

## MEMORANDUM

To: Kevin O'Brien – Milwaukee County DAS-AE & ES
From: Jeff Senn – Sigma
Project Number: 16120
Date: April 19, 2016
Re: Milwaukee County War Memorial – Bird Cage Stairwell: Project #0517-15467

### Background

The Milwaukee County Department of Administration (County) retained The Sigma Group, Inc. (Sigma) to conduct a limited assessment for asbestos at the Milwaukee County War Memorial facility located at 750 North Lincoln Memorial Drive in Milwaukee, Wisconsin. Sigma understands that the County plans to renovate the "Bird Cage" stairwell in the near future. The proposed renovation will include window pane replacement, window frame rehabilitation, and floor repair activities.

As requested, the asbestos assessment was limited to materials potentially disturbed by the stairwell renovation project and included inspection and sampling of caulk, terrazzo flooring and window glaze. State of Wisconsin certified asbestos inspector, Mr. Dale Armbruster (All-156285), conducted the limited assessment and sampled suspect asbestos-containing materials on April 4, 2016. Sigma submitted the samples to Micro Analytical, Inc. for polarized light microscopy (PLM) asbestos analysis. A copy of Mr. Armbruster's asbestos certification card is provided in Attachment A.

### Field Observations and Results

Ms. Julie Bastin and Mr. Kevin O'Brien with the County escorted Sigma to the Bird Cage stairwell and communicated the renovation plans. Sigma identified four homogenous building materials which will potentially be disturbed by the proposed renovation. Sigma collected three samples of each material. The following materials were evaluated as part of this limited asbestos inspection.

- **MC-1 – caulk on exterior metal window frame, thick, cream (POS)**
- **MC-2 – caulk on metal window frame, black (POS)**
- MPG – window glaze, cream (NEG)
- MTF – terrazzo floor, cream tones (NEG)

PLM analysis indicated greater than one percent asbestos in the cream caulk (MC-1) and the black caulk (MC-2). The black and cream caulks are therefore classified as asbestos-containing building material (ACBM). Asbestos was not detected in the remaining building materials identified above.

The Bulk Material Sample Summary included as part of the chain of custody list the materials and locations sampled as part of this inspection. The analytical report and chain

of custody are provided in Attachment B. Photo documentation of the identified materials is provided in Attachment C.

### **Recommendation**

The black and cream caulks are classified as ACBM and are subject to the Wisconsin Department Natural Resources (WDNR) Chapter NR 447, Wisconsin Department of Health Services (WDHS) Chapter 159, and City of Milwaukee Code of Ordinances Chapter 66 removal and disposal requirements. Removal or disturbance of materials determined to contain greater than one percent asbestos should be performed in accordance with local, state and federal rules and regulations.

### **Limitations**

Homogeneous material samples were collected from reasonably accessible areas and only from building materials thought to be impacted by the proposed stairwell renovation project. Limited destructive investigation methods were not employed to identify additional materials not readily visible. During abatement, demolition, renovation, and/or further inspection, a potential exists for encountering asbestos and/or other hazardous materials not previously identified to become revealed.

***It is recommended that there is one individual on-site during abatement and demolition that is designated as a "Competent Person". At a minimum, this individual shall be a State of Wisconsin certified asbestos supervisor familiar with applicable asbestos and hazardous material related regulations; have the experience to recognize potential work crew and environmental exposures; institute proper personal protective equipment and personnel monitoring as necessary; have the authority to stop work; and meet training requirements established by the State of Wisconsin. Discovery of suspect asbestos and/or other hazardous materials should be reported immediately to the Owner so that appropriate measures can be implemented. Further sampling of newly discovered materials may be required to confirm the presence of ACBM within walls and other areas that were not visible or reasonably accessible during the asbestos inspection. Any additional suspect or ACBM discovered after this inspection is the responsibility of the building owner to characterize, manage, handle and dispose of in accordance with applicable rules and regulations.***

### **Attachments**

A – Asbestos Inspector Certification Card

B – Micro Analytical Bulk Asbestos Analytical Report & Chain of Custody Documentation

C – Photo Documentation

**Attachment A**

Asbestos Inspector Certification Card

**ASBESTOS SUPERVISOR**

Issued By  
**STATE OF WISCONSIN**  
 Dept. of Health Services

Dale Cameron Armbruster  
 823 Blaine Ave  
 Racine WI 53405-2407

		215 lbs	5' 10"
ACS-156285	Exp: 06/17/2016	03/23/1960	Male

Training due by: 06/17/2016

**ASBESTOS INSPECTOR**

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Dale Cameron Armbruster  
 823 Blaine Ave  
 Racine WI 53405-2407

		215 lbs	5' 10"
AII-156285	Exp: 05/05/2016	03/23/1960	Male

Training due by: 05/05/2016

**Attachment B**

Micro Analytical Bulk Asbestos Analytical Report  
And  
Chain of Custody Documentation

**MICRO ANALYTICAL, INC.**

11521 West North Avenue  
Milwaukee, WI 53226  
(800) 771-9820 (414) 771-0855  
Fax: (414) 771-6570

**BULK ASBESTOS ANALYTICAL REPORT**  
Utilizing PLM and Dispersion Stain Technique

Customer: Sigma Environmental  
Services, Inc.  
1300 West Canal Street  
Milwaukee , WI 53233

Report #: 144618  
Received: 11-Apr-2016  
Analyzed: 15-Apr-2016

Job ID: 16120

<b>Sample ID</b>	<b>% Asbestos</b>	<b>Non-Asbestos Fibrous Components</b>	<b>Non-Fibrous Components</b>	<b>Color</b>	<b>Texture</b>
1	None Detected		100%	Off-White	Compact
2	None Detected		100%	Off-White	Compact
3	None Detected		100%	Off-White	Compact
4	None Detected		100%	Off-White	Compact
5	None Detected		100%	Off-White	Compact
6	None Detected		100%	Off-White	Compact
7	2% Chrysotile		98%	Gray	Compact
10	2% Chrysotile		98%	Black	Resinous

Analyzed By: Arthur Warneke III

Test method: EPA/600/R-93/116 and EPA/600/M4-82-020. Quantitation is done by Calibrated Visual Estimation which has an accepted Relative Percent Difference of 35. This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This test report relates only to the items tested and shall not be reproduced except in full, without the written approval of MICRO ANALYTICAL, INC.

Normal TAT

Email results to Jeff Senn

Micro Analytical, Inc.  
11521 West North Avenue  
Milwaukee, WI 53266  
414-771-0855 \* Fax 414-771-6570

Client: Sigma

Job ID: 16120

# Samples: 12

Type: PCM PLM Dead TEM (circle one)

Sample ID	Date Collected	Location/Remarks
		See Attached

[Signature] 4-5-16 1200  
Relinquished by Date/Time

[Signature] 4-11-16  
Received by Date/Time

Relinquished by Date/Time

Received by Date/Time

Relinquished by Date/Time

Received By Date/Time

Notes: Call Results # \_\_\_\_\_ Fax # \_\_\_\_\_

Name/Pager # \_\_\_\_\_ Other \_\_\_\_\_

## Supplemental Asbestos Chain of Custody

Project Number: 16120

Number of Samples: 12

In addition to the information provided on the laboratory chain of custody, Sigma requires the following (checked items only):

- When the laboratory observes an apparent discrepancy between Sigma's material description and the sample received by the laboratory, the laboratory shall flag the material description on the laboratory report and define on the laboratory report the specific discrepancy(s) noted.
- With the exception of drywall and joint compound samples**, analyze and report each distinct and separable material layer unless otherwise instructed on the attached "Sigma Sample Material List" sheet(s). Laboratory to determine distinct and separable layers and provide layer descriptions for each individual layer.
- Analyze and report each distinct and separable material layer unless otherwise instructed on the attached "Sigma Sample Material List" sheet(s). Laboratory to determine distinct and separable layers and provide layer descriptions for each individual layer.
- Discontinue analysis of homogenous material upon determining that the material contains greater than one percent asbestos content. If the homogeneous material contains multiple layers, continue analysis of each layer until all samples have been analyzed or until it has been determined that the layer contains greater than one percent asbestos content. See item #4 for flooring system Positive Stop instructions.

For example, if Sigma submitted three roofing system samples and the top layer sample analysis revealed asbestos is present at greater than one percent, the top layer analysis would be discontinued but the underlying layer(s) analysis would continue until greater than one percent asbestos is detected or until all three underlying sample layers have been analyzed. This assumes, however, that the materials are in fact homogenous. Through microscopic examination, it may be determined by the analyst that there are additional layers not present in each sample. In that case, the individual sample layer should also be analyzed.

- Flooring Systems (including floor tile systems, vinyl flooring systems, vinyl laminate systems, and stair tread systems):** Conduct analysis of the mastic layer(s) first. If analysis reveals greater than one percent asbestos content, discontinue analysis of the mastic layers and do not analyze the flooring material (tile, vinyl, laminate, etc.) Call Jeff Senn at (414) 643-4151 with specific questions.

Sigma Sample Material List

Project: #16120

Date: 4-4-16

Building: Bird Cage

Inspectors: DCA

Sample Number	Picture Number	Homogenous Material Code	Homogeneous Material Description	Functional Area Room Number	Location within Room
01		MTE	Cream Terraza Floor		W
02					W
03					W
04		MPG	Cream Window Glaze		S
05					E
06					N
07		<del>MCI</del> MCI	Cream Caulk		E
08					N
09					S
10		MC-2	Black Window Caulk		E
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**Attachment C**

Photo Documentation



100\_0318



100\_0319



100\_0320



100\_0321