

APPENDIX B

BULK SAMPLE COLLECTION PROCEDURES

## BULK SAMPLE COLLECTION PROCEDURES

### 1. OBJECTIVES

To obtain a sample for analysis to determine if asbestos is present within a material.

To determine the type of asbestos and the quantity of asbestos of each type.

Sampling of vermiculite is specifically excluded from these procedures.

### 2. EQUIPMENT AND SUPPLIES

- Pen and Sharpie marker.
- Retractable knife (with extra blades).
- Hook knife.
- Flashlight and batteries.
- Screwdriver(s) with multiple bits.
- Small hammer.
- Sample bags.
- Insulation tape or duct tape.
- Spray bottle.
- Wipes for cleaning tools so as to not contaminate subsequent samples.
- NIOSH approved half-face respirator with P100 filters.

### 3. SAMPLE COLLECTION

Only those persons needed for sampling should be present in the immediate area.

Where necessary, provide a drop sheet below sample location if debris or dust may be generated by sampling operation (e.g. below a ceiling tile if sprayed fireproofing is above).

Use cleaned/new tools, or clean the tool to be used with a sanitizing wipe prior to sample collection. Wipe or wash again prior to each subsequent sample.

Spray the material with a light mist of water if necessary to prevent fibre release during sampling. Do not disturb the material any more than necessary. Note that using water may delay the receipt of sample results as samples cannot be analyzed if wet.

Each homogeneous material should be sampled separately. A homogeneous sampling area is defined by the USEPA as containing material that is uniform in texture and appearance, was installed at one time and is unlikely to consist of more than one type or formulation of material. The surveyor is to use information obtained by visual examination, available information on the phases of the construction and information on renovations obtained from the client to determine the extent of each homogeneous area and the number of samples required.

Number of samples required is in Table 1 of O. Reg. 278/05 and is as follows:

<b>Type of Material</b>	<b>Size of Homogeneous Material</b>	<b>Minimum Number of Bulk Samples</b>
Surfacing material, including without limitation material that is applied to surfaces by spraying, by troweling or otherwise, such as acoustical plaster on ceilings, fireproofing materials on structural members and plaster	Less than 90 square metres	3
	90 or more square metres, but less than 450 square metres	5
	450 or more square metres	7
Thermal insulation, except as described below	Any size	3
Thermal insulation patch	Less than 2 linear metres or 0.5 square metres	1
Other material	Any size	3

Collect the sample by penetrating the entire depth of the material to the underlying substrate since it may have more than one layer. Examples of materials with more than one layer include plaster, sweatwrap with tar paper, and parging cement over other insulations, etc. The following points are exceptions to this rule.

- When collecting drywall joint compound samples, do not sample the paper on the drywall or the drywall itself. To ensure that the drywall joint compound itself is sampled, collect the sample at previously damaged outside corners or above ceiling where unpainted.
- When sampling texture coat that is applied in a thin layer to drywall, try to ensure that you only collect a sample of the texture coat and not any drywall compound beneath that may skew the sample result. Try to sample at an area that is 1' x 1' away from a corner (and likely away from drywall joint compound), or sample overspray above ceiling. Do not sample too deep, trying only to remove the texture coat itself.
- When collecting samples try to minimize damage to finishes. Sample flooring at door jambs or in corners, sample plaster above ceilings or where damaged, break ceiling tiles off at corners so that the damage cannot be seen when placed back in grid, etc. A piece a big as your thumbnail is all that is required.
- When sampling VAT, try to obtain a sample of the mastic whenever possible. If the survey is for pre-construction, the mastic must be analyzed. Add this note to the transmittal.
- On pipes insulated with fibreglass and sweatwrap, check the lap joints, butt joints, staples, and hangers for asbestos parging cement.

If pieces of material break off and fall during sampling, remove the debris by wet wiping and place wipe in sample bag for disposal.

Scrape directly into, or place sample into a Ziploc bag and seal closure strip. Write the following information on the sample bag:

- Sample Number. Ensure that samples of the same homogenous material are numbered the same number but with a different letter to signify it is a different sample of the same homogeneous material (e.g. 001A, 001B, and 001C for three samples of the same type of ceiling tile).
- Date (year/month/day).
- Collected by.
- Company name.
- Material.
- Location. Include building name, room name, location number, type of system etc.

Temporarily seal any openings created to collect the sample, for example, with metal foil tape or duct tape wrapped completely around pipe insulation where the jacket was cut.

#### 4. PERSONAL SAFETY

The use of a respirator is recommended for all sampling of materials. However, sampling can be performed without a need for one but depends on care used and the friability of the material being sampled.

Wash your hands after sampling, and you must wash your hands prior to eating drinking or smoking.

#### 5. SAMPLE SUBMISSION

Samples must be analyzed at only NVLAP or AIHA certified laboratories.

Acceptable labs include:

Pinchin Environmental Ltd. Mississauga Laboratory, 2470 Milltower Court, Mississauga ON, L5N 7W5, , (905) 363-1385 (Direct line).

Complete the Bulk Sample Transmittal. On the transmittal ensure that you instruct the lab to use the Stop Positive approach.

Submit samples using separate transmittals if separate reports are to be written (for separate sites/buildings).

#### 6. SAMPLE HANDLING AND SHIPPING

Include the Bulk Sample Transmittal.

Bulk samples do not require special handling (temperature, pressure etc.).

## 7. ANALYSIS

The analytical method follows the Ontario Ministry of Labour Code for the Determination of Asbestos from Bulk Samples, August 1985 and U.S. EPA Method 600/R-93/116 dated July 1993.

Analysis is to be completed using a stop positive approach. Only one result of greater than 0.5% asbestos content is required to determine that a material is asbestos-containing, but all samples must be analyzed to conclusively determine that a material is non-asbestos (O. Reg. 278/05). The laboratory will stop analyzing samples from a homogeneous material once greater than 0.5% asbestos is detected in any of the samples of that material. All samples are analyzed if no asbestos was detected.

## 8. INTERPRETATION OF BULK SAMPLE RESULTS

Any material containing more than 0.5% asbestos is considered an ACM in Ontario. The thresholds for all provinces are as follows:

Ontario	0.5%
Quebec	0.1%
Manitoba	0.1% Friable, 1% Non-friable
Saskatchewan	Not Defined
Newfoundland, PEI, Nova Scotia, New Brunswick, Alberta, BC.	1%



**BULK SAMPLE TRANSMITTAL FORM**

Pinchin Environmental Ltd.  
 Asbestos Laboratory  
 2470 Milltower Court  
 L5N 7W5  
 Attention: Karen Slayer  
 Phone: (905) 363-1385

<b>Building Name:</b>		<b>Results/Invoice To:</b>	
		Name:	
		Company:	
		Address:	
Project No.:		Fax:	
Submitted By:		Email:	
Date:	P.O.:		
# of Samples:	Date Required:	Priority: <input type="checkbox"/> Reg (5 day) <input type="checkbox"/> Rush (24 hr)	

SAMPLE NUMBER	MATERIAL/SYSTEM/LOCATION	RESULT

E.g. Vinyl floor tile, beige and white, Managers Office, 2<sup>nd</sup> Floor, Room 123, Location 22.  
 E.g. Parging cement insulation on pipe fitting, domestic hot water system, Basement, Boiler Room, Room B1, Location 1.

<b>TO BE COMPLETED BY LAB PERSONNEL ONLY</b>	<b>LAB REF. #:</b>
<b>Analyzed By:</b>	<b>Date:</b>