

<u>Code</u>	<u>Material</u>	<u>Location</u>	<u>Results</u>	<u>Lab</u>
21600.035-0002	Vinyl Floor Tile/Mastic	Main hallway; 12" beige tile with black mastic		Eurofins LabCor PDX
	Layer:	Description:	Analysis:	
	Layer 01	mastic, tan	No Asbestos Detected	
	Layer 02	hard vinyl, off-white	No Asbestos Detected	
	Layer 03	mastic, black	2% Chrysotile	
21600.035-0003	Vinyl Floor Tile/Mastic	Main hallway; 12" green tile with black mastic		Eurofins LabCor PDX
	Layer:	Description:	Analysis:	
	Layer 01	mastic, tan	No Asbestos Detected	
	Layer 02	hard vinyl, green	<1% Chrysotile	
	Layer 03	mastic, black	3% Chrysotile	

PLM - Visual Estimate Extended Final Report

Job Number: 231947

Client: PBS Engineering and Environmental

**Address: 4412 S Corbett Avenue
Portland, OR 97239**

Project Name:

Project No.: 21600.035 Phase 0006

PO Number:

Sub Project:

Reference No.:

Report Number: 231947R01

Report Date: 7/21/2023

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
231947 - S1	21600.035-0002 -	PLM - Visual Estimate Extended		7/21/2023
231947 - S2	21600.035-0003 -	PLM - Visual Estimate Extended		7/21/2023

PLM - Visual Estimate Extended The submitted sample(s) were analyzed according to the EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials and EPA - 40CFR App. E to Subpart E of Part 763. The sample(s) were analyzed with a digital microscope in order to determine homogeneity, the presence of fibers, and make a preliminary estimate of any asbestos fibers present in the sample. The sample(s), and any observed layers, were then homogenized through techniques appropriate to that material and prepared for analysis by polarized light microscopy (PLM).

Three slide mount preparations were made from random subsamples of the homogenized material. This material was then mounted in the suitable refractive index liquid needed to perform a full optical characterization of the observed fibers. When necessary, dilute HCl, instead of RI liquids, were used to remove cementitious binders to facilitate analysis. The entirety of the slide mount preparations were then analyzed by PLM. Any observed fibers were reported and their optical characteristics recorded according to the EPA 600-R-93-116 method.

Disclaimer This report, and the data contained therein, cannot be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government. The results found in this report are based only on the submitted sample(s). LabCor has no control over sampling procedures. This report is only valid when signed by an analyst.

NAD is No Asbestos Detected. Asbestos consists of the six following minerals: chrysotile, amosite, crocidolite, anthophyllite, actinolite, and tremolite.

Additional gravimetric, point-count or TEM analysis may be recommended for samples testing at < or = 1% asbestos, or those with material binders that prevent the detection of small diameter fibers.

The following estimate of error for this method by visual estimation of asbestos percent are as follows:

1% asbestos: >0-3% error,
5% asbestos: 1-9% error,
10% asbestos: 5-15% error,
20% asbestos: 10-30% error.

Sincerely,



Mia Gaines
Eurofins - LabCor Portland



Lab/Cor Portland, Inc.

4321 South Corbett Ave., Ste A
Portland, OR 97239

Phone: (503) 224-5055
www.labcorpdx.com

BULK SAMPLE ASBESTOS ANALYSIS

Client: PBS Engineering and Environmental
4412 S Corbett Avenue
Portland, OR 97239

Report Number: 231947R01

Report Date: 07/21/2023

Job Number: 231947

P.O. No: n/a

Project Name:

Project Number: 21600.035 Phase 0006

Project Notes:

Client Sample ID: 21600.035-0002		Sample ID: S1			Date Analyzed: 07/21/2023
Client Sample Description:		Analyst: Mia Gaines			
<u>Asbestos Mineral Fibers</u>	Layer Percent:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:
Layer 01					
mastic, tan	6 %	-	-	-	NAD
Layer 02					
hard vinyl, off-white	90 %	-	-	-	NAD
Layer 03					
mastic, black	4 %	2 %	-	-	2 %
<u>Other Fibers</u>	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other
					Matrix
Layer 01	-	-	-	2 %	-
Layer 02	-	-	-	-	-
Layer 03	-	-	-	-	-

Client Sample ID: 21600.035-0003		Sample ID: S2			Date Analyzed: 07/21/2023
Client Sample Description:					Analyst: Mia Gaines
Asbestos Mineral Fibers	Layer Percent:	Chrysotile	Amosite	Crocidolite	Percent Asbestos:
Layer 01					
mastic, tan	5 %	-	-	-	NAD
Layer 02					
hard vinyl, green	90 %	Trace	-	-	< 1 %
Layer 03					
mastic, black	5 %	3 %	-	-	3 %
Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other
					Matrix
Layer 01	-	Trace	-	1 %	-
Layer 02	-	-	-	-	-
Layer 03	-	-	-	1 %	-

Client: PBS Engineering and Environmental
4412 S Corbett Avenue
Portland, OR 97239

Report Number: 231947R01

Report Date: 07/21/2023

Job Number: 231947

P.O. No: n/a

Project Name:

Project Number: 21600.035 Phase 0006

Project Notes:

This laboratory participates in the National Voluntary Laboratory Accreditation Program (NVLAP). Testing method is per EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials and EPA - 40CFR App. E to Subpart E of Part 763, PLM. This report and the data contained therein cannot be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

- "NAD" is No Asbestos Detected.
- Asbestos consists of the following minerals: chrysotile, amosite, crocidolite, tremolite, actinolite, anthophyllite.
- Material binders, such as those found in vinyl floor tiles, may prevent the detection of small diameter asbestos fibers. A gravimetric preparation and point-count is recommended for such samples.
- Quantitative analysis by PLM point count or TEM may be recommended for samples testing at < or = to 1% asbestos.
- The following estimate of error for this method by visual estimation of asbestos percent are as follows:
1% asbestos: >0-3% error, 5% asbestos: 1-9% error, 10% asbestos: 5-15% error, 20% asbestos: 10-30% error.
- This report pertains only to the samples listed on the report. Report considered valid only when signed by analyst.

Reviewed by:

Mia Gaines

Eurofins - LabCor Portland

Reviewed by: _____
Results Released on: _____
Invoice Released on: _____
Verbal Email Physical



PBS

231947

TRANSMITTAL AND CHAIN OF CUSTODY FOR ASBESTOS BULK SAMPLES

Project No.: 21600.035 Phase 0006

Individuals signing this form warrant that the information provided is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: July 21, 2023

PBS Engineering and Environmental Inc.
4412 S Corbett Avenue
Portland, OR 97239
503.248.1939, Fax: 866.727.0140

Name

Authorized Signature

Date

Time

Sender's ID No.

Brief Description

21600.035-0002

21600.035-0003

RECEIVER

Date Received: 7/21/23

Company: Eurofins LabCor PDX
Address: 4321 S Corbett Avenue
Portland, OR 97239
(503) 224-5055

Name

Authorized Signature

Date

Time

Receiver's ID No.

Please analyze the enclosed 2 sample(s) for asbestos content using PLM with dispersion staining. PBS requests prior notification if samples will be disposed.

Request verbal results by: _____ AM/PM _____ Date.

Please fax and mail the results to the above address.

TURNAROUND DESIRED:

Rush

SPECIAL INSTRUCTIONS:

17