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June 11, 2019

Diane Czarnecki Industrial Hygienist Facilities Management Division GSA Public Buildings Service - Heartland Region U.S. General Services Administration 2300 Main Street, Kansas City, MO 64108

RE: Goodfellow Federal Center
Metals in Settled Dust Sampling – Building 104
4300 Goodfellow Boulevard
St. Louis, Missouri 63120
OCCU-TEC Project No. 919083

Dear Ms. Czarnecki:

Thank you for the opportunity to assist the General Services Administration (GSA) with the metals in settled dust sampling investigation of Building 104 located at the Goodfellow Federal Center (GFC) in St. Louis, Missouri. OCCU-TEC, Inc. (OCCU-TEC) understands that the purpose of the investigation was to provide additional sampling data of existing environmental conditions that are present at GFC that could adversely impact the health and safety of building occupants as well as workers at the facility. The following report summarizes the sample collection activities and the laboratory analytical results of samples submitted.

On May 29, 2019, a team of OCCU-TEC personnel including a Missouri licensed lead risk assessor conducted settled dust sampling for the presence of seven of the Resource Conservation and Recovery Act (RCRA) target metals (lead, arsenic, barium, cadmium, total chromium, selenium, and silver) from various surfaces within tenant-occupied areas within the building. The purpose of this testing was to further characterize the presence and concentration of target metals in common tenant-occupied areas of the building.

The proposed sampling scheme, the number of samples, the sample distribution and general methodology was developed by GSA and OCCU-TEC. Specific sample locations were determined by OCCU-TEC personnel while on-site.

Metals in Settled Dust Sampling

Metals in settled dust sampling was conducted within only within tenant-occupied areas.

Dust wipe sampling was conducted in accordance with ASTM Standard E1728-16: Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination. ASTM Standard E1728-16 is consistent with the methodology described in the Housing and Urban Development Guidelines and 40 CRF 745.63. The Brookhaven National Laboratory's Surface Wipe Sampling Procedure (IH75190) was also used as a guideline.

Dust wipe sampling for the target metals was conducted on a variety of representative surfaces that have the potential of being disturbed by building occupants. A representative surface area of approximately one square foot (1 SF) was measured and delineated with pre-fabricated, disposable templates. The dust wipe samples were collected using dedicated dust wipe cloths meeting ASTM standards. Each moistened and individually wrapped. Each sample was collected over a measured sampling area. Then, the wipe was routed over user and the area was wiped again in a direction perpendicular to the first wipe orientation. The wipe samples were then placed into labeled, clean laboratory-supplied plastic centrifuge tubes with screw on caps. Dust wipe samples were submitted to Scientific Analytical Institute, Inc. (SAI) in Greensboro, North Carolina for Inductively Coupled Plasma (ICP) analysis of metals analysis using Environmental Protection Agency (EPA) method SW846 350B/7420.

Results of the dust wipe samples collected from the building indicate that nineteen (19) of the twenty (20) samples contained concentrations of target metals above laboratory detection limits. The following table identifies the range of results for each of the seven metals that were analyzed. Samples with a "<" sign indicate that the results were below the reportable limit.

Analysis	Lowest	Highest
	Concentration	Concentration
	(μg/sq. ft.)	(µg/sq. ft.)
Silver	< 0.48	< 0.50
Arsenic	<2.0	<1.9
Barium	< 0.74	13
Cadmium	< 0.050	0.55
Total Chromium	< 0.50	2.0
Lead	< 0.25	6.5
Selenium	<1.3	<1.3

The samples collected did not contain target metals above the Brookhaven recommended levels.

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)

Justin Arnold, CIEC Environmental Scientist



(b) (6)

Kevin Heriford Environmental Operations Manager (QA/QC)

Appendices:

- A Sample Summary Table
- B Laboratory Analysis Reports
- C Licenses

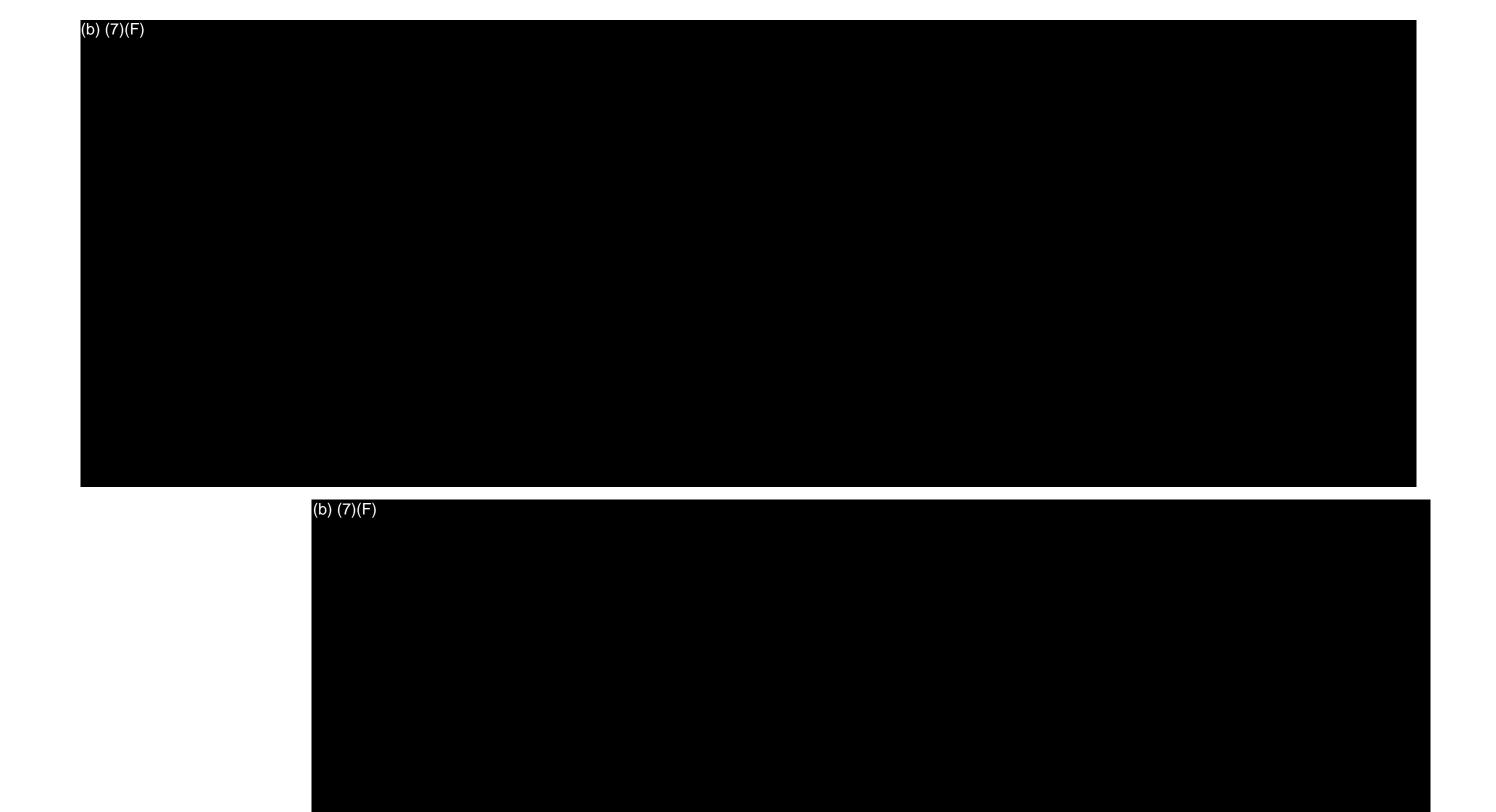
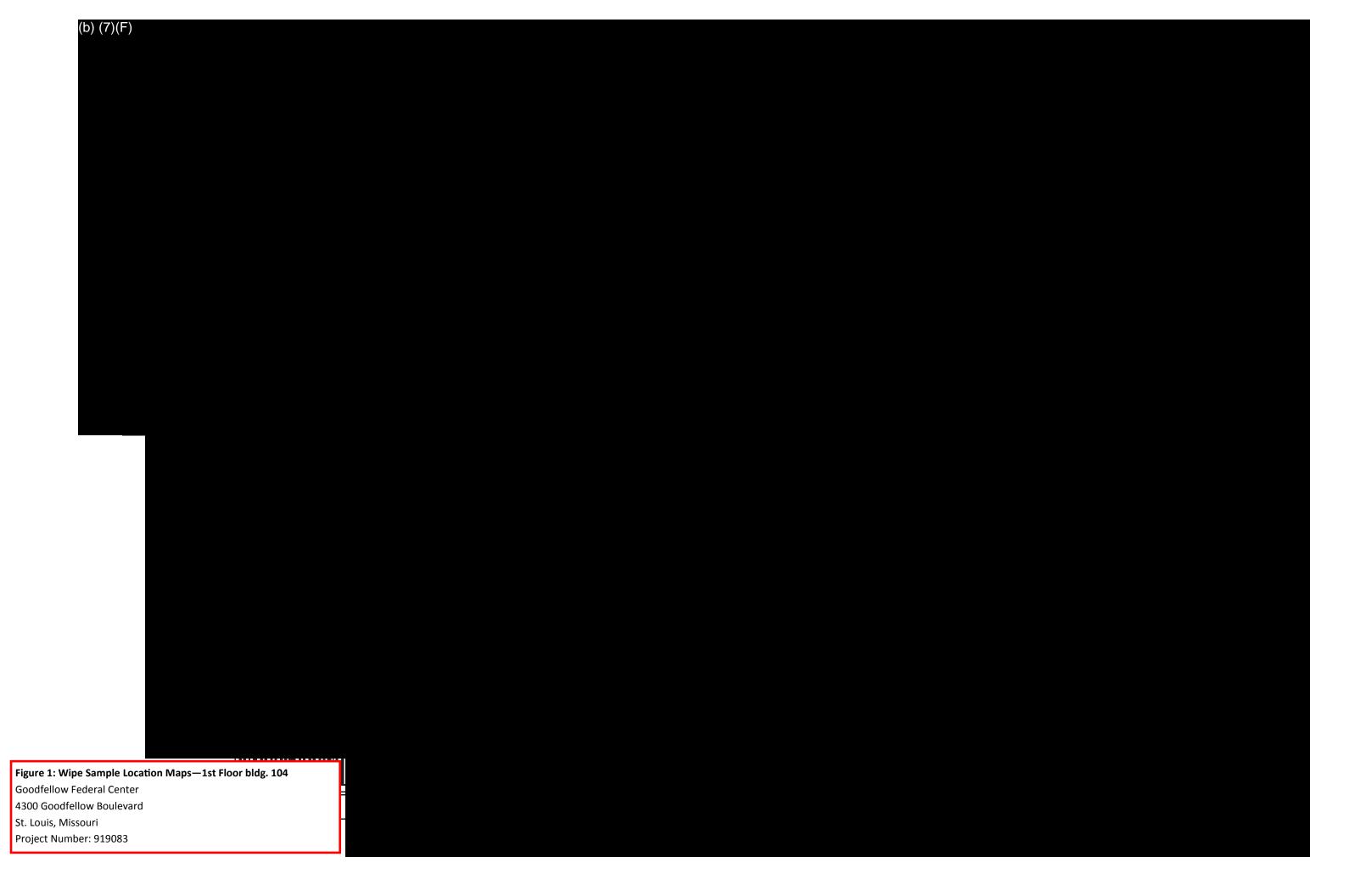


Figure 2: Wipe Sample Location Maps—2nd Floor bldg. 104

Goodfellow Federal Center 4300 Goodfellow Boulevard St. Louis, Missouri

Project Number: 919083



Appendix A Sample Summary Table

Sample Number	Location	Area Description	Analyte	Result	Units	Recommended
						Limits
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft²	** 62
			Barium	< 0.74	μg/ft²	
104-W-01	Upper Level H53	Window Sill	Cadmium	< 0.05	μg/ft²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	0.52	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft²	** 62
			Barium	< 0.75	μg/ft²	
104-W-02	Upper Level F50	Floor	Cadmium	0.058	μg/ft²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	1.10	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft ²	** 62
			Barium	< 0.75	μg/ft ²	
104-W-03	Upper Level F45	Desk	Cadmium	0.051	μg/ft²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	0.39	μg/ft ²	** 200/40
			Selenium	< 1.30	μg/ft ²	200740
			Silver	< 0.50	μg/ft ²	* 139/9.3
			Arsenic	< 2.00	μg/ft ²	** 62
			Barium	< 0.75	μg/ft ²	
104-W-04	Upper Level D43	Floor	Cadmium	0.056	μg/ft ²	** 31
104 10 04	Opper Level D43	11001	Chromium	< 0.50	μg/ft ²	31
			Lead	0.44	μg/ft ²	** 200/40
			Selenium	< 1.30	μg/ft ²	200740
			Silver	< 0.50	μg/ft ²	* 139/9.3
			Arsenic	< 2.00	μg/ft ²	** 62
			Barium	< 0.75	μg/ft ²	02
104-W-05	Unner Level F27	Desk	Cadmium	< 0.75		** 31
104-W-05	Upper Level E37	Desk	 	+	μg/ft ²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	0.66	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft ²	
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft²	** 62
104-W-06			Barium	< 0.75	μg/ft²	
	Upper Level F35	Floor	Cadmium	< 0.05	μg/ft²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	0.30	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	

Sample Number	Location	Area Description	Analyte	Result	Units	Recommended Limits
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft ²	** 62
			Barium	0.90	μg/ft ²	
104-W-07	Upper Level J29	Desk File Cabinet	Cadmium	0.07	μg/ft²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	0.84	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft²	** 62
			Barium	0.98	μg/ft²	
104-W-08	Upper Level G19	Floor	Cadmium	< 0.05	μg/ft²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	0.65	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft²	** 62
	Upper Level B20	Top of Vending Machine	Barium	1.10	μg/ft²	
104-W-09			Cadmium	0.15	μg/ft²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	1.30	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft²	** 62
			Barium	< 0.75	μg/ft ²	
104-W-10	Upper Level F35	Floor	Cadmium	0.062	μg/ft²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	0.81	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft²	** 62
			Barium	< 0.75	μg/ft²	
104-W-11	Lower Level H2	Cabinet Top	Cadmium	0.069	μg/ft²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	< 0.25	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft ²	** 62
			Barium	8.00	μg/ft ²	·
104-W-12	Lower Level G4	Floor	Cadmium	0.13	μg/ft ²	** 31
			Chromium	1.20	μg/ft ²	·
			Lead	4.60	μg/ft ²	** 200/40
			Selenium	< 1.30	μg/ft ²	·

Sample Number	Location	Area Description	Analyte	Result	Units	Recommended Limits
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft ²	** 62
			Barium	< 0.75	μg/ft²	
104-W-13	Lower Level G10	Desk	Cadmium	< 0.05	μg/ft ²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	< 0.25	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft ²	** 62
			Barium	10.00	μg/ft ²	
104-W-14	Lower Level B1.5/7.5	Floor	Cadmium	0.26	μg/ft ²	** 31
			Chromium	2.00	μg/ft ²	
			Lead	6.10	μg/ft ²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg/ft ²	* 139/9.3
			Arsenic	< 2.00	μg/ft ²	** 62
			Barium	5.80	μg/ft ²	
104-W-15	Lower Level J12	Window Sill	Cadmium	0.46	μg/ft²	** 31
			Chromium	0.74	μg/ft²	
			Lead	4.20	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft ²	
			Silver	< 0.50	μg/ft ²	* 139/9.3
			Arsenic	< 2.00	μg/ft ²	** 62
			Barium	11.00	μg/ft ²	
104-W-16	Lower Level E13	Floor	Cadmium	0.16	μg/ft²	** 31
			Chromium	0.77	μg/ft²	
			Lead	1.50	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft ²	
			Silver	< 0.48	μg/ft ²	* 139/9.3
			Arsenic	< 1.90	μg/ft ²	** 62
			Barium	13.00	μg/ft ²	
104-W-17	Lower Level E23	Shelf	Cadmium	0.73	μg/ft ²	** 31
			Chromium	1.30	μg/ft²	
			Lead	6.50	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft ²	
			Silver	< 0.50	μg/ft ²	* 139/9.3
			Arsenic	< 2.00	μg/ft ²	** 62
			Barium	12.00	μg/ft ²	
104-W-18	Lower Level E34.5	Floor	Cadmium	0.55	μg/ft ²	** 31
			Chromium	2.00	μg/ft ²	
			Lead	4.70	μg/ft ²	** 200/40
			Selenium	< 1.30	μg/ft ²	200,40
			Jelemann	1.50	μ ₀ / ιτ	

Sample Number	Location	Area Description	Analyte	Result	Units	Recommended Limits
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft²	** 62
			Barium	2.40	μg/ft²	
104-W-19	Lower Level F44	Shelf	Cadmium	0.14	μg/ft²	** 31
			Chromium	< 0.50	μg/ft²	
			Lead	0.78	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg/ft²	* 139/9.3
			Arsenic	< 2.00	μg/ft²	** 62
			Barium	8.20	μg/ft²	
104-W-20	Lower Level J51	Floor	Cadmium	0.25	μg/ft²	** 31
			Chromium	1.40	μg/ft²	
			Lead	2.60	μg/ft²	** 200/40
			Selenium	< 1.30	μg/ft²	
			Silver	< 0.50	μg	* 139/9.3
			Arsenic	< 2.00	μg	** 62
			Barium	< 0.75	μg	
104-W-21	Field Blank		Cadmium	< 0.05	μg	** 31
			Chromium	< 0.50	μg	
			Lead	< 0.25	μg	** 200/40
			Selenium	< 1.30	μg	
			Silver	< 0.50	μg	* 139/9.3
			Arsenic	< 2.00	μg	** 62
			Barium	< 0.75	μg	
104-W-22	Field Blank		Cadmium	< 0.05	μg	** 31
			Chromium	< 0.50	μg	
			Lead	< 0.25	μg	** 200/40
			Selenium	< 1.30	μg	

^{*} Recommended Limits based on Table 3 (BNL Surface Wipe Criteria for Metals) of the Brookhaven Surface Wipe Sampling Procedure (IH75190), Rev 19: 3/4/14

^{**} Recommended Limits based on Attachment 9.3 (Required & Recommended Surface Wipe Criteria) - Brookhaven Surface Wipe Sampling Procedure (IH75190), Rev 23: 6/23/17 Indicates results at or above REL

Appendix B

Laboratory Analytical Reports





NIOSH 7300/EPA SW-846 3050B

Client: Occu-Tec, Inc.

100 NW Business Park Ln.

Riverside, MO 64150

Project: 919083.001 GFC

Attn: Justin Arnold

Lab Order ID:

71914616

Date Received: Date Reported:

05/31/2019 06/10/2019

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Sample ID	Description	Area		Reporting	Concentration	Concentration	
Lab Sample ID	Lab Notes	(ft ²)	*Element	Limit (µg)	(μg)	(μg/ft ²)	
			Ag	0.50	< 0.50	< 0.50	
			As	2.0	< 2.0	< 2.0	
104-W-01	2 nd Floor – H53 – Window Sill		Ва	0.75	< 0.75	< 0.74	
		1.01	Cd	0.050	< 0.050	< 0.050	
			Cr	0.50	< 0.50	< 0.50	
71914616IPW_1			Pb	0.25	0.52	0.52	
/1914010IP W_1			Se	1.3	< 1.3	< 1.3	
			Ag	0.50	< 0.50	< 0.50	
			As	2.0	< 2.0	< 2.0	
104-W-02	2nd Floor – F50 – Floor	1	Ва	0.75	< 0.75	< 0.75	
			Cd	0.050	0.058	0.058	
			Cr	0.50	< 0.50	< 0.50	
71914616IPW_2			Pb	0.25	1.1	1.1	
71914010IF W_2			Se	1.3	< 1.3	< 1.3	
			Ag	0.50	< 0.50	< 0.50	
			As	2.0	< 2.0	< 2.0	
104-W-03	2nd Floor – F45 - Desk		Ва	0.75	< 0.75	< 0.75	
	1 43 Desk	1	Cd	0.050	0.051	0.051	
			Cr	0.50	< 0.50	< 0.50	
71914616IPW_3			Pb	0.25	0.39	0.39	
/19140101F W_3			Se	1.3	< 1.3	< 1.3	

Melissa Ferrell

Analyst

Lab Director

^{*} SAI is AIHA ELLAP accredited for Pb only for dust wipe metals.





NIOSH 7300/EPA SW-846 3050B

Client: Occu-Tec, Inc.

100 NW Business Park Ln.

Riverside, MO 64150 **Project:**

919083.001 GFC

Attn: **Justin Arnold** Lab Order ID:

71914616

Date Received: Date Reported: 05/31/2019 06/10/2019

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Page:

Sample ID	Description	Area		Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(ft ²)	*Element	Limit (µg)	(μg)	(μg/ft ²)
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-04	2 nd Floor – D43 - Floor		Ba	0.75	< 0.75	< 0.75
		1	Cd	0.050	0.056	0.056
			Cr	0.50	< 0.50	< 0.50
71914616IPW_4			Pb	0.25	0.44	0.44
71914010IF W_4			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-05	2nd Floor – E37 - Desk		Ba	0.75	< 0.75	< 0.75
		1	Cd	0.050	< 0.050	< 0.050
			Cr	0.50	< 0.50	< 0.50
71914616IPW_5			Pb	0.25	0.66	0.66
71914010IF W_3			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-06	2nd Floor – F35 - Floor		Ba	0.75	< 0.75	< 0.75
		1	Cd	0.050	< 0.050	< 0.050
			Cr	0.50	< 0.50	< 0.50
71914616IPW_6			Pb	0.25	0.30	0.30
719140101F W_0			Se	1.3	< 1.3	< 1.3

(b) (6) Melissa Ferrell Analyst Lab Director

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NIOSH 7300/EPA SW-846 3050B

Client: Occu-Tec, Inc.

100 NW Business Park Ln.

Riverside, MO 64150 Project: 919083.001 GFC Attn: Justin Arnold

Lab Order ID:

71914616

Date Received: Date Reported:

05/31/2019 06/10/2019

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Sample ID	Description	Area		Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(ft ²)	*Element	Limit (µg)	(μg)	(μg/ft ²)
			Ag	0.50	< 0.50	< 0.50
	2 nd Floor – J29		As	2.0	< 2.0	< 2.0
104-W-07	– Desk File		Ba	0.75	0.90	0.90
	Cabinet	1	Cd	0.050	0.070	0.070
			Cr	0.50	< 0.50	< 0.50
71914616IPW_7			Pb	0.25	0.84	0.84
/1914010IF W_/			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-08	2nd Floor – G19 - Floor		Ba	0.75	0.98	0.98
		1	Cd	0.050	< 0.050	< 0.050
			Cr	0.50	< 0.50	< 0.50
71914616IPW_8			Pb	0.25	0.65	0.65
71914010IF W_8			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
	2nd Floor –		As	2.0	< 2.0	< 2.0
104-W-09	B20 – Top Vending		Ba	0.75	1.1	1.1
	Machine	1	Cd	0.050	0.15	0.15
			Cr	0.50	< 0.50	< 0.50
71914616IPW_9			Pb	0.25	1.3	1.3
/19140101F W_9			Se	1.3	< 1.3	< 1.3

Melissa Ferrell	(b) (6)
Analyst	Lab Director

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NIOSH 7300/EPA SW-846 3050B

Client: Occu-Tec, Inc.

100 NW Business Park Ln.

Riverside, MO 64150

Project: 919083.001 GFC

Attn: Justin Arnold

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71914616 05/31/2019

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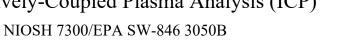
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Sample ID	Description	Area		Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(ft ²)	*Element	Limit (µg)	(µg)	(μg/ft ²)
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-10	2 nd Floor – F3 - Floor		Ва	0.75	< 0.75	< 0.75
		1	Cd	0.050	0.062	0.062
			Cr	0.50	< 0.50	< 0.50
71914616IPW_10			Pb	0.25	0.81	0.81
719140101P W_10			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-11	1st Floor – H2 – Cabinet Top		Ba	0.75	< 0.75	< 0.75
	cuemet rep	1	Cd	0.050	0.069	0.069
			Cr	0.50	< 0.50	< 0.50
71914616IPW_11			Pb	0.25	< 0.25	< 0.25
/19140101PW_11			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-12	1st Floor – G4 - Floor		Ba	0.75	8.0	8.0
	11001	1	Cd	0.050	0.13	0.13
			Cr	0.50	1.2	1.2
71914616IPW_12			Pb	0.25	4.6	4.6
/19140101FW_12			Se	1.3	< 1.3	< 1.3

Melissa Ferrell	(b) (6)
Analyst	Lab Director

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Client: Occu-Tec, Inc.

100 NW Business Park Ln.

Riverside, MO 64150 Project: 919083.001 GFC Attn: Justin Arnold

Lab Order ID:

71914616

Date Received: Date Reported:

05/31/2019 06/10/2019

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Sample ID	Description	Area		Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(ft ²)	*Element	Limit (µg)	(μg)	(μg/ft²)
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-13	1st Floor – G10 - Desk		Ba	0.75	< 0.75	< 0.75
		1	Cd	0.050	< 0.050	< 0.050
			Cr	0.50	< 0.50	< 0.50
71914616IPW_13			Pb	0.25	< 0.25	< 0.25
719140101F W_13			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-14	1st Floor – B 1/2 7 1/2 Floor		Ba	7.5	10.	10.
	,	1	Cd	0.050	0.26	0.26
			Cr	0.50	2.0	2.0
71914616IPW_14			Pb	0.25	6.1	6.1
719140101P W_14			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-15	1st Floor – J12 – Window Sill		Ba	0.75	5.8	5.8
		1.01	Cd	0.050	0.46	0.46
			Cr	0.50	0.75	0.74
71914616IPW_15			Pb	0.25	4.2	4.2
/19140101P W_13			Se	1.3	< 1.3	< 1.3

Melissa Ferrell

Analyst

Lab Director

^{*} SAI is AIHA ELLAP accredited for Pb only for dust wipe metals.





NIOSH 7300/EPA SW-846 3050B

Client: Occu-Tec, Inc.

100 NW Business Park Ln.

Riverside, MO 64150 Project: 919083.001 GFC Attn: Justin Arnold

Lab Order ID:

71914616

Date Received: Date Reported:

05/31/2019 06/10/2019

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Sample ID	Description	Area	*Element	Reporting	Concentration (μg)	Concentration (µg/ft²)
Lab Sample ID	Lab Notes	(ft ²)		Limit (µg)		
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-16	1st Floor – E13 - Floor		Ba	7.50	11	11
		1	Cd	0.050	0.16	0.16
			Cr	0.50	0.77	0.77
71914616IPW_16			Pb	0.25	1.5	1.5
71914010IF W_10			Se	1.3	< 1.3	< 1.3
	1st Floor – E23 - Shelf		Ag	0.50	< 0.50	< 0.48
			As	2.0	< 2.0	< 1.9
104-W-17			Ba	7.5	14	13
			Cd	0.050	0.76	0.73
			Cr	0.50	1.4	1.3
71914616IPW_17			Pb	0.25	6.7	6.5
719140101P W_17			Se	1.3	< 1.3	< 1.3
			Ag	0.50	< 0.50	< 0.50
	1st Floor – E34 ½ - Floor	1	As	2.0	< 2.0	< 2.0
104-W-18			Ba	7.5	12	12
			Cd	0.050	0.55	0.55
			Cr	0.50	2.0	2.0
710146161DW 19			Pb	0.25	4.7	4.7
71914616IPW_18			Se	1.3	< 1.3	< 1.3

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Lab Order ID:

71914616

Date Received: Date Reported:

05/31/2019 06/10/2019

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Sample ID	Description	Area (ft²)		Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes		*Element	Limit (µg)	(μg)	(μg/ft ²)
			Ag	0.50	< 0.50	< 0.50
			As	2.0	< 2.0	< 2.0
104-W-19	1st Floor – F44 - Shelf		Ba	0.75	2.4	2.4
		1	Cd	0.050	0.14	0.14
			Cr	0.50	< 0.50	< 0.50
71914616IPW_19			Pb	0.25	0.78	0.78
719140101P W_19			Se	1.3	< 1.3	< 1.3
		1	Ag	0.50	< 0.50	< 0.50
	1st Floor – J51 - Floor		As	2.0	< 2.0	< 2.0
104-W-20			Ba	0.75	8.2	8.2
			Cd	0.050	0.25	0.25
			Cr	0.50	1.4	1.4
710146161011/ 20			Pb	0.25	2.6	2.6
71914616IPW_20			Se	1.3	< 1.3	< 1.3
	Field Blank	-	Ag	0.50	< 0.50	
			As	2.0	< 2.0	
104-W-21			Ba	0.75	< 0.75	
			Cd	0.050	< 0.050	
			Cr	0.50	< 0.50	
710146161DW 21			Pb	0.25	< 0.25	
71914616IPW_21			Se	1.3	< 1.3	

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NIOSH 7300/EPA SW-846 3050B

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100 NW Business Park Ln.

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71914616

Date Received: Date Reported:

05/31/2019 06/10/2019

Page:

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Sample ID	Description	Area		Reporting	Concentration	Concentration
Lab Sample ID	Lab Notes	(ft ²)	*Element	Limit (µg)	(μg)	(μg/ft ²)
			Ag	0.50	< 0.50	
	Field Blank		As	2.0	< 2.0	
104-W-22			Ва	0.75	< 0.75	
		-	Cd	0.050	< 0.050	
			Cr	0.50	< 0.50	
71914616IPW 22			Pb	0.25	< 0.25	
/1914010IPW_22			Se	1.3	< 1.3	

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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: 191466	
Client Code:	

Company Contact Information		Industrial Hygiene Test Types		
Company: OCCU-TEC Inc.	Contact: Justin Arnold		Silica as Alpha Quartz (XSZ)* With Respirable Dust (XDZ)	
Address: 2604 NE Industrial Drive, Suite 230	Phone □:816-810-3276		Silica as Cristobalite (XSC)* With Respirable Dust (XDC)	
North Kansas City, MO 64117	Fax :816-99	4-3478	Silica as Tridymite (XST)* With Respirable Dust (XDT)	
	Email :jarnold@	@occutec.com	Silica as Alpha Quartz, Cristobalite, Tridymite	
			(XSA)*	
Billing/Invoice Information	Turn Arou	und Times^	Silica Bulk (XSI)*	
SAME	90 Min.	48 Hours	Buik Phase ID/Whole Rock (XUK)	
Company:	3 Hours	72 Hours	Total Dust NIOSH Method 0500 (GTD)	
Contact:	6 Hours	96 Hours	Respirable Dust NIOSH Method 0600 (GRD)	
Address:	12 Hours	120 Hours 🔳	PCM NIOSH 7400-A Rules (PCM)	
	24 Hours	144 ⁺ Hours □	B Rules (PCB) TWA (PTA)	
	TATs not available	for certain test types	TEM NIOSH 7402 (Asbestos) (TNI)	
PO Number:			Hexavalent Chromium (OSHA ID-215) (Note if from spray paint operations)	
Project Name/Number:919083.001 GFC			Metals (NIOSH 7300) (Specify Metals Under Comments)	
			Other 6010 C	
			* Modified NIOSH 7500/OSHA ID 142	
	40	L = 7 1 / A		
Sample ID # Description/L		Volume/A		
104-W-01 2nd Floor - H53 -	Window Sill	10" ×14.5	Ag, As, Ba, Cd, Cr, Pb, Se	
104-W-02 2nd floor - F50 -	floor	15F	Ag, As, Ba, Cd, Cr, Pb, Se	

Sample ID #	Description/Location	Volume/Area	Comments	
104-W-01	2nd Floor - H53 - Window Sill	10" ×14.51	Ag, As, Ba, Cd, Cr, Pb, Se	
104-4-02	2nd floor - F50 - floor	ISF	Ag, As, Ba, Cd, Cr, Pb, Se	
104-W-03	Z" floor - FUS - Desk	156	Ag, As, Ba, Cd, Cr, Pb, Se	
104-W-04	2ml floor - 043 - Floor	15A	Ag, As, Ba, Cd, Cr, Pb, Se	
104-W-05	Inv floor - E37 - Desk	156	Ag, As, Ba, Cd, Cr, Pb, Se	
104-W-04	2nd floor - F35 - Floor	15F	Ag, As, Ba, Cd, Cr, Pb, Se	
104-W-07	2nd floor 2029 - O desk file cabinet	- 1sf	Ag, As, Ba, Cd, Cr, Pb, Se	
104-4-08	ZW Poor 619 - Floor	156	Ag, As, Ba, Cd, Cr, Pb, Se	
104-W-09	Znu Ploor BZO-top vending machine	15F	Ag, As, Ba, Cd, Cr, Pb, Se	
104-W-10	2nd floor F3 - floor	156	Ag, As, Ba, Cd, Cr, Pb, Se	ĺ
104-W-11	15 Floor HZ - Cabiet Top	15C	Ag, As, Ba, Cd, Cr, Pb, Se	
104-W-12	150 Floor 64 - Floor	15F	Ag, As, Ba, Cd, Cr, Pb, Se	
104-W-13	15F floor CIU - desk	156	Ag, As, Ba, Cd, Cr, Pb, Se	

Total # of Samples _ (b) (6) Relinquished by Date/Time Date/Time (b) (6) 5-30-19 Rejected Page_ of Z

A-F-018 EXP: 2/4/2021



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:	110	11110	1/
Lab Order ID:	119	170	10
Client Code: _			

Sample ID #	Description/Location	Volume/Area	Comments
104-W-14	15+ 6loor - @B1/2 71/2 floor	154	Ag, As, Ba, Cd, Cr, Pb, Se
104-W-15	1st Floor 112 - Wildow Sill	1011 × 14.511	Ag, As, Ba, Cd, Cr, Pb, Se
104-W-14	1st Cloor F13 - Floor	154	Ag, As, Ba, Cd, Cr, Pb, Se
104-W-17	1st floor EZ3- Shelf	11.5" × 13	Ag, As, Ba, Cd, Cr, Pb, Se
104-W-18	1st floor F. 341/2 - floor	154	Ag, As, Ba, Cd, Cr, Pb, Se
104-W-19	19+ floor F44 - Shelf	156	Ag, As, Ba, Cd, Cr, Pb, Se
104-W-20	13+ Floor J51 - floor	156	Ag, As, Ba, Cd, Cr, Pb, Se
104-W-Z1	Field Blank	NA	Ag, As, Ba, Cd, Cr, Pb, Se
104-W-22	Field Blank	ΛΙΔ	Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pb, Se
			Ag, As, Ba, Cd, Cr, Pesp,e
			Page 2 of Z

Appendix C Qualifications and Licenses

STATE OF MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES

LEAD OCCUPATION LICENSE REGISTRATION

Issued to:

Justin E. 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

6/11/2018 Issuance Date: 6/11/2020 **Expiration Date:**

120611-300003622 License Number:





Randall W. Williams, MD, FACOG Director Department of Health and Senior Services