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. 104 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 22 and June 24, 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 104.

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.

RESULTS AND DISCUSSION

Results of the air sampling are summarized in the table below by identifying the range of results for Building 104 for each of the seven (7) metals that were sampled. Results indicate that all 22 air samples collected from Building 104 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)] ($\mu g/m^3$) [(b)]	Highest Concentration[(a)] ($\mu g/m^3$) [(b)]	Permissible Exposure Limit (PEL) ($\mu g/m^3$) [(b)]
Arsenic	<0.23	<0.28	10
Barium	<0.23	<0.28	500
Cadmium	<0.046	<0.056	5
Chromium (Total)	<1.2	<1.4	500
Lead	<0.23	<0.28	50
Selenium	<1.2	<1.4	200
Silver	<0.23	<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) $\mu g/m^3$ = 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 &

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)

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]
104-A-01	1st floor, warehouse shelf, column D4	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
104-A-02	1st floor, north lobby	Arsenic	< 0.23	µg/m^3	10
		Barium	< 0.23	µg/m^3	500
		Cadmium	< 0.046	µg/m^3	5
		Chromium	< 1.2	µg/m^3	500
		Lead	< 0.23	µg/m^3	50
		Selenium	< 1.2	µg/m^3	200
		Silver	< 0.23	µg/m^3	10
104-A-03	1st floor, column G8	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
104-A-04	1st floor, file storage, column J36	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
104-A-05	1st floor, south lobby stairwell	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

Appendix A
Results Summary by Location

Sample Number	Location	Analyte	Result	Units	Recommended Limits[1]
104-A-06	2nd floor, column J5, window sill	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	< 0.27	µg/m^3	50
		Selenium	< 1.4	µg/m^3	200
		Silver	< 0.27	µg/m^3	10
104-A-07	2nd floor, column H14, open office area	Arsenic	< 0.28	µg/m^3	10
		Barium	< 0.28	µg/m^3	500
		Cadmium	< 0.056	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
104-A-08	2nd floor, break room, column B19, by sink	Arsenic	< 0.28	µg/m^3	10
		Barium	< 0.28	µg/m^3	500
		Cadmium	< 0.056	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
104-A-09	2nd floor, offices, column H20	Arsenic	< 0.28	µg/m^3	10
		Barium	< 0.28	µg/m^3	500
		Cadmium	< 0.056	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
104-A-10	2nd floor, offices, column E28	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]
104-A-11	2nd floor, conference room, column G34	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
104-A-12	Data center room 4, column B12	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
104-A-13	Data center, room 3, column E9	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
104-A-14	Data center, room 2, column C5	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
104-A-15	Data center, room 1, column D2	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]
104-A-16	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	--
104-A-17	2nd floor, column J35, break room	Arsenic	< 0.24	$\mu g/m^3$	10
		Barium	< 0.24	$\mu g/m^3$	500
		Cadmium	< 0.048	$\mu g/m^3$	5
		Chromium	< 1.2	$\mu g/m^3$	500
		Lead	< 0.24	$\mu g/m^3$	50
		Selenium	< 1.2	$\mu g/m^3$	200
		Silver	< 0.24	$\mu g/m^3$	10
104-A-18	2nd floor, column G39, file cabinet	Arsenic	< 0.25	$\mu g/m^3$	10
		Barium	< 0.25	$\mu g/m^3$	500
		Cadmium	< 0.050	$\mu g/m^3$	5
		Chromium	< 1.3	$\mu g/m^3$	500
		Lead	< 0.25	$\mu g/m^3$	50
		Selenium	< 1.3	$\mu g/m^3$	200
		Silver	< 0.25	$\mu g/m^3$	10
104-A-19	2nd floor, column G45, Lakeshore room	Arsenic	< 0.26	$\mu g/m^3$	10
		Barium	< 0.26	$\mu g/m^3$	500
		Cadmium	< 0.051	$\mu g/m^3$	5
		Chromium	< 1.3	$\mu g/m^3$	500
		Lead	< 0.26	$\mu g/m^3$	50
		Selenium	< 1.3	$\mu g/m^3$	200
		Silver	< 0.26	$\mu g/m^3$	10
104-A-20	2nd floor, column G50, file cabinet	Arsenic	< 0.26	$\mu g/m^3$	10
		Barium	< 0.26	$\mu g/m^3$	500
		Cadmium	< 0.052	$\mu g/m^3$	5
		Chromium	< 1.3	$\mu g/m^3$	500
		Lead	< 0.26	$\mu g/m^3$	50
		Selenium	< 1.3	$\mu g/m^3$	200
		Silver	< 0.26	$\mu g/m^3$	10

Appendix A
Results Summary by Location

Sample Number	Location	Analyte	Result	Units	Recommended Limits[1]
104-A-21	2nd floor, column F50, break room	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
104-A-22	2nd floor, column B29, storage room	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

Notes:

[1]Limits 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: 21-06-04604
Received Date: 06/29/2021
Reported Date: 07/02/2021

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

Client Number: 26-3514

Laboratory Results

Fax Number: 816-822-3494

Lab Sample Number	Client Sample Number	Analyzed Date	Analyte	Air Volume (L)	Total Metal (ug)	Concentration (ug/m³)	Narrative ID
21-06-04604-001	104-A-01	07/02/2021	Arsenic (As)	619.7	<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	
21-06-04604-002	104-A-02	07/02/2021	Arsenic (As)	653.4	<0.15	<0.23	
			Barium (Ba)		<0.15	<0.23	
			Cadmium (Cd)		<0.030	<0.046	
			Chromium (Cr)		<0.75	<1.2	
			Lead (Pb)		<0.15	<0.23	
			Selenium (Se)		<0.75	<1.2	
			Silver (Ag)		<0.15	<0.23	
21-06-04604-003	104-A-03	07/02/2021	Arsenic (As)	602.5	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	
			Cadmium (Cd)		<0.030	<0.050	

Client Number: 26-3514 Report Number: 21-06-04604

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/m³)	Narrative ID
			Chromium (Cr)		<0.75	<1.3	
			Lead (Pb)		<0.15	<0.25	
			Selenium (Se)		<0.75	<1.3	
			Silver (Ag)		<0.15	<0.25	
21-06-04604-004	104-A-04	07/02/2021	Arsenic (As)	602.5	<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	
21-06-04604-005	104-A-05	07/02/2021	Arsenic (As)	614.6	<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	
21-06-04604-006	104-A-06	07/02/2021	Arsenic (As)	566.8	<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	

Client Number: 26-3514 Report Number: 21-06-04604

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/m³)	Narrative ID
21-06-04604-007	104-A-07	07/02/2021	Arsenic (As)	545	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.056	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04604-008	104-A-08	07/02/2021	Arsenic (As)	542.5	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.056	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04604-009	104-A-09	07/02/2021	Arsenic (As)	542.5	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.056	
			Chromium (Cr)		<0.75	<1.4	
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04604-010	104-A-10	07/02/2021	Arsenic (As)	550.8	<0.15	<0.28	
			Barium (Ba)		<0.15	<0.28	
			Cadmium (Cd)		<0.030	<0.055	
			Chromium (Cr)		<0.75	<1.4	

Client Number: 26-3514 Report Number: 21-06-04604

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/m³)	Narrative ID
			Lead (Pb)		<0.15	<0.28	
			Selenium (Se)		<0.75	<1.4	
			Silver (Ag)		<0.15	<0.28	
21-06-04604-011	104-A-11	07/02/2021	Arsenic (As)	550.8	<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	
21-06-04604-012	104-A-12	07/02/2021	Arsenic (As)	583.2	<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	
21-06-04604-013	104-A-13	07/02/2021	Arsenic (As)	548.3	<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	
21-06-04604-014	104-A-14	07/02/2021	Arsenic (As)	545.7	<0.15	<0.28	

Client Number: 26-3514 Report Number: 21-06-04604

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/m³)	Narrative ID
			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	
21-06-04604-015	104-A-15	07/02/2021	Arsenic (As)	545.7	<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	
21-06-04604-016	104-A-16	07/02/2021	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	---	
21-06-04604-017	104-A-17	07/02/2021	Arsenic (As)	629.2	<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	

Client Number: 26-3514 Report Number: 21-06-04604

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/m³)	Narrative ID
			Selenium (Se)		<0.75	<1.2	
			Silver (Ag)		<0.15	<0.24	
21-06-04604-018	104-A-18	07/02/2021	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	
21-06-04604-019	104-A-19	07/02/2021	Arsenic (As)	595	<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	
21-06-04604-020	104-A-20	07/02/2021	Arsenic (As)	587.5	<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	
21-06-04604-021	104-A-21	07/02/2021	Arsenic (As)	608.4	<0.15	<0.25	
			Barium (Ba)		<0.15	<0.25	

Environmental Hazards Services, L.L.C

Client Number: 26-3514 Report Number: 21-06-04604

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/m³)	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	
21-06-04604-022	104-A-22	07/02/2021	Arsenic (As)	587.5	<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	

Sample Narratives:

Method: NIOSH 7300M

Analyst: Kailee Guthrie

Reviewed By Authorized Signatory: (b) (6)

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 25mL volume. The reporting limit is 0.05ug for Berylium, 25ug for Aluminum, Calcium, Iron and Zinc, 1.3ug for Arsenic, Chromium, Magnesium, Antimony and Selenium, and 0.25ug for all other metals.

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

Company Name	Burns & McDonnell	Account #	26-3514
Company Address	9400 Ward Parkway	City/State/Zip	Kansas City, MO 64114
Phone	314-302-4661	Email	eaanlemeyer@burnsmcd.com
Project Name / Testing Address	GFCI 4300 Goodfellow Blvd		
PO Number	1687165	Collected By	Emily Ahlemeyer & Ashley Anstaett

Turn-Around Time: (X) 3 DAY ( ) 2 DAY ( ) 1 DAY ( ) SAME DAY OR WEEKEND - Must Call Ahead

LAB NUMBER	Client Sample ID	Collection Date & Time	METALS: Pb TCLP	TCLP RCRA 8	RCRA 8 Total	Toxic Metal Profile	Welding Fume Profile	TX 11 TCLP	CA 17 Total	Other Metals	PARTICULATES: Total Nuisance Dust	Respirable Dust	TSP Gravimetric	TSP Pb	PM-10	AIR: Total Time (Mins.)	Flow Rate (L/min.)	Vol. (Total Liters)	WIPES: AREA (Circle The Unit of Measurement Used cm or in)
1	104-A-01	6/22/21 1109								Ag, As, Ba, Cd, Cr, Pb, Se						243		619.7	x
2	104-A-02	1110														242		653.4	x
3	104-A-03	1112														241		602.5	x
4	104-A-04	1115														241		602.5	x
5	104-A-05	1118														241		614.6	x
6	104-A-06	6/24/21 0634														218		560.8	x
7	104-A-07	0636														213		545.0	x
8	104-A-08	0638														217		542.5	x
9	104-A-09	0640														217		542.5	x
10	104-A-10	0642														210		550.8	x
11	104-A-11	0645														216		550.8	x
12	104-A-12	0707														216		583.2	x
13	104-A-13	0709														215		548.3	x
14	104-A-14	0710														214		545.9	x
15	104-A-15	0711														214		545.7	x

Released By: Ashley Anstaett Date: 06/25/2021 Time: 1600

Signature: (b) (6)

LAB USE ONLY – BELOW THIS LINE

Received By: TStone

Signature: (b) (6)

Date: 6/29/21 Time: 1:03 ☐ AM ☒ PM

☐ Portal Contact Added

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

RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

21-06-04604

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	eahlemeyer@burnsmc
Project Name / Testing Address	GFC/4300 Goodfellow Blvd.		
PO Number	1687165	Collected By	Emily Ahlemeyer + Ashley Anstaett
Turn-Around Time	☒ 3 DAY ○ 2 DAY ○ 1 DAY ○ SAME DAY OR WEEKEND - Must Call Ahead		

LAB NUMBER	Client Sample ID	Collection Date & Time	METALS: Pb TCLP	TCLP RCRA 8	RCRA 8 Total	Toxic Metal Profile	Welding Fume Profile	TX 11 TCLP	CA 17 Total	Other Metals	PARTICULATES: Total Nuisance Dust	Respirable Dust	TSP Gravimetric	TSP Pb	PM-10	AIR: Total Time (Mins.)	Flow Rate (L/min.)	Vol. (Total Liters)	WIPES: AREA (Circle The Unit of Measurement Used: cm or in)
1	104-A-16	6/24/21 0619								Ag, As, Ba, Cd, Cr, Pb, Se						NA		NA	x
2	104-A-17	1030														242		629.2	x
3	104-A-18	1031														240		600.0	x
4	104-A-19	1032														238		595.0	x
5	104-A-20	1033														235		587.5	x
6	104-A-21	1034														234		608.4	x
7	104-A-22	1039														235		587.5	x
8	104-A-23	NA														NA		NA	x
9	~~104-A-24~~																		x
10	104-A-25																		x
11	~~104-A-26~~																		x
12	~~104-A-27~~																		x
13																			x
14																			x
15																			x

Released By:	Ashley Anstaett	Date:	06/25/2021
Signature:	(b) (6)	Time:	1600

LAB USE ONLY – BELOW THIS LINE

Received By: TStone

Signature: (b) (6)

Date: 6/29/21 Time: 1:03 ☐ AM ☒ PM

☐ Portal Contact Added

4604

EHS Laboratories™

Attach Laboratory Label Here

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

RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com