



Hazardous Building Materials Assessment

Monsignor Paul Dwyer Catholic
School

700 Stevenson Road North,
Oshawa, Ontario

Prepared for:

Durham Catholic District School Board

650 Rossland Road West
Oshawa, Ontario L1J 7C4

Attention: Kevin Jones
Supervisor, Contract Management

March 15, 2019

Pinchin File: 237348



Hazardous Building Materials Assessment

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Durham Catholic District School Board

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Issued to:	Durham Catholic District School Board
Contact:	Kevin Jones, Supervisor, Contract Management
Issued on:	March 15, 2019
Pinchin File:	237348
Issuing Office:	Peterborough, ON
Pinchin Contact:	Chris Fennell, Project Manager

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Reviewer:	Chris Fennell Project Manager 705.748.4627 ext. 3605 cfennell@pinchin.com
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EXECUTIVE SUMMARY

Durham Catholic District School Board (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of Monsignor Paul Dwyer Catholic School located at 700 Stevenson Road North, Oshawa, Ontario. Pinchin performed the assessment on March 4, 2019.

The objective of the assessment was to identify specified hazardous building materials in preparation for a classroom refresh project. The results of this assessment are intended for use with a properly developed scope of work and performance specification.

The assessed area was limited to the part of the building, which consisted of Rooms 124, 124A, 124B, 126, 133, 135 and 137, as shown on the drawings in Appendix I.

SUMMARY OF FINDINGS

Asbestos: Asbestos-containing materials (ACM) are present as follows:

- Beige caulking on door frames in Room 124B

Lead: Lead is present as follows:

- Blue paint on metal doors
- Batteries of emergency lights and fire alarm systems
- Caulking on cast iron pipe joints (bell and spigot)

Silica: Crystalline silica is present in concrete, mortar, masonry, ceramics, and grout.

Mercury: Mercury vapour is present in light tubes and liquid mercury is present in thermostat ampules.

Mould and Water Damage: Visible mould was not observed.

SUMMARY OF RECOMMENDATIONS

The following is a summary of significant recommendations; refer to the body of the report for detailed recommendations.

1. Prepare specifications for the hazardous material removal required for the planned work.
2. Do not disturb suspected hazardous building materials discovered during the planned work, which have not been identified in this report. Notify Pinchin immediately to conduct further testing.



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3. Remove and dispose of asbestos-containing materials if disturbed by the planned renovation work.
4. Recycle mercury-containing light tubes and thermostats when removed from service.
5. Follow appropriate safe work procedures when handling or disturbing silica and lead.

This Executive Summary is subject to the same standard limitations as contained in the report and must be read in conjunction with the entire report.



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1.0 INTRODUCTION AND SCOPE

Durham Catholic District School Board (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of Monsignor Paul Dwyer Catholic School located at 700 Stevenson Road North, Oshawa, Ontario.

Adam Heizer, B.Sc., Project Technologist performed the assessment on March 4, 2019. The surveyor was unaccompanied during the assessment. The assessed area was vacant at the time of the assessment.

The objective of the assessment was to identify specified hazardous building materials in preparation for building renovation. This assessment is intended to be used for pre-construction purposes only, and may not provide sufficient detail for long term management of hazardous materials as required by Health and Safety regulations. The results of this assessment are intended for use with a properly developed scope of work and performance specification.

1.1 Scope of Assessment

The assessment was performed to establish the location and type of specified hazardous building materials incorporated in the structure and its finishes. The assessed area was limited to Rooms 124, 124A, 124B, 126, 133, 135 and 137 in anticipation of a classroom refresh project. The extent of the assessed area was defined by the Client and is shown on the appended drawings.

For the purpose of the assessment and this report, hazardous building materials are defined as follows:

- Asbestos
- Lead
- Silica
- Mercury
- Mould

The following Designated Substances are not typically found in building materials in a composition/state that is hazardous and were not included in this assessment:

- Arsenic
- Acrylonitrile
- Benzene
- Coke oven emissions
- Ethylene oxide
- Isocyanates



- Vinyl chloride monomer

2.0 BACKGROUND INFORMATION

2.1 Building Description

Description Item	Details
Use	High School
Number of Floors	1 storey
Assessed area	The assessed area is 2,000 square feet
Year of Construction	The building was constructed in 1964 with two additions constructed after 1990
Structure	Structural steel, concrete
Exterior Cladding	Pre-cast concrete, glass curtain wall, wood
HVAC	Forced Air HVAC, boiler and hot water heating to radiators
Roof	Built-up roofing, modified bitumen
Flooring	Vinyl tile, vinyl sheet flooring, wood, carpet, ceramic tiles
Interior Walls	Drywall, concrete block, plaster
Ceilings	Drywall, plaster, acoustic ceiling tiles

3.0 FINDINGS

The following section summarizes the findings of the assessment and provides a general description of the hazardous materials identified and their locations.

3.1 Asbestos

3.1.1 Suspect Building Materials Not Found

The following types of building materials may historically contain asbestos but were not observed in the assessed area and are not discussed in the report findings:

- Spray-applied insulations (fireproofing, thermal or acoustic)
- Texture finishes (decorative)
- Thermal systems insulation (pipes, ducts and mechanical)
- Plaster and Stucco

- Asbestos cement products (e.g. Transite)
- Vinyl sheet flooring

3.1.2 *Pipe Insulation*

Pipes are insulated with fibreglass.

Pipes insulated with asbestos-containing insulations may be present in inaccessible spaces such as above solid ceilings, in chases, in column enclosures and within shafts, which are not identified in the above table.



Photo 1 – View of non-asbestos fibreglass pipe insulation in classrooms.



Photo 2 – Non-asbestos fibreglass pipe insulation in Electrical Room 124B.

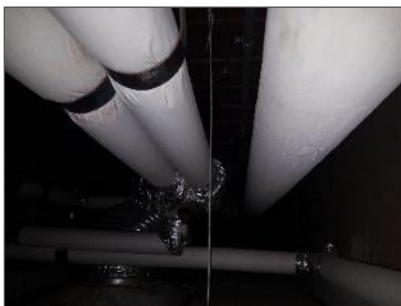


Photo 3 – Non-asbestos fibreglass pipe insulation above ceiling tiles in classrooms.

3.1.3 *Duct Insulation and Mastic*

Ducts are either uninsulated or insulated with non-asbestos fibreglass (foil-faced or canvas).



Photo 4 – View of foil-faced, non-asbestos fiberglass duct insulation.



Photo 5 – Ducts above ceiling tile are uninsulated.

3.1.4 Vermiculite

Loose fill vermiculite debris was not observed in the spaces or areas inspected. Destructive testing was not performed and vermiculite may be present within masonry block walls, above solid ceilings or other void spaces.

3.1.5 Acoustic Ceiling Tiles

Acoustic ceiling tiles are present in the assessed area, as follows:

Size, Type, Pattern	Locations	Sample Number or Date Code	Asbestos Type
24" x 48", lay-in, medium and large pinhole	Classroom 124, 126, 133 and 137	2016	None
24" x 48", lay-in, Dense pinholes with fissure widthways - medium	Classroom 124, 126, 133 and 137	S001A-C	None
24" x 48", lay-in, pinhole and random fleck	Classroom 124, 126, 133 and 137	2005	None

All ceiling tiles are presumed to be non-asbestos based on the date of manufacture determined from the date stamp applied to the top of the tiles or the age of the materials determined from the age of the building construction. The tiles were manufactured after asbestos was stopped being used in acoustic ceiling tiles.



Photo 6 – Non-asbestos 24" x 48", lay-in ceiling tile with medium and large pinholes.



Photo 7 – Non-asbestos 24" x 48", lay-in ceiling tile with dense pinholes with fissure widthways.



Photo 8 – Non-asbestos 24" x 48", lay-in ceiling tile with pinholes and random flecks.

3.1.6 Drywall Joint Compound

Drywall joint compound present on wall and ceiling finishes throughout the assessed area does not contain asbestos (samples 0032A-C).



Photo 9 – Drywall bulkheads are located in Classrooms 124, 126, 137 and 133.

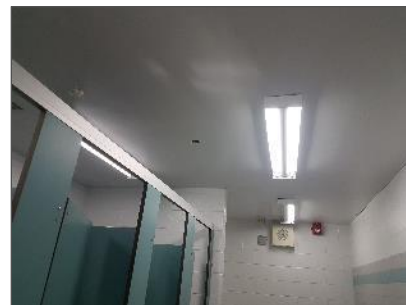


Photo 10 – Drywall ceiling in washroom 135.

3.1.7 Vinyl Floor Tiles

Size, Pattern, Colour	Locations	Sample Number	Asbestos Type (tile)	Asbestos Type (mastic)
12" x 12", white with blue fleck	Room 126	S002A-C	None	None
12" x 12", white with grey streak	Rooms 124, 133, 137	S003A-C	None	None

The vinyl floor tiles and mastic are non-friable and are in good condition.

Vinyl baseboard adhesive present at bottom of walls throughout the assessed area does not contain asbestos (samples 0033A-C).



Photo 11 – Non-asbestos 12" x 12" white vinyl floor tile with blue fleck.



Photo 12 – Non-asbestos 12" x 12" white vinyl floor tile with grey streak.



Photo 13 – Non-asbestos vinyl baseboard adhesive.

3.1.8 Sealants, Caulking, and Putty

The following table presents a summary of caulking, sealants and putties present:

Material and Colour	Location	Quantity	Sample Number	Asbestos Type
Caulking, beige	Door frames of 124B	40 linear feet	0034A-C	Chrysotile

Caulking is a non-friable material and in good condition.



Photo 14 – Asbestos containing beige caulking around doorframe in Room 124B.

3.1.9 Other Building Materials

White sink mastic present on the underside of sinks in Rooms 124 and 124A does not contain asbestos (0035A-C)



Photo 15 – Non-asbestos white sink mastic in room 124.

3.1.10 Presumed Asbestos Materials

The methodology identifies a list of materials which may contain asbestos, which were not to be sampled, based on limitations of the scope. The following is a list of materials which may contain asbestos, which were not observed during the assessment, but based on site conditions may be present. If determined to be present during building renovation, these materials are presumed to contain asbestos until otherwise proven by sampling and analysis:

- Floor levelling compound
- Ceramic tile setting compound
- Electrical components
- Vermiculite in wall and ceiling cavities
- Fibre-reinforced paints and coatings
- Vibration dampers on HVAC equipment

- Materials concealed or outside the assessed area

3.2 Lead

3.2.1 Paints and Surface Coatings

The following table summarizes the analytical results for paints sampled and locations.

Sample Number	Colour, Substrate Description	Location	Lead (%)
L01	White paint on block masonry	Throughout assessed area	0.050
L02	Blue paint on metal door	All doors in assessed area	0.13
L03	White paint on drywall	Throughout assessed area	<0.0034
L04	Light blue paint on block wall	Hallway and Room 135	0.013

Results above 0.1% are considered elevated (i.e., greater than the EACO guideline of 0.1% for lead-containing paints). All paints determined to be elevated were found to be in good condition and not flaking, peeling or delaminating.

3.2.2 Lead Products and Applications

Lead-containing batteries are present in emergency lighting.

3.2.3 Presumed Lead Materials

Lead may be present in a number of materials which were not assessed and/or sampled. The following materials, where found, should be considered to contain lead:

- Electrical components, including wiring connectors, grounding conductors, and solder
- Solder on pipe connections
- Glazing on ceramic tiles

3.3 Silica

Crystalline silica is a presumed component of the following materials:

- Poured or pre-cast concrete
- Masonry and mortar
- Ceramic tiles and grout

3.4 Mercury

3.4.1 Lamps

Mercury vapour is present in fluorescent lamps.

3.4.2 Mercury-Containing Devices

Mercury is present as a liquid in thermostats ampules.

3.5 Mould

Visible mould growth was not found during the assessment.

4.0 RECOMMENDATIONS

4.1 General

1. Prepare plans and performance specifications for hazardous material removal required for the planned work. The specifications should include the scope of work, safe work practices, personal protective equipment, respiratory protection, and disposal of waste materials.
2. If suspected hazardous building materials are discovered during the planned work, which are not identified in this report, do not disturb and inform Pinchin immediately to conduct further testing.
3. Provide this report and the detailed plans and specifications to the contractor prior to bidding or commencing work.
4. Retain a qualified consultant to specify, inspect and verify the successful removal of hazardous materials.
5. Update the asbestos inventory upon completion of the abatement and removal of asbestos-containing materials.

4.2 Building Demolition or Renovation Work

The following recommendations are made regarding renovation involving the hazardous materials identified.

4.2.1 Asbestos

Remove asbestos-containing materials (ACM) prior to renovation, alteration, or maintenance if ACM may be disturbed by the work.

If the identified ACM will not be removed prior to commencement of the work, any potential disturbance of ACM must follow asbestos precautions appropriate for the type of work being performed.



Asbestos-containing materials must be disposed of at a landfill approved to accept asbestos waste.

4.2.2 Lead

For paints identified as having elevated levels of lead (i.e., greater than the EACO guideline of 0.1% for lead-containing paints), construction disturbance may result in over-exposure to lead dust or fumes. The need for work procedures, engineering controls and personal protective equipment should be assessed on a site specific basis to comply with provincial standards or guidelines. Performing an exposure assessment during work that disturbs lead in paints and coatings may be able to reduce the use of some of these precautions.

Well adhered paints containing elevated levels of lead on metal substrates do not require leachable lead analysis as the materials can be recycled with the paint intact.

Lead-containing items should be recycled when taken out of service.

4.2.3 Silica

Construction disturbance of silica-containing products may result in excessive exposures to airborne silica, especially if performed indoors and dry. Cutting, grinding, drilling or demolition of materials containing silica should be completed only with proper respiratory protection and other worker safety precautions that comply with provincial standards or guidelines.

4.2.4 Mercury

Do not break lamps or separate liquid mercury from components. Recycle and reclaim mercury from fluorescent lamps and thermostats when taken out of service. Mercury is classified as a hazardous waste and must be disposed of in accordance with local regulations.

5.0 TERMS AND LIMITATIONS

This work was performed subject to the Terms and Limitations presented or referenced in the proposal for this project.

Information provided by Pinchin is intended for Client use only. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law. Any use by a third party of reports or documents authored by Pinchin or any reliance by a third party on or decisions made by a third party based on the findings described in said documents, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted. No other warranties are implied or expressed.



6.0 REFERENCES

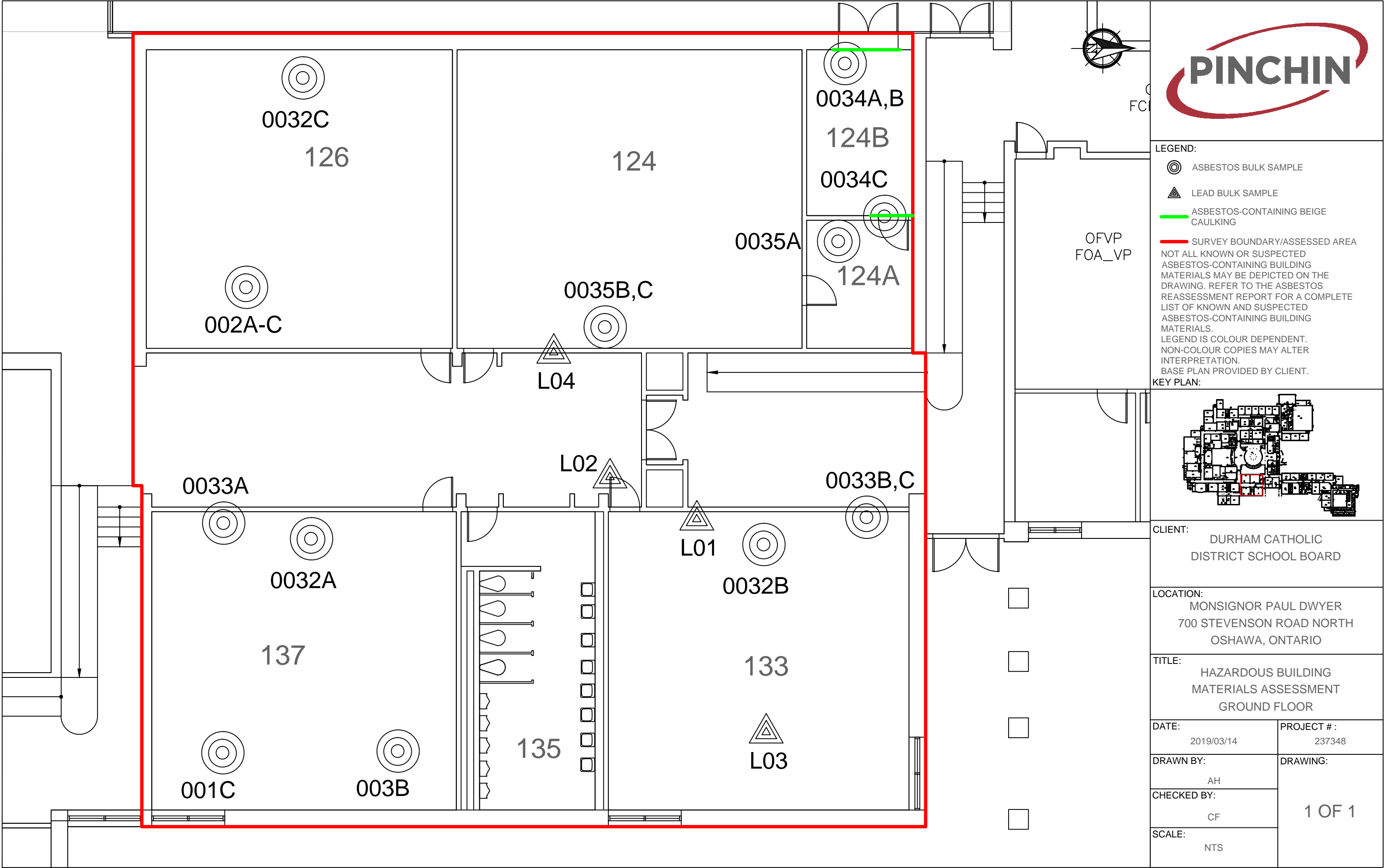
The following legislation and documents were referenced in completing the assessment and this report:

1. Asbestos on Construction Projects and in Buildings and Repair Operations, Ontario Regulation 278/05.
2. Designated Substances, Ontario Regulation 490/09.
3. Lead on Construction Projects, Ministry of Labour Guidance Document.
4. The Environmental Abatement Council of Ontario (EACO) Lead Guideline for Construction, Renovation, Maintenance or Repair, October 2014.
5. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.
6. Surface Coating Materials Regulations, SOR/2005-109, Hazardous Products Act.
7. Silica on Construction Projects, Ministry of Labour Guidance Document.
8. Alert – Mould in Workplace Buildings, Ontario Ministry of Labour.

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Template: Master Report for Hazardous Materials Assessment (Pre-Construction), HAZ, January 14, 2019

APPENDIX I
Drawing



APPENDIX II-A
Asbestos Analytical Certificates

CERTIFICATE OF ANALYSIS

Client: Pinchin Environmental
5749 Coopers Ave
Mississauga ON L4Z-1R9

Report Date: 2/22/2006
Project: MonsignorPaulDwyer,Bldg.700
Project No.: 30169.700

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2499745	Description / Location: Tan/White Ceiling Tile			
Client No.: S001a	Location 1			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	30	Mineral Wool	30
		40	Cellulose	

Lab No.: 2499746	Description / Location: Tan/White Ceiling Tile			
Client No.: S001b	Location 3			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	30	Mineral Wool	30
		40	Cellulose	

Lab No.: 2499747	Description / Location: Tan/White Ceiling Tile			
Client No.: S001c	Location 9			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	40	Mineral Wool	30
		30	Cellulose	

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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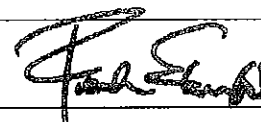
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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: J. Haremza

Approved By:



Frank E. Ehrenfeld, III
Laboratory Director

Date: 2/22/2006

CERTIFICATE OF ANALYSIS

Client: Pinchin Environmental

5749 Coopers Ave

Mississauga ON L4Z-1R9

Report Date: 2/22/2006

Project: MonsignorPaulDwyer;Bldg.700

Project No.: 30169.700

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2499748	Description / Location: Off-White Floor Tile; 12"
Client No.: S002a	Location 10
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	
	100

Lab No.: 2499748	Description / Location: Black Mastic	Layer No.: 2
Client No.: S002a	Location 10	
<u>% Asbestos</u>	<u>Type</u>	
None Detected	None Detected	
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	
None Detected	None Detected	
<u>% Non-Fibrous Material</u>		
		100

Lab No.: 2499749	Description / Location: Off-White Floor Tile; 12"
Client No.: S002b	Location 10
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Fibrous Material</u>	
	100

Lab No.: 2499749	Description / Location: Black Mastic	Layer No.: 2
Client No.: S002b	Location 10	
<u>% Asbestos</u>	<u>Type</u>	
None Detected	None Detected	
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	
None Detected	None Detected	
<u>% Non-Fibrous Material</u>		
		100

NIST-NVLAP No. 101165-0

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Analysis Performed By: J. Haremza

Date: 2/22/2006

CERTIFICATE OF ANALYSIS

Client:	Pinchin Environmental	Report Date:	2/22/2006
	5749 Coopers Ave	Project:	MonsignorPaulDwyer,Bldg.700
	Mississauga ON L4Z-1R9	Project No.:	30169.700

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	2499750	Description / Location:	Off-White Floor Tile; 12"
Client No.:	S002c		Location 10
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			100

Lab No.:	2499750	Description / Location:	Black Mastic	Layer No.:	2
Client No.:	S002c		Location 10		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	

Lab No.:	2499751	Description / Location:	Lt.Grey Floor Tile; 12"
Client No.:	S003a		Location 1
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			100

Lab No.:	2499751	Description / Location:	Tan Mastic	Layer No.:	2
Client No.:	S003a		Location 1		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

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	5749 Coopers Ave	Project:	MonsignorPaulDwyer,Bldg.700
	Mississauga ON L4Z-1R9	Project No.:	30169.700

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	2499752	Description / Location:	Lt.Grey Floor Tile; 12"
Client No.:	S003b		Location 9
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			100

Lab No.:	2499753	Description / Location:	Lt.Grey Floor Tile; 12"
Client No.:	S003c		Location 4
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			100

Lab No.:	2499753	Description / Location:	Black Mastic	Layer No.:	2
Client No.:	S003c		Location 4		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	

Lab No.:	2499754	Description / Location:	Grey Insulation; Sprayed Fireproofing
Client No.:	S004a		Location 30 On Deck & Posts
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	60	Mineral Wool
			40

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Performed By: J. Haremza

Date: 2/22/2006

CERTIFICATE OF ANALYSIS

Client: Pinchin Environmental

5749 Coopers Ave

Mississauga ON L4Z-1R9

Report Date: 2/22/2006

Project: MonsignorPaulDwyer,Bldg.700

Project No.: 30169.700

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2499755

Client No.: S004b

Description / Location: Grey Insulation; Sprayed Fireproofing

Location 31 On Deck & Posts

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	60	Mineral Wool	40

Lab No.: 2499756

Client No.: S004c

Description / Location: Grey Insulation; Sprayed Fireproofing

Location 31 On Deck & Posts

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	60	Mineral Wool	40

Lab No.: 2499757

Client No.: S005a

Description / Location: White/Grey Plaster

On Beam In Basement; Location 43

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 2499758

Client No.: S005b

Description / Location: White/Grey Plaster

On Beam In Basement; Location 43

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government

This report shall not be reproduced except in full, without written approval of the laboratory.

Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: J. Haremza

Date: 2/22/2006

CERTIFICATE OF ANALYSIS

Client:	Pinchin Environmental	Report Date:	2/22/2006
	5749 Coopers Ave	Project:	MonsignorPaulDwyer;Bldg.700
	Mississauga ON L4Z-1R9	Project No.:	30169.700

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	2499759	Description / Location:	White/Grey Plaster
Client No.:	S005c		On Beam In Basement; Location 43
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			100

Lab No.:	2499760	Description / Location:	Tan Vinyl Sheet Flooring
Client No.:	S006a		Location 9 Utilities; Student Services
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
30	Chrysotile	10	Cellulose
			60

Lab No.:	2499760	Description / Location:	Tan/Black Mastic	Layer No.:	2
Client No.:	S006a		Location 9 Utilities; Student Services		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: J. Haremza

Date: 2/22/2006

CERTIFICATE OF ANALYSIS

Client:	Pinchin Environmental	Report Date:	2/22/2006
	5749 Coopers Ave	Project:	MonsignorPaulDwyer,Bldg.700
	Mississauga ON L4Z-1R9	Project No.:	30169.700

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	2499761	Description / Location:	Tan Vinyl Sheet Flooring	
Client No.:	S006b		Location 9 Utilities; Student Services	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
30	Chrysotile	10	Cellulose	60

Lab No.:	2499761	Description / Location:	Black Mastic	Layer No.:	2
Client No.:	S006b		Location 9 Utilities; Student Services		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	

Lab No.:	2499762	Description / Location:	Tan Vinyl Sheet Flooring	
Client No.:	S006c		Location 9 Utilities; Student Services	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
30	Chrysotile	10	Cellulose	60

Lab No.:	2499762	Description / Location:	Tan/Black Mastic	Layer No.:	2
Client No.:	S006c		Location 9 Utilities; Student Services		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	
None Detected	None Detected	None Detected	None Detected	100	

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: J. Haremza

Date: 2/22/2006

CERTIFICATE OF ANALYSIS

Client: Pinchin Environmental

5749 Coopers Ave

Mississauga

ON

L4Z-1R9

Report Date: 2/22/2006

Project: MonsignorPaulDwyer,Bldg.700

Project No.: 30169.700

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2499763

Client No.: S007a

Description / Location: Tan/White Rubber Vinyl Sheet Flooring

Location 3 Student Services

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 2499763

Client No.: S007a

Description / Location: Yellow Mastic

Location 3 Student Services

Layer No.: 2

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 2499764

Client No.: S007b

Description / Location: Tan/White Rubber Vinyl Sheet Flooring

Location 3 Student Services

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 2499764

Client No.: S007b

Description / Location: Yellow Mastic

Location 3 Student Services

Layer No.: 2

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: J. Haremza

Date: 2/22/2006

CERTIFICATE OF ANALYSIS

Client: Pinchin Environmental
5749 Coopers Ave
Mississauga ON L4Z-1R9

Report Date: 2/22/2006
Project: MonsignorPaulDwyer,Bldg.700
Project No.: 30169.700

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2499765	Description / Location: Tan/White Rubber Vinyl Sheet Flooring
Client No.: S007c	Location 3 Student Services
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected
	<u>% Non-Fibrous Material</u>
	100

Lab No.: 2499765	Description / Location: Yellow Mastic	Layer No.: 2
Client No.: S007c	Location 3 Student Services	
<u>% Asbestos</u>	<u>Type</u>	
None Detected	None Detected	
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	
None Detected	None Detected	
		<u>% Non-Fibrous Material</u>
		100

Lab No.: 2499766	Description / Location: Tan/White Ceiling Tile
Client No.: S008a	Location 4 Student Services
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
50	Mineral Wool
20	Cellulose
	<u>% Non-Fibrous Material</u>
	30

Lab No.: 2499767	Description / Location: Tan/White Ceiling Tile
Client No.: S008b	Location 4 Student Services
<u>% Asbestos</u>	<u>Type</u>
None Detected	None Detected
<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
50	Mineral Wool
20	Cellulose
	<u>% Non-Fibrous Material</u>
	30

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: J. Haremza

Date: 2/22/2006

CERTIFICATE OF ANALYSIS

Client: Pinchin Environmental
5749 Coopers Ave
Mississauga ON L4Z-1R9

Report Date: 2/22/2006
Project: MonsignorPaulDwyer,Bldg.700
Project No.: 30169.700

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 2499768

Description / Location: Tan/White Ceiling Tile

Client No.: S008c

Location 4 Student Services

<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	50	Mineral Wool	30
		20	Cellulose	

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

Comments: (PC) indicates Stratified Point Count Method performed. Method not performed unless stated. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix. Quantification at <1% by volume is possible with this method. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed.

Analysis Performed By: J. Haremza

Date: 2/22/2006



Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,
App.E



Customer: Pinchin Ltd.
204-160 Charlotte Street
Peterborough, ON K9J 2T8

Attn: Adam Heizer
Chris Fennell

Lab Order ID: 71906264
Analysis ID: 71906264_PLM
Date Received: 3/7/2019
Date Reported: 3/11/2019
Date Amended: 3/14/2019

Project: 237348,700 Stevenson Road N, Oshawa, ON,DCDSB

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0032A	DJC - 137	None Detected		100% Other	White Non Fibrous Homogeneous
71906264PLM_1					Dissolved
0032B	DJC - 133	None Detected		100% Other	White Non Fibrous Homogeneous
71906264PLM_2					Dissolved
0032C	DJC - 126	None Detected		100% Other	White Non Fibrous Homogeneous
71906264PLM_3					Dissolved
0033A	vinyl baseboard adhesive - 137	None Detected		100% Other	Brown, Tan Non Fibrous Homogeneous
71906264PLM_4	mixed mastics				Dissolved
0033B	vinyl baseboard adhesive - 133	None Detected		100% Other	Brown, Tan Non Fibrous Homogeneous
71906264PLM_5	mixed mastics				Dissolved
0033C	vinyl baseboard adhesive - 133	None Detected		100% Other	Brown, Tan Non Fibrous Homogeneous
71906264PLM_6	mixed mastics				Dissolved
0034A	beige caulking - 124B	4% Chrysotile		96% Other	Beige Non Fibrous Homogeneous
71906264PLM_7					Ashed, Dissolved
0034B	beige caulking - 124B	Not Analyzed			
71906264PLM_8					

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.

Philip Szabo (12)

Analyst

Approved Signatory



Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,
App.E



Customer: Pinchin Ltd.
204-160 Charlotte Street
Peterborough, ON K9J 2T8

Attn: Adam Heizer
Chris Fennell

Lab Order ID: 71906264
Analysis ID: 71906264_PLM
Date Received: 3/7/2019
Date Reported: 3/11/2019
Date Amended: 3/14/2019

Project: 237348,700 Stevenson Road N, Oshawa, ON,DCDSB

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0034C	beige caulking - 124B	Not Analyzed			
71906264PLM_9					
0035A	white sink mastic - 124A	None Detected		100% Other	White Non Fibrous Homogeneous
71906264PLM_10					Dissolved
0035B	white sink mastic - 124	None Detected	10% Cellulose	90% Other	White Non Fibrous Homogeneous
71906264PLM_11					Dissolved
0035C	white sink mastic - 124	None Detected	10% Cellulose	90% Other	White Non Fibrous Homogeneous
71906264PLM_12					Dissolved

Disclaimer: Due to the nature of the EPA 600 method, asbestos may not be detected in samples containing low levels of asbestos. We strongly recommend that analysis of floor tiles, vermiculite, and/or heterogeneous soil samples be conducted by TEM for confirmation of "None Detected" by PLM. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. government. Analytical uncertainty available upon request. Scientific Analytical Institute participates in the NVLAP Proficiency Testing program. Unless otherwise noted blank sample correction was not performed. Estimated MDL is 0.1%.


Philip Szabo (12)

Analyst

Approved Signatory

71906264 revised.

Version 1-15-2012

Client:	Pinchin Ltd.	*Instructions: Use Column "B" for your contact info	Invoice to: cfennell@pinchin.com Email address here
Contact:	Adam Heizer		
Address:	204-160 Charlotte St.		
Phone:	705-748-4627		
Fax:	705-748-6927	To See an Example Click the bottom Example Tab.	
Email:	aheizer@pinchin.com		
Project:	237348, 700 Stevenson Road N, Oshawa, ON, DCDSB		
Client Notes:	Special Instructions: Please only analyze the adhesive on the vinyl baseboard. Do not analyze the vinyl baseboard in samples 0033A-C		
P.O. #.	237348	Enter samples between "<<" and ">>" Begin Samples with a "<<" above the first sample and end with a ">>" below the last sample. Only Enter your data on the first sheet "Sheet1" Note: Data 1 and Data 2 are optional fields that do not show up on the official report, however they will be included in the electronic data returned to you to facilitate your reintegration of the report data.	4604 Dundas Dr., Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313 Email: lab@sailab.com
Date Submitted:	March 6, 2019		
Analysis:	PLM - Stop Positive		
TurnAroundTime:	4days		

Sample Number	Data 1 (Lab use only)	Sample Description	Data 2 (Lab use only)
<<			
0032A		DJC - 137	
0032B		DJC - 133	
0032C		DJC - 126	
0033A		vinyl baseboard adhesive - 137	
0033B		vinyl baseboard adhesive - 133	
0033C		vinyl baseboard adhesive - 133	
0034A		beige caulking - 124B	
0034B		beige caulking - 124B	
0034C		beige caulking - 124B	
0035A		white sink mastic - 124A	
0035B		white sink mastic - 124	
0035C		white sink mastic - 124	
>>			

Accepted



Rejected



M. Ives-Jobling
3.14.10a

APPENDIX II-B
Lead Analytical Certificate



Analysis for Lead Concentration in Paint Chips

by Flame Atomic Absorption Spectroscopy
EPA SW-846 3050B/6010C/7000B



Customer: Pinchin Ltd.
204-160 Charlotte Street
Peterborough, ON K9J 2T8

Attn: Adam Heizer
Chris Fennell

Lab Order ID: 71906311
Analysis ID: 71906311_PBP
Date Received: 3/7/2019
Date Reported: 3/14/2019

Project: Paul Dwyer Classroom Refresh

Sample ID	Description	Mass (g)	Concentration (ppm)	Concentration (% by weight)
Lab Sample ID	Lab Notes			
L01	White paint on block wall - 133	0.0520	500	0.050%
71906311PBP_1				
L02	Blue paint on metal door - 133	0.0315	1300	0.13%
71906311PBP_2				
L03	white paint on drywall - 133	0.0467	< 34	< 0.0034%
71906311PBP_3				
L04	light blue paint on block wall -135	0.0947	130	0.013%
71906311PBP_4				

Unless otherwise noted blank sample correction was not performed on analytical results. Scientific Analytical Institute participates in the AIHA ELPAT program. ELPAT Laboratory ID: 173190. This report relates only to the samples tested and may not be reproduced, except in full, without the written approval of SAI. Analytical uncertainty available upon request. The quality control samples run with the samples in this report have passed all EPA required specifications unless otherwise noted. RL: (Report Limit for an undiluted 50ml sample is 4µg Total Pb).

Sara Shaut (4)

Analyst


Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407

Laboratory Director

(336) 292-3888

71906311

Version 1-15-2012

Client: Contact: Address: Phone: Fax: Email: Project: Client Notes: P.O. #. Date Submitted: Analysis: TurnAroundTime:	Pinchin Ltd. Adam Heizer 160 Charlotte St. Peterborough ON 289.971.7921 905-363-0681 aheizer@pinchin.com cfennell@pinchin.com Paul Dwyer Classroom Refresh 237348 3/5/2019 0:00 Flame atomic Absorption 120	<p align="center">*Instructions:</p> <p align="center">Use Column "B" for your contact info</p> <p align="center">To See an Example Click the bottom Example Tab.</p> <p align="center">Enter samples between "<<" and ">>" Begin Samples with a "<<" above the first sample and end with a ">>" below the last sample. Only Enter your data on the first sheet "Sheet1"</p> <p align="center">Note: Data 1 and Data 2 are optional fields that do not show up on the official report, however they will be included in the electronic data returned to you to facilitate your reintegration of the report data.</p>	<p align="center">Invoice to:</p> <hr/> chris fennell cfennell@pinchin.com <hr/> <div>  <div> Scientific Analytical Institute </div> </div> <p align="center"> 4604 Dundas Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313 Email: lab@sailab.com </p>
--	---	---	---

Sample Number	Data 1 (Lab use only)	Sample Description	Data 2 (Lab use only)
<<			
L01		White paint on block wall - 133	
L02		Blue paint on metal door - 133	
L03		white paint on drywall - 133	
L04		light blue paint on block wall -135	

Accepted ☒

Rejected ☐

N. Francis 3/7 10:30A

APPENDIX III
Methodology

1.0 GENERAL

Pinchin conducts a room-by-room survey (rooms, corridors, service areas, exterior, etc.) to identify the hazardous building materials as defined by the scope of work. All work is conducted in accordance with our own internal Standard Operating Procedures.

Information regarding the location and condition of hazardous building materials encountered and visually estimated quantities are recorded. The locations of any samples collected are recorded on small-scale plans.

As-built drawings and previous reports are referenced where provided.

1.1 Limitations on Scope

The assessment excludes the following:

- Articles belonging to the owner, tenant or occupant (e.g. stored items, furniture, appliances, etc.);
- Underground materials or equipment (e.g. vessels, drums, underground storage tanks, pipes, etc.);
- Building envelope, structural components, inaccessible or concealed materials or other items where sampling may cause consequential damage to the property;
- Energized systems (e.g. internal boiler components, elevators, mechanical or electrical components);
- Controlled products (e.g. stored chemicals, operational or process-related substances); and
- Materials not typically associated with construction (e.g. settled dust, spills, residual contamination from prior spills, etc.).

The assessment includes limited demolition of wall and ceiling finishes (drywall or plaster) to view concealed conditions at representative areas as permitted by the current building use. Limited destructive testing of flooring is conducted where possible (under carpets or multiple layers of flooring). Demolition of exterior building finishes, masonry walls (chases, shafts etc.), and structural items is not conducted.

1.2 Asbestos

An inspection is conducted for the presence of friable and non-friable asbestos-containing materials (ACM). A friable material is a material that when dry can be crumbled, pulverized or powdered by hand pressure.

A separate set of samples is collected of each type of homogenous material suspected to contain asbestos. A homogenous material is defined by the US EPA as 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 homogeneous materials are determined by visual examination and available information on the phases of construction and prior renovations.

Samples are collected at a rate that is in compliance with the requirements of local regulations and guidelines. The sampling strategy is also based on known ban dates and phase out dates of the use of asbestos; sampling of certain building materials is not conducted after specific construction dates. In addition, to be conservative, several years past these dates are added to account for some uncertainty in the exact start/finish date of construction and associated usage of ACM.

In some cases, manufactured products such as asbestos cement pipe are visually identified without sample confirmation.

Drywall joint compound is sampled at exterior walls, columns or other locations that are unlikely to have been renovated in an attempt to determine the presence of asbestos in the original drywall compound. Delineation of asbestos-containing drywall compound from newer, non-asbestos drywall compound is not conducted.

Flooring mastic or adhesive is sampled and analyzed if present on the underside of flooring samples (vinyl floor tile and vinyl sheet flooring).

Limited demolition of masonry block walls (core holes) is conducted to investigate for loose fill vermiculite insulation. The core holes are temporarily patched with expanding foam or caulking.

The following materials (if present) are not sampled and will be presumed to contain asbestos:

- Roofing felts and tar, including repair mastics
- Electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring
- Refractory materials and insulations in boilers, incinerators and stacks
- Insulation under metal clad boilers and vessels
- Mechanical packing, ropes and gaskets
- Paper products under wood flooring or metal or slate roofing
- Soffit and fascia boards at elevated heights
- Fire resistant doors or metal clad finishes
- Exterior cladding
- Vibration dampers on HVAC equipment

- Materials outside the assessed area

The bulk samples are submitted to a NVLAP accredited laboratory for analysis. The analysis is performed in accordance with Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, July 1993.

Analytical results are compared to the following criteria:

Jurisdiction	Friable	Non-Friable
Ontario	0.5%	0.5%
Federal	1%	1%

The asbestos analysis is completed using a stop positive approach. Only one result meeting the above regulated criteria 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. The laboratory stops analyzing samples from a homogeneous material once a result equal to or greater than the regulated criteria is detected in any of the samples of that material. All samples of a homogeneous material are analyzed if no asbestos is detected. In some cases, all samples are analyzed in the sample set regardless of result.

Where building materials are described in the report as “non-asbestos” or “does not contain asbestos”, this means that either no asbestos was detected by the analytical method utilized in any of the multiple samples or, if detected, it is below the lower limit of an asbestos-containing material in the applicable regulation.

Asbestos materials are evaluated in order to make recommendations regarding remedial work. The priority for remedial action is based on several factors:

- Friability (friable or non-friable);
- Condition (good, fair, poor, debris);
- Accessibility (ranking from accessible to all building users to inaccessible); and
- Efficiency of the work (for example, if damaged ACM is being removed in an area, it may be most practical to remove all ACM in the area even if it is in good condition).

1.3 Lead

Samples of distinctive paint finishes and surface coatings present in more than a limited application, where removal of the paint is possible is collected. The samples are collected by scraping the painted finish to include base and covering applications. Drawings included show sample locations.

Analysis for lead in paints or surface coatings is performed at an accredited laboratory in accordance with EPA Method No. 3050B/Method No. 7420; flame atomic absorption.

The Ontario Ministry of Labour (MOL) has not established a lower limit for concentrations of lead in paint, below which precautions do not need to be considered during construction projects. Pinchin follows the recommendations of the Environmental Abatement Council of Ontario (EACO) Lead Guideline for Construction, Renovation, Maintenance or Repair. The Guideline suggests that 0.1% (1,000 ppm) lead in paint represents a de minimis concentration of lead in paint for construction hygiene purposes, that is a concentration below which the lead content is not the limiting hazard in any disturbance of leaded paint for non-aggressive disturbance of painted finishes, (hand powered demolition, chipping, scraping, light sanding, etc.). The use of aggressive methods such as power grinding, torching, welding, etc. may result in significant lead exposures even with low concentrations of lead in paints (below 0.1%). Paint and surface coatings are evaluated for condition such as flaking, chipping or spalling.

Other lead building products (e.g. batteries, lead sheeting, flashing) are identified by visual observation only.

Pinchin reviews the bulk samples results for elevated concentrations of lead. Where elevated concentrations are present, paint samples including the substrate (e.g., wood, concrete, plaster) are submitted for Toxicity Characteristic Leaching Procedure (TCLP) analysis. Analytical results are compared against local provincial requirements for waste characterization.

1.4 Silica

Building materials known to contain crystalline silica (e.g. concrete, cement, tile, brick, masonry, mortar) is identified by visual inspection only. Pinchin does not perform sampling of these materials for laboratory analysis of crystalline silica content.

1.5 Mercury

Building materials/products/equipment (e.g. thermostats, barometers, pressure gauges, light tubes), suspected to contain mercury are identified by visually inspection only. Dismantling of equipment suspected of containing mercury is not performed. Sampling of these materials for laboratory analysis of mercury content is not performed.

1.6 Polychlorinated Biphenyls

The potential for light ballast and wet transformers to contain PCBs is based on the age of the building, a review of maintenance records and examination of labels or nameplates on equipment, where present and accessible. The information is compared to known ban dates of PCBs and Environment Canada publications.

Dry type transformers are presumed to be free of dielectric fluids and hence non-PCB.

Fluids (mineral oil, hydraulic, Aroclor or Askarel) in transformers or other equipment are not sampled for PCB content.

Caulking or sealants are sampled for PCBs based on the date of construction or installation. Caulking installed after 1985 (1980 ban date plus a reasonable non-compliance period based on our experience) is presumed to be free of PCBs and hence not sampled. If sampled, analysis for PCBs is performed using an ASTM test method appropriate to the sample matrix at an accredited laboratory. Sample results are compared to the criteria of 50 ppm for solids as stated in the PCB Regulation, SOR/2008-273.

1.7 Visible Mould

The presence of mould is determined by visual inspection of exposed building surfaces. If any mould growth is concealed within building cavities it is not addressed in this assessment.

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