north end of lab, top of metal shelf	Arsenic	< 0.24	µg/m ³	10
		Barium	< 0.24	µg/m ³	500
		Cadmium	< 0.048	µg/m ³	5
		Chromium	< 1.2	µg/m ³	500
		Lead ²	< 0.24	µg/m ³	1
		Selenium	< 1.2	µg/m ³	200
		Silver	< 0.24	µg/m ³	10

Appendix A

Results Summary by Location

Sample Number	Location	Analyte	Result	Units	Recommended Limits ¹
105-A-07	1st floor, southeast stairwell	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.050	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
105-A-08	1st floor, top of table at column D43	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.049	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
105-A-09	1st floor, middle metal shelf at column L1	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.049	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
105-A-10	1st floor, northwest hallway, first window from the left	Arsenic	< 0.24	µg/m ³	10
		Barium	< 0.24	µg/m ³	500
		Cadmium	< 0.048	µg/m ³	5
		Chromium	< 1.2	µg/m ³	500
		Lead ²	< 0.24	µg/m ³	1
		Selenium	< 1.2	µg/m ³	200
		Silver	< 0.24	µg/m ³	10
105-A-11	2nd floor, room 327, top of bookshelf	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.050	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
105-A-12	2nd floor, room 344, top of front desk	Arsenic	< 0.24	µg/m ³	10
		Barium	< 0.24	µg/m ³	500
		Cadmium	< 0.048	µg/m ³	5
		Chromium	< 1.2	µg/m ³	500
		Lead ²	< 0.24	µg/m ³	1
		Selenium	< 1.2	µg/m ³	200
		Silver	< 0.24	µg/m ³	10

Appendix A

Results Summary by Location

Sample Number	Location	Analyte	Result	Units	Recommended Limits ¹
105-A-13	2nd floor, room 361, top of office desk	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.049	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
105-A-14	2nd floor, room 339, top of countertop with sink	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.050	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
105-A-15	2nd floor, break room, top of cabinet by refrigerator	Arsenic	< 0.26	µg/m ³	10
		Barium	< 0.26	µg/m ³	500
		Cadmium	< 0.052	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.26	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.26	µg/m ³	10
105-A-16	2nd floor, room 334, top of bookshelf next to microwave	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.049	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
105-A-17	2nd floor, room 332, bookshelf	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.049	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
105-A-18	2nd floor, room 315, top of desk next to refrigerator	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.049	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10

Appendix A

Results Summary by Location

Sample Number	Location	Analyte	Result	Units	Recommended Limits ¹
105-A-19	2nd floor, east hallway, next to drinking water fountain	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.049	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
105-A-20	2nd floor, room 309, top of wooden cabinet	Arsenic	< 0.25	µg/m ³	10
		Barium	< 0.25	µg/m ³	500
		Cadmium	< 0.050	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.25	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
105-A-21	2nd floor, south stairwell, stairs	Arsenic	< 0.26	µg/m ³	10
		Barium	< 0.26	µg/m ³	500
		Cadmium	< 0.052	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.26	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.26	µg/m ³	10
105-A-22	2nd floor, room 355, top of table on north wall	Arsenic	< 0.26	µg/m ³	10
		Barium	< 0.26	µg/m ³	500
		Cadmium	< 0.052	µg/m ³	5
		Chromium	< 1.3	µg/m ³	500
		Lead ²	< 0.26	µg/m ³	1
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.26	µg/m ³	10
105-A-23	2nd floor, hallway next to room 314	Arsenic	< 0.27	µg/m ³	10
		Barium	< 0.27	µg/m ³	500
		Cadmium	< 0.053	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead ²	< 0.27	µg/m ³	1
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.27	µg/m ³	10
105-A-24	2nd floor, mechanical room 320	Arsenic	< 0.27	µg/m ³	10
		Barium	< 0.27	µg/m ³	500
		Cadmium	< 0.053	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead ²	< 0.27	µg/m ³	1
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.27	µg/m ³	10

Appendix A

Results Summary by Location

Sample Number	Location	Analyte	Result	Units	Recommended Limits ¹
105-A-25	Field blank	Arsenic	< 0.15	µg	--
		Barium	< 0.15	µg	--
		Cadmium	< 0.030	µg	--
		Chromium	< 0.75	µg	--
		Lead ²	< 0.15	µg	--
		Selenium	< 0.75	µg	--
		Silver	< 0.15	µg	--
105-A-26	Field blank	Arsenic	< 0.15	µg	--
		Barium	< 0.15	µg	--
		Cadmium	< 0.030	µg	--
		Chromium	< 0.75	µg	--
		Lead ²	< 0.15	µg	--
		Selenium	< 0.75	µg	--
		Silver	< 0.15	µg	--
105-A-27	Field blank	Arsenic	< 0.15	µg	--
		Barium	< 0.15	µg	--
		Cadmium	< 0.030	µg	--
		Chromium	< 0.75	µg	--
		Lead ²	< 0.15	µg	--
		Selenium	< 0.75	µg	--
		Silver	< 0.15	µg	--

Notes:

¹Limits equal to the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs)

²Limits equal to the World Health organization (WHO) Ambient Air Limit

APPENDIX B – AIR SAMPLE LABORATORY REPORT



7469 Whitepine Rd
 North Chesterfield, VA 23237
 Telephone: 800.347.4010

Air Metals Analysis Report

Client: Burns & McDonnell Engineering
 9400 Ward Pkwy.
 Kansas City, MO 64114

Report Number: 24-06-01647
 Received Date: 06/11/2024
 Reported Date: 06/18/2024

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd

Client Number:
 26-3514

Fax Number:
 816-822-3494

Laboratory Results

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m ³)	Narrative ID
24-06-01647-001	105-A-01	06/14/2024	Arsenic (As)	577	<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	
			Cadmium (Cd)		<0.030	<0.052	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.26	
24-06-01647-002	105-A-02	06/14/2024	Arsenic (As)	577	<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	
			Cadmium (Cd)		<0.030	<0.052	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.26	
24-06-01647-003	105-A-03	06/14/2024	Arsenic (As)	564	<0.15	<0.27	
			Barium (Ba)		<0.15	<0.27	
			Cadmium (Cd)		<0.030	<0.054	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 24-06-01647

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m ³)	Narrative ID
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.27	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.27	
24-06-01647-004	105-A-04	06/14/2024	Arsenic (As)	570	<0.15	<0.27	
			Barium (Ba)		<0.15	<0.27	
			Cadmium (Cd)		<0.030	<0.053	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.27	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.27	
24-06-01647-005	105-A-05	06/14/2024	Arsenic (As)	573	<0.15	<0.27	
			Barium (Ba)		<0.15	<0.27	
			Cadmium (Cd)		<0.030	<0.053	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.27	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.27	
24-06-01647-006	105-A-06	06/14/2024	Arsenic (As)	632	<0.15	<0.24	
			Barium (Ba)		<0.15	<0.24	
			Cadmium (Cd)		<0.030	<0.048	
			Chromium (Cr)		<0.75	<1.2	
			Lead (Pb)		<0.15	<0.24	
			Selenium (Se)		<0.75	<1.2	
			Silver (Ag)		<0.15	<0.24	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 24-06-01647

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m ³)	Narrative ID
24-06-01647-007	105-A-07	06/14/2024	Arsenic (As)	601	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.050	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-008	105-A-08	06/14/2024	Arsenic (As)	624	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.049	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-009	105-A-09	06/14/2024	Arsenic (As)	624	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.049	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-010	105-A-10	06/14/2024	Arsenic (As)	627	<0.15	<0.24	
			Barium (Ba)		<0.15	<0.24	
			Cadmium (Cd)		<0.030	<0.048	
			Chromium (Cr)		<0.75	<1.2	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 24-06-01647

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m ³)	Narrative ID
			Lead (Pb)		<0.15	<0.24	
			Selenium (Se)		<0.75	<1.2	
			Silver (Ag)		<0.15	<0.24	
24-06-01647-011	105-A-11	06/14/2024	Arsenic (As)	606	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.050	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-012	105-A-12	06/14/2024	Arsenic (As)	629	<0.15	<0.24	
			Barium (Ba)		<0.15	<0.24	
			Cadmium (Cd)		<0.030	<0.048	
			Chromium (Cr)		<0.75	<1.2	
			Lead (Pb)		<0.15	<0.24	
			Selenium (Se)		<0.75	<1.2	
			Silver (Ag)		<0.15	<0.24	
24-06-01647-013	105-A-13	06/14/2024	Arsenic (As)	614	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.049	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-014	105-A-14	06/14/2024	Arsenic (As)	608	<0.15	<0.25	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 24-06-01647

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m ³)	Narrative ID
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.050	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-015	105-A-15	06/14/2024	Arsenic (As)	588	<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	
			Cadmium (Cd)		<0.030	<0.052	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.26	
24-06-01647-016	105-A-16	06/14/2024	Arsenic (As)	621	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.049	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-017	105-A-17	06/14/2024	Arsenic (As)	621	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.049	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 24-06-01647

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m ³)	Narrative ID
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-018	105-A-18	06/14/2024	Arsenic (As)	614	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.049	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-019	105-A-19	06/14/2024	Arsenic (As)	619	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.049	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-020	105-A-20	06/14/2024	Arsenic (As)	609	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.050	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
24-06-01647-021	105-A-21	06/17/2024	Arsenic (As)	587	<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 24-06-01647

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m ³)	Narrative ID
			Cadmium (Cd)		<0.030	<0.052	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.26	
24-06-01647-022	105-A-22	06/17/2024	Arsenic (As)	580	<0.15	<0.26	
			Barium (Ba)		<0.15	<0.26	
			Cadmium (Cd)		<0.030	<0.052	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.26	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.26	
24-06-01647-023	105-A-23	06/17/2024	Arsenic (As)	574	<0.15	<0.27	
			Barium (Ba)		<0.15	<0.27	
			Cadmium (Cd)		<0.030	<0.053	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.27	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.27	
24-06-01647-024	105-A-24	06/17/2024	Arsenic (As)	576	<0.15	<0.27	
			Barium (Ba)		<0.15	<0.27	
			Cadmium (Cd)		<0.030	<0.053	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.27	
			Selenium (Se)		<0.75	<1.4	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 24-06-01647

Project/Test Address: 168765; GFC; 4300 Goodfellow Blvd

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m ³)	Narrative ID
			Silver (Ag)		<0.15	<0.27	
24-06-01647-025	105-A-26	06/17/2024	Arsenic (As)	0	<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	---	
24-06-01647-026	105-A-27	06/17/2024	Arsenic (As)	0	<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	---	
24-06-01647-027	105-A-25	06/17/2024	Arsenic (As)	0	<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, LLC

Metals Chain of Custody Form

3.L. 2

Company: Burns & McDonnell
 Company Address: 9400 Ward Parkway
 Phone: 314-302-4661

26-0574
 Kansas City, MO 64114
 alanstaett@burnsmcd.com

Project Name / Testing Address: GFC / 4300 Goodfellow Blvd
 PO Number: 168765

Collector: A. Anstaett & T. Vddin

Turn Around Time: 5 DAY 3 DAY 2 DAY 1 DAY SAME DAY OR WEEKEND - Must Call Ahead

Client Sample ID	Collection Date & Time	METALS					PARTICULATES				SIP	WIPE
		Pb/Cd	Cd/Pb/PAH	BC/RA & Total	Toxic Metal Profile	Weight/Volume Profile	Total Petroleum Cont.	Respirable Part.	ESP/50 micron/PM	PM10		
105-A-01	6/3 1203										224	577
105-A-02	6/3 1205										224	577
105-A-03	6/3 1209										226	564
105-A-04	6/3 1212										226	570
105-A-05	6/3 1214										226	573
105-A-06	6/3 1219										213	632
105-A-07	6/3 1211										231	601
105-A-08	6/3 1221										240	624
105-A-09	6/3 1223										240	624
105-A-10	6/3 1226										241	627
105-A-11	6/4 1217										233	606
105-A-12	6/4 1229										242	629
105-A-13	6/4 1225										236	614
105-A-14	6/4 1227										234	608
105-A-15	6/4 1221										226	588

Released By: A. Anstaett
 Signature: (b) (6)

Date: 6/7/24 Time: 1400


LAB USE ONLY - BELOW THIS LINE

Received By: Booker
 Signature: (b) (6)
 Date: 6/11/24 Time: 4:51 AM PM

Portal Contact Added

7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010
 RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

24-06-01647



Due Date:
 06/18/2024
 (Tuesday)
 EL MM-L

ENVIRONMENTAL HAZARDS SERVICES, LLC

Metals Chain of Custody Form

Page 2 of 2

Company Name	Burns & McDonnell	Account #	26-3514
Company Address	9400 Ward Parkway	City/State/Zip	Kansas City, MO 64114
Phone	314-302-4661	Email	alanstaett@burnsmcd.com
Project Name / Testing Address	GFC / 4300 Goodfellow Blvd		
PQ Number	168765	Collected By	A. Anstaett & T. Uddin
Turn-Around Time	<input checked="" type="checkbox"/> 5 DAY <input type="checkbox"/> 3 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> 1 DAY <input type="checkbox"/> SAME DAY OR WEEKEND - Must Call Ahead		

Client Sample ID	Collection Date & Time	METALS							PARTICULATES			AIR			WIPES			
		Pb TCIP	TCIP RCRA 8	RCRA 8 Total	Toxic Metal Profile	Welding Fume Profile	Tx 11 TCIP	CA 17 Total	Other Metals	Total Nuisance Dust	Respirable Dust	TSP Gravimetric	TSP Pb	PM-10	Total Time	Flow Rate	Vol.	AREA
105-A-16	6/4 1633														241	-	621	x
105-A-17	6/4 1640														246	-	621	x
105-A-18	6/4 1644														248	-	614	x
105-A-19	6/4 1642														244	-	619	x
105-A-20	6/4 1649														271	-	609	x
105-A-21	6/7 1109														228	-	587	x
105-A-22	6/7 1110														227	-	580	x
105-A-23	6/7 1110														225	-	574	x
105-A-24	6/7 1113														225	-	576	x
105-A-26	6/7 0700														-	-	-	x
105-A-27	6/7 0700														-	-	-	x
105-A-25	6/7 0700														-	-	-	x

Released By: A. Anstaett Date: 6/7/24 Time: 1400
 Signature: (b) (6)

LAB USE ONLY - BELOW THIS LINE

Received By: [Signature]
 Signature: (b) (6)
 Date: 6/11/24 Time: 4:51 AM PM

Portal Contact Added

7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010
 RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

1647

EHS

Laboratories

Attach Laboratory Label Here