



Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

Project Name:	SNC-Lavalin, 5719 Roblin, Community Row Pumping Station, Winnipeg, MB		
Project No.:	0207217.000		
Prepared For:	R. Legault	Date Received:	June 9, 2017
Lab Reference No.:	b171665	Date Analyzed:	June 16, 2017
Analyst(s):	L. DeCurtis	# Samples submitted:	3
		# Phases analyzed:	6

Method of Analysis:

EPA 600/R-93/116 - Method for the Determination of Asbestos in Bulk Building Materials dated July, 1993

Bulk samples are checked visually and scanned under a stereomicroscope. Slides are prepared and observed under a Polarized Light Microscope (PLM) at magnifications of 40X, 100X or 400X as appropriate. Asbestos fibres are identified by a combination of morphology, colour, refractive index, extinction, sign of elongation, birefringence and dispersion staining colours. A visual estimate is made of the percentage of asbestos present. A reported concentration of less than (<) the regulatory threshold (see chart below) indicates the presence of confirmed asbestos in trace quantities, limited to only a few fibres or fibre bundles in an entire sample. This method complies with provincial regulatory requirements where applicable. Multiple phases within a sample are analyzed and reported separately.

Provincial Jurisdiction	Regulatory Threshold	Provincial Jurisdiction	Regulatory Threshold
Ontario, British Columbia, Nova Scotia	0.5%	Manitoba	0.1% friable 1% non-friable
Quebec	0.1%	Saskatchewan	0.5% friable 1% non-friable
Alberta, NWT, Yukon, Nunavut	1%	Newfoundland and Labrador, PEI and New Brunswick	1%

All bulk samples submitted to this laboratory for asbestos analysis are retained for a minimum of three months. Samples may be retrieved, upon request, for re-examination at any time during that period.

Pinchin Ltd. is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0) for the 'EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples,' and the 'EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials'; and meets all requirements of ISO/IEC 17025:2005.

This report relates only to the items tested.

NOTE: *This test report may not be reproduced, except in full, without the written approval of the laboratory. The client may not use this report to claim product endorsement by NVLAP or any agency of the U.S. Government. This report is valid only when signed in blue ink by the analyst. Vinyl asbestos floor tiles contain very fine fibres of asbestos and may be missed by some laboratories using the PLM method. Internal verification studies performed by Pinchin indicate that the chance of missing asbestos in floor tiles is no higher than about 2%. The vinyl tile study and laboratory documentation on measurement uncertainty is available upon request. The analysis of dust samples by PLM cannot be used as an indicator of past or present airborne asbestos fibre levels.*



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BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0001A Roof Shingle	a) Homogeneous, black, tar impregnated, compressed fibrous material.	None Detected	Cellulose 50-75% Tar and other non-fibrous 25-50%
	b) Non-homogeneous, tar material.	None Detected	Tar and other non-fibrous > 75%
0001B Roof Shingle	a) Homogeneous, black, tar impregnated, compressed fibrous material.	None Detected	Cellulose 50-75% Tar and other non-fibrous 25-50%
	b) Non-homogeneous, tar material.	None Detected	Tar and other non-fibrous > 75%
0001C Roof Shingle	a) Homogeneous, black, tar impregnated, compressed fibrous material.	None Detected	Cellulose 50-75% Tar and other non-fibrous 25-50%
	b) Non-homogeneous, tar material.	None Detected	Tar and other non-fibrous > 75%

Reviewed by:

Reporting Analyst:



Analyzed by: JD
 Reviewed by: EL
 Report Sent by: EL



**Pinchin Ltd. - Asbestos Laboratory
 Internal Asbestos Bulk Sample Chain of Custody**

Client Name:	SNC-Lavalin	Project Address:	5719 Roblin, Community Row Pumping Station, Winnipeg, MB
Portfolio/Building No:		Pinchin File:	207217
Submitted by:	Rodney Legault	Email:	rlegault@pinchin.com
CC Results to:		CC Email:	
Date Submitted:	June 8 2017	Required by:	June 15 2017
# of Samples:	3	Priority:	5 Day Turnaround
Year of Building Construction (Mandatory, Years ONLY):			
Do NOT Stop on Positive (Sample Numbers):			
Pinchin Group Company (Mandatory Field):	Pinchin		

To be Completed by Lab Personnel Only:

Lab Reference #:	6171013 b171665	Time:	24 hour clock
Received by:	JUN 09 2017 JR EL	Date:	Month Day Year
Name(s) of Analyst(s):	17/6/16		

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)
	0001	A	Roof Shingle a) ND b) ND
	0001	B	Roof Shingle a) ND b) ND
	0001	C	Roof Shingle a) ND b) ND