



Hazardous Building Materials Assessment

406 Main Street,
Island Lakes, Manitoba

Prepared for:

Royal Canadian Mounted Police
1091 Portage Avenue
Winnipeg, MB R3C 3K2

Attention: Jeff Precourt
Senior Asset Manager

August 29, 2017

Pinchin File: 209290



Issued to: Royal Canadian Mounted Police
Contact: Jeff Precourt
Senior Asset Manager
Issued on: August 29, 2017
Pinchin File: 209290
Issuing Office: 54 Terracon Place,
Winnipeg, MB R2J 4G7
Primary Pinchin Contact: Rodney Legault, C.E.T., EP
Senior Project Manager
204.452.0983 ext. 2251
rlegault@pinchin.com



Author: Ken Brydges, C.E.T., LEED AP
Project Manager
204.452.0983 ext. 2242
kbrydges@pinchin.com

Reviewer: Rodney Legault, C.E.T., EP
Senior Project Manager
204.452.0983 ext. 2251
rlegault@pinchin.com



EXECUTIVE SUMMARY

Royal Canadian Mounted Police (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the Old RCMP Detachment located at 406 Main Street, Island Lakes, Manitoba. Pinchin performed the assessment on August 15, 2017.

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

The assessed area consisted of the entire building.

SUMMARY OF FINDINGS

Asbestos: Asbestos-containing materials (ACM) were not present.

Lead: Lead was confirmed present in select paints/surface coatings and is present in emergency light batteries.

Silica: Crystalline silica is present in concrete, mortar, brick, masonry, ceramics, etc.

Mercury: Mercury vapour is present in fluorescent lamps.

Polychlorinated Biphenyls (PCBs): The building has not been comprehensively re-lamped therefore a percentage of light ballast are suspect to be pre 1979 and contain PCBs.

Mould: 30 square feet (SF) of mould-impacted drywall, ceiling tile finish and fibreglass were observed present within the kitchen and 8 SF of mouldy ceiling tile finish was observed in the office space.

SUMMARY OF RECOMMENDATIONS

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

1. Remove and properly dispose of PCB ballasts and mercury-containing items prior to demolition or if disturbed by the planned renovation work; and
2. Follow appropriate safe work procedures when handling or disturbing lead, silica and mould.

Please refer to Section 4.0 of this report for detailed recommendations regarding administrative, renovation or demolition activities.

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

Royal Canadian Mounted Police (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the Old RCMP Detachment located at 406 Main Street, Island Lakes, Manitoba.

Ken Brydges, C.E.T., LEED AP performed the assessment on August 15, 2017. The surveyor was accompanied by Jeff Precourt during the assessment. The building was unoccupied at the time of the assessment.

The objective of the assessment was to identify specified hazardous building materials in preparation for building demolition. This assessment is intended to be used for pre-demolition 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(s) and its finishes. The assessed area consisted of all parts of the building.

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

- Asbestos;
- Lead;
- Silica;
- Mercury;
- Polychlorinated Biphenyls (PCBs); and
- Mould.

2.0 BACKGROUND INFORMATION

Building Description Item	Details
Building Use	Vacant, Former RCMP Detachment
Number of Floors/Levels	Single storey plus 1 level below grade
Total Area of Building (Square Feet)	2,100 square feet (SF)
Year of Construction	1956



Building Description Item	Details
Structure	Wood and concrete
Exterior Cladding	Vinyl siding
HVAC	Auxiliary heating units
Roof	Pitched roof, asphalt shingles
Flooring	Vinyl tile, vinyl sheet flooring and exposed carpet
Interior Walls	Drywall and wood
Ceilings	Drywall, acoustic ceiling tiles, and wood

2.1 Existing Reports

No existing reports were provided for reference.

3.0 FINDINGS

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 building and are not discussed in the report findings:

- Spray-applied fireproofing or thermal insulation;
- Texture finishes (acoustic/decorative);
- Plaster;
- Asbestos cement products; and
- Roofing felts and tar.

Thermal Systems Insulation (TSI)

3.1.1.1 Pipe Insulation

Pipes are either uninsulated or insulated with non-asbestos Armaflex.

3.1.1.2 Duct Insulation

Insulated ducts were not present.

3.1.1.3 Mechanical Equipment Insulation

Mechanical equipment is either uninsulated or insulated with non-asbestos fibreglass.

3.1.2 Vermiculite

Loose fill vermiculite is not present in the assessed areas. The attic is insulated with non-asbestos cellulose insulation.

3.1.3 Acoustic Ceiling Tiles

Two distinct types of non-asbestos acoustic ceiling tile are present in the assessed area, as follows:

Size, Type, Pattern, Photo #	Locations	Sample Number or Date Code	Asbestos Type
24" x 48", Lay-in, fissures and pinholes	Throughout	Dated 1997	Non-asbestos
12" x 12", Mechanically fastened, wood cellulose	Throughout	NA	Non-asbestos

All ceiling tiles were presumed to be non-asbestos based on the date of manufacture determined from the date stamp applied to the top of the tiles (1997) or by surveyors review of the composition of the ceiling tiles (wood cellulose).



Photo # 1 - Non-asbestos acoustic ceiling tiles date stamped 1997 year of production.



Photo # 2 - Non-asbestos wood cellulose mechanically fastened ceiling tiles present above lay-in tiles.

3.1.4 Drywall Joint Compound

Drywall (gypsum board) and drywall joint compound is present as wall finish throughout the building. Based on the results of the testing (Samples 0001A-G), the drywall joint compound does not contain asbestos.

3.1.5 Vinyl Sheet Flooring

Vinyl sheet flooring is present as follows:

Colour and Photo #	Paper Backing (Yes/No)	Locations	Sample Number	Asbestos Type
Beige/Blue, Photograph No.3	No	Present throughout building	NA	Non-asbestos
Grey, Photograph No.4	No	Corridor, washrooms, utility room	NA	Non-asbestos

Asbestos if present within vinyl sheet flooring will be identified within the paper backing layer only. Vinyl sheet flooring was presumed to be non-asbestos based on the lack of a paper backing layer (underpad).

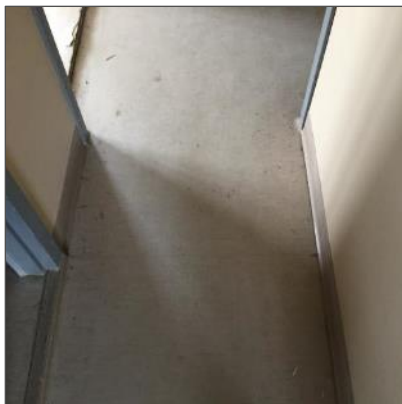


Photo # 3 - Non-asbestos vinyl sheet flooring with paper backing.



Photo # 4 - Non-asbestos vinyl sheet flooring with paper backing.

3.1.6 Vinyl Composite Floor Tile and Mastic

Vinyl Composite and floor tiles are present as follows:

Size, Pattern, Colour and Photo #	Locations (Quantity)	Sample Number	Asbestos Type (tile)
Brown, vinyl composite flooring	Cells and corridor	S0002A-C	Non-asbestos



Photo # 5 - Non-asbestos vinyl composite flooring within the cells and corridor.

3.1.7 Roofing Products

The pitched roof present over the building is covered with non-asbestos asphalt shingles (Samples 0003A-C).



Photo # 6 - Non-asbestos asphalt shingles.

3.1.8 Presumed Asbestos Materials

A number of materials which might contain asbestos were not sampled during the assessment due to limitations in scope and methodology. Where present, these materials must be presumed to be an asbestos material and are best sampled during project planning and preparation of contract documents for their removal. Materials presumed to contain asbestos include:

- Concrete floor levelling compound;
- Electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring; and
- Mechanical packing, ropes and gaskets.

3.2 Lead

3.2.1 Paints and Surface Coatings

A total of 5 paint samples were collected from interior and exterior painted finishes. The following table summarizes the analytical results for paints sampled and their locations.

Sample Number	Colour, Substrate Description	Locations	Lead (%)
L0001	Beige paint, drywall and wood walls	Throughout building	<0.005
L0002	Grey paint, metal doors and frames	Throughout building	<0.005
L0003	White paint, wood walls and ceilings	Throughout building	<0.007
L0004	Light brown, metal doors and frames	Throughout building	<0.005
L0005	White paint, exterior wood facia	Exterior	0.28

The exterior white paint present on the facia containing elevated levels of lead was 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.

3.3 Silica

Crystalline silica is a presumed component of the following materials where present in the building:

- Poured or pre-cast concrete;
- Masonry and mortar; and
- Refractory or ceramic materials in high temperature mechanical or production equipment.

3.4 Mercury

3.4.1 Lamps

Mercury vapour is present in fluorescent lamps where present in the assessed area.

3.4.2 Mercury-Containing Devices

Thermostats inspected did not contain liquid mercury ampules.

3.5 Polychlorinated Biphenyls

The building has not been comprehensively re-lamped with new energy efficient light ballasts and lamps, and as such, a percentage of light ballasts will be pre-1980 and contain PCBs.

3.5.1 Transformers

Transformers were not found during the assessment.

3.5.2 Presumed PCB Materials

- Oil impregnated cables and potheads;
- Voltage regulators;
- Hydraulic fluids;
- Paints; and
- Caulking.

3.6 Mould

The following building materials were found to have visible mould growth and water staining;

- 30 SF of drywall finish within the kitchen;
- 30 SF of acoustic ceiling tiles within the kitchen;
- 30 SF of fibreglass batting within the kitchen; and
- 8 SF of mouldy ceiling tile finish within the office space.



Photo # 7- Mouldy drywall, ceiling tile, and fibreglass batting within the kitchen.



Photo # 8 - Mouldy ceiling tile finish within the office space.

4.0 RECOMMENDATIONS

4.1 General

1. Provide this report and the detailed plans and specifications to the contractor prior to bidding or commencing work.
2. Retain a qualified consultant to specify, inspect and verify the successful removal of hazardous materials.
3. 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 demolition or renovation involving the hazardous materials identified.

4.2.1 Lead

Analytical results indicate that all of the paints from the Site Building contain low levels of lead (i.e., less than the EACO guideline of 0.1% for lead-containing paints). Special precautions are not recommended unless aggressive disturbance (grinding, blasting, torching) is planned.

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.

Lead-acid batteries should be recycled when taken out of service or prior to building demolition.



4.2.2 *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.

4.2.3 *Mercury*

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

4.2.4 *PCBs*

When light fixtures are removed, examine light ballasts for PCB content. If ballasts are not clearly labelled as "non-PCB", or are suspected to contain PCBs; package and ship ballasts for destruction at a federally permitted facility.

4.2.5 *Mould*

Mould growth was noted in areas affected by the planned work. Use appropriate precautions and protect workers during removal using methods that comply with provincial guidelines.

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. General Regulation – Workplace Safety and Health Act W210;
2. Workplace Health Hazard Regulation (Manitoba Regulation 217/2006 Workplace Safety and Health Regulation), under the Workplace Safety and Health Act;
3. Canadian Environmental Protection Act – SOR/92-507;
4. PCB Regulations, SOR/2008-273, Canadian Environmental Protection Act;
5. Manitoba Regulation MR 474/88, Manitoba PCB Regulation made under The Dangerous Goods Act;
6. Guideline for Asbestos Management – Workplace Safety and Health Branch – Manitoba Labour and Immigration (2017);
7. A Guideline for Working with Lead – Workplace Safety and Health Branch – Manitoba labour and Immigration (2002); and
8. Guidelines for the Investigation, Assessment, & Remediation of Mould In Workplaces, Workplace Safety and Health Division, Manitoba Labour, 2001.

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Template: Master Report for Hazardous Materials Assessment Report (Pre-Construction), Haz, July 20, 2017

APPENDIX I-A
Asbestos Analytical Certificates



Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

Project Name:	RCMP, 406 Main Street Island Lake Manitoba	Date Received:	August 17, 2017
Project No.:	0209290.000	Date Analyzed:	August 23, 2017
Prepared For:	K. Brydges / R. Legault	# Samples submitted:	13
Lab Reference No.:	b175180	# Phases analyzed:	13
Analyst(s):	T. Ly		

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.*



Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

Project Name: RCMP, 406 Main Street Island Lake Manitoba
Project No.: 0209290.000
Prepared For: K. Brydges / R. Legault

Lab Reference No.: b175180
Date Analyzed: August 23, 2017

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0001A Drywall joint compound - wall - Interior - Corridor/entrance	Homogeneous, white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
0001B Drywall joint compound - wall - Interior - Corridor	Homogeneous, off-white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
0001C Drywall joint compound - wall - Exterior - Bathroom	Homogeneous, off-white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		
0001D Drywall joint compound - wall - Exterior Kitchen	Homogeneous, off-white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		
0001E Drywall joint compound - wall - Office - Interior	Homogeneous, white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		
0001F Drywall joint compound - Ceiling - Basement	Homogeneous, white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
Comments:	Drywall is present on the surface of this sample.		
0001G Drywall joint compound - Wall - exterior - Garage	Homogeneous, white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
Comments:	Drywall is present on the surface of this sample.		
0002A Vinyl composit - Sheet flooring - Corridor	Homogeneous, beige, flooring material.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		



**Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis**

Project Name: RCMP, 406 Main Street Island Lake Manitoba
Project No.: 0209290.000
Prepared For: K. Brydges / R. Legault

Lab Reference No.: b175180
Date Analyzed: August 23, 2017

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0002B Vinyl composit - Sheet flooring - Corridor	Homogeneous, beige, flooring material.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		
0002C Vinyl composit - Sheet flooring - Cell Room	Homogeneous, beige, flooring material.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		
0003A Asphalt Shingles	Homogeneous, black, roofing material.	None Detected	Man-made Vitreous Fibres 10-25% Tar and other non-fibrous > 75%
0003B Asphalt Shingles	Homogeneous, black, roofing material.	None Detected	Man-made Vitreous Fibres 10-25% Tar and other non-fibrous > 75%
0003C Asphalt Shingles	Homogeneous, black, roofing material.	None Detected	Man-made Vitreous Fibres 10-25% Tar and other non-fibrous > 75%

Reviewed by:

Reporting Analyst:

APPENDIX I-B
Lead Analytical Certificates



Analysis for Lead Concentration in Paint Chips

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



Customer: Pinchin Ltd.
54 Terracon Place
Winnipeg, MB R2J 4G7

Attn: Ken Brydges

Lab Order ID: 1717788
Analysis ID: 1717788_PBP
Date Received: 8/18/2017
Date Reported: 8/24/2017

Project: Hazardous Material Assessment

Sample ID	Description	Mass (g)	Concentration (ppm)	Concentration (% by weight)
Lab Sample ID	Lab Notes			
L-0001	Paint Chip - Beige Paint - Wall - Corridor	0.0845	< 47	< 0.005%
1717788PBP_1				
L-0002	Paint Chip - Grey Paint - Doors and frames	0.0763	< 52	< 0.005%
1717788PBP_2				
L-0003	Paint Chip - White paint - Walls and ceilings	0.0576	< 69	< 0.007%
1717788PBP_3				
L-0004	Paint Chip - Light brown paint - doors and frames	0.0867	< 46	< 0.005%
1717788PBP_4				
L-0005	Paint Chip - White paint - Exterior Facia	0.0728	2800	0.28%
1717788PBP_5				

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).

Melissa Ferrell (5)

Analyst

Scientific Analytical Institute, Inc. 4604 Dundas Dr. Greensboro, NC 27407 (336) 292-3888

Laboratory Director

APPENDIX II
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 Scope Limitations

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 masonry walls (chases, shafts etc.), structural items or exterior building finishes is not conducted.

1.2 Asbestos

Pinchin conducts an inspection 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.

Pinchin collects samples 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.

Pinchin conducts limited demolition of masonry block walls (core holes) to investigate for loose fill insulation. The core holes are temporarily patched with expanding foam.

Pinchin undertakes sampling of roofing felts at the client's request. A temporary repair is made with asphalt-based mastic and fibreglass mesh. A more permanent repair is required if the roofing or the building is to remain in use for any extended period of time. Pinchin is not responsible or liable for leaks or water damage caused by sampling and or repair.

Flooring mastic/adhesive and leveling compounds are only sampled and analyzed if present on the underside of flooring samples (vinyl floor tile and vinyl sheet flooring).

If present, the following materials are presumed to be asbestos-containing and are best sampled immediately prior to commencing renovation/disturbance:

- Concrete floor levelling compound;
- Electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring; and
- Mechanical packing, ropes and gaskets.

Pinchin submits the bulk samples 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.

In Manitoba an ACM is defined as materials containing 0.1% or more asbestos by weight for friable materials, 1% or more asbestos by weight for non-friable materials.

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, 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, damaged, debris); 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

Pinchin collects samples of distinctive paint finishes and surface coatings present in more than a limited application, where removal of the paint is possible. Pinchin collects samples 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.

For this report, all paints containing lead at a concentration of 0.009% or greater are discussed. Paint and surface coatings are evaluated for condition such as flaking, chipping or chalking.

1.4 Silica

Pinchin identifies building materials suspected of containing crystalline silica (e.g. concrete, cement, tile, brick, masonry, mortar) by knowledge of current and historic applications and 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 visual 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.

Mercury spills or damaged mercury-containing equipment are recorded where observed.

1.6 Polychlorinated Biphenyls

Pinchin determines the potential for light ballasts to contain PCBs 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. Other than light ballasts and pole mounted transformers, all other liquid uses of PCBs should have been discontinued.

Pinchin records spills or leakage of suspect PCB-containing fluids where observed or identified in historical documents.

1.7 Visible Mould

Pinchin identifies the presence of mould if visibly present in a significant quantity on exposed building surfaces. If any mould growth is concealed within wall cavities it is not addressed in this assessment.

Master Template: Methodology Document for Hazardous Building Materials Pre-Construction, HAZ, October 18, 2016