



**M**aterials  
**T**esting  
**C**onsultants, INC.

MATERIALS Engineers, Independent TESTING Laboratories, Geotechnical & Environmental CONSULTANTS — Since 1968

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February 28, 2018  
Project No.: 171618.1

State of Michigan  
Department of Technology, Management, and Budget  
P.O. Box 30026  
Lansing, Michigan 48909

Attention: Mr. Judson N. Sorensen, P.E.  
e-mail: [SorensenJ@michigan.gov](mailto:SorensenJ@michigan.gov)

RE: Phase Contrast Microscopy (PCM) Air Sampling Results  
Billie S. Farnum Building, Lansing, Michigan  
File No. 171/18090.JNS, Index No. 171MBREA1LANDSALES

Dear Mr. Sorensen:

Please find enclosed the phase contrast microscopy (PCM) analysis results for air area sampling conducted at the above referenced site. On February 26, 2018, Mr. Christopher J. Kestner, C.I.E. of Materials Testing Consultants, Inc. (MTC) was on-site to perform the air sampling.

Samples were obtained under normal working conditions. Air was pumped through 25 mm, 0.8 micron, mixed cellulose ester filters at a rate not exceeding 15 liters per minute.

Samples were analyzed at MTC's Grand Rapids Laboratory using Phase Contrast Microscopy (PCM) analysis and quality control, in accordance with NIOSH 7400 using the "A" counting rules. A detailed report is attached along with regulatory limits.

Air sampling results did not exceed the Michigan Department of Licensing and Regulatory Affairs (MDLARA) maximum allowable clearance standard of 0.05 fibers per cubic centimeter (f/cc), or the United States Environmental Protection Agency (US EPA) recommended clearance level of 0.01 f/cc.

Please do not hesitate to call if there are questions or comments regarding this report. It has been a pleasure to be of assistance to you.

Sincerely,

MATERIALS TESTING CONSULTANTS, INC.

Allan G. Howland, ASP  
Assistant Asbestos Department Manager

Attachments  
Asbestos Air Quality Testing Report



PROJECT: Billie S. Farnum Building – Area Air Sampling  
CLIENT: MDTMB  
CONTRACTOR: ---  
ENGINEER/ARCHITECT: ---

**ASBESTOS AIR QUALITY TESTING**

LOCATION(S): All Floors  
CODE OR STANDARD: MIOSHA Part 602, Asbestos in Construction Standard  
MTC PROCEDURE: ASB-0002.0 Asbestos and Other Fibers by PCM (NIOSH 7400)  
EQUIPMENT: Air pump, inline tubing, media cassette, rotameter, phase contrast microscope  
ATTACHMENTS: ---

TEST RESULTS								
Air Sampling					Analysis		Assessment	
Sample Type and Location	Sample Number	Sample Start Time	Sample Flow Rate (L/min)	Sample Volume (L)	Density (f/mm <sup>2</sup> )	Concentration (f/cc)	Regulatory Limit 0.01 f/cc AHERA	
Field Blank	01	--	--	--	<7.01	--	--	
Field Blank	02	--	--	--	<7.01	--	--	
1 <sup>st</sup> Floor – Room FA-0105	03	08:53	15	1,200	<7.01	<0.0022	Pass	
2 <sup>nd</sup> Floor – Room FA-0201	04	08:55	15	1,200	<7.01	<0.0022	Pass	
3 <sup>rd</sup> Floor – Room FA-0325	05	08:57	15	1,200	10.2	0.0033	Pass	
4 <sup>th</sup> Floor – Room FA-0403	06	08:59	15	1,200	<7.01	<0.0022	Pass	
5 <sup>th</sup> Floor – Room FA-0509	07	09:02	15	1,200	<7.01	<0.0022	Pass	
6 <sup>th</sup> Floor – Room FA-0614	08	09:04	15	1,200	8.28	0.0027	Pass	
7 <sup>th</sup> Floor – Room FA-0722	09	09:06	15	1,200	8.28	0.0027	Pass	
8 <sup>th</sup> Floor – Room FA-0808	10	09:08	15	1,200	8.28	0.0027	Pass	
9 <sup>th</sup> Floor – Room FA-0906	11	09:10	15	1,200	8.92	0.0029	Pass	
10 <sup>th</sup> Floor – Room FA-1015	12	09:13	15	1,200	<7.01	<0.0022	Pass	
1 <sup>st</sup> Floor – Room FA-0118	13	11:20	15	1,200	7.64	0.0025	Pass	
2 <sup>nd</sup> Floor – Room FA-0225	14	11:21	15	1,200	<7.01	<0.0022	Pass	
3 <sup>rd</sup> Floor – Room FA-329	15	11:22	15	1,200	7.01	0.0022	Pass	

L-Liters, min–minutes, mm–millimeters, f-fibers, cc-cubic centimeters, “<”-below limit of detection of 7 f/mm<sup>2</sup>

TESTING BY: Christopher J. Kestner, C.I.E. REVIEWED BY: Allan G. Howland, A.S.P.

*Testing was performed by qualified personnel in accordance with generally accepted industry practice, Materials Testing Consultants procedures and the above referenced standards. This report is applicable only to the items and location(s) listed herein. This report has been prepared for the exclusive use of the client and any partial or whole reproduction without the consent of the client is prohibited.*



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CLIENT: MDTMB  
CONTRACTOR: ---  
ENGINEER/ARCHITECT: ---

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4 <sup>th</sup> Floor – Room FA-0429	16	11:23	15	1,200	<7.01	<0.0022	Pass	
5 <sup>th</sup> Floor – Room FA-0529	17	11:25	15	1,200	<7.01	<0.0022	Pass	
6 <sup>th</sup> Floor – Room FA-0629	18	11:28	15	1,200	<7.01	<0.0022	Pass	
7 <sup>th</sup> Floor – Room FA-0729	19	11:29	15	1,200	7.64	0.0025	Pass	
8 <sup>th</sup> Floor – Room FA-0819	20	11:30	15	1,200	<7.01	<0.0022	Pass	
9 <sup>th</sup> Floor – Room FA-0929	21	11:31	15	1,200	<7.01	<0.0022	Pass	
10 <sup>th</sup> Floor – Room FA-1029	22	11:33	15	1,200	7.64	0.0025	Pass	
Field Blank	23	--	--	--	<7.01	--	--	
Basement – Room FA-0026	24	13:38	15	1,200	8.92	0.0029	Pass	
Basement – Room FA-0017	25	13:39	15	1,200	<7.01	<0.0022	Pass	
Mezzanine Level – Room FA-M001	26	13:42	15	1,200	<7.01	<0.0022	Pass	
Mezzanine Level – Room FA-M003	27	13:43	15	1,200	<7.01	<0.0022	Pass	
Penthouse Level – Room FA-P001	28	13:45	15	1,200	<7.01	<0.0022	Pass	
Penthouse Level – Room FA-P005	29	13:47	15	1,200	8.28	0.0027	Pass	
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L-Liters, min–minutes, mm–millimeters, f-fibers, cc-cubic centimeters, “<”-below limit of detection of 7 f/mm<sup>2</sup>

REMARKS:

TESTING BY: Christopher J. Kestner, C.I.E. REVIEWED BY: Allan G. Howland, A.S.P.

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