



## **Hazardous Building Materials Assessment**

Exeter Radar Station  
41651 Thames Road, Exeter,  
Ontario

Prepared for:

### **Environment and Climate Change Canada (ECCC)**

867 Lakeshore Road  
Burlington, Ontario, L7T 3M3

Attention: Rick Czepita  
Assistant Program Manager

January 31, 2019

Pinchin File: 229221.004



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**Issued on:** January 31, 2019  
**Pinchin File:** 229221.004  
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## EXECUTIVE SUMMARY

Environment and Climate Change Canada (ECCC) (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the building at 41651 Thames Road, Exeter, Ontario. Pinchin performed the assessment on January 10, 2019.

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) are present as follows:

- Pipe insulation is good and damaged condition within the Storage Room (Location 9);
- Black mastic on cork insulation seams in good condition in the Basement Work Room (Location 8);
- Vinyl floor tiles in good condition within the Vestibule (Location 14);
- Caulking in good condition on the exterior of the building;
- Tar in good condition on the exterior of the building; and
- Residual roofing tar on concrete deck (presumed).

Lead: Lead is present as follows:

- Paints;
- Batteries of emergency lights; and
- Caulking on cast iron pipe joints (bell and spigot).

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

Mercury: Mercury vapour is present in light tubes.

Polychlorinated Biphenyls (PCBs): Based on the date of construction, PCBs may be present in light ballasts.

Mould and Water Damage: Visible mould was not observed.



## SUMMARY OF RECOMMENDATIONS

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

1. Prepare specifications for the hazardous material removal required for the planned work.
2. Conduct further investigation of the Roof and Transformer Trailer.
3. Do not disturb suspected hazardous building materials discovered during the planned work, which have not been identified in this report. Notify Pinchin immediately to conduct further testing.
4. Remove and properly dispose of asbestos-containing materials prior to demolition.
5. Remove and properly dispose of PCB ballasts when fixtures are decommissioned.
6. Recycle mercury-containing light tubes when removed from service.
7. Follow appropriate safe work procedures when handling or disturbing silica and lead.

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



## TABLE OF CONTENTS

1.0	INTRODUCTION AND SCOPE .....	1
1.1	Scope of Assessment .....	1
2.0	BACKGROUND INFORMATION .....	2
2.1	Building Description .....	2
2.2	Existing Reports .....	2
2.3	Inaccessible Locations .....	2
3.0	FINDINGS .....	3
3.1	Asbestos .....	3
3.2	Lead .....	11
3.3	Silica .....	12
3.4	Mercury .....	12
3.5	Polychlorinated Biphenyls .....	13
3.6	Mould .....	13
4.0	RECOMMENDATIONS .....	13
4.1	General .....	13
4.2	Building Demolition or Renovation Work .....	14
5.0	TERMS AND LIMITATIONS .....	15
6.0	REFERENCES .....	15

## APPENDICES

APPENDIX I	Drawings
APPENDIX II-A	Asbestos Analytical Certificates
APPENDIX II-B	Lead Analytical Certificates
APPENDIX II-C	PCB Analytical Certificates
APPENDIX III	Methodology
APPENDIX IV	Location Summary Report
APPENDIX V	Hazardous Materials Summary Report
APPENDIX VI	All Data Report



## 1.0 INTRODUCTION AND SCOPE

Environment and Climate Change Canada (ECCC) (Client) retained Pinchin Ltd. (Pinchin) to conduct a hazardous building materials assessment of the Exeter Radar Station located at 41651 Thames Road, Exeter, Ontario.

Matthew Gibbs and Ryan Blaxall, Project Technologists performed the assessment on January 10, 2019. The surveyor was accompanied by Brian Tertelgte of ECCC during the assessment. The assessed area was occupied 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)
- Mould

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

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



- Isocyanates
- Vinyl chloride monomer

## 2.0 BACKGROUND INFORMATION

### 2.1 Building Description

Description Item	Details
Use	Weather Station
Number of Floors	One storey plus one below grade
Total Area	Approximately 5,000 square feet.
Year of Construction	Unknown
Structure	Concrete
Exterior Cladding	Brick veneer
HVAC	Forced air
Roof	Built-up roofing
Flooring	Vinyl floor tiles, carpet, terrazzo and concrete
Interior Walls	Drywall and plaster
Ceilings	Acoustic ceiling tiles and plaster

### 2.2 Existing Reports

Pinchin was provided with the following reports, which have been reviewed as part of this assessment:

- Asbestos Reassessment, Exeter Radar Station,” Dated December 5, 2018. Prepared by Pinchin Ltd, File No.: 229221.
- “Asbestos Survey Report, Exeter Radar Station, 41651 Thames Road (Highway 83), Exeter, On,” Dated September 29, 2017. Prepared by WSP, File No.: R.090939.001.

### 2.3 Inaccessible Locations

The following rooms or areas were not accessible and are therefore not included in the report:

Area or Room	Reason
Outdoor Transformer Trailer	Locked, Lock frozen with ice
Above ceiling within the Washroom (Location 1)	No Access, solid plaster ceiling
Above ceiling within the Kitchen (Location 2)	No Access, solid plaster ceiling
Above ceiling within the Corridor (Location 3)	No Access, solid plaster ceiling

### 3.0 FINDINGS

The following section summarizes the findings of the assessment and provides a general description of the hazardous materials identified and their locations. For details on approximate quantities, assessment and locations of hazardous materials; refer to the Hazardous Material Summary Report and All Data Report in Appendix V and VI.

#### 3.1 Asbestos

##### 3.1.1 Suspect Building Materials Not Found

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

- Spray-applied insulations (fireproofing, thermal or acoustic)
- Texture finishes (decorative)
- Asbestos cement products (e.g. Transite)
- Vinyl sheet flooring
- Firestopping

##### 3.1.2 Pipe Insulation

Parging cement, presumed to contain asbestos, is present on pipe fittings (elbows, valves, tees etc.) on pipe systems above solid ceilings. The insulation was not sampled due to lack of access. Parging cement is a friable insulation, jacketed with canvas and ranged from damaged to good condition.

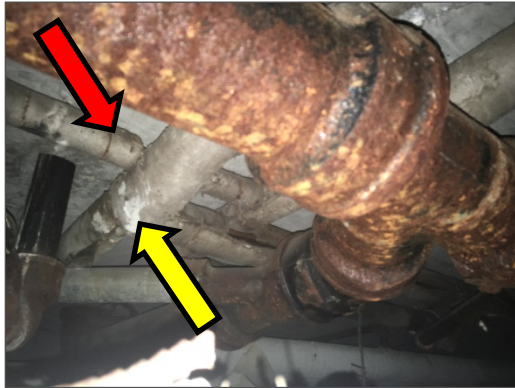
A white corrugated paper insulation (trade name Aircell), containing chrysotile asbestos, is present on straight sections of abandoned heating system pipes above solid ceilings (samples 0010A-C). Aircell is a friable insulation, jacketed with canvas and ranged from damaged to good condition.

Non-asbestos sweatwrap insulation is present on straight sections of domestic water system pipes (samples 0003A-C).

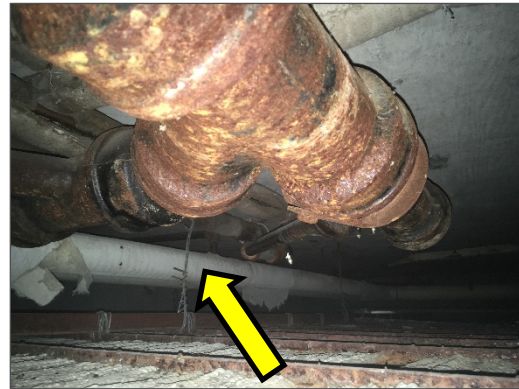


All remaining pipes are insulated with fibreglass.

Pipes insulated with asbestos-containing insulations may be present above inaccessible ceiling spaces or within pipe shafts/wall cavities.



Asbestos-containing parging cement on pipe fitting insulation (yellow arrow) and non-asbestos sweat wrap insulation (red arrow) within the Storage Room (Location 9)

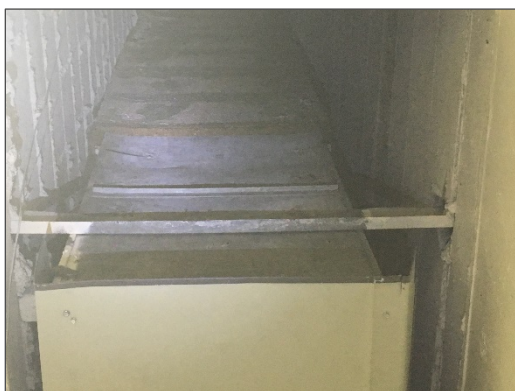


Asbestos-containing Aircell pipe straight insulation within the Storage Room (Location 9)

### 3.1.3 Duct Insulation and Mastic

Black mastic, containing chrysotile asbestos, is present on the seams of cork duct insulation in the duct chase located in Location 8 (samples 0001A-C). Mastic is a non-friable material and in good condition. Ducts insulated with asbestos-containing insulations may be present above inaccessible ceiling spaces.

All remaining ducts are either uninsulated or insulated with non-asbestos fibreglass (foil-faced).



Asbestos-containing black mastic present on the seams of cork duct insulation within the Basement (Location 8)

### 3.1.4 Mechanical Equipment Insulation

Mechanical equipment (e.g. natural gas and hot water tank) are either uninsulated or insulated with non-asbestos fibreglass.



Externally un-insulated furnace within the Sump Pump Room (Location 10)



Externally un-insulated hot water tank within the Sump Pump Room (Location 10)

### 3.1.5 Vermiculite

Destructive testing was conducted on masonry block, drywall and plaster walls and loose fill vermiculite was not observed within the cavities. The locations of destructive testing have been indicated on the drawings in Appendix I.



Destructive testing in masonry block wall within the Furnace Room (Location 4)



Destructive testing in plaster wall within the Kitchen (Location 2)

### 3.1.6 Acoustic Ceiling Tiles

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

Size, Type, Pattern and Photo #	Location #	Sample Number or Date Code	Asbestos Type
24"x48", lay-in, random fissure and pinhole, Photo 1	Locations 6, 7, 13 and 14	Previously identified	None Detected

Size, Type, Pattern and Photo #	Location #	Sample Number or Date Code	Asbestos Type
24"x48", lay-in, white with horizontal fissure and pinhole, Photo 2	Location 5	Previously identified	None Detected



Photo 1



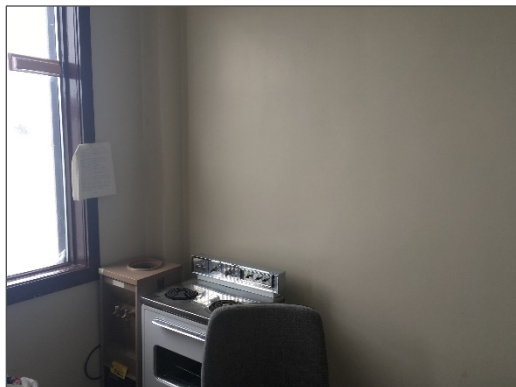
Photo 2

### 3.1.7 Plaster and Stucco

Non-asbestos smooth plaster is present as a wall and ceiling finish throughout the building (samples 0002A-E and 0012A-C).

Non-asbestos cementitious grey plaster is present as a wall and ceiling finish throughout the building (samples 0004A-E).

Non-asbestos cementitious grey plaster is present as a soffit finish throughout the exterior (samples 0013A-C).



Non-asbestos smooth plaster within the Kitchen (Location 2)



Non-asbestos grey cementitious grey plaster present within the Storage Room (Location 9)

### 3.1.8 Drywall Joint Compound

Drywall joint compound present on wall finishes throughout the building does not contain asbestos (previously identified).

### 3.1.9 Vinyl Floor Tiles

Vinyl floor tiles are present as follows:

Size, Pattern, Colour and Photo #	Location #	Sample Number	Asbestos Type (tile)	Asbestos Type (mastic)
12"x12", cream and brown streaks, Photo 1	Location 14	Previously identified 0006A-C	Chrysotile	None Detected
12"x12", pink and black specks, Photo 2	Locations 1 and 2	Previously identified 0007A-C	None Detected	None Detected



Photo 1



Photo 2

### 3.1.10 Levelling Compound

Non-asbestos leveling compound present with the mastic below the 12"x12" pink and black speck vinyl floor tile is present within Locations 1 and 2 (samples 0007A-C B).

### 3.1.11 Sealants, Caulking, and Putty

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

Material, Colour and Photo #	Location (Location #)	Sample Number	Asbestos Type
Caulking, brown, Photo 1	Located around interior side of windows throughout the building (Locations 1, 2, 3 and 4)	0005A-C	None Detected
Sealant, butyl tape, Photo 2	Located around the door window on the exterior door within Location 3	0008A-C	None Detected
Caulking, white, Photo 3	Located around the exterior door within Location 14	0009A-C	None Detected
Caulking, black, Photo 4	Located around exterior side of windows throughout the building (Locations 1, 2, 3 and 4)	0014A-C	None Detected
Caulking, hard grey, Photo 5	Located around the exterior side of glass block windows throughout the building (Locations 5, 6, 7, 13 and 14)	0015A-C	Chrysotile
Window glazing, white, Photo 6	Located around glass and wood frames of windows within Locations 3 and 10	0016A-C	None Detected
Caulking, brown, Photo 7	Located around roof flashing and over screws on roof flashing	0017A-C	Chrysotile
Caulking, white, Photo 8	Located around wires at Transformer	0019A-C	None Detected

Caulking and sealants are non-friable materials and in good condition.



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6

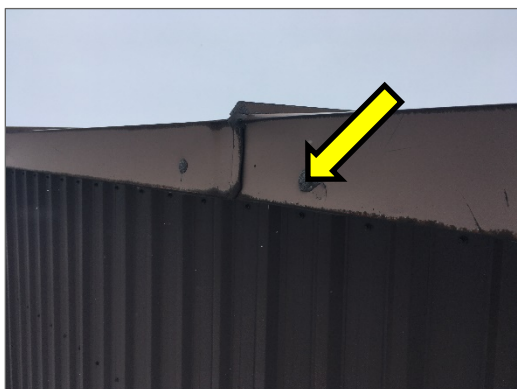


Photo 7

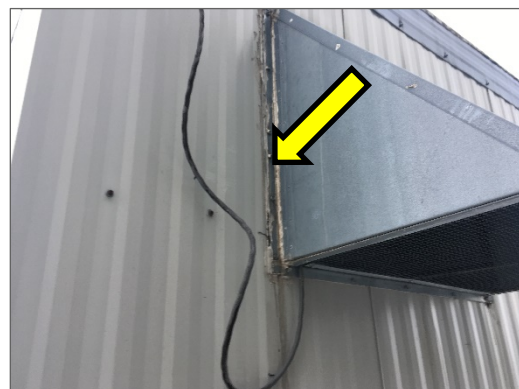


Photo 8

### 3.1.12 Paper and Textile Products

Non-asbestos brown paper is present inside the door within Location 7 and 13 (samples 0011A-C).



Non-asbestos brown paper inside door within the Office  
(Location 7)

### 3.1.13 Other Building Materials

Tar, previously identified to contain chrysotile asbestos, is present on exterior roof flashing on the Ramp Shed (Location 15). Tar is non-friable and are in good condition.

Non-asbestos tar is present around roof vents (samples 0018-A-C).



Asbestos-containing tar on flashing above Ramp Shed



Non-asbestos tar around roof vent on the Roof

### 3.1.14 Roofing

The roofing over the building is presumed to be non-asbestos due to the type of roof (EDPM) which is known not to contain asbestos, however, the original roofing may have contained asbestos. Residual asbestos-containing tar may be present on the deck below the non-asbestos roofing.



Roofing materials



Roofing materials

### 3.1.15 Presumed Asbestos Materials

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

- Electrical components

## 3.2 Lead

### 3.2.1 Paints and Surface Coatings

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

Sample Number	Colour, Substrate Description	Location (Location #)	Lead (%)
L-001	Off-white paint on concrete	Storage Room (Location 9)	0.0058
L-002	Off-white paint on brick	Work Room (Location 8)	<0.0075
L-003	Off-white paint on plaster	Kitchen (Location 2)	0.054
L-004	Off-white paint on drywall	NRP Equipment Room (Location 6)	<0.0059
L-005	Brown paint on metal flashing	Roof	0.026
L-006	Mortar at glass block windows	Vestibule (Location 14)	<0.0075



Results above 0.009% are lead-based in accordance with the Surface Coating Materials Regulation. All paints determined to be lead-based were found to be in good condition and not flaking, peeling or delaminating.

### 3.2.2 *Lead Products and Applications*

Lead-containing batteries are present in emergency lighting.

Lead caulking is present in bell and spigot fittings on cast iron pipes.



Lead caulking in pipe line within the Sump Pump Room  
(Location 10)

### 3.2.3 *Presumed Lead Materials*

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

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

## 3.3 **Silica**

Crystalline silica is a presumed component of the following materials:

- Poured or pre-cast concrete
- Masonry and mortar
- Plaster

## 3.4 **Mercury**

### 3.4.1 *Lamps*

Mercury vapour is present in fluorescent lamps.

### 3.4.2 Mercury-Containing Devices

Mercury-containing devices were not found during the assessment.

## 3.5 Polychlorinated Biphenyls

### 3.5.1 Caulking

The following table presents a summary of caulking present:

Material and Colour	Location	Sample Number	PCB concentration (ppm)
Caulking, brown	Located around roof flashing and over screws on roof flashing	PCB-01	<0.5
Caulking, hard grey	Located around the exterior side of glass block windows throughout the building	PCB-02	<0.5
Caulking, black	Located around exterior side of windows throughout the building	PCB-03	<0.5

The caulking in the table above is not considered a PCB solid based on the threshold (<50 ppm).

### 3.5.2 Lighting Ballasts

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

### 3.5.3 Transformers

Transformers trailer was inaccessible during the assessment.

## 3.6 Mould

Visible mould growth was not found during the assessment.

## 4.0 RECOMMENDATIONS

### 4.1 General

1. Prepare plans and performance specifications for hazardous material removal required for the planned work. The specifications should include the scope of work, safe work practices, personal protective equipment, respiratory protection, and disposal of waste materials.

2. If suspected hazardous building materials are discovered during the planned work, which are not identified in this report, do not disturb and inform Pinchin immediately to conduct further testing.
3. Investigate any items excluded from the scope of work of this report. Ideally this investigation will be performed immediately prior to commencing renovations.
  - Roofing felts and tar, mastics
  - Transformer trailer
4. Provide this report and the detailed plans and specifications to the contractor prior to bidding or commencing work.
5. Retain a qualified consultant to specify, inspect and verify the successful removal of hazardous materials.
6. 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 involving the hazardous materials identified.

##### *4.2.1 Asbestos*

Remove all asbestos-containing materials (ACM) prior to demolition work.

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

##### *4.2.2 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.

Lead-containing items (lead-acid batteries, other) should be recycled when taken out of service.

##### *4.2.3 Silica*

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



#### 4.2.4 Mercury

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

#### 4.2.5 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.

#### 4.2.6 Mould

No mould was observed; if mould is uncovered inside wall cavities during hand demolition, use appropriate precautions and protect workers 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. Asbestos on Construction Projects and in Buildings and Repair Operations, Ontario Regulation 278/05.
2. Designated Substances, Ontario Regulation 490/09.
3. Lead on Construction Projects, Ministry of Labour Guidance Document.
4. The Environmental Abatement Council of Ontario (EACO) Lead Guideline for Construction, Renovation, Maintenance or Repair, October 2014.
5. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.
6. Surface Coating Materials Regulations, SOR/2005-109, Hazardous Products Act.

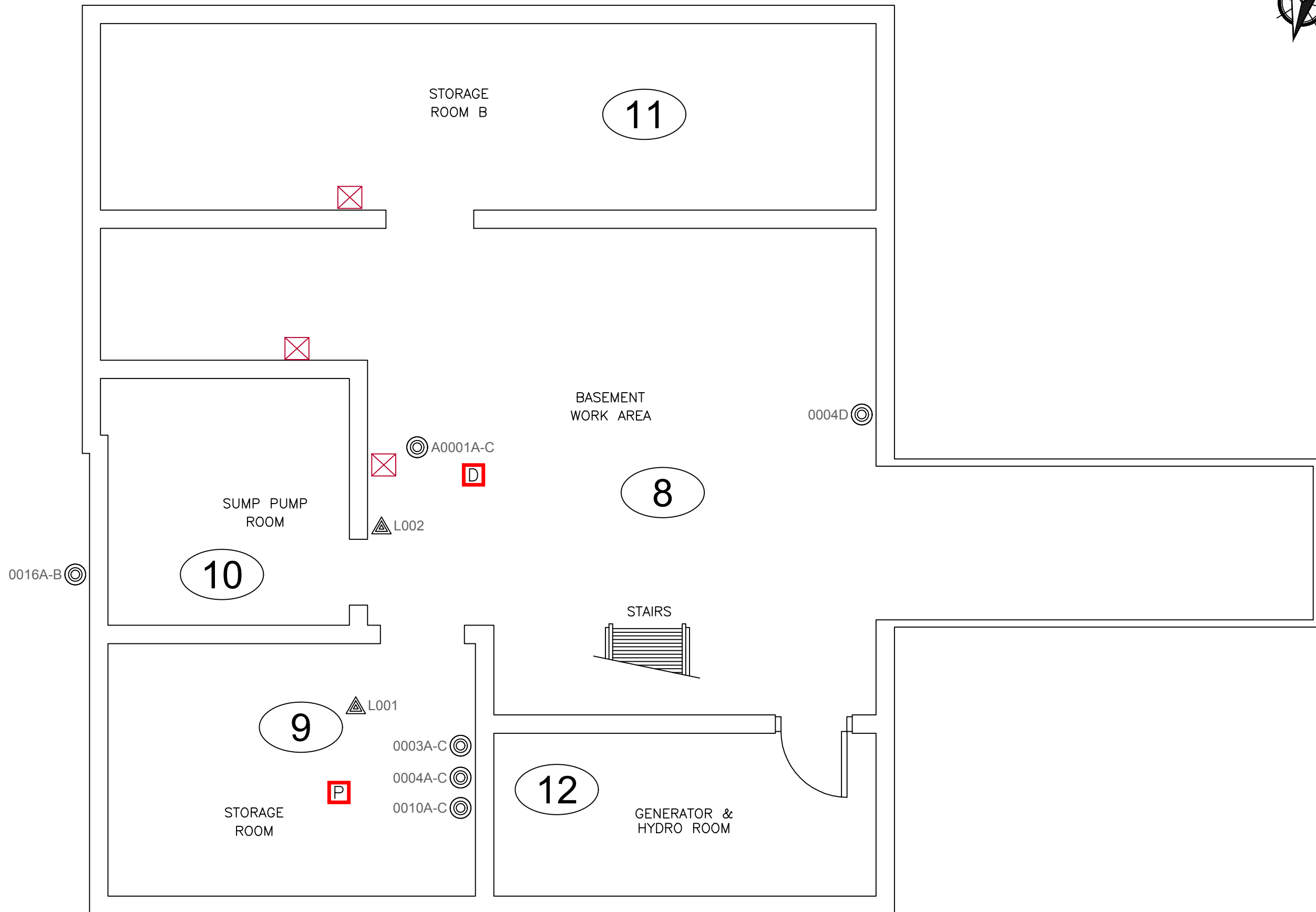


7. Silica on Construction Projects, Ministry of Labour Guidance Document.
8. Alert – Mould in Workplace Buildings, Ontario Ministry of Labour.

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

**APPENDIX I**  
**Drawings**



LEGEND:

(X) PINCHIN LOCATION NUMBER

⊙ ASBESTOS BULK SAMPLE

ASBESTOS-CONTAINING MATERIALS:

■ VINYL FLOOR TILES

■ P PIPE INSULATION

■ D MASTIC ON DUCT INSULATION

■ X INTRUSIVE INSPECTION

FOR CLARITY, THE FOLLOWING ASBESTOS CONTAINING MATERIALS, ARE PRESENT IN THE ASSESSED AREA, BUT HAVE NOT BEEN HATCHED ON THE DRAWING:

- TAR
- CAULKING

NOT ALL KNOWN OR SUSPECTED ASBESTOS-CONTAINING BUILDING MATERIALS MAY BE DEPICTED ON THE DRAWING. REFER TO THE ASBESTOS ASSESSMENT REPORT FOR A COMPLETE LIST OF KNOWN AND SUSPECTED ASBESTOS-CONTAINING BUILDING MATERIALS.

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

BASE PLAN PROVIDED BY CLIENT.

CLIENT:

ENVIRONMENTAL AND CLIMATE CHANGE CANADA

LOCATION:

EXETER RADAR STATION  
41651 THAMES ROAD  
EXETER, ONTARIO

TITLE:

HAZARDOUS BUILDING MATERIALS ASSESSMENT  
MAIN BUILDING - BASEMENT LEVEL

DATE:

JANUARY 2019

PROJECT #:

229221.004

DRAWN BY:

R.S.B.

DRAWING:

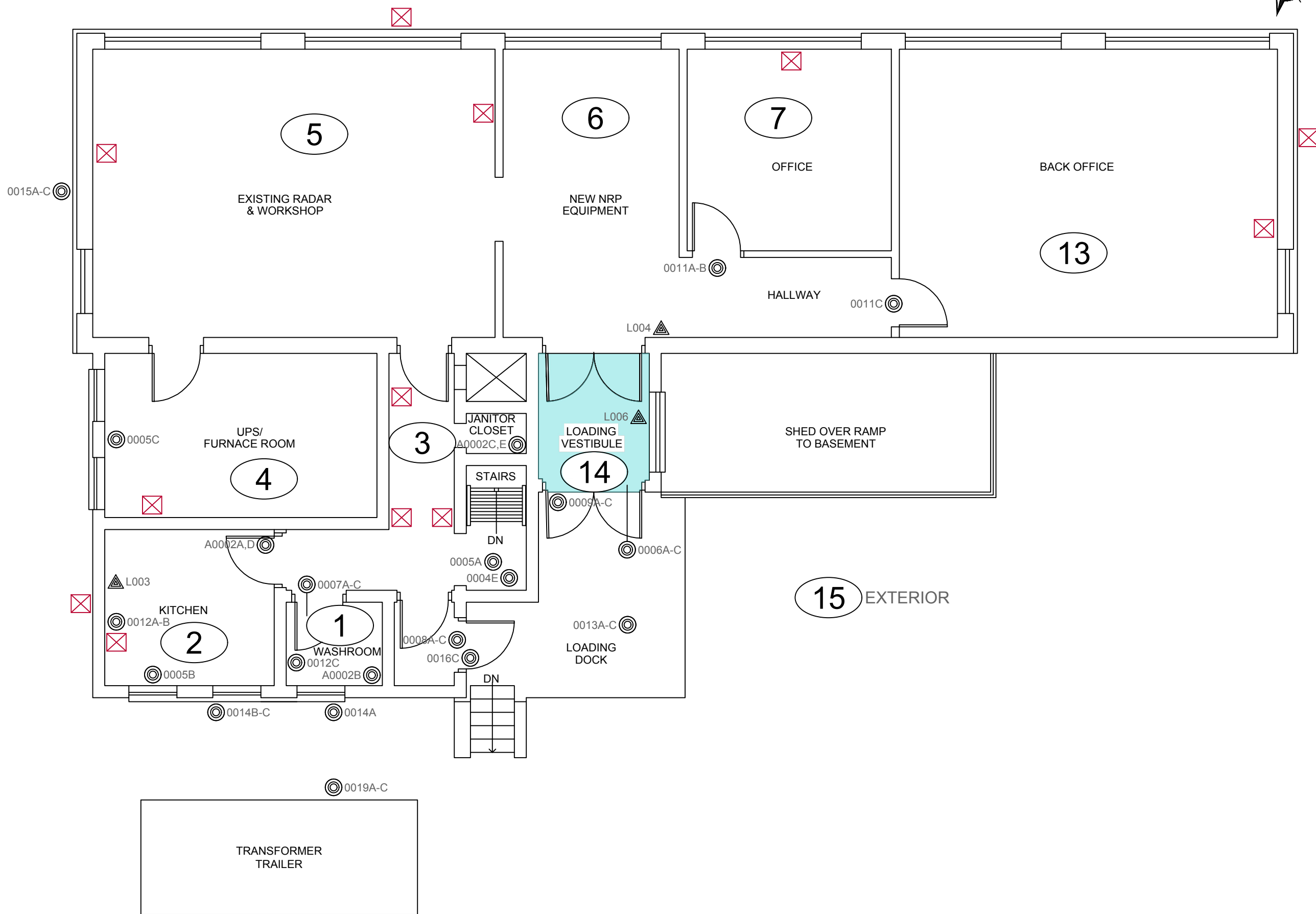
CHECKED BY:

M.P.G.

1 OF 3

SCALE:

NTS



**LEGEND:**

- (X) PINCHIN LOCATION NUMBER
- (C) ASBESTOS BULK SAMPLE

**ASBESTOS-CONTAINING MATERIALS:**

- VINYL FLOOR TILES
- P PIPE INSULATION
- D MASTIC ON DUCT INSULATION
- X INTRUSIVE INSPECTION

**FOR CLARITY, THE FOLLOWING ASBESTOS CONTAINING MATERIALS, ARE PRESENT IN THE ASSESSED AREA, BUT HAVE NOT BEEN HATCHED ON THE DRAWING:**

- TAR
- CAULKING

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BASE PLAN PROVIDED BY CLIENT.

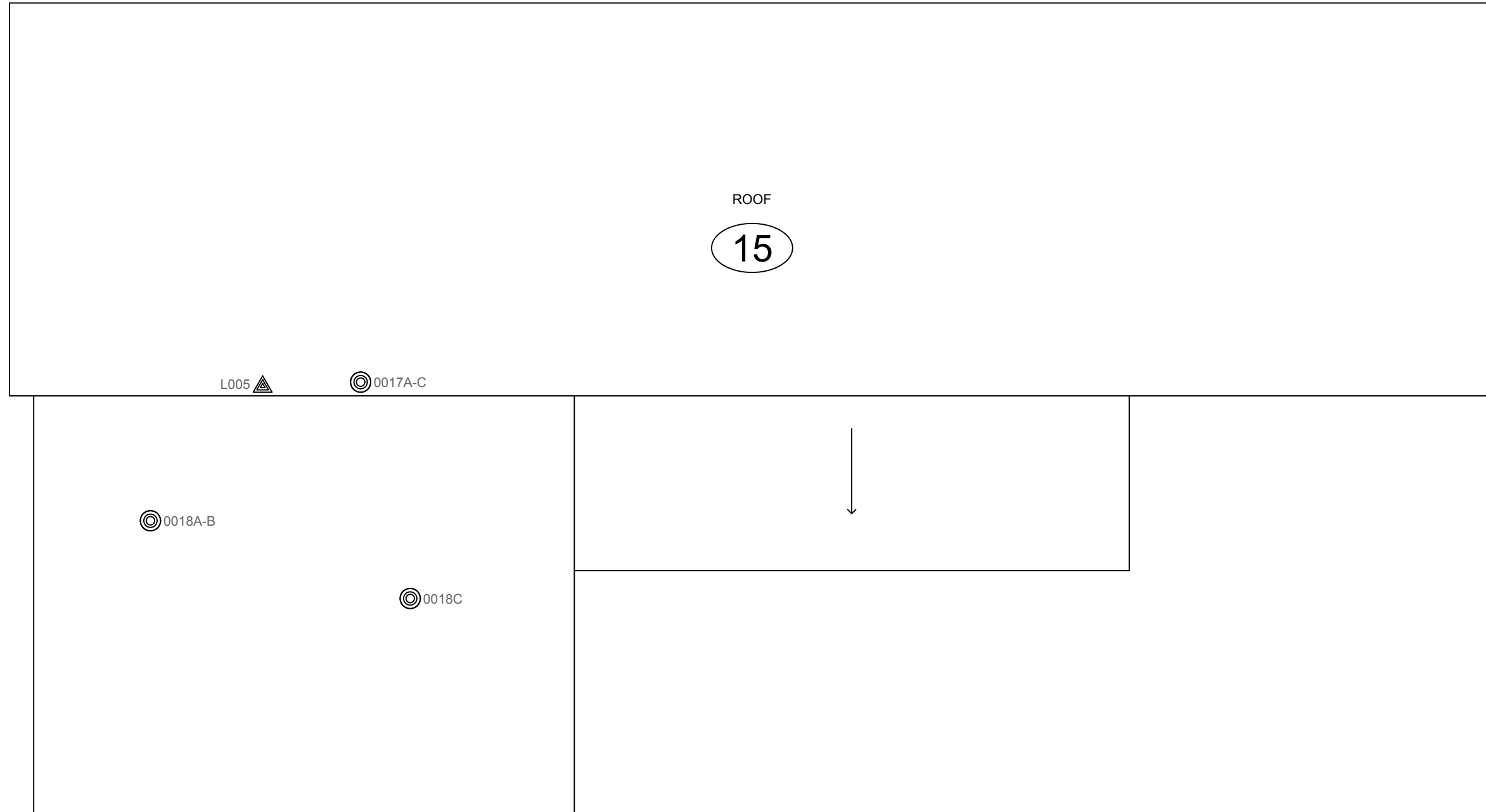
**CLIENT:**  
ENVIRONMENTAL AND CLIMATE CHANGE CANADA

**LOCATION:**  
EXETER RADAR STATION  
41651 THAMES ROAD  
EXETER, ONTARIO

**TITLE:**  
HAZARDOUS BUILDING MATERIALS ASSESSMENT  
MAIN BUILDING - GROUND LEVEL

<b>DATE:</b> JANUARY 2019	<b>PROJECT #:</b> 229221.004
<b>DRAWN BY:</b> R.S.B.	<b>DRAWING:</b>          <b>2 OF 3</b>
<b>CHECKED BY:</b> M.P.G.	
<b>SCALE:</b> NTS	





LEGEND:

(X) PINCHIN LOCATION NUMBER

(●) ASBESTOS BULK SAMPLE

ASBESTOS-CONTAINING MATERIALS:

(Light blue square) VINYL FLOOR TILES

(P in red square) PIPE INSULATION

(D in red square) MASTIC ON DUCT INSULATION

(X in red square) INTRUSIVE INSPECTION

FOR CLARITY, THE FOLLOWING ASBESTOS CONTAINING MATERIALS, ARE PRESENT IN THE ASSESSED AREA, BUT HAVE NOT BEEN HATCHED ON THE DRAWING:

- TAR
- CAULKING

NOT ALL KNOWN OR SUSPECTED ASBESTOS-CONTAINING BUILDING MATERIALS MAY BE DEPICTED ON THE DRAWING. REFER TO THE ASBESTOS ASSESSMENT REPORT FOR A COMPLETE LIST OF KNOWN AND SUSPECTED ASBESTOS-CONTAINING BUILDING MATERIALS.

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

BASE PLAN PROVIDED BY CLIENT.

CLIENT:

ENVIRONMENTAL AND CLIMATE CHANGE CANADA

LOCATION:

EXETER RADAR STATION  
41651 THAMES ROAD  
EXETER, ONTARIO

TITLE:

HAZARDOUS BUILDING MATERIALS ASSESSMENT  
MAIN BUILDING - ROOF LEVEL

DATE:

JANUARY 2019

PROJECT #:

229221.004

DRAWN BY:

R.S.B.

DRAWING:

3 OF 3

CHECKED BY:

M.P.G.

SCALE:

NTS

**APPENDIX II-A**  
**Asbestos Analytical Certificates**



## Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

**Project Name:** Environment Canada, Exeter Radar Station  
**Project No.:** 0229221.000  
**Prepared For:** J. Van Eyk / O. Folami B. Serio  
**Lab Reference No.:** b201024  
**Analyst(s):** R. Dacey / N. Barinque  
**Date Received:** November 22, 2018    **# Samples submitted:** 8  
**Date Analyzed:** November 29, 2018    **# Phases analyzed:** 8

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**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%	Alberta	Undefined
Quebec	0.1%	Saskatchewan	0.5% friable 1% non-friable
PEI, NWT, Yukon, Nunavut, Newfoundland and Labrador, and New Brunswick	1%	Manitoba	0.1% friable 1% non-friable

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:** Environment Canada, Exeter Radar Station  
**Project No.:** 0229221.000  
**Prepared For:** J. Van Eyk / O. Folami B. Serio

**Lab Reference No.:** b201024  
**Date Analyzed:** November 29, 2018

### BULK SAMPLE ANALYSIS

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0001A Black mastic on cork/Location 8	Homogeneous, black, tar material.	Chrysotile	10-25% Tar and other non-fibrous > 75%
Comments:	Cork is present on the surface of this sample.		
0001B Black mastic on cork/Location 8			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0001C Black mastic on cork/Location 8			Not Analyzed
Comments:	Analysis was stopped due to a previous positive result.		
0002A Plaster (white layer) / Location 2	Homogeneous, white, hard, cementitious, plaster top coat.	None Detected	Non-Fibrous Material > 75%
Comments:	Another phase is present but was not analyzed.		
0002B Plaster (white layer) / Location 1	Homogeneous, white, hard, cementitious, plaster top coat.	None Detected	Non-Fibrous Material > 75%
Comments:	Another phase is present but was not analyzed.		
0002C Plaster (white layer) / Location 3	Homogeneous, white, hard, cementitious, plaster top coat.	None Detected	Non-Fibrous Material > 75%



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

**Project Name:** Environment Canada, Exeter Radar Station  
**Project No.:** 0229221.000  
**Prepared For:** J. Van Eyk / O. Folami B. Serio

**Lab Reference No.:** b201024  
**Date Analyzed:** November 29, 2018

**BULK SAMPLE ANALYSIS**

SAMPLE IDENTIFICATION	SAMPLE DESCRIPTION	% COMPOSITION (VISUAL ESTIMATE)	
		ASBESTOS	OTHER
0002D Plaster (both layers) / Location 2	a) Homogeneous, grey, hard, cementitious, plaster base coat.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, white, hard, cementitious, plaster top coat.	None Detected	Non-Fibrous Material > 75%
0002E Plaster (both layers) / Location 3	a) Homogeneous, grey, hard, cementitious, plaster base coat.	None Detected	Non-Fibrous Material > 75%
	b) Homogeneous, white, hard, cementitious, plaster top coat.	None Detected	Non-Fibrous Material > 75%

**Reviewed by:**

**Reporting Analyst:**



Analyzed by: RD.  
 Reviewed by: KB  
FL  
 Report Sent by: \_\_\_\_\_



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

Client Name:	Environment Canada	Project Address:	Exeter Radar Station
Portfolio/Building No:		Pinchin File:	229221
Submitted by:	Jacob Van Eyk	Email:	jevk@pinchin.com
CC Results to:	Ola Folami, Brenda Serio	CC Email:	ofolami@pinchin.com , bserio@pinchin.com
Date Submitted:	November 21 2018	Required by:	
# of Samples:	7	Priority:	5 Day Turnaround
Year of Building Construction (Mandatory, Years ONLY):			
Do NOT Stop on Positive (Sample Numbers):			
Pinchin Group Company (Mandatory Field):	Pinchin		

**To be Completed by Lab Personnel Only:**

Lab Reference #:	5201024	Time:	24 hour clock		
Received by:	RD/NO. NOV 22 2018 JW	Date:	Month	Day	Year
Name(s) of Analyst(s):	RD/NO. 11/29/18 (S)				

Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)
	0001	A	Black mastic on cork/Location 8 CH10-25%
	0001	B	Black mastic on cork/Location 8 NA
	0001	C	Black mastic on cork/Location 8 NA
	0002	A	Plaster (white layer) / Location 2 ND
	0002	B	Plaster (white layer) / Location 1 ND
	0002	C	Plaster (white layer) / Location 3 ND
	0002	D	Plaster (both layers) / Location 2 @ND @ND



Sample Prefix	Sample No.	Sample Suffix	Sample Description/Location (Mandatory)
	0002	E	Plaster (both layers) / Location 3 @NDGM



# Bulk Asbestos Analysis

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



**Customer:** Pinchin Ltd.  
 6-875 Main St West  
 Suite 200  
 Hamilton, Ontario L8S 4P9

**Attn:** Matthew Gibbs  
 Leslie Cantar

**Lab Order ID:** 71901132  
**Analysis ID:** 71901132\_PLM  
**Date Received:** 1/15/2019  
**Date Reported:** 1/18/2019

**Project:** 229221.004,41651 Thames Rd, Exeter, On, Environment and Climate Change Canada

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0003A - A	sweat wrap / location 9	None Detected	70% Cellulose	30% Other	Black Fibrous Homogeneous
71901132PLM_1	felt				Ashed
0003A - B	sweat wrap / location 9	None Detected	80% Cellulose 15% Synthetic Fibers	5% Other	Gray Fibrous Homogeneous
71901132PLM_54	sweat wrap				Ashed
0003B - A	sweat wrap / location 9	None Detected	70% Cellulose	30% Other	Black Fibrous Homogeneous
71901132PLM_2	felt				Ashed
0003B - B	sweat wrap / location 9	None Detected	80% Cellulose 15% Synthetic Fibers	5% Other	Gray Fibrous Homogeneous
71901132PLM_55	sweat wrap				Ashed
0003C - A	sweat wrap / location 9	None Detected	70% Cellulose	30% Other	Black Fibrous Homogeneous
71901132PLM_3	felt				Ashed
0003C - B	sweat wrap / location 9	None Detected	80% Cellulose 15% Synthetic Fibers	5% Other	Gray Fibrous Homogeneous
71901132PLM_56	sweat wrap				Ashed
0004A	cementitious textured plaster / location 9, ceiling	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71901132PLM_4					Crushed
0004B	cementitious textured plaster / location 9, ceiling	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71901132PLM_5					Crushed

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Megan Javonovich (59)

Analyst

Approved Signatory





# Bulk Asbestos Analysis

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 EPA Method: 600/R-93/116 and 40 CFR, Part 763, Subpart E,  
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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0004C	cementitious textured plaster / location 9, ceiling	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71901132PLM_6					Crushed
0004D	cementitious textured plaster / location 8, wall	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71901132PLM_7					Crushed
0004E	cementitious textured plaster / location 3, wall	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71901132PLM_8					Crushed
0005A	brown interior caulking / location 3, window	None Detected		100% Other	Brown Non Fibrous Homogeneous
71901132PLM_9					Ashed
0005B	brown interior caulking / location 2, window	None Detected		100% Other	Brown Non Fibrous Homogeneous
71901132PLM_10					Ashed
0005C	brown interior caulking / location 4, window	None Detected		100% Other	White Non Fibrous Homogeneous
71901132PLM_11					Ashed
0006A	mastic on 12x12 streaks, cream and brown / location14	None Detected		100% Other	Black Non Fibrous Homogeneous
71901132PLM_12					Dissolved
0006B	mastic on 12x12 streaks, cream and brown / location14	None Detected		100% Other	Black Non Fibrous Homogeneous
71901132PLM_13					Dissolved

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0006C	mastic on 12x12 streaks, cream and brown / location 14	None Detected		100% Other	Black Non Fibrous Homogeneous
71901132PLM_14					Dissolved
0007A	mastic on 12x12 specks, pink and black / location 1	None Detected		100% Other	Black, Yellow, White Non Fibrous
71901132PLM_15	mixed mastic/leveling compound				Dissolved, Crushed
0007B	mastic on 12x12 specks, pink and black / location 1	None Detected		100% Other	Black, Yellow, White Non Fibrous
71901132PLM_16	mixed mastic/leveling compound				Dissolved, Crushed
0007C	mastic on 12x12 specks, pink and black / location 1	None Detected		100% Other	Black, Yellow, White Non Fibrous
71901132PLM_17	mixed mastic/leveling compound				Dissolved, Crushed
0008A	butyl tape / location 3 exterior door	None Detected		100% Other	Gray Non Fibrous Homogeneous
71901132PLM_18					Ashed
0008B	butyl tape / location 3 exterior door	None Detected		100% Other	Gray Non Fibrous Homogeneous
71901132PLM_19					Dissolved
0008C	butyl tape / location 3 exterior door	None Detected		100% Other	Gray Non Fibrous Homogeneous
71901132PLM_20					Ashed
0009A	white exterior caulking / location 14 door	None Detected	3% Other	97% Other	White Non Fibrous Homogeneous
71901132PLM_21					Ashed

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**Date Reported:** 1/18/2019

**Project:** 229221.004,41651 Thames Rd, Exeter, On, Environment and Climate Change Canada

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0009B	white exterior caulking / location 14 door	None Detected	3% Other	97% Other	White Non Fibrous Homogeneous
71901132PLM_22					Ashed
0009C	white exterior caulking / location 14 door	None Detected	3% Other	97% Other	White Non Fibrous Homogeneous
71901132PLM_23					Ashed
0010A	aircell / location 9	70% Chrysotile	20% Cellulose	10% Other	Gray Fibrous Homogeneous
71901132PLM_24					Teased
0010B	aircell / location 9	Not Analyzed			
71901132PLM_25					
0010C	aircell / location 9	Not Analyzed			
71901132PLM_26					
0011A	brown door paper / location 7	None Detected	98% Cellulose	2% Other	Tan Fibrous Homogeneous
71901132PLM_27					Ashed
0011B	brown door paper / location 7	None Detected	98% Cellulose	2% Other	Tan Fibrous Homogeneous
71901132PLM_28					Ashed
0011C	brown door paper / location 13	None Detected	98% Cellulose	2% Other	Tan Fibrous Homogeneous
71901132PLM_29					Ashed

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# Bulk Asbestos Analysis

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



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**Date Received:** 1/15/2019  
**Date Reported:** 1/18/2019

**Project:** 229221.004,41651 Thames Rd, Exeter, On, Environment and Climate Change Canada

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0012A - A	smooth plaster / location 2	None Detected		100% Other	White Non Fibrous Homogeneous
71901132PLM_30	finish				Crushed
0012A - B	smooth plaster / location 2	None Detected	3% Hair	97% Other	Gray Non Fibrous Heterogeneous
71901132PLM_57	base				Crushed
0012B - A	smooth plaster / location 2	None Detected		100% Other	White Non Fibrous Homogeneous
71901132PLM_31	finish				Crushed
0012B - B	smooth plaster / location 2	None Detected	3% Hair	97% Other	Gray Non Fibrous Heterogeneous
71901132PLM_58	base				Crushed
0012C - A	smooth plaster / location 1	None Detected		100% Other	White Non Fibrous Homogeneous
71901132PLM_32	finish				Crushed
0012C - B	smooth plaster / location 1	None Detected	3% Hair	97% Other	Gray Non Fibrous Heterogeneous
71901132PLM_59	base				Crushed
0013A	exterior soffit / exterior	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71901132PLM_33					Crushed
0013B	exterior soffit / exterior	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71901132PLM_34					Crushed

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# Bulk Asbestos Analysis

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0013C	exterior soffit / exterior	None Detected		100% Other	Gray Non Fibrous Heterogeneous
71901132PLM_35					Crushed
0014A	black exterior caulking / location 2, window	None Detected		100% Other	Black Non Fibrous Homogeneous
71901132PLM_36					Ashed
0014B	black exterior caulking / location 2, window	None Detected		100% Other	Black Non Fibrous Homogeneous
71901132PLM_37					Ashed
0014C	black exterior caulking / location 1, window	None Detected		100% Other	Black Non Fibrous Homogeneous
71901132PLM_38					Ashed
0015A	hard grey exterior caulking / location 5, window	10% Chrysotile		90% Other	Gray Non Fibrous Homogeneous
71901132PLM_39					Ashed
0015B	hard grey exterior caulking / location 5, window	Not Analyzed			
71901132PLM_40					
0015C	hard grey exterior caulking / location 5, window	Not Analyzed			
71901132PLM_41					
0016A	window glazing / location 10, window	None Detected		100% Other	White Non Fibrous Homogeneous
71901132PLM_42					Dissolved

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# Bulk Asbestos Analysis

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 App.E



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**Date Received:** 1/15/2019  
**Date Reported:** 1/18/2019

**Project:** 229221.004,41651 Thames Rd, Exeter, On, Environment and Climate Change Canada

Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0016B	window glazing / location 10, window	None Detected		100% Other	White Non Fibrous Homogeneous
71901132PLM_43					Dissolved
0016C	window glazing / location 10, window	None Detected		100% Other	White Non Fibrous Homogeneous
71901132PLM_44					Dissolved
0017A	brown caulking / roof	3% Chrysotile		97% Other	Brown Non Fibrous Homogeneous
71901132PLM_45					Ashed
0017B	brown caulking / roof	Not Analyzed			
71901132PLM_46					
0017C	brown caulking / roof	Not Analyzed			
71901132PLM_47					
0018A	tar on vent / roof	None Detected		100% Other	Black, Silver Non Fibrous Homogeneous
71901132PLM_48					Ashed
0018B	tar on vent / roof	None Detected		100% Other	Black, Silver Non Fibrous Homogeneous
71901132PLM_49					Ashed
0018C	tar on vent / roof	None Detected		100% Other	Black, Silver Non Fibrous Homogeneous
71901132PLM_50					Ashed

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Sample ID	Description	Asbestos	Fibrous Components	Non-Fibrous Components	Attributes
Lab Sample ID	Lab Notes				Treatment
0019A	white exterior caulking / transformer	None Detected		100% Other	White Non Fibrous Homogeneous
71901132PLM_51					Ashed
0019B	white exterior caulking / transformer	None Detected		100% Other	White Non Fibrous Homogeneous
71901132PLM_52					Ashed
0019C	white exterior caulking / transformer	None Detected		100% Other	White Non Fibrous Homogeneous
71901132PLM_53					Ashed

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Megan Javonovich (59)

Analyst

Approved Signatory

11/10/12

Version 1-15-2012

<b>Client:</b>	Pinchin Ltd.	<b>*Instructions:</b> <i>Use Column "B" for your contact info</i>  <i>To See an Example Click the bottom Example Tab.</i>  <i>Enter samples between "&lt;&lt;" and "&gt;&gt;"</i>  <b>Begin Samples with a "&lt;&lt;" above the first sample and end with a "&gt;&gt;" below the last sample. Only Enter your data on the first sheet "Sheet1"</b>  <i>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.</i>	<b>Invoice to:</b>
<b>Contact:</b>	Matt Gibbs		mgibbs@pinchin.com
<b>Address:</b>	875 Main Street W., Unit 11 Hamilton, ON L8S 4R9		
<b>Phone:</b>	905-577-6206		
<b>Fax:</b>	905-577-6207		<b>Scientific Analytical Institute</b>
<b>Email:</b>	mgibbs@pinchin.com lcantar@pinchin.com		<b>4604 Dundas Dr.</b>
<b>Project:</b>	229221.004, 41651 Thames Rd, Exeter, On, Environment and Climate Change Canada		<b>Greensboro, NC 27407</b>
<b>Client Notes:</b>			<b>Phone: 336.292.3888</b>
<b>P.O. #:</b>	229221.004		<b>Fax: 336.292.3313</b>
<b>Date Submitted:</b>	Jan 14, 2019		<b>Email: lab@sailab.com</b>
<b>Analysis:</b>	PLM - Stop Positive		
<b>TurnAroundTime:</b>	4days		

Sample Number	Data 1 (Lab use only)	Sample Description	Data 2 (Lab use only)
---------------	-----------------------	--------------------	-----------------------

<<			
0003A		sweat wrap / location 9	
0003B		sweat wrap / location 9	
0003C		sweat wrap / location 9	
0004A		cementitious textured plaster / location 9, ceiling	
0004B		cementitious textured plaster / location 9, ceiling	
0004C		cementitious textured plaster / location 9, ceiling	
0004D		cementitious textured plaster / location 8, wall	
0004E		cementitious textured plaster / location 3, wall	
0005A		brown interior caulking / location 3, window	
0005B		brown interior caulking / location 2, window	
0005C		brown interior caulking / location 4, window	
0006A		mastic on 12x12 streaks, cream and brown / location 14	
0006B		mastic on 12x12 streaks, cream and brown / location 14	
0006C		mastic on 12x12 streaks, cream and brown / location 14	

Accepted

Rejected

J. Simon 1/15 10:30AM



- 0007A mastic on 12x12 specks, pink and black / location 1
- 0007B mastic on 12x12 specks, pink and black / location 1
- 0007C mastic on 12x12 specks, pink and black / location 1
- 0008A butyl tape / location 3 exterior door
- 0008B butyl tape / location 3 exterior door
- 0008C butyl tape / location 3 exterior door
- 0009A white exterior caulking / location 14 door
- 0009B white exterior caulking / location 14 door
- 0009C white exterior caulking / location 14 door
- 0010A aircell / location 9
- 0010B aircell / location 9
- 0010C aircell / location 9
- 0011A brown door paper / location 7
- 0011B brown door paper / location 7
- 0011C brown door paper / location 13
- 0012A smooth plaster / location 2
- 0012B smooth plaster / location 2
- 0012C smooth plaster / location 1
- 0013A exterior soffit / exterior
- 0013B exterior soffit / exterior
- 0013C exterior soffit / exterior
- 0014A black exterior caulking / location 2, window
- 0014B black exterior caulking / location 2, window
- 0014C black exterior caulking / location 1, window
- 0015A hard grey exterior caulking / location 5, window
- 0015B hard grey exterior caulking / location 5, window
- 0015C hard grey exterior caulking / location 5, window
- 0016A window glazing / location 10, window
- 0016B window glazing / location 10, window
- 0016C window glazing / location 10, window
- 0017A brown caulking / roof
- 0017B brown caulking / roof
- 0017C brown caulking / roof
- 0018A tar on vent / roof
- 0018B tar on vent / roof
- 0018C tar on vent / roof
- 0019A white exterior caulking / transformer
- 0019B white exterior caulking / transformer
- 0019C white exterior caulking / transformer
- >>

**APPENDIX II-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.  
6-875 Main St West  
Suite 200  
Hamilton, Ontario L8S 4P9

**Attn:** Matthew Gibbs  
Leslie Cantar

**Lab Order ID:** 71901150  
**Analysis ID:** 71901150\_PBP  
**Date Received:** 1/15/2019  
**Date Reported:** 1/22/2019

**Project:** 229221.004 Exeter Radar Station, 41651 Thames Road, Exeter, On

Sample ID	Description	Mass (g)	Concentration (ppm)	Concentration (% by weight)
Lab Sample ID	Lab Notes			
L-001	Off white paint on concrete / location 9	0.0782	58	0.0058%
71901150PBP_1				
L-002	Off white paint on brick / location 8	0.0531	< 75	< 0.0075%
71901150PBP_2				
L-003	Off white paint on plaster / location 2	0.0778	540	0.054%
71901150PBP_3				
L-004	Off white paint on drywall / location 6	0.0682	< 59	< 0.0059%
71901150PBP_4				
L-005	Brown paint on metal / exterior	0.0245	260	0.026%
71901150PBP_5				
L-006	Glass block mortar / location 14	0.0534	< 75	< 0.0075%
71901150PBP_6				

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 SAL. Analytical uncertainty available upon request. The quality control samples run with the samples in this report have passed all EPA required specifications unless otherwise noted. RL: (Report Limit for an undiluted 50ml sample is 4µg Total Pb).


Sara Shaut (6)

Analyst

Laboratory Director

71901150

Version 1-15-2012

<b>Client:</b>	Pinchin Ltd.	<b>*Instructions:</b> Use Column "B" for your contact info  To See an Example Click the bottom Example Tab.  Enter samples between "<<" and ">>"  <b>Begin Samples with a "&lt;&lt;" above the first sample          and end with a "&gt;&gt;" below the last sample.          Only Enter your data on the first sheet "Sheet1"</b>  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.	<b>Invoice to:</b>
<b>Contact:</b>	M. Gibbs, L. Cantar		mgibbs@pinchin.com
<b>Address:</b>	6-875 Main St W, Hamilton, ON		
<b>Phone:</b>	2899256907		
<b>Fax:</b>			
<b>Email:</b>	mgibbs@pinchin.com, lcantar@pinchin.com		
<b>Project:</b>	229221.004 Exeter Radar Station, 41651 Thames Road, Exeter, On		 <b>Scientific Analytical Institute</b>
<b>Client Notes:</b>	% lead by weight		<b>4604 Dundas Drive          Greensboro, NC 27407          Phone: 336.292.3888          Fax: 336.292.3313          Email: lab@sailab.com</b>
<b>P.O. #:</b>	229221.004		
<b>Date Submitted:</b>	Jan 11 2019		
<b>Analysis:</b>	% lead by weight		
<b>TurnAroundTime:</b>	5 days		

Sample Number	Data 1 (Lab use only)	Sample Description	Data 2 (Lab use only)
<<			
L-001		off white paint on concrete / location 9	
L-002		off white paint on brick / location 8	
L-003		off white paint on plaster / location 2	
L-004		off white paint on drywall / location 6	
L-005		brown paint on metal / exterior	
L-006		glass block mortar / location 14	
>>			

Accepted

Rejected

*Benji 01-15  
10:30am*

**APPENDIX II-C**  
**PCB Analytical Certificates**

## Certificate of Analysis

**Matt Gibbs**

Pinchin Ltd. (Hamilton)  
11-875 Main Street West, Unit 11, Hamilton, ON L8S 4R9

Printed: Jan 21, 2019

**Report Description:** 3 solid samples were submitted for the following chemical analysis

<b>Project Name:</b> Exeter Radar Station	<b>Date Sampled:</b> Jan 10, 2019
<b>Project No.:</b> 229221.004	<b>Date Tested:</b> Jan 18, 2019
<b>Site Location:</b> 41651 Thames Rd, Exeter, On	<b>Sampled by:</b> Matt G

### Report Number: 19-0066

No.	Analyte	Result	Units	MDL	Comments	Technique / Test Method
<b>1</b>	<b><u>Sample ID:</u> PCB-01 - Brown roof flashing caulking, Exterior</b>					
	PCBs in Solid	<0.5	mg/kg	0.5		LAB-M06 (EPA 3550C/8082A modified)
<b>2</b>	<b><u>Sample ID:</u> PCB-02 - Hard grey window caulking, Exterior, Glass Block windows</b>					
	PCBs in Solid	<0.5	mg/kg	0.5		LAB-M06 (EPA 3550C/8082A modified)
<b>3</b>	<b><u>Sample ID:</u> PCB-03 - Black window caulking, Exterior</b>					
	PCBs in Solid	<0.5	mg/kg	0.5		LAB-M06 (EPA 3550C/8082A modified)

Results relate only to the samples tested above, as received.

Approved By:

**Son C.H. Le, B. Eng. (Chem.)**  
Lab Manager  
Phone: (519) 740-1333 Ext.: 230  
Fax: (519) 740-2320  
Email: SonLe@aevitas.ca

The Analytical Chemistry Laboratory of Aevitas Inc. (Ayr) is accredited for specific tests in accordance with the recognised International Standard ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation (CALA) Inc. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009). The laboratory quality management system of Aevitas Inc. (Ayr) meets the principles of ISO 9001:2008.

All Analytical data is subject to uncertainty which, may vary with sample matrices, sample preparation techniques and instrumental parameters. As a general guideline, uncertainty may be expressed as approximately +/- 50% of the reported value at or near the Method Detection Limit (MDL) and +/-10% or less, of the reported result that is greater than 10 times the MDL. Method Detection Limits are defined as approximately 3 times the standard deviation value (at 99% confidence level), which is obtained from replicate analysis of a low-level standard as per the Ontario MOE - MISA Protocol for the Sampling and Analysis of Industrial / Municipal Wastewater (1999). MDL determination is based on undiluted samples with relatively low matrix interferences. Where dilutions are required, the reported MDL value will be scaled proportionally.

All testing procedures follow strict guidelines and quality assurance / quality control (QA/QC) protocols. QA/QC data is available for review at any time upon client's request.

**APPENDIX III**  
**Methodology**

## **1.0 GENERAL**

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

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

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

### **1.1 Limitations on Scope**

The assessment excludes the following:

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

The assessment includes demolition of wall and ceiling finishes (drywall or plaster) to view concealed conditions at representative areas as permitted by the current building use. Destructive testing of flooring is conducted where possible (under carpets or multiple layers of flooring). Demolition of exterior building finishes, masonry walls (chases, shafts etc.), and structural items is conducted as permitted by the current building use.

### **1.2 Asbestos**

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



A separate set of samples is collected of each type of homogenous material suspected to contain asbestos. A homogenous material is defined by the US EPA as material that is uniform in texture and appearance, was installed at one time, and is unlikely to consist of more than one type or formulation of material. The homogeneous materials are determined by visual examination and available information on the phases of construction and prior renovations.

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

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

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

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

Analytical results are compared to the following criteria.

<b>Jurisdiction</b>	<b>Friable</b>	<b>Non-Friable</b>
BC	0.5% <sup>1</sup>	0.5%
Alberta	Undefined <sup>2</sup>	Undefined <sup>2</sup>
Saskatchewan	>0.5% <sup>1</sup>	>1%
Manitoba	0.1% <sup>1</sup>	1%
Ontario	0.5%	0.5%
Yukon, Nunavut, Northwest Territories	1%	1%

<sup>1</sup> Or any amount if vermiculite

<sup>2</sup> There is no criteria established for defining an asbestos-containing material by Alberta OHS Regulations. Historically, the accepted threshold was 1%, however materials that contain any asbestos will now need to be assessed before disturbance to determine the potential for fibre release based on the planned work activity.

---

Federal	1%	1%
---------	----	----

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

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

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

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

### 1.3 Lead

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

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

The Ontario Ministry of Labour (MOL) has not established a lower limit for concentrations of lead in paint, below which precautions do not need to be considered during construction projects. Pinchin follows the recommendations of the Environmental Abatement Council of Ontario (EACO) Lead Guideline for Construction, Renovation, Maintenance or Repair. The Guideline suggests that 0.1% (1,000 ppm) lead in paint represents a de minimis concentration of lead in paint for construction hygiene purposes, that is a concentration below which the lead content is not the limiting hazard in any disturbance of leaded paint

for non-aggressive disturbance of painted finishes, (hand powered demolition, chipping, scraping, light sanding, etc.). The use of aggressive methods such as power grinding, torching, welding, etc. may result in significant lead exposures even with low concentrations of lead in paints (below 0.1%). Paint and surface coatings are evaluated for condition such as flaking, chipping or spalling.

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

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

#### **1.4 Silica**

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

#### **1.5 Mercury**

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

#### **1.6 Polychlorinated Biphenyls**

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

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

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

Caulking or sealants are sampled for PCBs based on the date of construction or installation. Caulking installed after 1985 (1980 ban date plus a reasonable non-compliance period based on our experience) is presumed to be free of PCBs and hence not sampled. If sampled, analysis for PCBs is performed using



an ASTM test method appropriate to the sample matrix at an accredited laboratory. Sample results are compared to the criteria of 50 ppm for solids as stated in the PCB Regulation, SOR/2008-273.

### **1.7 Visible Mould**

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

Master Template: Methodology Document for Hazardous Building Materials Management, HAZ, December 1, 2017

**APPENDIX IV**  
**Location Summary Report**

## Location List

Building#	Building Name	Loc #	Floor	Room Prefix	Room Number	Room Suffix	Room Name	No Access	Square Feet	Survey Date	Surveyor
	Exeter Radar Station	1	G				Washroom		100	2019-01-10	Matt Gibbs
	Exeter Radar Station	2	G				Kitchen		200	2019-01-10	Matt Gibbs
	Exeter Radar Station	3	g				Hallway		200	2019-01-10	Matt Gibbs
	Exeter Radar Station	4	G				Furnace Room		250	2019-01-10	Matt Gibbs
	Exeter Radar Station	5	G				Existing Radar & Workshop		400	2019-01-10	Matt Gibbs
	Exeter Radar Station	6	G				New NRP Equipment		200	2019-01-10	Matt Gibbs
	Exeter Radar Station	7	G				Office		200	2019-01-10	Matt Gibbs
	Exeter Radar Station	8	B				Basement Work Area		1000	2019-01-10	Matt Gibbs
	Exeter Radar Station	9	B				Storage Room		250	2019-01-10	Matt Gibbs
	Exeter Radar Station	10	B				Sump Pump Room		200	2019-01-10	Matt Gibbs



**Client:** Environment Canada  
**Building Number(s):**

**Site:** Exeter Radar Station

## Location List

Building#	Building Name	Loc #	Floor	Room Prefix	Room Number	Room Suffix	Room Name	No Access	Square Feet	Survey Date	Surveyor
	Exeter Radar Station	11	B				Storage Room B			2019-01-10	Matt Gibbs
	Exeter Radar Station	12	B				Generator Room		200	2019-01-10	Matt Gibbs
	Exeter Radar Station	13	B				Back Office		400	2019-01-10	Matt Gibbs
	Exeter Radar Station	14	G				Vestibule		110	2019-01-10	Matt Gibbs
	Exeter Radar Station	15	NA				Exterior			2019-01-10	Matt Gibbs

**APPENDIX V**  
**Hazardous Materials Summary Report**



**Client:** Environment Canada  
**Site:** Exeter Radar Station  
**Building Number(s):**  
**Building Name(s):** Exeter Radar Station

## Building Summary Report

Building #: Building Name: Exeter Radar Station						
System	Asbestos	Category	ACM Materials	Locations with ACM - Location(Room #)	Recommended Actions	
C - Ceiling	No Asbestos	Friable	<input type="checkbox"/>			
		Non-Friable	<input type="checkbox"/>			
D - Duct	Contains Asbestos	Friable	<input type="checkbox"/>			
		Non-Friable	<input checked="" type="checkbox"/>	066: Black Mastic	8	7
F - Floor	Contains Asbestos	Friable	<input type="checkbox"/>			
		Non-Friable	<input checked="" type="checkbox"/>	008: VAT and Mastic Adhesive	14	7
M - Mechanical Equipment	No Asbestos	Friable	<input type="checkbox"/>			
		Non-Friable	<input type="checkbox"/>			
O - Other	Contains Asbestos	Friable	<input checked="" type="checkbox"/>	031: Parging Cement	9	7
		Non-Friable	<input checked="" type="checkbox"/>	152: Caulking	15	7
				150: Tar	15	7
P - Piping	Contains Asbestos	Friable	<input checked="" type="checkbox"/>	031: Parging Cement	9	7
				032: Aircell	9	7
		Non-Friable	<input type="checkbox"/>			
S - Structure	No Asbestos	Friable	<input type="checkbox"/>			
		Non-Friable	<input type="checkbox"/>			
W - Wall	No Asbestos	Friable	<input type="checkbox"/>			
		Non-Friable	<input type="checkbox"/>			



**Client:** Environment Canada  
**Site:** Exeter Radar Station  
**Building Number(s):**  
**Building Name(s):** Exeter Radar Station

## Building Summary Report

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### Action Code Legend

Code	Description	Code	Description
(1)	Clean Up of ACM Debris	(2)	Precautions for Access Which may Disturb ACM Debris
(3)	ACM removal	(4)	Precautions for Work Which may Disturb ACM in Poor Condition
(5)	Proactive ACM removal (Minimum repair required for fair condition)	(6)	ACM repair
(7)	Management program and surveillance		

NOTE: Actions in round brackets ( ) are auto-calculated. Actions in square brackets [ ] are manual

**APPENDIX VI**  
**All Data Report**



**Client:** Environment Canada

**Site:** Exeter Radar Station

**Building Number(s):**

**All Data Report**

<b>Building #:</b>		<b>Building Name: Exeter Radar Station</b>		<b>Surveyor: Jacob Van Eyk</b>		<b>Survey Date: 2018-11-21</b>							
<b>Reassessment Date: 2019-01-10</b>		<b>Reassessment Surveyor: Matt Gibbs</b>											
<b>Location #: 1</b>		<b>Location Name: Washroom</b>		<b>Floor: G</b>		<b>Room #:</b>		<b>Square ft: 100</b>					
<b>System</b>	<b>Component</b>	<b>Material</b>	<b>Item</b>	<b>Covering</b>	<b>Access</b>	<b>Visible</b>	<b>Condition, Quantity &amp; Action</b>			<b>Units</b>	<b>Sample</b>	<b>Hazard</b>	<b>Friability</b>
							<b>Good</b>	<b>Fair</b>	<b>Poor</b>				
Floor One		VAT and Mastic Adhesive			A	Y	100			SF	S0000	None	
Floor Two		Black Mastic			D	N	100			SF	S0007	None	
Ceiling		Plaster			C	Y	100			SF	V0012	None	
Wall		Plaster			A	Y	100			%	S0012	None	
Structure	Not Accessible	N/A										None	
Piping	Domestic Water (Hot & Cold)	Not Insulated			A	Y						None	
Duct		None Found										None	
Mechanical Equipment		None Found										None	
Other	All	Caulking			A	Y	20			LF	V0005	None	

**All Data Report**

<b>Building #:</b>		<b>Building Name:</b> Exeter Radar Station		<b>Surveyor:</b> Jacob Van Eyk		<b>Survey Date:</b> 2018-11-21							
<b>Reassessment Date:</b> 2019-01-10		<b>Reassessment Surveyor:</b> Matt Gibbs											
<b>Location #:</b> 2		<b>Location Name:</b> Kitchen		<b>Floor:</b> G		<b>Room #:</b>		<b>Square ft:</b> 200					
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action			Units	Sample	Hazard	Friability
							Good	Fair	Poor				
Floor One		VAT and Mastic Adhesive			A	Y	200			SF	V0000	None	
Floor Two		Black Mastic			D	N	200			SF	V0007	None	
Ceiling		Plaster			C	Y	200			%	V0012	None	
Wall		Plaster			A	Y	100			%	S0012	None	
Structure	Not Accessible	N/A										None	
Piping		Not Insulated			A	N						None	
Duct		None Found										None	
Mechanical Equipment		None Found										None	
Other	All	Caulking			A	Y	40			LF	S0005	None	

**All Data Report**

**Building #:**                      **Building Name:** Exeter Radar Station                      **Surveyor:** Jacob Van Eyk                      **Survey Date:** 2018-11-21

**Reassessment Date:** 2019-01-10                      **Reassessment Surveyor:** Matt Gibbs

**Location #:** 3                      **Location Name:** Hallway                      **Floor:** g                      **Room #:**                      **Square ft:** 200

System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action			Units	Sample	Hazard	Friability
							Good	Fair	Poor				
Floor		Terrazzo			A	Y						None	
Ceiling		Plaster			C	Y	500			SF	V0012	None	
Wall one		Masonry			A	Y						None	
Wall two		Plaster			A	Y	200			SF	S0004	None	
Structure	Not Accessible	N/A										None	
Piping		None Found										None	
Duct		None Found										None	
Mechanical Equipment		None Found										None	

Note: W2 - cementitious textured plaster



**Client:** Environment Canada

**Site:** Exeter Radar Station

**Building Number(s):**

**All Data Report**

<b>Building #:</b>		<b>Building Name: Exeter Radar Station</b>		<b>Surveyor: Jacob Van Eyk</b>		<b>Survey Date: 2018-11-21</b>							
<b>Reassessment Date: 2019-01-10</b>		<b>Reassessment Surveyor: Matt Gibbs</b>											
<b>Location #: 4</b>		<b>Location Name: Furnace Room</b>		<b>Floor: G</b>		<b>Room #:</b>		<b>Square ft: 250</b>					
<b>System</b>	<b>Component</b>	<b>Material</b>	<b>Item</b>	<b>Covering</b>	<b>Access</b>	<b>Visible</b>	<b>Condition, Quantity &amp; Action</b>			<b>Units</b>	<b>Sample</b>	<b>Hazard</b>	<b>Friability</b>
							<b>Good</b>	<b>Fair</b>	<b>Poor</b>				
Floor		Terrazzo			A	Y						None	
Ceiling		None Found										None	
Wall		Masonry			A	Y						None	
Structure		Concrete(poured)			C	Y				V0000		None	
Piping	Stator	Fibreglass		Paper	A	Y	100			EA	V0000	None	
Piping	FTG	Fibreglass		Plastic	A	Y	8			EA	V0000	None	
Duct	All	Not Insulated			A	Y						None	
Mechanical Equipment	Furnace	Not Insulated			A	Y						None	
Other	All	Caulking			A	Y	40			LF	S0005	None	

**All Data Report**

**Building #:**                      **Building Name:** Exeter Radar Station                      **Surveyor:** Jacob Van Eyk                      **Survey Date:** 2018-11-21  
**Reassessment Date:**2019-01-10                      **Reassessment Surveyor:** Matt Gibbs  
**Location #:** 5                      **Location Name:** Existing Radar &                      **Floor:** G                      **Room #:**                      **Square ft:** 400  
**Workshop**

System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good	Fair	Poor					
Floor		Terrazzo			A	Y								None
Ceiling		Lay-in ceiling tiles			C	Y	400			SF	V0000			None
Wall		Wood			A	Y								None
Structure		Concrete(poured)			C	N								None
Piping		Fibreglass			C	N					V0000			None
Duct		Not Insulated			C	N								None
Duct		Fibreglass			C	N								None
Mechanical Equipment		None Found												None





**Client:** Environment Canada

**Site:** Exeter Radar Station

**Building Number(s):**

**All Data Report**

<b>Building #:</b>		<b>Building Name:</b> Exeter Radar Station		<b>Surveyor:</b> Jacob Van Eyk		<b>Survey Date:</b> 2018-11-21							
<b>Reassessment Date:</b> 2019-01-10		<b>Reassessment Surveyor:</b> Matt Gibbs											
<b>Location #:</b> 6		<b>Location Name:</b> New NRP Equipment		<b>Floor:</b> G		<b>Room #:</b>		<b>Square ft:</b> 200					
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action			Units	Sample	Hazard	Friability
							Good	Fair	Poor				
Floor		Terrazzo			A	Y						None	
Floor		Carpet			A	Y					V0000	None	
Ceiling		Lay-in ceiling tiles			C	Y	400			SF	V0000	None	
Wall		Drywall and joint compound			A	Y	100			%	V0000	None	
Structure		Concrete(poured)			C	N					V0000	None	
Piping		Fibreglass			C	N					V0000	None	
Duct		Fibreglass			C	N						None	
Duct		Not Insulated			C	N						None	
Mechanical Equipment		None Found										None	



**Client:** Environment Canada

**Site:** Exeter Radar Station

**Building Number(s):**

**All Data Report**

<b>Building #:</b>		<b>Building Name: Exeter Radar Station</b>		<b>Surveyor: Jacob Van Eyk</b>		<b>Survey Date: 2018-11-21</b>							
<b>Reassessment Date: 2019-01-10</b>		<b>Reassessment Surveyor: Matt Gibbs</b>		<b>Location #: 7</b>		<b>Location Name: Office</b>		<b>Floor: G</b>		<b>Room #:</b>		<b>Square ft: 200</b>	
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action			Units	Sample	Hazard	Friability
							Good	Fair	Poor				
Floor		Terrazzo			A	Y							None
Ceiling		Lay-in ceiling tiles			C	Y	400			SF	V0000		None
Wall		Drywall and joint compound			A	Y	100			%	V0000		None
Structure		Concrete(poured)			C	N					V0000		None
Piping		None Found											None
Duct		Fibreglass			C	N							None
Duct		Not Insulated			C	N							None
Mechanical Equipment		None Found											None
Other	Door	Corrugated Paper			D	N	1			EA	S0011		None

Building #:		Building Name: Exeter Radar Station		Surveyor: Jacob Van Eyk		Survey Date: 2018-11-21							
Reassessment Date: 2019-01-10		Reassessment Surveyor: Matt Gibbs		Location #:		Room #:		Square ft: 1000					
Location #: 8		Location Name: Basement Work Area		Floor: B									
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action			Units	Sample	Hazard	Friability
							Good	Fair	Poor				
Floor		Concrete(poured)			A	Y						None	
Ceiling		None Found										None	
Wall one		Masonry			A	Y						None	
Wall two		Plaster			A	Y	400			SF	S0004	None	
Structure	All	Concrete(poured)	ALL		A	Y					V0000	None	
Piping	All	Fibreglass			C	Y						None	
Duct		Cork		Black Mastic	C	Y						None	
Duct		Black Mastic			C	Y	20	(7)		LF	S0001	Confirmed Asbestos	Non-Friable
Mechanical Equipment		None Found										None	

<b>Building #:</b>		<b>Building Name: Exeter Radar Station</b>		<b>Surveyor: Jacob Van Eyk</b>		<b>Survey Date: 2018-11-21</b>							
<b>Reassessment Date: 2019-01-10</b>		<b>Reassessment Surveyor: Matt Gibbs</b>				<b>Room #:</b>				<b>Square ft: 250</b>			
<b>Location #: 9</b>		<b>Location Name: Storage Room</b>		<b>Floor: B</b>		<b>Condition, Quantity &amp; Action</b>				<b>Units</b>	<b>Sample</b>	<b>Hazard</b>	<b>Friability</b>
<b>System</b>	<b>Component</b>	<b>Material</b>	<b>Item</b>	<b>Covering</b>	<b>Access</b>	<b>Visible</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>				
Floor		Concrete(poured)			A	Y							None
Ceiling		Plaster			C	Y	250				SF	S0004	None
Wall		Plaster			A	Y	1000				SF	V0004	None
Structure	All	Concrete(poured)	ALL		D	N						V0000	None
Piping	All	Parging Cement	Fitting		D	Y	8	(7)	2	(7)	EA	V9000	Confirmed Asbestos Friable
Piping	Domestic Water (Hot & Cold)	Sweatwrap	Straight		D	Y	15				LF	S0003	None
Piping	Abandoned Pipe	Aircell	Straight		D	N	20	(7)	5	(7)	LF	S0010	Confirmed Asbestos Friable
Duct		Not Insulated			A	Y							None
Mechanical Equipment		None Found											None
Other	Debris	Parging Cement			D	Y				1	(7)	SF	V9000 Confirmed Asbestos Friable



**Client:** Environment Canada

**Site:** Exeter Radar Station

**Building Number(s):**

**All Data Report**

<b>Building #:</b>		<b>Building Name: Exeter Radar Station</b>		<b>Surveyor: Jacob Van Eyk</b>		<b>Survey Date: 2018-11-21</b>								
<b>Reassessment Date: 2019-01-10</b>		<b>Reassessment Surveyor: Matt Gibbs</b>		<b>Location #:</b>		<b>Location Name: Sump Pump Room</b>		<b>Floor: B</b>		<b>Room #:</b>		<b>Square ft: 200</b>		
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good	Fair	Poor					
Floor		Concrete(poured)			A	Y								None
Ceiling		None Found												None
Wall		Concrete(poured)			A	Y								None
Structure	All	Concrete(poured)	ALL		A	Y					V0000			None
Piping	All	Fibreglass			C	Y								None
Duct		None Found												None
Mechanical Equipment	Furnace	Fibreglass			A	Y					V0000			None
Mechanical Equipment	Heating Water Tank	Fibreglass			D	N					V0000			None

<b>Building #:</b>		<b>Building Name: Exeter Radar Station</b>		<b>Surveyor: Jacob Van Eyk</b>		<b>Survey Date: 2018-11-21</b>								
<b>Reassessment Date: 2019-01-10</b>		<b>Reassessment Surveyor: Matt Gibbs</b>		<b>Location #:</b>		<b>Location Name: Storage Room B</b>		<b>Floor: B</b>		<b>Room #:</b>		<b>Square ft:</b>		
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good	Fair	Poor					
Floor		Concrete(poured)			A	Y								None
Ceiling		None Found												None
Wall		Concrete(poured)			A	Y								None
Structure	All	Concrete(poured)	ALL		A	Y					V0000			None
Piping		None Found												None
Duct		None Found												None
Mechanical Equipment		None Found												None



Client: Environment Canada

Site: Exeter Radar Station

Building Number(s):

**All Data Report**

Building #:		Building Name: Exeter Radar Station		Surveyor: Jacob Van Eyk		Survey Date: 2018-11-21								
Reassessment Date: 2019-01-10		Reassessment Surveyor: Matt Gibbs		Location #:		Location Name: Generator Room		Floor: B		Room #:		Square ft: 200		
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good	Fair	Poor					
Floor		Concrete(poured)			A	Y								None
Ceiling		None Found												None
Wall		Plaster			A	Y	500			SF	V0004			None
Structure	All	Concrete(poured)	ALL		C	Y					V0000			None
Piping		Fibreglass			A	Y								None
Duct		Styrofoam			A	Y					V0000			None
Mechanical Equipment		None Found												None

Building #:		Building Name: Exeter Radar Station		Surveyor: Jacob Van Eyk		Survey Date: 2018-11-21								
Reassessment Date: 2019-01-10		Reassessment Surveyor: Matt Gibbs		Location #:		Location Name: Back Office		Floor: B		Room #:		Square ft: 400		
System	Component	Material	Item	Covering	Access	Visible	Condition, Quantity & Action				Units	Sample	Hazard	Friability
							Good	Fair	Poor					
Floor One		Terrazzo			A	Y								None
Floor Two		Carpet			A	Y					V0000			None
Ceiling		Lay-in ceiling tiles			C	Y	400			SF	V0000			None
Wall		Drywall and joint compound			A	Y					V0000			None
Structure		Concrete(poured)			C	N					V0000			None
Piping		None Found												None
Duct		Not Insulated			C	N								None
Mechanical Equipment		None Found												None

Note: C - Date Stamp



**Client:** Environment Canada

**Site:** Exeter Radar Station

**Building Number(s):**

**All Data Report**

<b>Building #:</b>		<b>Building Name: Exeter Radar Station</b>		<b>Surveyor: Jacob Van Eyk</b>		<b>Survey Date: 2018-11-21</b>							
<b>Reassessment Date: 2019-01-10</b>		<b>Reassessment Surveyor: Matt Gibbs</b>				<b>Room #:</b>			<b>Square ft: 110</b>				
<b>Location #: 14</b>		<b>Location Name: Vestibule</b>		<b>Floor: G</b>		<b>Condition, Quantity &amp; Action</b>			<b>Units</b>	<b>Sample</b>	<b>Hazard</b>	<b>Friability</b>	
<b>System</b>	<b>Component</b>	<b>Material</b>	<b>Item</b>	<b>Covering</b>	<b>Access</b>	<b>Visible</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>				
Floor One		VAT and Mastic Adhesive			A	Y	70	(7)		SF	V9000	Confirmed Asbestos	Non-Friable
Floor Two		Black Mastic			D	N	70			SF	S0006	None	
Ceiling		Drywall and joint compound			C	Y	70			SF	V0000	None	
Wall		Masonry			A	Y						None	
Structure	All	Concrete(poured)			C	N					V0000	None	
Piping		None Found										None	
Duct		None Found										None	
Mechanical Equipment		None Found										None	

Note: F1 - 12"x12", cream and brown streaks

<b>Building #:</b>		<b>Building Name: Exeter Radar Station</b>		<b>Surveyor: Jacob Van Eyk</b>		<b>Survey Date: 2018-11-21</b>												
<b>Reassessment Date: 2019-01-10</b>		<b>Reassessment Surveyor: Matt Gibbs</b>		<b>Location #: 15</b>		<b>Location Name: Exterior</b>		<b>Floor: NA</b>		<b>Room #:</b>			<b>Square ft:</b>		<b>Units</b>	<b>Sample</b>	<b>Hazard</b>	<b>Friability</b>
<b>System</b>	<b>Component</b>	<b>Material</b>	<b>Item</b>	<b>Covering</b>	<b>Access</b>	<b>Visible</b>	<b>Condition, Quantity &amp; Action</b>											
							<b>Good</b>	<b>Fair</b>	<b>Poor</b>									
Other three	Roof	Tar			B	Y	2						SF	S0018	None			
Other four	Door	Caulking			A	Y	20						LF	S0009	None			
Other five	Soffit	Plaster			C	Y	200						SF	S0013	None			
Other six	Window	Clay Tile (block)			A	Y	200						LF	S0014	None			
Other three	Door	Caulking			A	Y	8						LF	S0008	None			
Other two	Roof	Tar			C	N	10	(7)					LF	V9000	Confirmed Asbestos	Non-Friable		
Other		Caulking			A	Y	5						LF	S0019	None			
Other one	Window	Caulking			A	Y	160	(7)					LF	S0015	Confirmed Asbestos	Non-Friable		
Other one	Roof	Caulking			B	Y	5	(7)					LF	S0017	Confirmed Asbestos	Non-Friable		
Other	Window	Caulking			A	Y	10						LF	S0016	None			

Note: O - white caulking around duct at transformer trailer O (WIN) - white window glazing above door at Location 3 and window at Location 10 O1 (Roof) - brown caulking at roof flashing O1 - hard grey caulking around all glass block windows O2 - Located on flashing above ramp shed O3- grey butyl tape around door window at Location 3 O3 (Roof) - tar around 2 roof vents O4 - white door caulking at Location 14 O6 - black caulking around glass windows





Client: Environment Canada

Site: Exeter Radar Station

Building Number(s):

## All Data Report

### Legend:

Action		Access		Condition		Sample Number			
(1)	Clean Up of ACM Debris	(2)	Precautions for Access Which may Disturb ACM Debris	A	Accessible to all building occupants	Good	No visible damage or deterioration.	S####	Sample collected
(3)	ACM removal	(4)	Precautions for Work Which may Disturb ACM in Poor Condition	B	Accessible to maintenance and operations staff without a ladder	Fair	Minor, repairable damage, cracking or deterioration.	V####	Material is visually identified to be identical to S###
(5)	Proactive ACM removal (Minimum repair required for fair condition)	(6)	ACM repair	C	Accessible to maintenance and operations staff with a ladder. Also rarely entered, locked areas	Poor	Irreparable damage or deterioration with exposed and missing material	V0000	Known non-asbestos material
(7)	Management program and surveillance			D	Not normally accessible or without demolition	NOTE: See report for full definitions of action, access and condition		V9000	Material is visually identified to contain asbestos
								V9500	Material is presumed to contain asbestos
NOTE: Actions in round brackets ( ) are auto-calculated. Actions in square brackets [ ] are manual								Note: Presumed various materials identified in the report are ACM if not sampled.	

**Units**                                      SF - Square feet                                      LF - Linear feet                                      EA - Each                                      % - Percentage