

October 25, 2023

2040 N Ferry St.  
Anoka, MN 55303

Attn: Shawn Kearney  
Techtron Engineering

Project Location: 200 Winthrop Street South, Saint Paul, MN 55119

Client Project #: 30154  
Techtron Project #: 30186

Sampled by: Shawn Kearney  
Date Sampled: 10/25/2023 9:00:00 AM  
Date Samples Received Laboratory: 10/25/2023

Analyzed by: Theresa Erpelding  
Date Analyzed: 10/25/2023  
Number of Samples Analyzed: 7  
Laboratory ID: 1000


### **Test Report: Asbestos Bulk Materials Identification by PLM**

Following are the results of material samples obtained for asbestos identification analysis. Samples were observed at 42X magnification and suspect fibers were isolated from the bulk samples for observation under polarized light microscopy. The fibers were then evaluated under polarized light microscopy for extinction angle, sign of elongation, and morphology. Dispersion staining was performed using Cargille dispersion oils to observe color changes of fibers at various orientations.

Analysis was performed according to EPA method 600/R-93/116. This method has a reporting limit to <1% asbestos, in volumetric concentrations. Bulk samples were checked for the following types of asbestiform minerals: chrysotile, amosite, crocidolite, anthophyllite, and tremolite-actinolite.

Laboratory is ISO/IEC 17025:2017 accredited.

All sample details and results are listed in the table below.



Theresa Erpelding  
Laboratory Manager

Client Sample #	Lab Sample #	Sample Location	Material Description	Layers	Results
1A	30186-1	Unit 241, Bathroom, Ceiling	White Joint Compound		NAFD
1B	30186-2	Unit 241, Bathroom, Wall	White Joint Compound		NAFD
1C	30186-3	Unit 241, Bathroom, Ceiling	White Joint Compound		NAFD
2A	30186-4	Unit 241, Bathroom, Ceiling	White Joint Compound/White Sheetrock (Composite)		NAFD
2B	30186-5	Unit 241, Bathroom, Wall	White Joint Compound/White Sheetrock (Composite)		NAFD
2C	30186-6	Unit 241, Bathroom, Ceiling	White Joint Compound/White Sheetrock (Composite)		NAFD
3	30186-7	Unit 241, Bathroom, Ceiling	White Sheetrock		NAFD
4A	30186-8	Unit 241, Bathroom, Ceiling	White Popcorn Texture		NAFD
4B	30186-9	Unit 241, Bathroom, Ceiling	White Popcorn Texture		NAFD
4C	30186-10	Unit 241, Bathroom, Ceiling	White Popcorn Texture		NAFD

End of Report

NAFD = No Asbestos Fibers Detected

NAPS = Not Analyzed Positive Stop

\*No asbestos was detected. However, due to the uncertainty with existing testing techniques for vermiculite insulation, the Environmental Protection Agency and Agency for Toxic Substances and Disease Registry strongly recommend that all vermiculite insulation be assumed to contain asbestos. Therefore, Techtron Environmental Solutions recommends that this material be assumed to contain asbestos in quantities less than one percent.

Reporting Limit: <1%. Some samples reported as NAFD may contain asbestos fibers in quantities below 1%. Detection limits are dependent upon the sample size, matrix, and any interferences that may be present in the sample. Point counting is recommended for samples that require more precise quantification when samples contain low volumes of asbestos fibers (i.e. 1-5%). Uncertainty data available in EPA 600 R-93 116. Results are based on field sampling information provided by the client and are only valid for samples tested. Samples are stored for 30 days unless other arrangements are made by the client. Samples received in good condition unless otherwise noted. This report shall not be reproduced except in full, without the written approval of Techtron Environmental Solutions. AIHA-LAP, LLC Lab #101106. PJLA ISO 17025 Accreditation No. 108481.