



2604 NE Industrial Drive, Suite 230  
North Kansas City, Missouri 64117  
Telephone: 816.231.5580  
Fax: 816.231.5641  
www.occutec.com

January 6, 2020

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  
Lead in Settled Dust Clearance Sampling  
Building 110 – Basement Negative Air Project  
4300 Goodfellow Boulevard  
St. Louis, Missouri 63120  
OCCU-TEC Project No. 919103**

Dear Ms. Czarnecki:

Thank you for the opportunity to assist the General Services Administration (GSA) with this lead in settled dust clearance sampling investigation of Building 110 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 conduct clearance sampling after the completion of duct demolition activities within the basement of building 110. Samples collected during this event were in response to previous failures noted in two clearance samples that were collected on December 11, 2019 and the subsequent recleaning that was completed by the contractor. The following report summarizes the sample collection activities and the laboratory analytical results of samples submitted.

On December 30, 2019, OCCU-TEC conducted additional settled dust clearance sampling for the presence of lead from within the basement of building 110. The locations of samples were based on the initial location of the samples that did not meet the clearance criteria set forth by the GSA.

***Lead in Settled Dust Sampling***

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 lead was conducted on floor surfaces where previous samples had failed clearance criteria and additional cleaning was conducted. 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 dust wipe cloth was pre-moistened and individually wrapped. Each sample was collected by wiping in a back and forth “S” pattern over a measured sampling area. Then, the wipe was folded over itself 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 lead analysis using Environmental Protection Agency (EPA) method SW846 350B/7420.

Results of the dust wipe samples indicated concentrations of lead below the established clearance criteria of 200 ug/ft<sup>2</sup>.

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)

**Attachments:**

Laboratory Analytical Report and Chain-of-Custody Documentation  
Inspector Qualifications



**EMSL Analytical, Inc.**

100 Green Park Industrial Court, Saint Louis, MO 63123  
Phone/Fax: (314) 577-0150 / (314) 776-3313  
<http://www.EMSL.com> [saintlouislaboratory@emsl.com](mailto:saintlouislaboratory@emsl.com)

EMSL Order: 391913581  
CustomerID: OCCU21  
CustomerPO:  
ProjectID:

Attn: **Justin Arnold**  
**Occu-Tec, Inc.**  
**2604 NE Industrial Drive**  
**Suite 230**  
**North Kansas City, MO 64117**

Phone: (816) 231-5580  
Fax: (816) 231-5641  
Received: 12/30/19 10:20 AM  
Collected:

Project: 919103

**Test Report: Lead in Dust by Flame AAS (SW 846 3050B/7000B)\***

<i>Client SampleDescription</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Area Sampled</i>	<i>RDL</i>	<i>Lead Concentration</i>
110-CLB-08 391913581-0001		12/31/2019	144 in <sup>2</sup>	10 µg/ft <sup>2</sup>	20 µg/ft <sup>2</sup>
110-CLB-09 391913581-0002		12/31/2019	144 in <sup>2</sup>	10 µg/ft <sup>2</sup>	<10 µg/ft <sup>2</sup>
110-CLB-10 391913581-0003		12/31/2019	N/A	10 µg/wipe	<10 µg/wipe

(b) (6)

Jeff Siria, Laboratory Manager  
or other approved signatory

\*Analysis following Lead in Dust by EMSL SOP/ Determination of Environmental Lead by FLAA. Reporting limit is 10 µg/wipe. ug/wipe =µg/ft<sup>2</sup> x area sampled in ft<sup>2</sup>. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities (such as volume sampled) or analytical method limitations. Samples received in good condition unless otherwise noted. The lab is not responsible for data reported in µg/ft<sup>2</sup> which is dependent on the area provided by non-lab personnel. The test results contained within this report meet the requirements of NELAC unless otherwise noted. "<" (less than) results signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.  
Samples analyzed by EMSL Analytical, Inc. Saint Louis, MO AIHA-LAP, LLC--ELLAP Accredited #102636

Initial report from 12/31/2019 09:27:33



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

391913581

EMSL ANALYTICAL, INC.  
100 GREEN PARK IND. CT  
ST. LOUIS, MO 63123  
PHONE: 314-577-0150

Company: <u>OCCU-TEC INC</u>		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: <u>2604 NE Industrial Drive Suite 230</u>		<i>Third Party Billing requires written authorization from third party</i>	
City: <u>North Kansas City</u>	State/Province: <u>MO</u>	Zip/Postal Code:	Country:
Report To (Name): <u>Justin Arnold</u>		Telephone #:	
Email Address: <u>jarnold@occutec</u>		Fax #:	Purchase Order:
Project Name/Number: <u>99103</u>		Please Provide Results: <input type="checkbox"/> Fax <input type="checkbox"/> Email	
U.S. State Samples Taken: <u>MO</u>		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour  
  6 Hour  
  24 Hour  
  32 Hour<sup>1</sup>  
  48 Hour  
  72 Hour  
  96 Hour  
  1 Week  
  2 Week

<sup>1</sup> 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

Matrix	Method	Instrument	Reporting Limit	Check
Chips* <input type="checkbox"/> % by wt. <input type="checkbox"/> ppm (mg/kg) <input type="checkbox"/> mg/cm <sup>2</sup> <small>*Reporting limit based upon minimum 0.25 g sample weight</small>	SW846-7000B	Flame Atomic Absorption	0.008% (80 ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	0.0004% (4 ppm)	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300M/NIOSH 7303	ICP-OES	0.5 µg/filter	<input type="checkbox"/>
Wipe* ASTM <input type="checkbox"/> non ASTM <input checked="" type="checkbox"/> <small>*If no box is checked, non-ASTM Wipe is assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input checked="" type="checkbox"/>
	SW846-6010B or C	ICP-OES	1.0 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1311/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
SPLP	SW846-1312/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1312/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
TTLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
STLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> <input type="checkbox"/> pH <2	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> <input type="checkbox"/> pH <2	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	<input type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: \_\_\_\_\_ Signature of Sampler: \_\_\_\_\_

Client Sample #s 110-CLB-08 - 110-CLB-10 Total # of Samples: 3

Sample #	Location	Volume/Area	Date/Time Shipped
110-CLB-08	110 Basement - Column J12+B-112+13	1 SF	
110-CLB-09	110 Basement - Column K13+4-L13+4	1 SF	

Relinquished (Client):	(b) (6)	Date:	12-30-2019	Time:	10:20
Received (Lab):	(b) (6)	Date:	12-30-19	Time:	10:20 ali

Comments:

