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# Analysis Report Cover

## Final Report

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*A Professional Service Corporation in the Northwest*

**Job Number: 061079**      **SEA**  
**Client: ABC Environmental Company**  
**Address: 123 Laboratory Ave.**  
**Anytown, WA 98000**  
**Project Name: Bulk Building Material Project**  
**Project Num: 10102007**  
**PO Number:**  
**Sub Project:**

**Report Number: 061079R09**  
**Report Date: 10/10/2007**

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:
061079 - S1	TEM 1 - Floor Tile	TEM Bulk Semi-Quantitative		10/10/2007

TEM Bulk Semi-Quantitative - Ref. EPA 600-R-93-116  
Preparation of the above sample was conducted in accordance with the EPA protocol EPA/600/R 93/116 for the identification of regulated asbestiform minerals in bulk building materials. Briefly, each sample was taken from at least three randomly selected areas. The sample was then weighed (Original Sample Weight) on an analytical balance (0.01 milligram sensitivity), ashed in a muffle furnace to remove the organic component, and weighed (Particulate After Ash). After a brief dissolution in concentrated hydrochloric acid, the suspension was immediately diluted in 20 ml of laboratory reagent water. The suspension was then filtered onto a dry, pre weighed 0.1 micron polycarbonate (PC) filter and a series of 0.22 micron mixed cellulose ester (MCE) filter. After drying, the filter was weighed again (Hydrolysis Adjusted Weight). The sample was coated with a thin film of carbon in a vacuum evaporator. After dissolution of the filter debris in N,N-dimethylformamide and acetone, the sample was placed on a 200 mesh copper TEM grid and examined by TEM microscopy. After confirmation of the principal mineral type by diffraction and EDS chemistry, a visual estimate of the concentration of asbestiform regulated minerals relative to the non-asbestos was determined. Fibers with an aspect ratio of at least 20:1, greater than 5 micrometers in length, and with proper diffraction and chemistry were counted as regulated asbestiform mineral types. "Trace" is reported for those samples whose percent asbestos is below 1.0%

This test report relates only to the items tested in this report. The scope of this analysis is to differentiate purified regulated asbestiform minerals that have been added to bulk building materials. Samples such as soils, sediments or raw ores may require further mineralogical analysis to differentiate mineral species. Interpretation of these results is the sole responsibility of the client. Results are subject to the variation in the layers of the sample, the accuracy of the balance, the visual estimate on the microscope as well as other variations within the procedure. Therefore, the final values of the weight percentages may vary by as much as +/-5%.

**Disclaimer** The results reported relate only to the samples tested or analyzed. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Sincerely,

  
Digital Signature for Lab Use Only  
**John Harris, M.P.H.**  
Digital Signature for Lab Use Only  
**Laboratory Director**

**TEM Bulk Summary**

**Job Number:** 061079      **SEA**  
**Client:** ABC Environmental Company  
**Project Name:** Bulk Building Material Project

**Ref. EPA 600-R-93-116**

**Report Number:** 061079R09  
**Date Received:** 10/10/2007

**Lab/Cor Sample No.:** S1  
**Client Sample No.:** TEM 1  
**Description:** Floor Tile

**Analyst(s)**      **Analysis Date**  
 KM                      10/10/2007

Analyte Description	Weight Percent	Gravimetric Reduction	Weight Percent
Chrysotile	10.93%	Acid Solubles	8.77%
		Organics	65.51%
		Other NonAsbestos	14.79%
		<b>Total Non-Asbestos Percent</b>	<b>89.07%</b>

Reviewed by:

*John Harris*  
 John Harris, M.P.H.  
 Laboratory Director

**TEM Bulk Raw Data**

**Job Number: 061079      SEA**  
**Client: ABC Environmental Company**  
**Project Name: Bulk Building Material Project**

**Ref. EPA 600-R-93-116**

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**Lab/Cor Sample No: S1**  
**Client Sample No: TEM 1**  
**Description: Floor Tile**

<b>Container Weight</b>	14.15423 g	<b>Hydrolysis Filter PreWeight</b>	0.00955 g
<b>Weight Before Ash</b>	14.28098 g	<b>Filter Post Hydrolysis</b>	0.01281 g
<b>Orig Sample Weight</b>	0.12675 g	<b>After Hydrolysis Weight</b>	0.00326 g
<b>Weight After Ash</b>	14.19794 g	<b>Hydrolysis Aliquot</b>	2 ml
<b>Particulate After Ash</b>	0.04371 g	<b>Hydrolysis Adjusted Weight</b>	0.03260 g
<b>Percent Organics</b>	65.51%	<b>Acid Solubles</b>	8.77%

Grid	Analyte	Visual Estimate	Elements	Comment
G1	Chrysotile	40.00%	Mg, Si	
			ItemType	ItemNum
			Brightfield	J001 BF
			Diffraction	J001 DF
			Spectra	J001 SP
G2	Chrysotile	45.00%		

Reviewed by:

*John Harris*  
**John Harris, M.P.H.**  
 Laboratory Director