



FINAL **Hazardous Building** **Materials Assessment**

MJ Hobbs Public School, 2296
Taunton Road, Hampton,
Ontario

Prepared for:

Kawartha Pine Ridge District **School Board**

P.O. Box 7190, 1994 Fisher Drive
Peterborough, Ontario K9J 7A1

Attention: Leah Rout
Project Manager, Engineering Services

March 10, 2016

Pinchin File: 112809



Hazardous Building Materials Assessment

MJ Hobbs Public School, 2296 Taunton Road, Hampton, Ontario
Kawartha Pine Ridge District School Board

March 10, 2016
Pinchin File: 112809
FINAL

Issued to: Kawartha Pine Ridge District
School Board

Contact: Leah Rout
Project Manager, Engineering
Services

Issued on: March 10, 2016

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EXECUTIVE SUMMARY

Kawartha Pine Ridge District School Board (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of M.J. Hobbs Senior Public School located at 2296 Taunton Road in Hampton, Ontario. Pinchin performed the assessment for the washroom upgrade portion of the project on February 9, 2016. The purpose of the assessment was to determine if hazardous materials would be affected by a planned washroom and classroom upgrade project. Pinchin returned to the site on February 25, 2016 as the scope had been revised to include a classroom refresh project only.

The objective of the assessment was to identify specified hazardous building materials in preparation for building renovation. 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 the area of the building shown on the drawings in Appendix I.

SUMMARY OF FINDINGS

Asbestos: Asbestos-containing materials (ACM) were confirmed to be present as follows:

- Parging cement is present on domestic water, hot water heating, and drain pipe fittings primarily above drywall ceilings, but was also found beneath sinks in three 2nd floor rooms, in chases (between washrooms, perimeter column enclosures, behind shelving, etc.) and in Custodian 100B;
- Parging cement is present on seams of fibreglass insulation in Pipe Chase P01, Pipe Chase P02 and in Custodian 100B.
- Damaged parging cement was found below ceiling in Custodian 100B, above ceiling in Corridor 108H adjacent to washrooms, in Pipe Chase P01 between Washrooms 114 and 120, and in Pipe Chase P02 between Washrooms 206 and 212. Parging cement debris was found in both pipe chases lying on the concrete floor.
- Drywall joint compound was present in washrooms and adjoining rooms, and present above metal door frames in all areas assessed;
- Water damaged asbestos-containing vinyl floor tile was found in Custodian 100B;
- Most classrooms assessed had asbestos-containing vinyl floor tile both exposed and concealed by millwork and HVAC equipment; and
- White and beige caulking on plumbing fixtures, windows and doors in all areas assessed contains asbestos.



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

Silica: Crystalline silica is present in concrete, mortar, and masonry in the assessed areas.

Mercury: Mercury vapour is present in fluorescent lamps in all areas assessed.

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 asbestos-containing materials prior to demolition or if disturbed by the planned renovation work.
2. Remove and properly dispose of fluorescent light tubes if disturbed by the planned renovation work.
3. Follow appropriate safe work procedures when handling or disturbing lead and silica.
4. Asbestos-containing materials requiring remedial action were found by the assessment. The following work is recommended in accordance with O. Reg. 278/05 regardless of the planned project:
 - a. Repair or remove damaged asbestos-containing insulations in Custodian 100B, Corridor 108H, Pipe Chases P01 and P02, Classroom 204, and Prep room 201A using Type 2 procedures as appropriate.
 - b. Remove parging cement debris from Pipe Chases P01 and P02.

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

Kawartha Pine Ridge District School Board (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of select areas at M.J. Hobbs Senior Public School located at 2296 Taunton Road in Hampton, Ontario. The purpose of the assessment was to prepare for a washroom and classroom upgrade project.

Mike Wilson performed the assessment on February 9, 2016. The surveyor was not accompanied during the assessment. The building was occupied at the time of the assessment. Pinchin returned to the site on February 25, 2016 to test additional areas of the building not assessed on February 9.

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. 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 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

The following Ontario 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

Building Description Item	Details
Building Use	Elementary school
Number of Floors/Levels	Two stories
Total Area of Building (Square Feet)	31,000
Year of Construction	1966
Structure	Structural steel, concrete
Exterior Cladding	N/A
HVAC	Boiler and hot water heating to radiators and heating ventilation units, with mechanically drawn exhausts.
Roof	No Access
Flooring	Vinyl tile, exposed concrete
Interior Walls	Drywall, concrete block
Ceilings	Drywall, acoustic ceiling tiles

2.1 Existing Reports

Pinchin has performed multiple asbestos assessments of the building as described by:

- “Asbestos Assessment, Kawartha Pine Ridge District School Board, MJ Hobbs Senior Public School, 2296 Taunton Road, Hampton, Ontario”, dated January 21, 2011, Pinchin File 59723.
- “Asbestos Assessment, MJ Hobbs Senior Public School, 2296 Taunton Road, Hampton, Ontario”, dated July 23, 2015, Pinchin File 98956.

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 assessed areas and are not discussed in the report findings:

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

3.1.2 Thermal Systems Insulation (TSI)

3.1.2.1 Pipe Insulation

Parging cement, containing chrysotile asbestos, is present on pipe fittings (elbows, valves, tees, hangers etc.) on hot water heating, domestic water, and drain pipe systems (sample 1013342.005A). Parging cement is a friable insulation, potentially unjacketed above drywall ceilings, jacketed with canvas above T Bar ceilings, and in occupied areas. Parging cement was found in poor to good condition. Parging cement was found damaged in Custodian 100B, above ceiling in Corridor 108H, and in Pipe Chases P01 and P02. Parging cement debris was found on the concrete floor in Pipe Chases P01 and P02.

Fibreglass insulation covered with parging cement, containing chrysotile asbestos, over all seams and butt joints on the insulation, is present on straight sections of domestic water pipe system pipes in Pipe Chases P01 and P02 and also in Custodian 100B (sample 1013342.005A). The parging cement is a friable insulation, jacketed with canvas generally but sometimes metal and is in fair to good condition.

Pipes insulated with parging cement are present above inaccessible spaces such as above solid ceilings in most areas assessed.

Some drains are insulated with non-asbestos horsehair visible from Pipe Chase P01.

Asbestos-containing parging cement is present in the following location, quantity, and condition. An estimate on the quantity of concealed insulation is provided.

Parging cement present What Type of Pipe System	Location*	Concealed by Drywall Ceiling or Millwork?** (Y/N)	Accessible by Removing Ceiling Tile (Y/N)	Total Quantity (LF)	Quantity Damaged (LF)
Domestic water	Washroom 102B	Y	N	15	Unknown
Domestic water	Washroom 102A	Y	N	15	Unknown



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Parging cement present What Type of Pipe System	Location*	Concealed by Drywall Ceiling or Millwork?** (Y/N)	Accessible by Removing Ceiling Tile (Y/N)	Total Quantity (LF)	Quantity Damaged (LF)
Domestic water above ceiling	Custodian 100B	Y	N	15	Unknown
Domestic water below ceiling	Custodian 100B over seams of fibreglass and on pipe fittings	N/A	N/A	16	2
Hot water heating	Corridor 108H	N	Y	20	1
Domestic water	Corridor 108H	N	Y	10	0
Domestic water	Boys Washroom 109	Y	N/A	15	Unknown
Domestic water	Girls Washroom 107	Y	N/A	15	Unknown
Hot water heating	Girls WR 114, 114E, and 114V	Y	N/A	12	Unknown
Domestic water	Girls WR 114, 114E, and 114V supplying rooms above	Y	N/A	15	Unknown
Domestic water	Custodian 116	Y	N/A	15	Unknown
Domestic water and drains	Pipe Chase P01 (fibreglass and pipe fittings)	N	N	100	2 plus debris
Domestic water	Storage 118	Y	N/A	10	Unknown
Domestic water and drains	Pipe Chase P02 (fibreglass and pipe fittings)	N	N	60	2 plus debris
Hot water heating	Classroom 124	Y (behind millwork and above ceiling)	N	6	Unknown

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Parging cement present What Type of Pipe System	Location*	Concealed by Drywall Ceiling or Millwork?**(Y/N)	Accessible by Removing Ceiling Tile (Y/N)	Total Quantity (LF)	Quantity Damaged (LF)
Hot water heating	Classroom 122	Y (behind millwork and above ceiling)	N	10	Unknown
Hot water heating	Classroom 112	Y (behind millwork and above ceiling)	N	8	Unknown
Hot water heating	Classroom 117	Y (behind millwork and above ceiling)	N	6	Unknown
Hot water heating	Classroom 115	Y (behind millwork and above ceiling)	N	10	Unknown
Hot water heating	Classroom 216	Y (behind millwork only)	N	4	Unknown
Hot water heating	Classroom 214	Y (behind millwork only)	N	4	Unknown
Hot water heating	Classroom 204	Y (behind millwork only)	N	4	Unknown
Hot water heating	Classroom 202	Y (behind millwork only)	N	4	Unknown
Hot water heating	Classroom 207M	Y (behind millwork only)	N	4	Unknown
Hot water heating	Classroom 203	Y (behind millwork only)	N	4	Unknown
Hot water heating	Classroom 205	Y (behind millwork only)	N	4	Unknown
Hot water heating	Classroom 207	Y (behind millwork only)	N	4	Unknown
Hot water heating	Classroom 209	Y (behind millwork only)	N	4	Unknown

Parging cement present What Type of Pipe System	Location*	Concealed by Drywall Ceiling or Millwork?** (Y/N)	Accessible by Removing Ceiling Tile (Y/N)	Total Quantity (LF)	Quantity Damaged (LF)
Domestic water piping	Classroom 202	Below millwork on the teacher's platform.	N	4	unknown
Domestic water	Prep room 210A	Below the sink and beneath millwork.	N	8	unknown
Domestic water	Classroom 204	Below the sink and beneath millwork.	N	10	unknown

* Unless otherwise stated, parging cement at each location discussed is only present on pipe fittings and not on seams of fibreglass.

** Unless otherwise stated, parging cement is only present above a drywall ceiling.

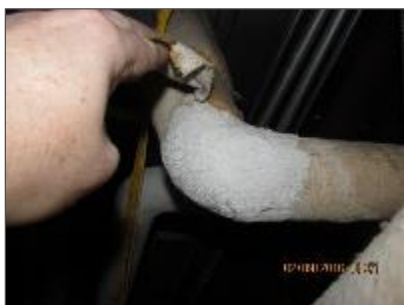


Photo 1 – Damaged parging cement on hot water heating piping in Corridor 108H



Photo 2 – Unjacketed parging cement on an unknown pipe system in Pipe Chase P01.



Photo 3 – Damaged parging cement insulation in Pipe Chase P01. Parging cement debris present on the floor.



Photo 4 – Damaged parging cement insulation in Pipe Chase P02. Parging cement debris present on the floor.



Photo 5 – Seams and butt ends of fibreglass insulation with parging cement on domestic water pipes in Custodian 100B.



Photo 6 – Damaged butt ends of insulation in Custodian 100B.



Photo 7 – Parging cement on domestic water pipes above ceiling in Washroom 102A.



Photo 8 – Parging cement on domestic water piping beneath a sink on the 2nd floor.

3.1.2.2 Duct Insulation

Ducts were found uninsulated in the assessed areas.

3.1.2.3 Mechanical Equipment Insulation

No mechanical equipment was found in the assessed areas.

3.1.3 Vermiculite

Loose fill vermiculite is not present in the assessed areas. Demolition of masonry block walls or solid ceilings was not performed however block walls were inspected in Boys WR 120 for the presence of vermiculite and none was found.

3.1.4 Acoustic Ceiling Tiles

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

Size, Type, Pattern, Photo #	Locations	Sample Number or Date Code	Asbestos Type
24"x48", horizontal fissure and pinhole, Photo 9	Corridor 108H	Date Code 1996	None

Size, Type, Pattern, Photo #	Locations	Sample Number or Date Code	Asbestos Type
24"x48", horizontal fissure with variable pinhole, Photo 10	Boys WR 120 and 120V	Date Code 2013	None
12" x 12" screwed-on Two size pinhole, Photo 111	All classrooms	1013342.007A-C	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 or the renovation. The tiles were manufactured after asbestos stopped being used in acoustic ceiling tiles.



Photo 9 – Non-asbestos ceiling tile in Corridor 108H.



Photo 10 – Non-asbestos ceiling tile in Boys WR 120 and 120V.



Photo 11 - Example of non-asbestos 12" x 12" glued-on ceiling tile.

3.1.5 Drywall Joint Compound

Drywall (gypsum board) and drywall joint compound is present as a ceiling finish in washrooms, custodial areas and storage rooms within the assessed area. Drywall with joint compound is also present in limited quantities on walls in Boys WR 120, Custodial Closet 208, and Custodial Closet 116. Drywall with drywall joint compound is present above door frames in doorways connected to corridors. Based on the results of

the testing (samples 1013342.001A, b115383.011A, and b115383.014A), all drywall joint compound in the assessed areas contains chrysotile asbestos.

Drywall (gypsum board) and drywall joint compound previously sampled (sample b72340.009A-C) on the ceiling of Boys WR 120 (prior to ceiling removal) was done on a patched section of ceiling and is not indicative of a widespread condition.

Gypsum panels supporting 12"x12" wood fibre ceiling tile does not have mud on joints or seams.



Photo 12 – Drywall ceiling in Boys 109.



Photo 13 – Drywall ceiling in Girls WR 114.



Photo 14 – Drywall on wall of Custodian 208.



Photo 15 – Gypsum panels supporting ceiling tile with no mud on seams in a typical classroom.



Photo 16 – Typical view of drywall above doorframes found only on doorways common to corridors.

3.1.6 Vinyl Floor Tile and Mastic

Vinyl floor tiles are present as follows:

Size, Pattern, Colour and Photo Number	Locations	Sample Number	Asbestos Type (tile)	Asbestos Type (mastic)
12"x12", mottled, gray pattern, Photo 17	Exposed in Washroom 102A, Washroom 102B, Boys 109, Girls 107, Custodian 116, Storage 118, Custodian 208, Storage 210, Classroom 202, and Instrumental Music 207M	1013342.0 02A-C	None	None present on sample submitted
9"x9", green with white streak, Photo 18	Custodian 100B	1013342.0 04A	Chrysotile	None
9"x9", tan with white streaks, Photo 19	Both exposed and concealed by millwork in Classrooms 112, 115, 117, 122, 124, 203, 204, 205, 207, 209, 214, and 216. Concealed beneath millwork in Classroom 202 and Instrumental Music 207M. Both exposed and concealed by millwork in Prep Room 201A.	1013342.0 08A	Chrysotile	None

Vinyl floor tile is non-friable and was found in good condition in all assessed areas, excluding Custodian 100B where tile was found in fair condition.

Mastic was analysed for asbestos content where it was present on the tiles, however a comprehensive testing program for mastic was not performed.



Photo 17 – Non-asbestos floor tile.



Photo 18 – Asbestos floor tile in Custodian 100B.



Photo 19 – Typical view of asbestos-containing floor tile both exposed and concealed beneath millwork in classrooms.

3.1.7 *Caulking and Mastic*

Brown and gray caulking at exterior windows was determined to be non-asbestos by past testing in the building (samples b115383.012A-C and b115383.013A-C).

White and beige caulking present around interior doors (doors between classrooms and other rooms at was determined to contain chrysotile asbestos (samples b127608.0015A & B).

Brown vinyl baseboard mastic was determine to be non-asbestos (samples b127608.0016A-C).

Mastic behind chalkboards and tackboards was determined to be non-asbestos (b119210.014A-C).

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

3.2 **Lead**

3.2.1 *Paints and Surface Coatings*

A total of 6 paint samples were collected from interior painted finishes. The following table summarizes the analytical results for paints sampled and their locations.

Sample Number	Colour, Substrate Description	Locations	Lead (%)
P001	Off white paint on drywall and block	All assessed areas	0.007
P002	Purple paint on stall partitions	Girls 107, Boys 109, Girls WR 114, Boys WR 120, Girls WR 206, and Boys WR 212.	<0.006
P003	Light blue on door frames and doors	All assessed areas	0.005
P004	Light green paint on radiator cover	Room 205	0.13
P005	Beige paint on radiator cover	Room 204	0.084
P006	Dark blue paint on radiator cover	Room 203	0.11

Most paints contain insignificant concentrations of lead and were found to be in good condition and not flaking, peeling or delaminating. Paint on radiator covers in Rooms 205 and 203 contain greater than 0.1% lead.

Appendix II-B presents the lead testing results.

3.2.2 Lead Products and Applications

Lead-containing batteries are present in emergency lighting present in Custodian Room 116 and Custodian Room 208.

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
- glazing on ceramic tiles
- solder on copper piping

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
- ceramic tiles, grout

3.4 Mercury

3.4.1 Lamps

Mercury vapour is present in fluorescent lamps in all assessed areas.

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. Provide this report and the detailed plans and specifications to the contractor prior to bidding or commencing work.
3. Retain a qualified consultant to specify, inspect and verify the successful removal of hazardous materials.
4. Update the asbestos inventory upon completion of the abatement and removal of asbestos-containing materials.

4.2 Remedial Work

Pinchin recommends the following remedial work be performed to comply with existing regulations, regardless of proposed construction work due to the condition and location of the material:

Material and Quantity	Location	Recommended Procedure
Repair or remove damaged and unjacketed parging cement	Custodian 100B, Corridor 108H, Pipe Chases P01 and P02, Classroom 204, Prep room 201A	Type 2 procedures (and Type 3 procedures if all parging cement is to be removed from Pipe Chases P01 and P02)



Material and Quantity	Location	Recommended Procedure
Remove parging cement debris	Pipe Chases P01 and P02	Type 2 procedures
Damaged vinyl floor tile	Custodian 100B	Type 1 procedures

4.3 Renovation Work

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

4.3.1 Asbestos

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

Damaged friable pipe insulation may be present as debris on drywall ceilings. Removal of drywall ceilings must be performed using Type 2 procedures with workers protected with full facepiece respirators equipped with P-100 filters and other PPE requirements outlined by O. Reg. 278/05.

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

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

4.3.2 Lead (Ontario)

Analytical results indicate that paint on stall partitions, block walls, door frames and most radiator covers in 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.

If radiator covers in Rooms 203 and 205 are affected by renovation work, recycle the metal as no additional procedures are required.

Lead-containing items (lead acid batteries, copper piping, etc.) should be recycled when taken out of service or prior to building demolition.

4.3.3 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.

4.3.4 *Mercury*

Do not break lamps. Recycle and reclaim mercury from fluorescent lamps when taken out of service.

5.0 LIMITATIONS

Specific limitations related to the legal and financial and limitations to the scope of the current work are outlined in our MSA with Kawartha Pine Ridge District School Board.

The work performed by Pinchin was conducted in accordance with generally accepted engineering or scientific practices current in this geographical area at the time the work was performed. No warranty is either expressed or implied by furnishing written reports or findings. The Client acknowledges that subsurface and concealed conditions may vary from those encountered or inspected. Pinchin can only comment on the environmental conditions observed on the date(s) the survey is performed. The work is limited to those materials or areas of concern identified by the Client or outlined in our proposal. Other areas of concern may exist but were not investigated within the scope of this assignment.

Pinchin makes no other representations whatsoever, including those concerning the legal significance of its findings or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issue, regulatory statutes are subject to interpretation and these interpretations may change over time. Pinchin accepts no responsibility for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The liability of Pinchin or our officers, directors, shareholders or staff will be limited to the lesser of the fees paid or actual damages incurred by the Client. Pinchin will not be responsible for any consequential or indirect damages. Pinchin will only be liable for damages resulting from the negligence of Pinchin. Pinchin will not be liable for any losses or damage if the Client has failed, within a period of two years following the date upon which the claim is discovered (Claim Period), to commence legal proceedings against Pinchin to recover such losses or damage unless the laws of the jurisdiction which governs the Claim Period which is applicable to such claim provides that the applicable Claim Period is greater than two years and cannot be abridged by the contract between the Client and Pinchin, in which case the Claim Period shall be deemed to be extended by the shortest additional period which results in this provision being legally enforceable.

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



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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. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.
5. Surface Coating Materials Regulations, SOR/2005-109, Hazardous Products Act.
6. Silica on Construction Projects, Ministry of Labour Guidance Document.
7. Alert – Mould in Workplace Buildings, Ontario Ministry of Labour.

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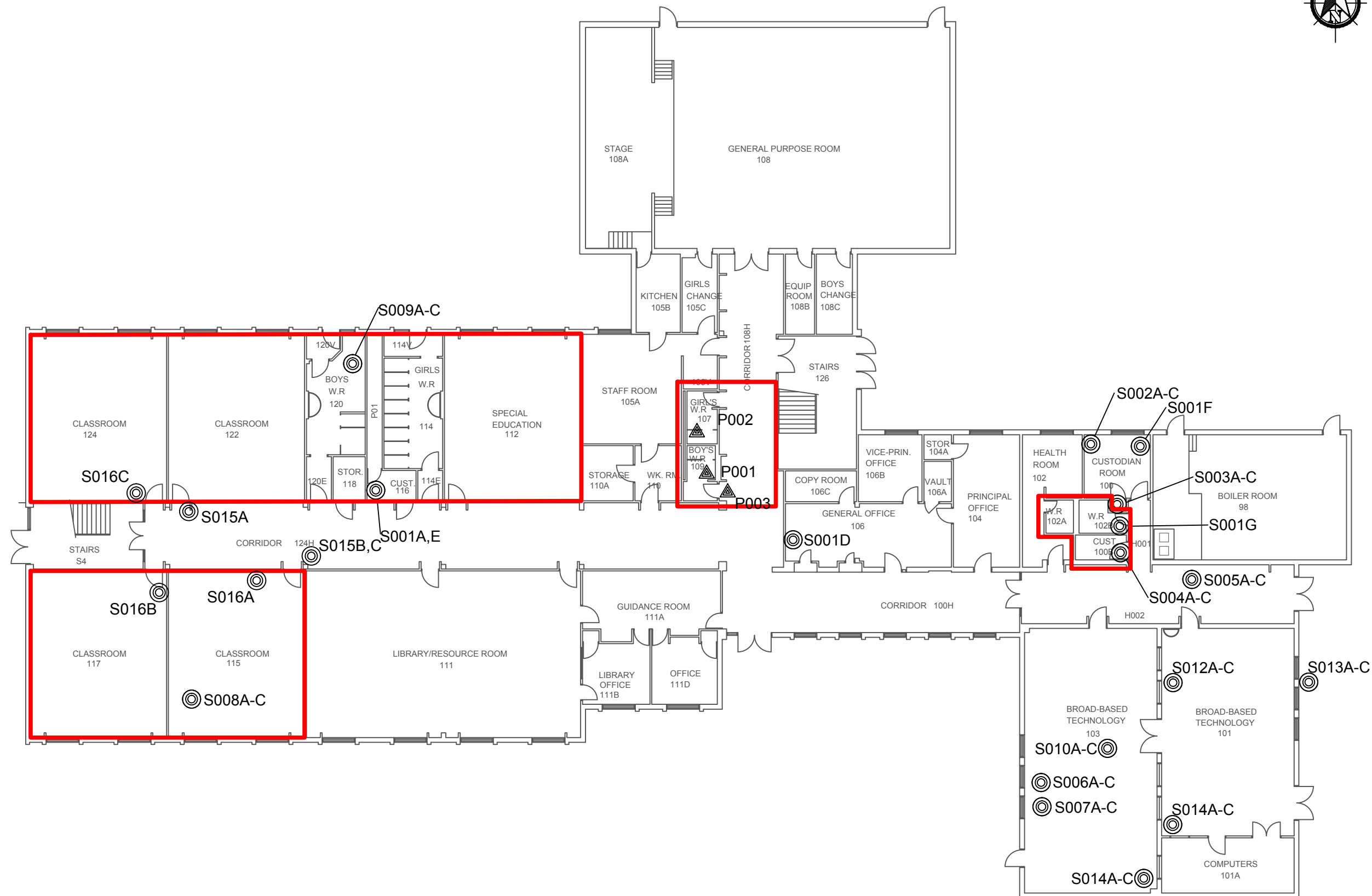
Template: Master Report for Hazardous Materials Assessment Report (Pre-Construction), Haz, February 1, 2016

APPENDIX I
Drawings



LEGEND:

- SURVEY BOUNDARY/ASSESSED AREA
- ASBESTOS BULK SAMPLE
- LEAD BULK SAMPLE



CLIENT: KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

LOCATION: M.J. HOBBS SENIOR PUBLIC SCHOOL
2296 TAUNTON ROAD
HAMPTON, ONTARIO

TITLE: WASHROOM UPGRADE
HAZARDOUS BUILDING
MATERIALS ASSESSMENT

DATE: 2016/02/19	PROJECT #: 112809
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DRAWN BY: RLN	DRAWING: 1 OF 2
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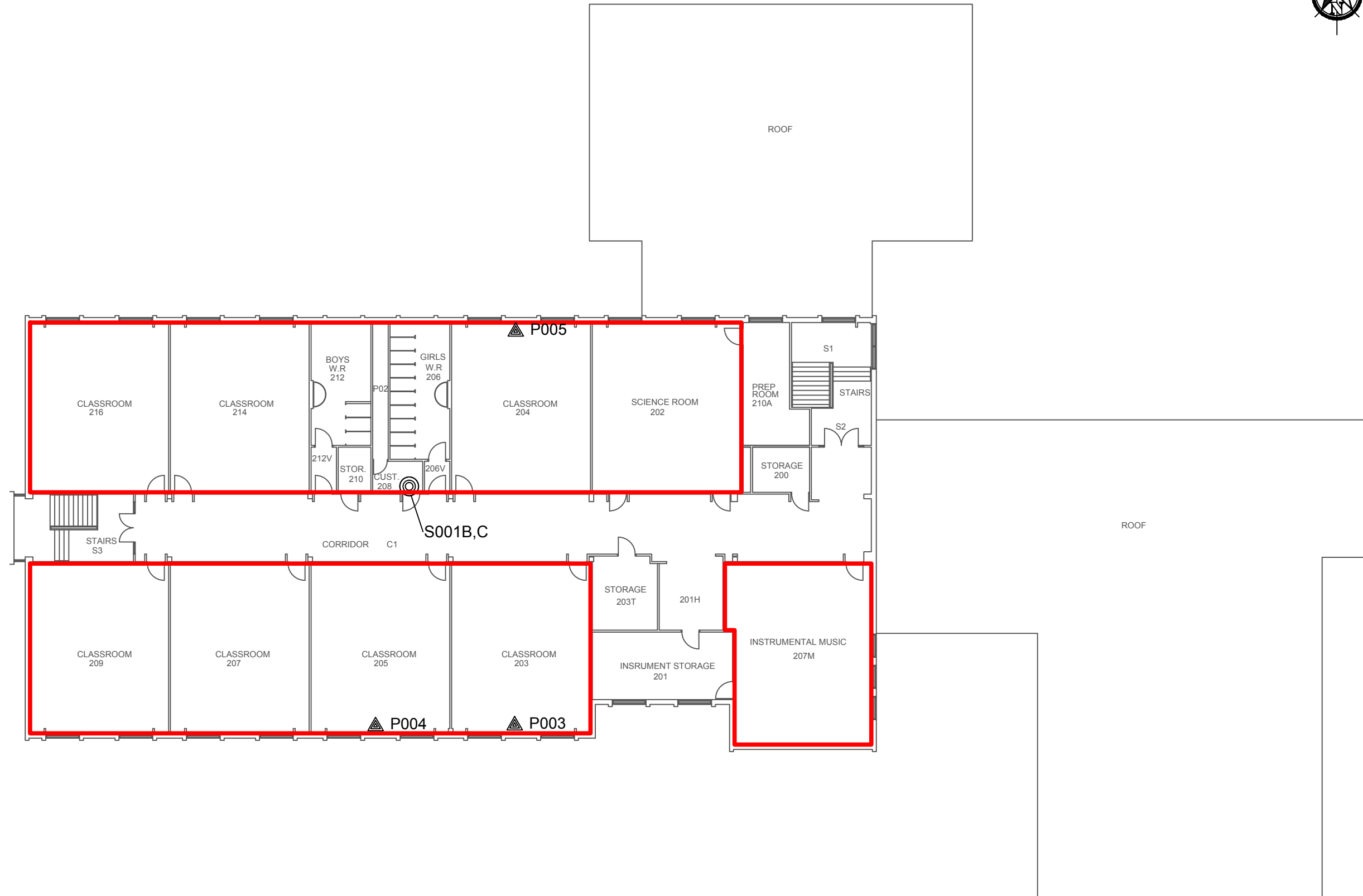
CHECKED BY: MW

SCALE: NTS



LEGEND:

- SURVEY BOUNDARY/ASSESSED AREA
- ASBESTOS BULK SAMPLE
- LEAD BULK SAMPLE



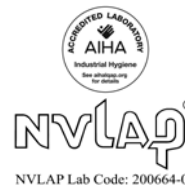
CLIENT: KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD	
LOCATION: M.J. HOBBS SENIOR PUBLIC SCHOOL 2296 TAUNTON ROAD HAMPTON, ONTARIO	
TITLE: WASHROOM UPGRADE HAZARDOUS BUILDING MATERIALS ASSESSMENT	
DATE: 2016/02/19	PROJECT # : 112809
DRAWN BY: RLN	DRAWING: 2 OF 2
CHECKED BY: MW	
SCALE: NTS	

APPENDIX II-A
Asbestos Analytical Certificates



Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and 600/M4-82-020



Customer: Pinchin Environmental Ltd
380 Armour Rd Suite 101
Peterborough, ON K9H 7L7

Attn: Tiffany Smith

Lab Order ID: 1013342

Analysis ID: 1013342PLM

Date Received: 11/8/2010

Date Reported: 11/12/2010

Project: KPRDSB- MJ Hobbs

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
S001A	Drywall - Room 116	3% Chrysotile		97% Other	Tan Non Fibrous Heterogeneous
1013342PLM_1					Teased
S001B	Drywall - Room 208	Not Analyzed			
1013342PLM_2					
S001C	Drywall - Room 208	Not Analyzed			
1013342PLM_3					
S001D	Drywall - Room 106	Not Analyzed			
1013342PLM_4					
S001E	Drywall - Room 116	Not Analyzed			
1013342PLM_5					
S001F	Drywall - Room 100	Not Analyzed			
1013342PLM_6					
S001G	Drywall - Washroom	Not Analyzed			
1013342PLM_7					
S002A	Vinyl floor tile - 12 x 12 White with grey splotches - Room 100	None Detected		100% Other	White Non Fibrous Heterogeneous
1013342PLM_8	tile only				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. Estimated MDL is 0.5%.

Ired Gulley (39)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

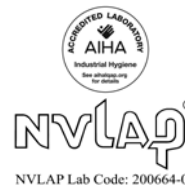
Nathaniel Durham, MS or Approved Signatory

Page 1 of 5



Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and 600/M4-82-020



Customer: Pinchin Environmental Ltd
380 Armour Rd Suite 101
Peterborough, ON K9H 7L7

Attn: Tiffany Smith

Lab Order ID: 1013342

Analysis ID: 1013342PLM

Date Received: 11/8/2010

Project: KPRDSB- MJ Hobbs

Date Reported: 11/12/2010

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
S002B	Vinyl floor tile - 12 x 12 White with grey splotches - Room 100	None Detected		100% Other	White Non Fibrous Heterogeneous
1013342PLM_9	tile only				Dissolved
S002C	Vinyl floor tile - 12 x 12 White with grey splotches - Room 100	None Detected		100% Other	White Non Fibrous Heterogeneous
1013342PLM_10	tile only				Dissolved
S003A - A	Vinyl floor tile - 12 x 12 Green unknown pattern - Room 100 Closet	3% Chrysotile		97% Other	Green Non Fibrous Heterogeneous
1013342PLM_11	tile				Dissolved
S003A - B	Vinyl floor tile - 12 x 12 Green unknown pattern - Room 100 Closet	None Detected	5% Cellulose	95% Other	Black Non Fibrous Heterogeneous
1013342PLM_29	mastic				Dissolved
S003B - A	Vinyl floor tile - 12 x 12 Green unknown pattern - Room 100 Closet	Not Analyzed			
1013342PLM_12	tile				
S003B - B	Vinyl floor tile - 12 x 12 Green unknown pattern - Room 100 Closet	None Detected	5% Cellulose	95% Other	Black Non Fibrous Heterogeneous
1013342PLM_30	mastic				Dissolved
S003C - A	Vinyl floor tile - 12 x 12 Green unknown pattern - Room 100 Closet	Not Analyzed			
1013342PLM_13	tile				
S003C - B	Vinyl floor tile - 12 x 12 Green unknown pattern - Room 100 Closet	None Detected	5% Cellulose	95% Other	Black Non Fibrous Heterogeneous
1013342PLM_31	mastic				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 recommended 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. Estimated MDL is 0.5%.

Ired Gulley (39)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

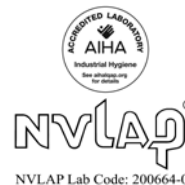
Nathaniel Durham, MS or Approved Signatory

Page 2 of 5



Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and 600/M4-82-020



Customer: Pinchin Environmental Ltd
380 Armour Rd Suite 101
Peterborough, ON K9H 7L7

Attn: Tiffany Smith

Lab Order ID: 1013342

Analysis ID: 1013342PLM

Date Received: 11/8/2010

Date Reported: 11/12/2010

Project: KPRDSB- MJ Hobbs

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
S004A - A	Vinyl floor tile - 9 x 9 Green with white streaks	5% Chrysotile		95% Other	Green Non Fibrous Heterogeneous
1013342PLM_14	tile				Dissolved
S004A - B	Vinyl floor tile - 9 x 9 Green with white streaks	None Detected	5% Cellulose	95% Other	Black Non Fibrous Heterogeneous
1013342PLM_32	mastic				Dissolved
S004B - A	Vinyl floor tile - 9 x 9 Green with white streaks	Not Analyzed			
1013342PLM_15	tile				
S004B - B	Vinyl floor tile - 9 x 9 Green with white streaks	None Detected	5% Cellulose	95% Other	Black Non Fibrous Heterogeneous
1013342PLM_33	mastic				Dissolved
S004C - A	Vinyl floor tile - 9 x 9 Green with white streaks	Not Analyzed			
1013342PLM_16	tile				
S004C - B	Vinyl floor tile - 9 x 9 Green with white streaks	None Detected	5% Cellulose	95% Other	Black Non Fibrous Heterogeneous
1013342PLM_34	mastic				Dissolved
S005A	Parging cement - Corridor	30% Chrysotile		70% Other	Gray Fibrous Heterogeneous
1013342PLM_17					Teased
S005B	Parging cement - Corridor	Not Analyzed			
1013342PLM_18					

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Ired Gulley (39)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

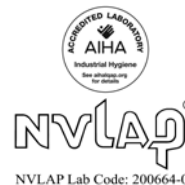
Nathaniel Durham, MS or Approved Signatory

Page 3 of 5



Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and 600/M4-82-020



Customer: Pinchin Environmental Ltd
380 Armour Rd Suite 101
Peterborough, ON K9H 7L7

Attn: Tiffany Smith

Lab Order ID: 1013342

Analysis ID: 1013342PLM

Date Received: 11/8/2010

Project: KPRDSB- MJ Hobbs

Date Reported: 11/12/2010

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
S005C	Parging cement - Corridor	Not Analyzed			
1013342PLM_19					
S006A - A	Vinyl floor tile - 12 x 12 Off white with grey spots - Room 103 - Loc 9	None Detected		100% Other	White Non Fibrous Heterogeneous
1013342PLM_20	tile				Dissolved
S006A - B	Vinyl floor tile - 12 x 12 Off white with grey spots - Room 103 - Loc 9	None Detected	5% Cellulose	95% Other	Yellow, Black Non Fibrous Heterogeneous
1013342PLM_35	mastic				Dissolved
S006B - A	Vinyl floor tile - 12 x 12 Off white with grey spots - Room 103 - Loc 9	None Detected		100% Other	White Non Fibrous Heterogeneous
1013342PLM_21	tile				Dissolved
S006B - B	Vinyl floor tile - 12 x 12 Off white with grey spots - Room 103 - Loc 9	None Detected	5% Cellulose	95% Other	Yellow, Black Non Fibrous Heterogeneous
1013342PLM_36	mastic				Dissolved
S006C - A	Vinyl floor tile - 12 x 12 Off white with grey spots - Room 103 - Loc 9	None Detected		100% Other	White Non Fibrous Heterogeneous
1013342PLM_22	tile				Dissolved
S006C - B	Vinyl floor tile - 12 x 12 Off white with grey spots - Room 103 - Loc 9	None Detected	5% Cellulose	95% Other	Yellow, Black Non Fibrous Heterogeneous
1013342PLM_37	mastic				Dissolved
S007A	AT04 - 1 x 1 Uniform Pinhole - Loc 9 - Room 103	None Detected	40% Cellulose 40% Fiber Glass	10% Perlite 10% Other	White Fibrous Heterogeneous
1013342PLM_23					Teased

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Ired Gulley (39)

Analyst

Nathaniel Durham, MS or Approved Signatory



Bulk Asbestos Analysis

By Polarized Light Microscopy
EPA Method: 600/R-93/116 and 600/M4-82-020



Customer: Pinchin Environmental Ltd
380 Armour Rd Suite 101
Peterborough, ON K9H 7L7

Attn: Tiffany Smith

Lab Order ID: 1013342

Analysis ID: 1013342PLM

Date Received: 11/8/2010

Project: KPRDSB- MJ Hobbs

Date Reported: 11/12/2010

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
S007B	AT04 - 1 x 1 Uniform Pinhole - Loc 9 - Room 103	None Detected	40% Cellulose 40% Fiber Glass	10% Perlite 10% Other	White Fibrous Heterogeneous
1013342PLM_24					Teased
S007C	AT04 - 1 x 1 Uniform Pinhole - Loc 9 - Room 103	None Detected	40% Cellulose 40% Fiber Glass	10% Perlite 10% Other	White Fibrous Heterogeneous
1013342PLM_25					Teased
S008A - A	Vinyl floor tile - 9 x 9 Tan with white streaks - Room 115 - Loc 36	3% Chrysotile		97% Other	Tan Non Fibrous Heterogeneous
1013342PLM_26	tile				Dissolved
S008A - B	Vinyl floor tile - 9 x 9 Tan with white streaks - Room 115 - Loc 36	None Detected	5% Cellulose	95% Other	Black Non Fibrous Heterogeneous
1013342PLM_38	mastic				Dissolved
S008B	Vinyl floor tile - 9 x 9 Tan with white streaks - Room 115 - Loc 36	Not Analyzed			
1013342PLM_27	tile only				
S008C - A	Vinyl floor tile - 9 x 9 Tan with white streaks - Room 115 - Loc 36	Not Analyzed			
1013342PLM_28	tile				
S008C - B	Vinyl floor tile - 9 x 9 Tan with white streaks - Room 115 - Loc 36	None Detected	5% Cellulose	95% Other	Black Non Fibrous Heterogeneous
1013342PLM_39	mastic				Dissolved

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Ired Gulley (39)

Analyst

Scientific Analytical Institute, Inc. 302-L Pomona Dr. Greensboro, NC 27407 (336) 292-3888

Nathaniel Durham, MS or Approved Signatory

Page 5 of 5

1613372

Client:	Pinchin Environmental Ltd.	Instructions: Use Column "B" for your contact info	Scientific Analytical Institute, Inc.
Contact:	Tiffany Smith		
Address:	380 Armour Rd., Suite 101	To See an Example Click the bottom Example Tab.	302-L Pomona Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313 Email: lab@sallab.com
Phone:	(705) 748-4627		
Fax:	(705) 748-6927	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"	
Email:	tsmith@pinchin.com		
Project:	KPRDSB - MJ Hobbs	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.	
Client Notes:	Stop on positive		
P.O. #:	59723		
Date Submitted:	11/4/2010 0:00		
Analysis:	Asbestos analysis		
TurnAroundTime:	144 Hours		

Sample Number	Data 1	Sample Description	Data 2
<<			
S001A		Drywall - Room 116	
S001B		Drywall - Room 208	
S001C		Drywall - Room 208	
S001D		Drywall - Room 106	
S001E		Drywall - Room 116	
S001F		Drywall - Room 100	
S001G		Drywall - Washroom	
S002A		Vinyl floor tile - 12 x 12 White with grey splotches - Room 100	
S002B		Vinyl floor tile - 12 x 12 White with grey splotches - Room 100	
S002C		Vinyl floor tile - 12 x 12 White with grey splotches - Room 100	
S003A		Vinyl floor tile - 12 x 12 Green unknown pattern - Room 100 Closet	
S003B		Vinyl floor tile - 12 x 12 Green unknown pattern - Room 100 Closet	
S003C		Vinyl floor tile - 12 x 12 Green unknown pattern - Room 100 Closet	
S004A		Vinyl floor tile - 9 x 9 Green with white streaks	
S004B		Vinyl floor tile - 9 x 9 Green with white streaks	
S004C		Vinyl floor tile - 9 x 9 Green with white streaks	
S005A		Parging cement - Corridor	
S005B		Parging cement - Corridor	

Accepted ☒Rejected ☐W. J. 11-8
9-30

1013342

S005C

S006A

S006B

S006C

S007A

S007B

S007C

S008A

S008B

S008C

>>

Parging cement - Corridor

Vinyl floor tile - 12 x 12 Off white with grey spots - Room 103 - Loc 9

Vinyl floor tile - 12 x 12 Off white with grey spots - Room 103 - Loc 9

Vinyl floor tile - 12 x 12 Off white with grey spots - Room 103 - Loc 9

AT04 - 1 x 1 Uniform Pinhole - Loc 9 - Room 103

AT04 - 1 x 1 Uniform Pinhole - Loc 9 - Room 103

AT04 - 1 x 1 Uniform Pinhole - Loc 9 - Room 103

Vinyl floor tile - 9 x 9 Tan with white streaks - Room 115 - Loc 36

Vinyl floor tile - 9 x 9 Tan with white streaks - Room 115 - Loc 36

Vinyl floor tile - 9 x 9 Tan with white streaks - Room 115 - Loc 36

Pinchin Environmental Asbestos Laboratory *Certificate of Analysis*

Project Name:	Kawartha Pine Ridge District School Board, MJ Hobb PS - 2296 Taunton Road, Hampton Road		
Project No.:	59408		
Prepared For:	Tiffany Smith	Date Received:	May 13, 2010
Lab Reference No.:	b72340 Revised	Date Analyzed:	May 17, 2010
Analyst(s):	S. van den Berg	# Samples submitted:	3
		# Phases analyzed:	5

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. The percentage range category reported reflects the level of uncertainty of the method for estimating quantities of asbestos in bulk samples. 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 all provincial regulatory requirements (NIOSH 9002, I.R.S.S.T. 244-2). Multiple phases within a sample are analyzed separately.

Provincial Jurisdiction	Regulatory Threshold	Provincial Jurisdiction	Regulatory Threshold
Ontario	0.5%	Manitoba	0.1% friable 1% non-friable
Quebec	0.1%	Saskatchewan	Unstated, likely 1.0%
Alberta, British Columbia, NWT, Yukon, Nunavut	1%	Atlantic Provinces	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 Environmental Ltd. is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0 and 200795-0) for selected test methods for the identification of asbestos in bulk samples and meets all requirements of ISO/IEC 17025:2005 and relevant requirements of ISO 9002:1994. 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%. Supporting laboratory documentation is available upon request.*



Pinchin Environmental Asbestos Laboratory Certificate of Analysis

Project Name: Kawartha Pine Ridge District School Board,
MJ Hobb PS - 2296 Taunton Road, Hampton Road
Project No.: 59408
Prepared For: Tiffany Smith
Lab Reference No.: b72340 Revised
Date Analyzed: May 17, 2010

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0009A Drywall Joint Compound - Ceiling of Boys Washroom Room 120	Homogeneous, off-white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
0009B Drywall Joint Compound - Ceiling of Boys Washroom Room 120	2 Phases: a) Homogeneous, off- white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		
0009C Drywall Joint Compound - Ceiling of Boys Washroom Room 120	2 Phases: a) Homogeneous, off- white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, white, drywall joint compound.	None Detected	Non-Fibrous Material > 75%
Comments:	Cellulose is present on the surface of this sample.		

ANALYST



Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

Project Name: Kawartha Pine Ridge District School Board
MJ Hobbs Senior Public School
2296 Taunton Road, Hampton

Project No.: 100958

Prepared For: Mike Wilson

Lab Reference No.: b115383 Revised

Analyst(s): J. Raisch-Berkoff

Date Received: January 5, 2015 **# Samples submitted:** 12

Date Analyzed: January 8, 2015 **# Phases analyzed:** 9

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 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: Kawartha Pine Ridge District School Board
MJ Hobbs Senior Public School
2296 Taunton Road, Hampton

Project No.: 100958

Prepared For: Mike Wilson

Lab Reference No.: b115383 Revised

Date Analyzed: January 8, 2015

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0011A Drywall Joint Compound - Column - Room 101	Homogeneous, beige, drywall joint compound.	Chrysotile 0.5-5%	Non-Fibrous Material > 75%
0011B Drywall Joint Compound - Column - Room 101			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0011C Drywall Joint Compound - Column - Room 101			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0012A Brown Caulking Around Door - Room 103	Homogeneous, brown, rubbery, caulking material.	None Detected	Non-Fibrous Material > 75%
0012B Brown Caulking Around Door - Room 103	Homogeneous, brown, rubbery, caulking material.	None Detected	Non-Fibrous Material > 75%

REVIEWED BY

ANALYST



Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: Kawartha Pine Ridge District School Board
MJ Hobbs Senior Public School
2296 Taunton Road, Hampton

Project No.: 100958

Prepared For: Mike Wilson

Lab Reference No.: b115383 Revised

Date Analyzed: January 8, 2015

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0012C Brown Caulking Around Door - Room 103	Homogeneous, brown, rubbery, caulking material.	None Detected	Non-Fibrous Material > 75%
0013A Gray Caulking Around Window - Room 101	Homogeneous, grey, rubbery, caulking material.	None Detected	Non-Fibrous Material > 75%
0013B Gray Caulking Around Window - Room 103	2 Phases: a) Homogeneous, grey, rubbery, caulking material.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, off-white, soft, cementitious material.	Chrysotile < 0.5%	Non-Fibrous Material > 75%
Comments:	Phase b) is very small in size. For more reliable results, a larger sample is required.		
0013C Gray Caulking Around Window - Room 101	Homogeneous, grey, rubbery, caulking material.	None Detected	Non-Fibrous Material > 75%
0014A Drywall Joint Compound - Column - Room 103	Homogeneous, beige, drywall joint compound.	Chrysotile 0.5-5%	Non-Fibrous Material > 75%
0014B Drywall Joint Compound - Column - Room 103			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0014C Drywall Joint Compound - Column - Room 103			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		

REVIEWED BY

ANALYST



Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

Project Name: KPRDSB M J Hobbs, 2296 Taunton Road, Hampton, ON
Project No.: 98956
Prepared For: Bryan Guindon
Lab Reference No.: b119210
Analyst(s): A. Di Giulio
Date Received: May 1, 2015 **# Samples submitted:** 3
Date Analyzed: May 8, 2015 **# Phases analyzed:** 3

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 meets all requirements of ISO/IEC 17025:2005.

This report relates only to the items tested.

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Pinchin Ltd. Asbestos Laboratory
Certificate of Analysis

Project Name: KPRDSB M J Hobbs, 2296 Taunton Road, Hampton, ON
Project No.: 98956
Prepared For: Bryan Guindon

Lab Reference No.: b119210
Date Analyzed: May 8, 2015

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0010A Brown wall adhesive Classroom 103	Homogeneous, brown, adhesive.	None Detected	Non-Fibrous Material > 75%
0010B Brown wall adhesive Classroom 103	Homogeneous, brown, adhesive.	None Detected	Non-Fibrous Material > 75%
0010C Brown wall adhesive Classroom 103	Homogeneous, brown, adhesive.	None Detected	Non-Fibrous Material > 75%

REVIEWED BY

ANALYST



Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

Project Name: KPRDSB - MJ Hobbs, 2296 Taunton Road, Hampton
Project No.: 112809
Prepared For: R. Northey / M. Wilson **Date Received:** February 29, 2016
Lab Reference No.: b127608 **Date Analyzed:** March 3, 2016
Analyst(s): S. Capsuyen **# Samples submitted:** 6
Phases analyzed: 9

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 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: KPRDSB - MJ Hobbs, 2296 Taunton Road, Hampton
Project No.: 112809
Prepared For: R. Northey / M. Wilson

Lab Reference No.: b127608
Date Analyzed: March 3, 2016

BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0015A Wall caulking, white	2 Phases: a) Homogeneous, off-white, soft, cementitious material.	Chrysotile 0.5-5%	Non-Fibrous Material > 75%
	b) Homogeneous, white, caulking material.	None Detected	Non-Fibrous Material > 75%
0015B Wall caulking, white	a) Homogeneous, off-white, soft, cementitious material.		Not Analyzed
	b) Homogeneous, white, caulking material.	None Detected	Non-Fibrous Material > 75%
Comments:	Analysis of phase a) was stopped due to a previous positive result.		
0015C Wall caulking, white	3 Phases: a) Homogeneous, off-white, soft, cementitious material.		Not Analyzed
	b) Homogeneous, beige, caulking material.	Chrysotile 0.5-5%	Non-Fibrous Material > 75%
	c) Homogeneous, white, caulking material.	None Detected	Non-Fibrous Material > 75%
Comments:	Analysis of phase a) was stopped due to a previous positive result.		
0016A Baseboard mastic	Homogeneous, brown, adhesive material.	None Detected	Non-Fibrous Material > 75%
0016B Baseboard mastic	Homogeneous, brown, adhesive material.	None Detected	Non-Fibrous Material > 75%
0016C Baseboard mastic	2 Phases: a) Homogeneous, brown, adhesive material.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, yellow, soft, sticky material.	None Detected	Non-Fibrous Material > 75%

REVIEWED BY

ANALYST

APPENDIX II-B
Lead Analytical Certificates



Analysis for Lead Concentration in Paint Chips

by Flame Atomic Absorption Spectroscopy
EPA SW-846 3050B/6010C/7420



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

Attn: Mike Wilson

Lab Order ID: 1602937

Analysis ID: 1602937_PBP

Date Received: 2/12/2016

Date Reported: 2/19/2016

Project: MJ Hobbs Public School

Sample ID	Description	Mass (g)	Concentration (ppm)	Concentration (% by weight)
Lab Sample ID	Lab Notes			
P001	Off white paint on drywall and block	0.0715	74	0.007%
1602937PBP_1				
P002	Purple paint on stall partition	0.0275	< 58	< 0.006%
1602937PBP_2				
P003	Light blue paint on door frame	0.0834	53	0.005%
1602937PBP_3				

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).

Daniel Olson (3)

Analyst

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

Laboratory Director

1602937

Version 1-15-2012

Client: Pinchin Ltd.
Contact: Mike Wilson
Address: 160 Charlotte Street, Suite 204
City: Peterborough, Ontario
Phone: 705-748-4627
Fax: 705-748-6927
Email: mwilson@pinchin.com
cc email: mwilson@pinchin.com
Project Name: MJ Hobbs Public School
Pinchin File #: 112809
Date Submitted: 2/10/2016 0:00
Analysis: Lead in Paint
TurnAroundTime: 120 hours

***Instructions:**

Use Column "B" for your contact info

To See an Example Click the
bottom Example Tab.

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

Invoice to:

Mike Wilson

mwilson@pinchin.com

Scientific
Analytical
Institute



4604 Dundas Dr.
 Greensboro, NC 27407
 Phone: 336.292.3888
 Fax: 336.292.3313
 Email: lab@sailab.com

Sample Number	Data 1 (Lab use only)	Sample Description	Data 2 (Lab use only)
<<			
P001		Off White Paint on Drywall and Block	
P002		Purple Paint on Stall Partition	
P003		Light Blue Paint on Door Frame	
>>			

Accepted ☒Rejected ☐

 2/12 1030A



Analysis for Lead Concentration in Paint Chips

by Flame Atomic Absorption Spectroscopy
EPA SW-846 3050B/6010C/7420



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

Attn: Rachel Northey
Mike Wilson

Lab Order ID: 1603976
Analysis ID: 1603976_PBP
Date Received: 2/29/2016
Date Reported: 3/3/2016

Project: 112809 MJ Hobbs DSS

Sample ID	Description	Mass (g)	Concentration (ppm)	Concentration (% by weight)
Lab Sample ID	Lab Notes			
P004	Ligh green paint on rad cover room 205	0.0459	1300	0.13%
1603976PBP_1				
P005	Beige paint on rad cover room 204	0.0723	840	0.084%
1603976PBP_2				
P006	Dark blue paint on rad cover room 203	0.0528	1100	0.11%
1603976PBP_3				

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).

Daniel Olson (3)

Analyst

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

Laboratory Director

1603976

Version 1-15-2012

Client:	Pinchin Ltd.	*Instructions: Use Column "B" for your contact info To See an Example Click the bottom Example Tab. 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.	Invoice to: Mike Wilson mwilson@pinchin.com
Contact:	Rachel Northey		
Address:	160 Charlotte Street, Suite 204		
City:	Peterborough, Ontario		
Phone:	705-748-4627		
Fax:	705-748-6927		Scientific Analytical Institute  4604 Dundas Dr. Greensboro, NC 27407 Phone: 336.292.3888 Fax: 336.292.3313 Email: lab@sailab.com
Email:	rnorthey@pinchin.om		
cc email	mwilson@pinchin.com		
Project Name	112809 MJ Hobbs DSS		
Pinchin File #		112809	
Date Submitted:	Feb 26 2016		
Analysis:	Paint Chips		
TurnAroundTime:	3 day		

Sample Number	Data 1 (Lab use only)	Sample Description	Data 2 (Lab use only)
<<			
P004		Light Green paint on Rad cover Room 205	
P005		Beige paint on rad cover room 204	
P006		Dark blue paint on rad cover room 203	
>>			

Accepted ☒

Rejected ☐

[Signature]
2-29
AK

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 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.).

In occupied facilities, Pinchin only undertakes non-intrusive testing. Concealed spaces such as those above solid ceilings and within shafts and pipe chases are accessed via existing access panels only. Pinchin does not conduct demolition of walls, solid ceilings, structural items, interior finishes or exterior building finishes, to determine the presence of concealed materials.

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 Table 1 of O.Reg. 278/05.

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.

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:

- roofing, felts and tar
- concrete floor levelling compound
- electrical components or wiring within control centers, breakers, motors or lights, insulation on wiring
- vermiculite in concrete block wall cavities
- adhesives
- caulking
- mechanical packing, ropes and gaskets
- fire resistant doors or metal clad finishes

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 Ontario an ACM is defined as materials containing 0.5% or more asbestos by weight.

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, fair, poor, debris).
- Accessibility (ranking from accessible to all building users to inaccessible).
- Visibility (whether the material is obscured by other building components).
- Air movement or air erosion (present, not present). (BC and Alberta only)
- 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).

For a complete description of the Evaluation Criteria and Basis of Recommendations, refer to Annex A.

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.

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 minimus 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, (e.g., abrasive blasting, torch cutting or grinding). Paint and surface coatings are evaluated for condition such as flaking, chipping or chalking.



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

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.

Master Template: Methodology Document for Hazardous Building Materials Pre-Construction, HAZ, February 1, 2016