



July 13, 2021

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. 103 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 25, 2021, Emily Ahlemeyer and Ashley Anstaett 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 103.

The sampling scheme, 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.

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RESULTS AND DISCUSSION

Results of the air sampling are summarized in the table below by identifying the range of results for Building 103 for each of the seven (7) metals that were sampled. Results indicate that all 22 air samples collected from Building 103 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	<0.28	10
Barium	<0.24	<0.28	500
Cadmium	<0.048	<0.055	5
Chromium (Total)	<1.2	<1.4	500
Lead	<0.24	<0.28	50
Selenium	<1.2	<1.4	200
Silver	<0.24	<0.28	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 &



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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 General Services Administration 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)

A large black rectangular redaction box covers the signature area, with the text "(b) (6)" written in the top left corner of the box.

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
103-A-01	1st floor, north lobby	Arsenic	< 0.28	µg/m ³	10
		Barium	< 0.28	µg/m ³	500
		Cadmium	< 0.055	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead	< 0.28	µg/m ³	50
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.28	µg/m ³	10
103-A-02	1st floor, column H3, DISA office	Arsenic	< 0.28	µg/m ³	10
		Barium	< 0.28	µg/m ³	500
		Cadmium	< 0.055	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead	< 0.28	µg/m ³	50
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.28	µg/m ³	10
103-A-03	1st floor, column G4, DISA office	Arsenic	< 0.28	µg/m ³	10
		Barium	< 0.28	µg/m ³	500
		Cadmium	< 0.055	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead	< 0.28	µg/m ³	50
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.28	µg/m ³	10
103-A-04	1st floor, column E3, DISA office	Arsenic	< 0.28	µg/m ³	10
		Barium	< 0.28	µg/m ³	500
		Cadmium	< 0.055	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead	< 0.28	µg/m ³	50
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.28	µg/m ³	10
103-A-05	1st floor, column C5, hallway, DISA	Arsenic	< 0.28	µg/m ³	10
		Barium	< 0.28	µg/m ³	500
		Cadmium	< 0.055	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead	< 0.28	µg/m ³	50
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.28	µg/m ³	10

Appendix A

Results Summary by Location

Sample Number	Location	Analyte	Result	Units	Recommended Limits ¹
103-A-06	1st floor, column C8, HVAC room	Arsenic	< 0.28	µg/m ³	10
		Barium	< 0.28	µg/m ³	500
		Cadmium	< 0.055	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead	< 0.28	µg/m ³	50
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.28	µg/m ³	10
103-A-07	2nd floor, column B15, window sill, DISA	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	< 0.26	µg/m ³	50
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.26	µg/m ³	10
103-A-08	2nd floor, column F22, office, DISA	Arsenic	< 0.28	µg/m ³	10
		Barium	< 0.28	µg/m ³	500
		Cadmium	< 0.055	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead	< 0.28	µg/m ³	50
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.28	µg/m ³	10
103-A-09	2nd floor, column G6, break room, DISA	Arsenic	< 0.28	µg/m ³	10
		Barium	< 0.28	µg/m ³	500
		Cadmium	< 0.055	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead	< 0.28	µg/m ³	50
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.28	µg/m ³	10
103-A-10	2nd floor, column F1, window sill, DISA	Arsenic	< 0.28	µg/m ³	10
		Barium	< 0.28	µg/m ³	500
		Cadmium	< 0.055	µg/m ³	5
		Chromium	< 1.4	µg/m ³	500
		Lead	< 0.28	µg/m ³	50
		Selenium	< 1.4	µg/m ³	200
		Silver	< 0.28	µg/m ³	10

Appendix A

Results Summary by Location

Sample Number	Location	Analyte	Result	Units	Recommended Limits ¹
103-A-11	Field blank	Arsenic	< 0.15	µg	--
		Barium	< 0.15	µg	--
		Cadmium	< 0.030	µg	--
		Chromium	< 0.75	µg	--
		Lead	< 0.15	µg	--
		Selenium	< 0.75	µg	--
		Silver	< 0.15	µg	--
103-A-12	1st floor, column B31, hallway	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	< 0.24	µg/m ³	50
		Selenium	< 1.2	µg/m ³	200
		Silver	< 0.24	µg/m ³	10
103-A-13	1st floor, column G32, office	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	< 0.25	µg/m ³	50
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
103-A-14	1st floor, column J36, break room	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	< 0.25	µg/m ³	50
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
103-A-15	1st floor, column E39, office	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	< 0.25	µg/m ³	50
		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
103-A-16	1st floor, column B37, office	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	< 0.25	µg/m ³	50
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
103-A-17	2nd floor, column G32, training room	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	< 0.24	µg/m ³	50
		Selenium	< 1.2	µg/m ³	200
		Silver	< 0.24	µg/m ³	10
103-A-18	2nd floor, column H34, break room	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	< 0.24	µg/m ³	50
		Selenium	< 1.2	µg/m ³	200
		Silver	< 0.24	µg/m ³	10
103-A-19	2nd floor, column F38, office	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	< 0.25	µg/m ³	50
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
103-A-20	2nd floor, column B36, window sill	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	< 0.25	µg/m ³	50
		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
103-A-21	2nd floor, column B32, hallway	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	< 0.25	µg/m ³	50
		Selenium	< 1.3	µg/m ³	200
		Silver	< 0.25	µg/m ³	10
103-A-22	Field blank	Arsenic	< 0.15	µg	--
		Barium	< 0.15	µg	--
		Cadmium	< 0.030	µg	--
		Chromium	< 0.75	µg	--
		Lead	< 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)

APPENDIX B – AIR SAMPLE LABORATORY REPORT



Environmental Hazards Services, L.L.C.
 7469 Whitepine Rd
 Richmond, VA 23237
 Telephone: 800.347.4010

Air Metals Analysis Report

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

Report Number: 21-06-04582
 Received Date: 06/29/2021
 Reported Date: 07/02/2021

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
21-06-04582-001	103-A-01	06/30/2021	Arsenic (As)	548	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.055	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04582-002	103-A-02	06/30/2021	Arsenic (As)	553	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.055	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04582-003	103-A-03	06/30/2021	Arsenic (As)	553	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.055	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 21-06-04582

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	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04582-004	103-A-04	06/30/2021	Arsenic (As)	550	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.055	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04582-005	103-A-05	06/30/2021	Arsenic (As)	550	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.055	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04582-006	103-A-06	06/30/2021	Arsenic (As)	550	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.055	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 21-06-04582

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
21-06-04582-007	103-A-07	06/30/2021	Arsenic (As)	583	<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	
21-06-04582-008	103-A-08	06/30/2021	Arsenic (As)	550	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.055	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04582-009	103-A-09	06/30/2021	Arsenic (As)	550	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.055	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04582-010	103-A-10	06/30/2021	Arsenic (As)	550	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.055	
			Chromium (Cr)		<0.75	<1.4	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 21-06-04582

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	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04582-011	103-A-11	06/30/2021	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	---	
21-06-04582-012	103-A-12	06/30/2021	Arsenic (As)	630	<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	
21-06-04582-013	103-A-13	06/30/2021	Arsenic (As)	620	<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	
21-06-04582-014	103-A-14	06/30/2021	Arsenic (As)	620	<0.15	<0.25	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 21-06-04582

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	<0.049	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
21-06-04582-015	103-A-15	06/30/2021	Arsenic (As)	603	<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	
21-06-04582-016	103-A-16	06/30/2021	Arsenic (As)	600	<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	
21-06-04582-017	103-A-17	06/30/2021	Arsenic (As)	625	<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	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 21-06-04582

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	<1.2	
			Silver (Ag)		<0.15	<0.24	
21-06-04582-018	103-A-18	06/30/2021	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	
21-06-04582-019	103-A-19	06/30/2021	Arsenic (As)	603	<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	
21-06-04582-020	103-A-20	06/30/2021	Arsenic (As)	605	<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	
21-06-04582-021	103-A-21	06/30/2021	Arsenic (As)	605	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	

Environmental Hazards Services, L.L.C

Client Number: 26-3514

Report Number: 21-06-04582

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	<0.050	
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
21-06-04582-022	103-A-22	06/30/2021	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	---	

Sample Narratives:

Method: NIOSH 7300M
 Analyst: Kailee Guthrie

(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. EHS sample results do not reflect blank correction. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714.

LEGEND ug = microgram ug/m³ = micrograms per cubic meter
 mL = milliliter L= Liters

ENVIRONMENTAL HAZARDS SERVICES, LLC

Metals Chain of Custody Form

Pg 1 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		eaahlemeyer@burnsmcd.com									
Project Name / Testing Address		GFC / 4300 Goodfellow Blvd															
PO Number		168765				Collected By		Emily Ahlemeyer & Ashley Anstaett									
Turn-Around Time		<input checked="" type="checkbox"/> 3 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> 1 DAY <input type="checkbox"/> SAME DAY OR 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	
														Mins.	L/min.	Total Liters	AREA Circle The Unit of Measurement Used cm or in
1	103-A-01	6/25/21 0756							Aq, As, Ba, Cd, Cr, Pb, Se					219		548	x
2	103-A-02	0759												221		553	x
3	103-A-03	0800												221		553	x
4	103-A-04	0802												226		556	x
5	103-A-05	0803												220		550	x
6	103-A-06	0805												220		550	x
7	103-A-07	0807												220		583	x
8	103-A-08	0808												220		550	x
9	103-A-09	0810												220		550	x
10	103-A-10	0811												220		550	x
11	103-A-11	0830												NA	NA	NA	x
12	103-A-12	1207												247		636	x
13	103-A-13	1208												248		620	x
14	103-A-14	1209												248		620	x
15	103-A-15	1211												241		603	x
Released By:		Emily Ahlemeyer				Date:		6/25/21				Time:		1700			
Signature:		(b) (6)															

LAB USE ONLY - BELOW THIS LINE

Received By: Stone

Signature: (b) (6)


Date: 6, 29, 21 Time: 12:35 AM PM

Portal Contact Added

7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010

RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

21-06-04582



Due Date:
07/02/2021
(Friday)
EL MM-L

ENVIRONMENTAL HAZARDS SERVICES, LLC

Metals Chain of Custody Form

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

LAB NUMBER	Client Sample ID	Collection Date & Time	METALS							Other Metals	PARTICULATES					AIR			WIPES AREA <small>Circle The Unit of Measurement Used cm or in</small>
			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.	
																Mins.	L/min.	Total Liters	
1	103-A-16	6/25/21 1213							Ag, As, Ba, Cd, Cr, Pb, Se						240		600	x	
2	103-A-17	1215													245		625	x	
3	103-A-18	1216													243		632	x	
4	103-A-19	1217													241		603	x	
5	103-A-20	1220													242		605	x	
6	103-A-21	1221													242		605	x	
7	103-A-22	0830													NA	NA	NA	x	
8																		x	
9																		x	
10																		x	
11																		x	
12																		x	
13																		x	
14																		x	
15																		x	

Released By:	Emily Anlemeyer	Date:	6/25/21	Time:	1700
Signature:	(b) (6)				

LAB USE ONLY - BELOW THIS LINE

Received By: TStone

Signature: (b) (6)

Date: 6, 29, 21 Time: 12:35 AM PM

Portal Contact Added

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

4582

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Attach Laboratory Label Here