

# DESIGNATED SUBSTANCES AND HAZARDOUS BUILDING MATERIALS ASSESSMENT REPORT

State of Good Repairs  
Roof, Pool and Mechanical Room  
Elms Community Pool  
45 Golfdown Drive  
Etobicoke, Ontario  
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**Safetech Project Number: 1-3230904**

**Date of Site Work: November 23, 2023**  
**Date of Issue: December 1, 2023**

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## EXECUTIVE SUMMARY

Safetech Environmental Limited (Safetech) was commissioned by City of Toronto to conduct a designated substances and hazardous materials assessment in project specific areas of the Roof, Pool and Mechanical Room of the Elms Community Pool located at 45 Golfdown Drive, Etobicoke, Ontario.

The objective of the assessment was to determine the presence, location, condition and quantities of designated substances and other hazardous materials that have the potential to be disturbed as part of planned construction activities (i.e. State of Good Repairs) so that appropriate control measures can be implemented to protect workers during the work.

A summary of the assessment results and general recommendations based on our findings are provided in the following table. This table should be considered a summary only. Please refer to the Results (Section 2.0), Conclusions and Recommendations (Section 3.0), Summary of ACM Occurrences (Appendix A) and Site Drawings (Appendix B) of our report for additional details.

**Table 1: Summary of Hazardous Materials and Designated Substances**

Designated Substance	Findings	Recommendations
Asbestos	<p>The following building materials are suspected to be asbestos-containing:</p> <ul style="list-style-type: none"> <li>- cement pipe (roof drain lines)</li> </ul>	<p>Disturbance of asbestos-containing materials must be conducted in accordance with Ontario Regulation 278/05 <i>Designated Substance – Asbestos on Construction Projects and in Building and Repair Operations</i>. Refer to Table 4 (Results of Assessment for Asbestos-Containing Materials), Section 3.1.1 (Conclusions and Recommendations), Appendix A (Summary of ACM Occurrences) and Appendix B (Site Drawings). Asbestos-containing waste must be disposed of in accordance with R.R.O. 1990, Regulation 347, <i>General - Waste Management</i>.</p>

Lead	White flaking paint associated with HVAC ductwork was confirmed to be a low-level lead-containing paint ( $\leq 0.1\%$ lead content).	Disturbance of lead-containing materials must be conducted in accordance with the Ontario Ministry of Labour, Training and Skills Development (MLTSD) <i>Lead on Construction Projects</i> guideline (2011) and/or the Environmental Abatement Council of Canada (EACC) <i>Lead Guideline</i> (October 2014). For additional details, refer to Section 2.1.2 (Results) and Section 3.1.2 (Conclusions and Recommendations). Lead-containing wastes should be recycled if practicable or handled and disposed of according to R.R.O. 1990, Regulation 347, <i>General- Waste Management</i> .
	The following materials are assumed to be lead-containing:  - paints and surface coatings (not sampled) - glazing associated with ceramic tiles - solder in copper pipe fittings - solder in electrical components	
Mercury	Sources of mercury were observed in the subject area and include the following:  - vapour in HID lamps	If required, handle lamps with care and keep intact. All waste lamps are recommended to be sent to a lamp recycling facility.
Silica	Building materials identified that are suspected to contain crystalline silica and may be disturbed as part of the planned construction project include:  - concrete block - mortar - built-up roof membrane - sprayed fireproofing	Any work involving the disturbance of silica-containing materials should follow the procedures outlined in the Ontario Ministry of Labour, Training and Skills Development " <i>Silica on Construction Projects</i> " guideline. For additional information, refer to Section 2.1.4 (Results) and Section 3.1.4 (Conclusions and Recommendations).
Other Designated Substances	No other designated substances are expected to be present in any significant quantities or in a form that would represent an exposure concern.	No protective measures or procedures specific to acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, and vinyl chloride are considered necessary.
<b>Other Hazardous Materials</b>	<b>Findings</b>	<b>Recommendations</b>
Urea Formaldehyde Foam Insulation	No UFFI was identified or is suspected in the subject area.	No action required.
Mould Contamination	Water staining was observed to one (1) lay-in ceiling tile in the pool area however; not obvious visible mould growth was identified.	No action required.
Pest Infestation	No pest infestations were observed in the areas assessed.	No action required.
Polychlorinated Biphenyls	Fluorescent light ballasts and HID lamp ballasts are assumed to contain PCB's.	PCB-containing ballasts should be removed, separated from other waste and disposed of as PCB waste at an authorized destruction facility.

<p>Ozone Depleting and Global Warming Substances</p>	<p>One (1) dehumidifier located on the low roof section contains R-22 refrigerant.</p>	<p>Purge air-conditioning unit(s) of remaining refrigerant prior to removal and disposal. This should be conducted by a certified person who holds a valid Ozone Depletion Prevention Certificate.</p> <p>Servicing and testing of refrigeration equipment should be conducted in accordance with Environment Canada's "<i>Environmental Code of Practice for Elimination of Fluorocarbon Emissions from Refrigeration and Air Conditioning Systems</i>".</p>
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This assessment satisfies the Owner's requirements under Section 30 of the Ontario Occupational Health and Safety Act (OHSA), Revised Statutes of Ontario 1990, as amended.

Should you have any questions regarding the information contained in the report, please contact our office.

**Safetech Environmental Limited**



**Anthony J. Fiume, BA, CAPM**  
**Project Coordinator**



December 1, 2023

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Senior Project Coordinator

**RE: Designated Substances and Hazardous Materials Assessment  
State of Good Repairs  
Elms Community Pool – Roof, Pool and Mechanical Room  
45 Golfdown Drive, Etobicoke, Ontario**

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## **1.0 INTRODUCTION**

### **1.1 Background and Objectives**

Safetech Environmental Limited (Safetech) was commissioned by City of Toronto to conduct a designated substances and hazardous materials assessment in project specific locations of the Roof, Pool and Mechanical Room of Elms Community Pool located at 45 Golfdown Drive, Etobicoke, Ontario (subject areas). The objective of the assessment was to determine the presence, location, condition and quantities of designated substances and other hazardous materials in the subject areas that have the potential to be disturbed as part of planned construction activities (i.e. State of Good Repairs) so that appropriate control measures can be implemented to protect workers during the work.

This assessment satisfies the Owner's requirements under Section 30 of the Ontario Occupational Health and Safety Act (OHSA), Revised Statutes of Ontario 1990, as amended. Section 30(1) requires a building owner to determine if there are any designated substances present at a project site prior to construction or demolition activities. Sections 30(2), (3) and (4) require the Owner and constructors for a project to provide the findings in this report as part of the tendering information for any tendered project or to prospective contractors (and subcontractors) of a project before entering into a binding contract.

This report documents findings of our on-site inspection that was conducted on November 23, 2023 and provides conclusions and recommendations based on our findings and knowledge of the planned construction project.

## 1.2 Scope of Work

In accordance with our fee proposal document, our scope of work included the following activities:

- A review of existing documents, including renovation documents and drawings, floor plans and existing environmental assessment reports, etc., where available;
- A visual assessment of accessible area(s) in the subject areas to identify the presence, location, condition and quantities of designated substances and other hazardous materials;
- Collection, analysis and interpretation of representative bulk samples of suspect asbestos-containing building materials for the determination of asbestos content and material classification;
- Collection, analysis and interpretation of representative paint chip samples for the determination of lead content; and
- Preparation of a report to document findings and provide recommendations regarding control measures and/or special handling procedures for designated substances or specific hazardous materials that may be disturbed as part of planned construction activities.

Documents reviewed to aid in the assessment included the following:

- Request for Quotation Package 20131245

This assessment only identified designated substances and hazardous materials that were deemed to be part of the building or somehow otherwise incorporated into the building structure and its finishes. **The following items were not included in our scope of work:**

- Assessing occupant items such as stored products, furnishings, items and materials used or produced as part of a manufacturing process;
- Investigating underground materials or equipment (vessels, drums, underground storage tanks, duct-banks, pipes, or cables); and
- Assessing enclosed wall or ceiling cavities.

## 1.3 Description of Area(s) Assessed

The area(s) investigated included all accessible project specific locations of the Pool, Roof and Mechanical Room. The extent of the area investigated is indicated on the floor plan(s) provided in Appendix B. Please note that access to the ceiling space in the pool area was limited to areas around the perimeter of the pool.



Refer to the following table for a general description of the subject building.

**Table 2: Building Description**

<b>Estimated Year of Construction</b>	1976
<b>Number of Floors</b>	1

## 2.0 RESULTS

Results of our visual assessment and bulk sample analytical findings are summarized in the sections below.

### 2.1 Designated Substances

#### 2.1.1 Asbestos

Results of bulk sample analysis for the determination of asbestos content are summarized in the following table. Materials have been classified as “ACM”, “Non-ACM”, “Suspected ACM” or “Presumed Non-ACM” based on analytical results. Materials classified as **Suspected ACM** or Presumed Non-ACM may require further analysis (depending on site-specific conditions) to verify whether the material should be classified as ACM or Non-ACM. Please refer to the Limitations section of this report (Section 4.0) for additional details. The Laboratory Certificate of Analysis is included in Appendix C.

**Table 3: Bulk Sample Analytical Results for Determination of Asbestos Content**


Sample No.	Material Description	Layer	Sample Location	Asbestos Content	Material Classification
1a	Built-Up Tar and Gravel Roof + Autoclaved Aerated Concrete Deck (Siporex)	Insulation	Roof Area Above Pool Test Location #1 – Opening for New Dehumidifier Unit	None Detected	Non-ACM
		Tar Felt			
		White Cementitious Material			
Insulation					
Tar Felt					
White Cementitious Material					
1b		Roof Area Above Pool Test Location #2 – Opening for New Dehumidifier Unit	Tar Felt		
			Tar		
			White Cementitious Material		
1c					


Sample No.	Material Description	Layer	Sample Location	Asbestos Content	Material Classification
2a	Modified Bitumen Shingle Roof	Shingle	Roof Area Above Pool Storage & Office Test Location #1 – Opening for New Roof Access Hatch	None Detected	Non-ACM
		Tar			
		Foam			
2b		Shingle			
		Tar			
		Foam			
2c		Shingle			
		Tar Felt			
		Fibreboard			
3a	Sprayed Fireproofing	N/A	Pool Area	None Detected	Non-ACM
3b					
3c					
3d					
3e					
3f					
3g					
4a	Parging Cement on Pipe Fitting	N/A	Pool Area	None Detected	Non-ACM
4b					
4c					
5a	Deep Fissure / Pinhole Lay-In Ceiling Tile	N/A	Pool Area	None Detected	Non-ACM
5b					
5c					



As per O.Reg. 278/05, ACM contains  $\geq 0.5\%$  asbestos by dry weight.



Materials assessed for asbestos content are summarized in the following table based on the type/use of the material.

**Table 4: Results of Assessment for Asbestos-Containing Materials**

Sprayed and Loose Fill Insulating Materials	Location/Description	
Sprayed Fireproofing	Sprayed fireproofing was observed in the pool area. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 3 in Table 3.	
Sprayed Insulation	None identified in subject areas.	

Loose Fill / Vermiculite Insulation	None identified in subject areas.	
<b>Thermal System Insulation</b>	<b>Location/Description</b>	
Mechanical Pipe Insulation – Straights	Visible sections of mechanical pipes were observed to be insulated with fiberglass insulation with PVC jacketing. This material is not asbestos-containing.	
Mechanical Pipe Insulation – Fittings (elbows, valves, tees, hangars, etc.)	Parging cement was observed on pipe fittings in the pool area. Bulk sample analysis determined this material is not an asbestos-containing material. Refer to sample set 4 in Table 3.	
HVAC Duct Insulation	Visible sections of HVAC ducts were observed to be insulated with fiberglass insulation or were not insulated. This material is not asbestos-containing.	
Breeching / Exhaust Insulation	None identified in subject areas.	
Tank Insulation	None identified in subject areas.	
Boiler Insulation	None identified in subject areas.	
Other Mechanical Equipment Insulation	None identified in subject areas.	
<b>Architectural Finishes &amp; Finishing Materials</b>	<b>Location/Description</b>	
Sprayed Texture / Stucco Finishes	None identified in subject areas.	
Plaster Finishes	Asbestos-containing plaster soffit at the exterior of the building was previously sampled and found to be asbestos-containing. This material is not expected to be impacted as part of the planned construction project.	
Drywall Joint Compound	None identified in subject areas.	

Ceiling Tiles	Location/Description	
Lay-in Acoustic Ceiling Tiles	<p>Deep fissure / pinhole lay-in ceiling tiles were observed in the pool area. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 5 in Table 3.</p> <p>Other lay-in ceiling tiles throughout the change rooms and corridors have previously been sampled and were found not to be asbestos-containing.</p>	
Glued-on Acoustic Ceiling Tiles	None identified in subject areas.	
Cement Ceiling Panels	None identified in subject areas.	
Flooring	Location/Description	
Vinyl Floor Tiles	None identified in subject areas.	
Vinyl Sheet Flooring	None identified in subject areas.	
Mastic	None identified in subject areas.	
Asbestos Cement Products	Location/Description	
Cement Pipe	<p><b><u>Cement pipe serving as roof drain line was observed in the pool area.</u></b> This material could not be sampled as doing so would compromise the integrity of the drain pipe. Therefore, this material is assumed to be asbestos-containing however; this material is not expected to be impacted as part of the planned construction project. Refer to the location, condition, friability, and estimated quantity in Appendix A.</p>	
Roofing, Siding, Wallboard	None identified in subject areas.	
Other Cement Products	None identified in subject areas.	

Exterior Building Materials	Location/Description	
Built-Up Tar and Gravel Roof + Autoclaved Aerated Concrete Deck (Siporex)	Roofing materials (i.e. insulation, tar felt, white cementitious material (siporex) and tar) associated with the built-up tar and gravel roof was observed in the project areas. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 1 in Table 3.	
Modified Bitumen Shingle Roof	Roofing materials (i.e. shingle, tar, foam and fiberboard) associated with the modified bitumen shingle roof was observed in project areas. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 2 in Table 3.	
Misc. Materials	Location/Description	
Suspect ACM	- cement pipe (roof drain lines)	

### 2.1.2 Lead

Laboratory analytical results for paints tested to determine lead content are summarized in the following table. The Laboratory Certificate of Analysis is included in Appendix D. Refer to Section 3.1.2 of this report for recommended lead abatement procedures (if any) that correspond to the type of proposed construction, renovation, or demolition work.

**Table 5: Results of Paint Condition and Lead Content Assessment**

Sample No.	Location	Surface	Paint Colour	Condition	Lead Conc. (% by wt.)	Material Classification
L1	Mechanical Room Pool Storage and Office	Metal HVAC Ductwork	White	Poor	0.047	LLLP

LCP: Lead-Containing Paint (>0.1% Lead Content); LLLP: Low-Level Lead Paint (≤0.1% Lead Content)

**Suspect lead-containing materials** observed in the subject areas included the following:

- paints and surface coatings (not sampled)
- glazing associated with ceramic tiles
- solder in copper pipe fittings
- solder in electrical components

### **2.1.3 Mercury**

Mercury is present in the subject areas in the form of:

- vapour in HID lamps

### **2.1.4 Silica**

A number of building materials were identified in the subject areas that are **suspected to contain crystalline silica**. This includes the following materials:

- concrete block
- mortar
- built-up roof membrane
- sprayed fireproofing

### **2.1.5 Other Designated Substances**

Acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, and vinyl chloride were not included in the assessment as these substances are not expected to be a significant component of building materials or present in a form that would represent an exposure concern. Additionally, no specific information regarding their use was provided to us.

## **2.2 Other Hazardous Materials**

### **2.2.1 Chemical Hazards**

No visible evidence of UFFI installation (i.e. injection openings) or overspray of foam insulation at wall/ceiling joints was identified in the subject areas.

### **2.2.2 Biological Hazards**

#### **2.2.2.1 Mould Contamination**

There was no visible evidence of obvious mould growth on building finishes in the subject areas at the time of the assessment. In addition, there was no visible evidence of any significant water staining or discolouration to building finishes in the subject areas that would suggest the potential for hidden mould growth behind these finishes.

### 2.2.2.2 Pest Infestation

There was no visible evidence of a pest infestation in the subject areas.

## 2.2.3 Environmental Hazards

### 2.2.3.1 Polychlorinated Biphenyls (PCBs)

A total of approximately twenty (20) HID lights were also present throughout the subject areas. These lights could not be accessed for further evaluation to determine the type(s) of ballasts present and therefore the ballasts within these lights are assumed to contain PCBs.

### 2.2.3.2 Ozone Depleting and Global Warming Substances

Equipment identified in the subject areas that are suspected to contain ozone depleting substances (ODS) and/or global warming substances (GWS) are summarized in the following table.

**Table 6: Results of Assessment for Ozone-Depleting and Global Warming Substances**

Location	Equipment Manufacturer and Type	Type and Quantity of Refrigerant or Fire Extinguishing Agent	ODS/GWS Classification
Low Roof Section Above Mechanical Room	Dectron – Dehumidifier	R-22 (HCFC-22) – Unknown Quantity	ODS/GWS

## 3.0 CONCLUSIONS AND RECOMMENDATIONS

### 3.1 Designated Substances

#### 3.1.1 Asbestos

As results summarized in Table 3 indicate, no asbestos was detected in any of the bulk samples of roofing materials, sprayed fireproofing, lay-in ceiling tile or parging cement on pipe fittings retrieved for analysis. Therefore, these building materials are considered to be Non-ACM and there are no requirements for management, disturbance or removal of these materials under O. Reg. 278/05.

The following building materials are ***suspected to be asbestos-containing*** but were not sampled as sampling would compromise the integrity of the material, lack of accessibility or potential hazards to the surveyor:

**- cement pipe (roof drain lines)**

Refer to Appendix A (Summary of ACM Occurrences) and Appendix B (Site Drawings) for types, locations, estimated quantities, and condition of asbestos-containing materials identified in the subject area.

Removal or disturbance of identified asbestos-containing materials must be conducted in accordance with O.Reg. 278/05. Asbestos containing materials in Poor condition must be removed and/or repaired immediately following applicable asbestos abatement procedures. Asbestos-containing materials in Good condition can remain in place until major system upgrading, maintenance or demolition which could result in disturbance of this material.

**Cement Pipe (Roof Drain Lines):** The roof drain lines present within the pool area (not expected to be impacted as part of the planned construction project) area considered to be a non-friable ACM. As per O. Reg. 278/05, removal of non-friable ACM can be conducted following **Type 1 operations**; as long as the material can be removed without being broken, cut, drilled or otherwise similarly disturbed. If the material cannot be removed without it breaking or being similarly disturbed then the work should be conducted using non-powered hand tools and the material should be wetted to control the spread of dust. If the material cannot be wetted or if power tools attached to dust-collecting devices equipped with HEPA (high efficiency particulate aerosol) filters are used during removal or disturbance, then work should be performed following Type 2 operations. If non-friable materials are removed or disturbed using power tools that are not attached to dust-collecting devices that are equipped with HEPA filters then work should be conducted following Type 3 operations.

**General Recommendations:** The removal or disturbance of ACM must follow the measures and procedures indicated in O. Reg. 278/05. This work should be conducted by workers who have received proper training by a “competent person” in the hazards of asbestos exposure, personal hygiene and work practices, and the use and care of respirators and protective clothing. Any worker/supervisor who works in a Type 3 operation must successfully complete the Asbestos Abatement Worker or Supervisor Training Program approved by the Ministry of Training, Colleges and Universities. It is recommended that all work involving the removal or disturbance of ACM be subject to inspection and testing to document conformance with O. Reg. 278/05 requirements. The degree of inspection and testing is dependent on site-specific conditions such as the type, duration, size and location of the work. In most circumstances Type 3 operations require a visual inspection and clearance air testing to be conducted by a competent worker on completion of the work. The inspection should be conducted to ensure that the enclosure and the work area inside the enclosure are free from visible dust, debris or residue that may contain asbestos. Clearance air testing for Type 3 operations requires a minimum number of air samples to be taken (depending on the size of the work area) following specific sampling and analytical procedures and all samples taken must meet the clearance criteria set out in O. Reg. 278/05.



### 3.1.2 Lead

Results of paint chip analysis for the determination of lead content indicated that white paint associated with HVAC ductwork in the mechanical room is considered a 'low-level lead paint' ( $\leq 0.1\%$  based on requirements of the Environmental Abatement Council of Canada (EACC) Lead Guideline (2014)). If the 'low-level lead paint' is disturbed in a non-aggressive manner (no use of power tools/abrasive blasting, grinding, welding, heating, etc.), then respirators are not considered necessary. However, Class 1 measures and procedures should still be implemented during the non-aggressive disturbance of 'low-level lead paints', including, but not limited to, no smoking, eating, drinking and chewing gum in the work area; dust suppression methods must be implemented; and facilities must be made available so that workers can wash their hands and face.

**Paints and surface coatings not sampled are assumed to be lead-containing** ( $> 0.1\%$  lead content) in the subject area. Any disturbance of the lead-containing paints or surface coatings should be conducted in accordance with the procedures outlined in the Environmental Abatement Council of Canada (EACC) "Lead Guideline" (October 2014) and/or the Ontario Ministry of Labour, Training and Skills Development (MLTSD) "Lead on Construction Projects" guideline (April 2011). The extent of procedures required depends on the type of work to be conducted.

**Additional suspect lead-containing products** not anticipated to be disturbed during construction includes solder on pipe fittings and electrical components and glazing associated with ceramic tiles.

At this time the method of disturbance, if any, of lead-containing materials is unknown. It is recommended that any contractor whose work requires lead-containing materials to be disturbed consult the EACC or Ontario MLTSD guidelines prior to the start of work to determine the Class/Type of operation(s) and the corresponding control measures (engineering controls, work/hygiene practices, protective clothing and equipment and worker training) necessary to conduct the work in a manner that will prevent worker overexposure to lead. The following table outlines the classification of lead disturbance based on the EACC guideline.

Operation	Description
Class 1	<ol style="list-style-type: none"> <li>1. Removal of lead-containing or lead-based paints and surface coatings with a chemical gel/stripper or paste;</li> <li>2. Application of lead-containing or lead-based paints and surface coatings with a brush, roller or sponge.</li> <li>3. Installation or removal of lead sheeting or flashing.</li> <li>4. Installation or removal of lead-containing packing, babbitt, caulking, gasket or similar material.</li> <li>5. Removal of materials coated with lead-containing or lead-based paints and surface coatings, using non-powered hand tools, where the material remains chiefly intact and is not crumbled, pulverized or powdered.</li> <li>6. Operating construction or demolition equipment (e.g. excavator, bulldozer) during building renovation or demolition where lead-based paints or surface coatings are present on building materials and are being disturbed.</li> <li>7. Soldering with lead solder.</li> <li>8. Removing lead-containing or lead-based paints or surface coatings with a heat gun.</li> <li>9. Removing lead-containing and lead-based paints and surface coatings using a high-pressure water jet (e.g. pressure washer).</li> </ol>
Class 2a	<ol style="list-style-type: none"> <li>1. Removal of lead-containing or lead-based paints and surface coatings or lead-containing materials using a power tool that has an effective dust collection system equipped with a HEPA filter*.</li> <li>2. Welding, torching or high temperature cutting of lead-containing materials indoors when using an effective fume collector or smoke eater that filters and exhausts lead fume and expels it directly outdoors (away from occupants, entrances, walkways, rest areas, etc.). Fume collector or smoke eater must have effective source control and capture velocity, minimum of 0.5 metres per second (100 feet per minute) at the work surface.</li> <li>3. Welding, torching or high temperature cutting of lead-containing and lead-based paints and surface coatings or lead-containing materials outdoors.</li> <li>4. Removal of lead-containing mortar using handheld non-powered tools.</li> <li>5. Removal of lead-containing and lead-based paints and surface coatings or lead-containing materials by scraping or sanding (including wet sanding) using non-powered hand tools.</li> <li>6. Demolition of plaster or building components that crumble, pulverize or powder and are covered with lead-containing or lead-based paints or surface coatings.</li> <li>7. Clean up and removal of a significant amount of lead-containing dust and debris (that can be made easily airborne) using wet methods or HEPA vacuums.</li> </ol>
Class 2b	<ol style="list-style-type: none"> <li>1. Spray application of lead-containing paints and surface coatings</li> </ol>

Operation	Description
Class 3a	<ol style="list-style-type: none"> <li>1. Removal of lead-containing or lead-based paints and surface coatings or lead-containing materials using a power tool without an effective dust collection system equipped with a HEPA filter.</li> <li>2. Welding, torching or high temperature cutting of lead-containing materials indoors or in a confined space (e.g. within a ditch or pit).</li> <li>3. Removal of lead-containing mortar using a powered cutting device.</li> <li>4. Burning of a material containing lead.</li> <li>5. Removal, cleaning or repair of a ventilation system or ductwork used for controlling lead exposure.</li> <li>6. Spray application of lead-based paints and surface coatings.</li> <li>7. In the absence of an exposure assessment:               <ol style="list-style-type: none"> <li>a. demolition or cleanup of a facility where lead-containing products were manufactured and significant dust and debris, which can be made easily airborne, is present.</li> <li>b. cleanup of dust and debris down range of a firing station in an indoor firing range. an operation that may expose a worker to lead dust, fume or mist that is not a Class 1, Class 2, or Class 3B operation.</li> </ol> </li> </ol>
Class 3b	<ol style="list-style-type: none"> <li>1. Abrasive blasting of lead-containing and lead-based paints and surface coatings or lead-containing materials (including wet, slurry and dry abrasive blasting and dry-ice blasting).</li> </ol>

\* Effective implies that the dust collection system should be capable of controlling airborne lead concentration levels to below 0.05 mg/m<sup>3</sup>. Employers should follow manufacturer's recommendations and maintenance specifications for optimal function.

If practicable, all bulk lead waste materials should be separated from other wastes and sent to a recycling facility. If not practicable, lead-containing waste should be handled and disposed of according to R.R.O. 1990, Regulation 347, *General - Waste Management* (Reg. 347) made under the Environmental Protection Act. Under this regulation (and depending on the quantity of waste generated) the waste may be subject to analysis following the Toxicity Characteristic Leaching Procedure (TCLP) to determine if it is a "leachate toxic waste" based on the leachate quality criteria provided in Schedule 4 of the regulation. Such wastes must meet specific treatment requirements (Schedule 5) or undergo alternative treatment for hazardous debris (Schedule 8) prior to land disposal.

### 3.1.3 Mercury

HID lamps that require removal should be handled with care and kept intact to avoid potential exposure to mercury vapour present within the lamps. Under Reg. 347, waste mercury produced in amounts less than 5 kilograms (kg) in any month or otherwise accumulated in an amount less than 5 kg are exempt from hazardous waste registration, treatment and disposal requirements and can be disposed of in landfill as regular waste. Larger quantities of waste mercury must be treated and disposed of in accordance with the requirements of Reg. 347. Although it is anticipated that less than 5 kg of waste lamps will be produced as part of the State of Good Repairs, to prevent the release of mercury into the environment, Safetech recommends that all waste lamps be sent to a lamp recycling facility and not disposed of in landfill.

Although no mercury was visibly identified in other equipment, dismantling of equipment was not conducted to verify the presence/absence of mercury. It is cautioned that thermometers, barometers and other measuring devices (pressure gauges/sensors, vacuum gauges, manometers, etc.), thermostats and a variety of other electrical switches (temperature sensitive, tilt switches, float switches, etc.) may contain mercury that may not be visible without dismantling the equipment. Such devices should be assumed to contain mercury until proven otherwise and similar precautions to those outlined above should be taken if any of these items are to be disturbed or taken out of service in the future.

### 3.1.4 Silica

Suspect silica-containing materials were identified to be present in the subject areas. In their current state, building materials containing silica do not represent a risk to building occupants or construction workers. Risks associated with exposure to silica arise during demolition activities that cause silica dust to be created (particularly grinding, drilling or cutting operations and during major demolition), resulting in a crystalline silica inhalation hazard.

If any materials suspected to contain silica are to be removed or otherwise disturbed as a result of renovation/demolition activities it is recommended that procedures be put in place to control the generation of dust (such as routine water misting) and thus reduce the potential for worker exposure. Workers that have the potential to be exposed to airborne silica should also wear appropriate protective clothing and respiratory protection.

Any work involving the disturbance of silica-containing materials should follow the procedures outlined in the Ontario MLTSD “Silica on Construction Projects” guideline (April 2011). The appropriate engineering controls, work practices, hygiene practices, personal protective measures and training necessary to conduct the work in a safe manner are provided in this guideline. The general measures and procedures (or Type of operation) necessary depends on the type of work to be conducted. The following table outlines the classification of silica disturbance based on the Ontario MLTSD guideline.

Operation	Description
Type 1	<ol style="list-style-type: none"> <li>1. The drilling of holes in concrete or rock that is not part of a tunneling operation or road construction.</li> <li>2. Milling of asphalt from concrete highway pavement</li> <li>3. Charging mixers and hoppers with silica sand (sand consisting of at least 95% silica) or silica flour (finely ground sand consisting of at least 95% silica)</li> <li>4. Any other operation at a project that requires the handling of silica-containing material in a way that may results in a worker being exposed to airborne silica.</li> <li>5. Entry into a dry mortar removal or abrasive blasting area while airborne dust is visible for less than 15 minutes for inspection and/or sampling.</li> <li>6. Working within 25 metres of an area where compressed air is being used to remove silica-containing dust outdoors.</li> </ol>

Operation	Description
Type 2	<ol style="list-style-type: none"> <li>1. Removal of silica containing refractory materials with a jackhammer</li> <li>2. The drilling of holes in concrete or rock that is part of a tunneling or road construction.</li> <li>3. The use of a power tool to cut, grind, or polish concrete, masonry, terrazzo or refractory materials.</li> <li>4. The use of a power tool to remove silica containing materials.</li> <li>5. Tunneling (operation of the tunnel boring machine, tunnel drilling, and tunnel mesh installation).</li> <li>6. Tuckpoint and surface grinding</li> <li>7. Dry mortar removal with an electric or pneumatic cutting device</li> <li>8. Dry method dust cleanup from abrasive blasting operations</li> <li>9. The use of compress air outdoors for removing silica dust</li> <li>10. Entry into area where abrasive blasting is being carried out for more than 15 minutes</li> </ol>
Type 3	<ol style="list-style-type: none"> <li>1. Abrasive blasting with an abrasive that contains &gt;1% silica</li> <li>2. Abrasive blasting or a material that contains &gt;1% silica</li> </ol>

### 3.1.5 Other Designated Substances

No other designated substances are expected to be a component of building materials in the subject areas in a form that would represent an exposure concern. Therefore, no protective measures or procedures specific to acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, and vinyl chloride are considered necessary.

## 3.2 Other Hazardous Materials

### 3.2.1 Chemical Hazards

As no UFFI was identified or is suspected to be present in the subject areas, no further action is required. However, given that no destructive testing was conducted, there is a remote possibility that UFFI could be hidden within locations such as exterior wall cavities. If suspect foam insulation is identified during renovation/demolition activities work should be stopped and the area should be re-assessed to evaluate conditions and determine appropriate control measures and worker protection, if necessary.

### 3.2.2 Biological Hazards

#### 3.2.2.1 Mould Contamination

Water staining was observed to one (1) lay-in ceiling tile in the pool area however no mould contamination was identified and no further action is required at this time. Although no obvious mould contamination or evidence to suggest possible hidden mould contamination was identified in the subject areas, there is still a potential for hidden mould growth to exist behind or underneath building finishes. Should suspect mould growth be discovered during the course of renovation or demolition work, Safetech recommends that all work stop so that the area can be assessed to evaluate proper control measures and remediation protocols in order to avoid worker exposure to mould and possible contamination of adjacent areas.

### **3.2.2.2 Pest Infestation**

No visual evidence of any significant pest infestation was observed in the subject areas. Therefore, no additional precautionary measures are deemed necessary for protection against biological contaminants potentially associated with pest infestation.

### **3.2.3 Environmental Hazards**

#### **3.2.3.1 Polychlorinated Biphenyls (PCBs)**

The federal government has set strict regulations for the handling, storage and disposal of PCBs. The PCB Regulations (SOR/2008-273) came into effect on September 5<sup>th</sup>, 2008 and consolidates and replaces the Chlorobiphenyls Regulations (SOR/91-152) and the Storage of PCB Material Regulations (SOR/92-507). The purpose of the PCB Regulations is to improve the protection of Canada's environment and the health of Canadians by minimizing the risks posed by the use, storage and release of PCBs by accelerating the elimination of these substances.

As of December 31, 2009 all current PCB storage sites are to have been eliminated and there should no longer be any electrical capacitors, electrical transformers, electromagnets, heat transfer equipment or any other equipment in service that contains PCBs at a concentration greater than 500 mg/kg (500 ppm). As of this time, all of this equipment should have been removed from service and sent for destruction. Furthermore, the PCB Regulations restricts the use of equipment containing PCBs (other than light ballasts or pole-top electrical transformers) at concentrations exceeding 50 mg/kg (50 ppm) in sensitive areas (such as drinking water treatment plants, schools, hospitals and senior citizen care facilities) by the same date. All other locations have until December 31, 2025 to decommission equipment containing 50 ppm to 500 ppm PCBs. The assessment confirmed that some of the existing fluorescent light ballasts contain PCB's.

Existing HID lamp ballasts are assumed to contain PCBs. When light fixtures are to be decommissioned, all ballasts should be verified at this time by determining the date of manufacture and other pertinent information by referring to the Environment Canada document entitled "Identification of Lamp Ballasts Containing PCBs" (Report EPS 2/CC/2 (revised) August 1991) to aid in identification. Any ballasts that meet the criteria outlined in this document must be treated as PCB containing.

When PCB-containing equipment is taken out of service, jurisdiction falls under provincial regulations. As per R.R.O 1990, Regulation 347, *General - Waste Management*, the land disposal of PCB waste is prohibited. PCB wastes in Ontario are regulated under R.R.O 1990, Regulation 362, *Waste Management – PCBs* (Reg. 362), made under the Environmental Protection Act. Under this regulation, PCB waste is defined as any waste material containing PCBs at a concentration of more than fifty (50) parts per million by weight (i.e. >50mg/kg), with the exception of an electrical capacitor that has never contained over 1 kg of PCB's. Any PCB-containing equipment taken out of service should

be properly handled and disposed of at an authorized destruction facility in accordance with the requirements of Federal Regulation SOR/2008-273 and Reg. 362.

### **3.2.3.2 Ozone Depleting and Global Warming Substances**

Ontario Regulation 463/10, *Ozone Depleting Substances and Other Halocarbons* (O.Reg. 463/10, made under the Environmental Protection Act) controls the use, discharge, sale, transfer, transport, storage and disposal of ozone depleting substances and halocarbons in Ontario. This regulation enhances the control and management of ODS and other halocarbons to prevent or minimize emissions, which serves a dual environmental benefit of lowering emissions of substances that deplete the ozone layer and contribute to global warming.

One (1) dehumidifier unit was noted on the low roof section above the pool mechanical room. This dehumidifier unit will require removal as part of the State of Good Repairs project and the assessment confirmed that the unit contained an unknown quantity of HCFC-22 (R-22) refrigerant. Under O.Reg. 463/10 HCFCs are considered “class 2” ozone depleting substances.

O.Reg. 463/10 restricts the discharge of a class 1 and class 2 ozone depleting substance or a halocarbon into the natural environment or within a building. Servicing and testing of refrigeration equipment should be conducted in accordance with Environment Canada’s “Environmental Code of Practice for Elimination of Fluorocarbon Emissions from Refrigeration and Air Conditioning Systems”. This work must be conducted by a certified person who holds a valid Ozone Depletion Prevention (ODP) Certificate. Refrigeration equipment and containers that are to be dismantled and disposed of need to be properly purged of remaining refrigerant by a certified person and a notice must be affixed to the equipment or container that indicates it no longer contains a refrigerant (in addition to other information required by the regulation).

Any refrigerant that is removed from a unit that is not mobile is defined as a Stationary Refrigerant Waste under Reg. 347 and must be collected, handled, transported and recycled or disposed of in accordance with the requirements set forth in Sections 30 to 35 of this regulation.

## **4.0 LIMITATIONS**

The information and recommendations detailed in this report were carried out by trained professional and technical staff in accordance with generally accepted environmental and industrial hygiene work practices and procedures. Recommendations provided in this report have been generated in accordance with accepted industry guidelines and practices. These guidelines and practices are considered acceptable as of the date of this report.

In preparation of this report, Safetech relied on information supplied by others, including without limitation, information pertaining to the history and operation of the site, test

results and reports of other consultants and testing services provided by independent laboratories. Except as expressly set out in this report, Safetech has not made any independent verification of information provided by independent entities.

The collection of samples at the location noted was consistent with the scope of work agreed-upon with the person or entity to whom this report is addressed and the information obtained concerning prior site investigations. As conditions between samples may vary, the potential remains for the presence of unknown additional contaminants for which there were no known indicators.

The analytical method used for determination of asbestos content meets the requirements of O. Reg. 278/05. However, small asbestos fibres may be missed by PLM due to resolution limitations of the optical microscope. Interfering binder/matrix and/or low asbestos content may also hinder positive identification by PLM. These conditions are common for vermiculite attic insulation (VAI) and non-friable organically bound (NOB) materials such as vinyl floor tiles, roofing materials, mastics and caulking and can lead to “false negative” results. If PLM analytical results for these types of materials indicate no asbestos detected they have been reported as “Presumed Non-ACM”. Due to limitations of the analytical method we cannot confirm that low quantities of asbestos are not present in these samples using solely PLM analysis. Additional analytical procedures should be considered for such materials to rule out false negative results.

Conclusions are based on site conditions at the time of inspection and can only be extrapolated to an undefined limited area around inspected locations. The extent of the limited area depends on building construction and conditions. Building materials that are not detailed within this survey due to inaccessibility during the time of survey and/or are uncovered during renovation/demolition activities should be properly assessed by a qualified person prior to their disturbance. Safetech cannot warrant against undiscovered environmental liabilities. If any information becomes available that differs from the findings in this report, we request that we be notified immediately to reassess the conclusions provided herein.

No other person or entity is entitled to use or rely upon this report without the express written consent of Safetech and the person or entity to who it is addressed. Any use that a third party makes of this report, or any reliance based on conclusions and recommendations made, are the responsibility of such third parties. Safetech accepts no responsibility for damages suffered by third parties as a result of actions based on this report.



## **Appendix A: Summary of ACM Occurrences**

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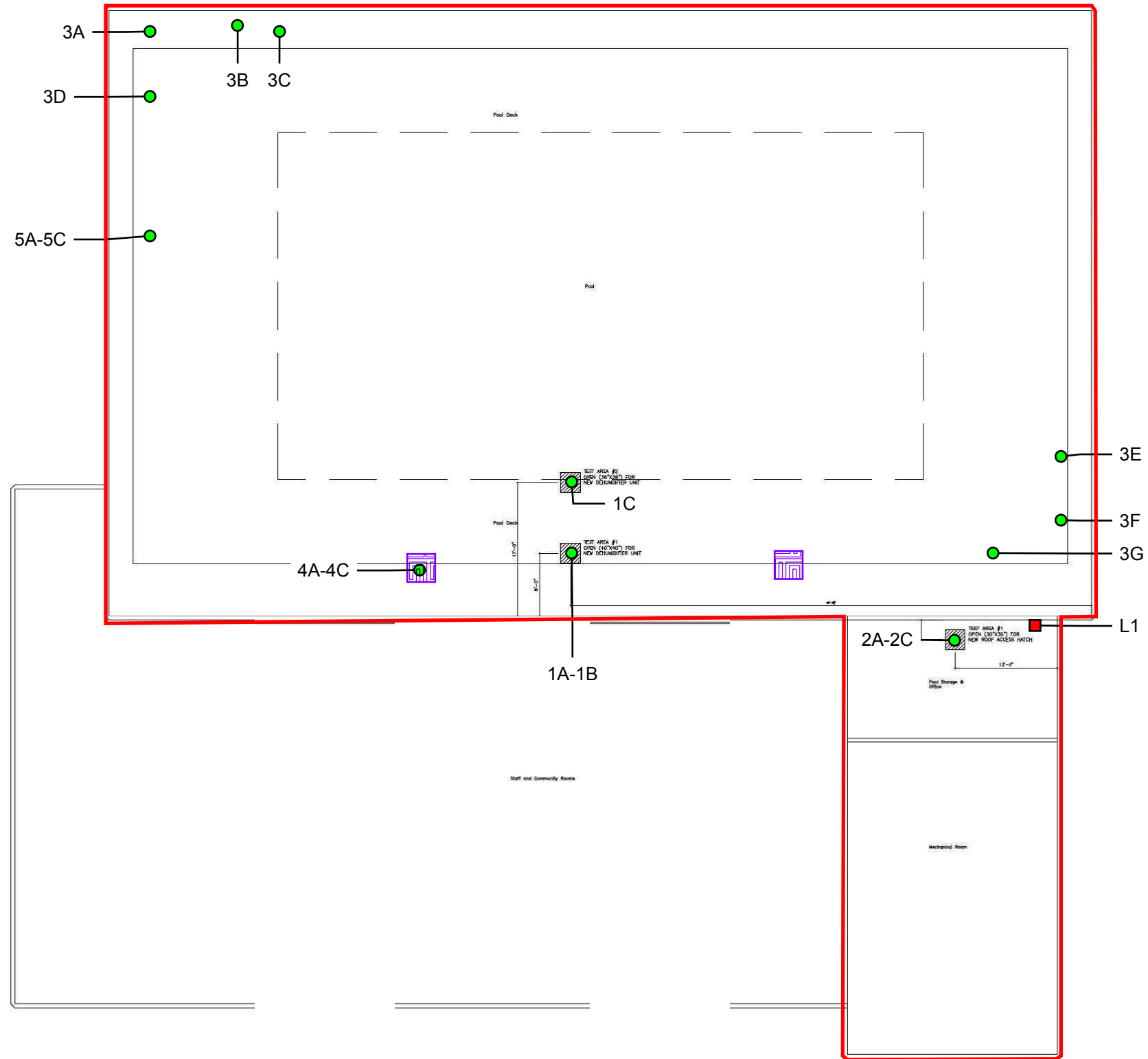
Floor	Room No.	Room Description	System	Material	Description	Classification	Friable/ Non-Friable	Condition	Est. Quantity	Unit	Access	Action
1	-	Pool Area	Pipe	Transite	Cement pipe serving as roof drain line	ACM	Non-Friable	Good	50	LF	C	8

## **Appendix B: Site Drawings**

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**LEGEND**

- AREA ASSESSED
- ASBESTOS SAMPLE (NEGATIVE)
- LEAD SAMPLE (POSITIVE)
- TRANSITE CEMENT PIPE (ACM) - VERTICAL



1) THIS FLOOR PLAN MUST BE READ IN CONJUNCTION WITH THE DESIGNATED SUBSTANCE AND HAZARDOUS MATERIALS ASSESSMENT REPORT.  
 2) NOT ALL ASBESTOS-CONTAINING MATERIALS ARE INDICATED IN THE FLOOR PLAN. REFER TO THE DESIGNATED SUBSTANCE AND HAZARDOUS MATERIALS REPORT FOR FURTHER DETAILS.  
 3) REMOVAL OR DISTURBANCE OF ASBESTOS-CONTAINING BUILDING MATERIALS MUST BE CONDUCTED IN ACCORDANCE WITH ONTARIO REGULATION 278/05 "DESIGNATED SUBSTANCE - ASBESTOS ON CONSTRUCTION PROJECTS AND IN BUILDINGS AND REPAIR OPERATIONS".

ROOF AND GROUND FLOOR

STATE OF GOOD REPAIRS

45 GOLFDOWN DRIVE  
 ETOBICOKE, ONTARIO

DRAWING NO.

**DS-1**

DATE: NOVEMBER 23, 2023

SAFETECH PROJECT NO.  
 1-3230904



3045 SOUTHCREEK RD, UNIT 14  
 MISSISSAUGA, ONTARIO  
 L4X 2X7

## **Appendix C: Laboratory Certificate of Analysis – Asbestos**

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# EMSL Canada Inc.

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EMSL Canada Order 552318451  
Customer ID: 55SELI62  
Customer PO: 1-3230904  
Project ID:

**Attn:** Anthony Fiume  
Safetech Environmental Limited  
3045 Southcreek Road  
Unit 14  
Mississauga, ON L4X 2X7  
**Phone:** (905) 624-2722  
**Fax:** (905) 624-4306  
**Collected:** 11/23/2023  
**Received:** 11/24/2023  
**Analyzed:** 11/28/2023  
**Proj:** 1-3230904 - Elms Community Pool, 45, Golfdown Dr, Etobicoke

## Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

<b>Client Sample ID:</b>	1a-Insulation	<b>Lab Sample ID:</b>	552318451-0001			
<b>Sample Description:</b>	Built-up Tar and Gravel Roof + Siporex Deck - Roof Area Above Pool Test Location #1 Open For New Dehumidifier Unit					
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Yellow	70.0%	30.0%	None Detected	

<b>Client Sample ID:</b>	1a-Tar Felt	<b>Lab Sample ID:</b>	552318451-0001A			
<b>Sample Description:</b>	Built-up Tar and Gravel Roof + Siporex Deck - Roof Area Above Pool Test Location #1 Open For New Dehumidifier Unit					
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Black	20.0%	80.0%	None Detected	

<b>Client Sample ID:</b>	1a-White Cementitious Material	<b>Lab Sample ID:</b>	552318451-0001B			
<b>Sample Description:</b>	Built-up Tar and Gravel Roof + Siporex Deck - Roof Area Above Pool Test Location #1 Open For New Dehumidifier Unit					
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White	0.0%	100.0%	None Detected	

<b>Client Sample ID:</b>	1b-Insulation	<b>Lab Sample ID:</b>	552318451-0002			
<b>Sample Description:</b>	Built-up Tar and Gravel Roof + Siporex Deck - Roof Area Above Pool Test Location #1 Open For New Dehumidifier Unit					
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Yellow	75.0%	25.0%	None Detected	

<b>Client Sample ID:</b>	1b-Tar Felt	<b>Lab Sample ID:</b>	552318451-0002A			
<b>Sample Description:</b>	Built-up Tar and Gravel Roof + Siporex Deck - Roof Area Above Pool Test Location #1 Open For New Dehumidifier Unit					
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Black	20.0%	80.0%	None Detected	

<b>Client Sample ID:</b>	1b-White Cementitious Material	<b>Lab Sample ID:</b>	552318451-0002B			
<b>Sample Description:</b>	Built-up Tar and Gravel Roof + Siporex Deck - Roof Area Above Pool Test Location #1 Open For New Dehumidifier Unit					
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White	0.0%	100.0%	None Detected	

<b>Client Sample ID:</b>	1c-Tar Felt	<b>Lab Sample ID:</b>	552318451-0003			
<b>Sample Description:</b>	Built-up Tar and Gravel Roof + Siporex Deck - Roof Area Above Pool Test Location #2 Open For New Dehumidifier Unit					
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Black	20.0%	80.0%	None Detected	



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EMSL Canada Order 552318451  
Customer ID: 55SELI62  
Customer PO: 1-3230904  
Project ID:

## Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

**Client Sample ID:** 1c-Tar **Lab Sample ID:** 552318451-0003A

**Sample Description:** Built-up Tar and Gravel Roof + Siporex Deck - Roof Area Above Pool Test Location #2 Open  
For New Dehumidifier Unit

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Black	0.0%	100.0%	None Detected	

**Client Sample ID:** 1c-White Cementitious Material **Lab Sample ID:** 552318451-0003B

**Sample Description:** Built-up Tar and Gravel Roof + Siporex Deck - Roof Area Above Pool Test Location #2 Open  
For New Dehumidifier Unit

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White	0.0%	100.0%	None Detected	

**Client Sample ID:** 2a-Shingle **Lab Sample ID:** 552318451-0004

**Sample Description:** Modified Bitumen Shingle Roof - Roof Area Above Pool Storage & Office Test Area # 1 Open  
For New Roof Access Hatch

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Black	0.0%	100.0%	None Detected	

**Client Sample ID:** 2a-Tar **Lab Sample ID:** 552318451-0004A

**Sample Description:** Modified Bitumen Shingle Roof - Roof Area Above Pool Storage & Office Test Area # 1 Open  
For New Roof Access Hatch

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Black	5.0%	95.0%	None Detected	

**Client Sample ID:** 2a-Foam **Lab Sample ID:** 552318451-0004B

**Sample Description:** Modified Bitumen Shingle Roof - Roof Area Above Pool Storage & Office Test Area # 1 Open  
For New Roof Access Hatch

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White	0.0%	100.0%	None Detected	

**Client Sample ID:** 2b-Shingle **Lab Sample ID:** 552318451-0005

**Sample Description:** Modified Bitumen Shingle Roof - Roof Area Above Pool Storage & Office Test Area # 1 Open  
For New Roof Access Hatch

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Black	0.0%	100.0%	None Detected	

**Client Sample ID:** 2b-Tar **Lab Sample ID:** 552318451-0005A

**Sample Description:** Modified Bitumen Shingle Roof - Roof Area Above Pool Storage & Office Test Area # 1 Open  
For New Roof Access Hatch

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Black	5.0%	95.0%	None Detected	

**Client Sample ID:** 2b-Foam **Lab Sample ID:** 552318451-0005B

**Sample Description:** Modified Bitumen Shingle Roof - Roof Area Above Pool Storage & Office Test Area # 1 Open  
For New Roof Access Hatch

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White	0.0%	100.0%	None Detected	



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EMSL Canada Order 552318451  
Customer ID: 55SELI62  
Customer PO: 1-3230904  
Project ID:

## Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

**Client Sample ID:** 2c-Shingle **Lab Sample ID:** 552318451-0006

**Sample Description:** Modified Bitumen Shingle Roof - Roof Area Above Pool Storage & Office Test Area # 1 Open  
For New Roof Access Hatch

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Black	10.0%	90.0%	None Detected	

**Client Sample ID:** 2c-Tar Felt **Lab Sample ID:** 552318451-0006A

**Sample Description:** Modified Bitumen Shingle Roof - Roof Area Above Pool Storage & Office Test Area # 1 Open  
For New Roof Access Hatch

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Black	10.0%	90.0%	None Detected	

**Client Sample ID:** 2c-Fibreboard **Lab Sample ID:** 552318451-0006B

**Sample Description:** Modified Bitumen Shingle Roof - Roof Area Above Pool Storage & Office Test Area # 1 Open  
For New Roof Access Hatch

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Brown	85.0%	15.0%	None Detected	

**Client Sample ID:** 3a **Lab Sample ID:** 552318451-0007

**Sample Description:** Sprayed Fireproofing on Deck - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White/Black	70.0%	30.0%	None Detected	

**Client Sample ID:** 3b **Lab Sample ID:** 552318451-0008

**Sample Description:** Sprayed Fireproofing on Deck - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White/Black	70.0%	30.0%	None Detected	

**Client Sample ID:** 3c **Lab Sample ID:** 552318451-0009

**Sample Description:** Sprayed Fireproofing on Deck - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White/Black	70.0%	30.0%	None Detected	

**Client Sample ID:** 3d **Lab Sample ID:** 552318451-0010

**Sample Description:** Sprayed Fireproofing on Deck - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White	80.0%	20.0%	None Detected	

**Client Sample ID:** 3e **Lab Sample ID:** 552318451-0011

**Sample Description:** Sprayed Fireproofing on Deck - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White/Black	80.0%	20.0%	None Detected	





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EMSL Canada Order 552318451  
Customer ID: 55SELI62  
Customer PO: 1-3230904  
Project ID:

## Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

**Client Sample ID:** 3f **Lab Sample ID:** 552318451-0012

**Sample Description:** Sprayed Fireproofing on Deck - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White	80.0%	20.0%	None Detected	

**Client Sample ID:** 3g **Lab Sample ID:** 552318451-0013

**Sample Description:** Sprayed Fireproofing on Deck - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	White	80.0%	20.0%	None Detected	

**Client Sample ID:** 4a **Lab Sample ID:** 552318451-0014

**Sample Description:** Parging Cement on Pipe Fitting - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Gray	35.0%	65.0%	None Detected	

**Client Sample ID:** 4b **Lab Sample ID:** 552318451-0015

**Sample Description:** Parging Cement on Pipe Fitting - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Gray	35.0%	65.0%	None Detected	

**Client Sample ID:** 4c **Lab Sample ID:** 552318451-0016

**Sample Description:** Parging Cement on Pipe Fitting - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Beige	35.0%	65.0%	None Detected	

**Client Sample ID:** 5a **Lab Sample ID:** 552318451-0017

**Sample Description:** Deep Fissure / Pinhole Lay-in Ceiling Tile - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Gray	80.0%	20.0%	None Detected	

**Client Sample ID:** 5b **Lab Sample ID:** 552318451-0018

**Sample Description:** Deep Fissure / Pinhole Lay-in Ceiling Tile - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Gray	80.0%	20.0%	None Detected	

**Client Sample ID:** 5c **Lab Sample ID:** 552318451-0019

**Sample Description:** Deep Fissure / Pinhole Lay-in Ceiling Tile - Pool Area

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	11/28/2023	Gray	80.0%	20.0%	None Detected	



# EMSL Canada Inc.

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EMSL Canada Order 552318451  
Customer ID: 55SELI62  
Customer PO: 1-3230904  
Project ID:

## Summary Test Report for Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05

**Analyst(s):**

Antonio Peluso PLM (21)  
Nickesh Mistry PLM (10)

**Reviewed and approved by:**

Matthew Davis or other approved signatory  
or Other Approved Signatory

None Detected = <0.1%. EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This is a summary report; official reports are available on LabConnect or upon request and relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON NVLAP Lab Code 200877-0

Initial report from: 11/28/2023 15:23:39

## **Appendix D: Laboratory Certificate of Analysis – Lead**

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**EMSL Canada Inc.**

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EMSL Canada Or 552318450  
CustomerID: 55SELI62  
CustomerPO: 1-3230904  
ProjectID:

Attn: **Anthony Fiume**  
**Safetech Environmental Limited**  
**3045 Southcreek Road**  
**Unit 14**  
**Mississauga, ON L4X 2X7**

Phone: (905) 624-2722  
Fax: (905) 624-4306  
Received: 11/24/2023 03:16 PM  
Collected: 11/23/2023

Project: 1-3230904 Elms Community Pool, 45, Golfdown Dr, Etobicoke

**Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)\***

<i>Client SampleDescription</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>RDL</i>	<i>Lead Concentration</i>
L1 552318450-0001	11/23/2023	11/27/2023	0.2557 g	0.0080 % wt	0.047 % wt
Site: White Paint - HVAC Duct - Mechanical Room Pool Storage and Office					

Rowena Fanto, Lead Supervisor  
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.

\* Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.

Samples analyzed by EMSL Canada Inc. Mississauga, ON AIHA LAP, LLC-ELLAP Accredited #196142

Initial report from 11/28/2023 08:40:39

## **Appendix E: Methodology**

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## A. METHODOLOGY

The presence of hazardous materials was assessed by visual inspection. For the purpose of this assessment and this document, hazardous materials include designated substances as well as other chemical, biological and environmental hazards as defined below:

- Designated Substances (as prescribed by Ontario Regulation 490/09):
  - Acrylonitrile, Arsenic, Asbestos, Benzene, Coke Oven Emissions, Ethylene Oxide, Isocyanates, Lead, Mercury, Silica and Vinyl Chloride.
- Other Hazardous Materials:
  - **Chemical Hazards** – Urea Formaldehyde Foam Insulation (UFFI)
  - **Biological Hazards** – Mould Contamination and Pest Infestation
  - **Environmental Hazards** – Polychlorinated Biphenyls (PCBs) and Ozone Depleting & Global Warming Substances

Concealed locations such as above solid plaster or drywall ceilings, within plaster or drywall wall cavities, enclosed mechanical/pipe shafts and bulkheads, etc. were not investigated, unless otherwise stated in Section 1.3. Similarly, motors, blowers, electrical panels, etc., were not de-energized or disassembled to examine concealed conditions. Building materials that are not detailed within this assessment due to inaccessibility at the time of our site visit and/or uncovered during renovation/demolition activities should be assessed by a qualified person prior to their disturbance.

Bulk sampling followed by laboratory analysis was also conducted to confirm the presence/absence of select hazardous materials. Bulk sampling was limited to asbestos in building materials and lead in paint on building finishes (if flaking paint was present). All other hazardous materials were identified by visual inspection only. Where possible, observations regarding the location, quantity and condition of the hazardous materials identified were made in order to determine the potential for exposure and provide appropriate recommendations for remedial action, if necessary. Specific methodology for each individual hazardous material assessed is further detailed below.

### A.1 Designated Substances

#### A.1.1 Asbestos

A visual inspection for the presence of both friable and non-friable asbestos-containing material (ACM) was performed in the subject area.

If an existing asbestos survey was available for review, Safetech relied on the information present. Building materials that were visually similar to materials previously tested and that were confirmed to be either ACM or non-ACM were considered to have consistent content and were not re-sampled. Additional sampling was only conducted where the investigator believed a need existed.

Bulk samples of building materials suspected to contain asbestos were retrieved by Safetech only for materials that were deemed to have a potential to be disturbed as part

of the construction project. Some suspect materials may not have been sampled during our investigation. Bulk samples were retrieved in accordance with Section 3 and Table 1 of Ontario Regulation 278/05, “Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations”. The number of samples collected for each material was based on the type and quantity of the material present in the subject area. Each individual sample was placed in a labeled zip-lock bag for transportation to an independent laboratory (EMSL). EMSL is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos fiber analysis.

Analysis for asbestos content was performed by the independent laboratory in accordance with the U.S. Environmental Protection Agency (EPA) Test Method *EPA/600/R-93-116: Method for the Determination of Asbestos in Bulk Building Materials (June 1993)*. This method identifies the asbestos fibre content of building materials using polarized light microscopy (PLM) analytical techniques, with confirmation of presence and type of asbestos made by dispersion staining optical microscopy. This analytical method meets the requirements set forth in Section 3 of O. Reg. 278/05.

In accordance with O. Reg. 278/05, an asbestos-containing material is defined as material that contains 0.5 per cent or more asbestos by dry weight. The laboratory was instructed to conduct “stop-positive” analysis for all materials. If a sample was found to be asbestos-containing no further analysis was conducted for samples taken from the same homogeneous material.

Locations where ACM have been identified are detailed in this report. Recommendations pertaining to ACM were made based on the friability, accessibility and condition of the material in conjunction with the potential for the planned renovation work to disturb the ACM.

### **A.1.2 Assessment of Asbestos-Containing Building Materials**

Accessibility, Condition and Action (Priority) ratings for individual items, or defined areas were developed by Safetech to determine remedial action plans specific to the facility’s needs.

#### **A.1.2.1 Accessibility**

Accessibility has been assessed as: (A) Accessible to all non-maintenance occupants of the building; (B) Accessible to maintenance staff without a ladder; (C) Accessible to maintenance staff with a ladder and exposed to view without moving a building component; (D) Accessible to maintenance staff with a ladder and concealed from view due to a building component; (E) Not accessible without demolition or removal of fixed building components or building systems

### A.1.2.2 Condition

The condition of asbestos-containing materials identified in the subject area was assessed as Good (G), Fair (F) or Poor (P). The assessment criteria used to determine condition is dependent on material characteristics, such as friability. The following table summarizes the criteria used by Safetech to evaluate the condition of ACM.

<b>Sprayed Fireproofing, Sprayed Insulation and Sprayed Texture Finishes</b>	
<b>Good</b>	<ul style="list-style-type: none"> <li>Surface shows no significant signs of damage, deterioration, or delamination (i.e. &lt;1%).</li> <li>Unencapsulated or unpainted fireproofing or texture finishes, where no delamination or damage is observed.</li> <li>Encapsulated fireproofing or texture finishes where encapsulation applied after damage or fallout.</li> </ul>
<b>Fair</b>	<ul style="list-style-type: none"> <li>Not utilized as part of condition assessment for these materials.</li> </ul>
<b>Poor</b>	<ul style="list-style-type: none"> <li>Greater than 1% damage, delamination, or deterioration to surface.</li> </ul>
<b>In areas where damage exists in isolated locations, both Good and Poor may be applicable.</b>	
<b>Mechanical Insulation (boilers, breeching, ductwork, piping, tanks, equipment, etc.)</b>	
<b>Good</b>	<ul style="list-style-type: none"> <li>Insulation completely covered in jacketing and exhibits no evidence of damage or deterioration.</li> <li>Jacketing may have minor damage (i.e. scuffs or stains), but is not penetrated.</li> </ul>
<b>Fair</b>	<ul style="list-style-type: none"> <li>Minor penetrating damage to jacketed insulation (cuts, tears, nicks, deterioration or delamination).</li> <li>Undamaged insulation that had never been jacketed.</li> <li>Insulation is exposed but not showing surface disintegration.</li> <li>Extent of missing insulation ranges from minor to none.</li> <li>Damage that can be repaired.</li> </ul>
<b>Poor</b>	<ul style="list-style-type: none"> <li>Original insulation jacket is missing, damaged, deteriorated, or delaminated.</li> <li>Insulation is exposed and significant areas have been dislodged.</li> <li>Damage that cannot be easily repaired.</li> </ul>
<b>Non-Friable and Potentially Friable Materials (includes materials such as plaster finishes, drywall compound, ceiling tiles, asbestos cement products, vinyl asbestos tile and asbestos paper backed vinyl sheet flooring, etc., which have the potential to become friable when handled)</b>	
<b>Good</b>	<ul style="list-style-type: none"> <li>No significant damage.</li> <li>Material may be cracked or broken but is stable and not likely to become friable upon casual contact.</li> <li>No friable debris present</li> </ul>
<b>Fair</b>	<ul style="list-style-type: none"> <li>Not utilized as part of condition assessment for these materials.</li> </ul>
<b>Poor</b>	<ul style="list-style-type: none"> <li>Material is severely damaged.</li> <li>Debris is present or binder has disintegrated to the point where the material has become friable.</li> </ul>
<b>Asbestos-Containing Debris (noted separately from the presumed source material)</b>	
<b>Poor</b>	<ul style="list-style-type: none"> <li>Debris is always considered to be in Poor condition.</li> </ul>

### A.1.2.3 Action

Recommended ACTION for compliance and for management of identified asbestos-containing materials has been provided for each condition and component outlined in the above table. Recommendations have been classified under the following 8 ACTIONS:

1. Action dealing with the immediate clean-up of fallen ACM likely to be disturbed.



2. Action dealing with the need to use Type 2 asbestos procedures to enter an area (other than a ceiling space).
3. Action dealing with performing asbestos removal for compliance with regulations.
4. Action dealing with Type 2 asbestos procedures for ceiling entry where friable ACM debris is present on the top side of a ceiling system.
5. Action dealing with the removal of asbestos that goes beyond compliance requirements but simplifies the asbestos management.
6. Action dealing with the repair of asbestos.
7. Action dealing with ACM surveillance requirements of the regulation.
8. Action for dealing with material that may contain asbestos but was not conclusively identified in the survey.

#### **A.1.2.4 Quantity**

The approximate quantity and the units of measure related to the quantity (i.e.: linear feet (LF), square feet (SF) or each (EACH) as appropriate to the item) have only been provided for materials requiring remedial or corrective action (i.e. materials in Fair or Poor condition). In such circumstances any quantities provided should be considered rough estimates only and should not be solely relied upon for bidding purposes. It is the responsibility of the selected Contractor to obtain actual quantities.

#### **A.2 Lead**

If paint samples were collected, they would be collected by scraping the paint down to the base material substrate to ensure collection of all layers of paint. Care would be taken to avoid collection of the underlying substrate to reduce analytical substrate matrix interference.

If collected, paint samples would be submitted to an independent laboratory for the determination of lead content. The laboratory would participate in and accredited by the EPA (U.S. Environmental Protection Agency) for analysis of lead in paint chips through the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP). Analysis would be conducted by the laboratory following the EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), Method 7000B "Flame Atomic Absorption Spectrophotometry". Result of analysis would be reported by the laboratory as the percentage of lead by weight of the total sample (% by wt.).

The presence of lead in other materials, such as lead sheeting, pigmented mortar, lead piping, lead solder, etc. would be noted where observed but not sampled to verify lead content. Lead can be present in these materials to varying degrees, depending on their age of application and should be considered lead-containing until proven otherwise.

### **A.3 Mercury**

The type, quantity and location of mercury-containing equipment and devices in the subject area were determined by visual inspection based on appearance, age and knowledge of historical uses. Sampling for mercury-containing building materials and dismantling of suspect mercury-containing equipment was not performed. Where possible, attempts were made to verify the presence/absence of mercury by gathering additional information such as equipment model number, serial number, etc.

### **A.4 Silica**

The presence of crystalline silica in building materials was determined through visual inspection of building materials only, based on knowledge of the historic use of silica-containing materials in certain building materials. Sampling to verify the presence/absence of silica in building materials was not performed.

### **A.5 Other Designated Substances**

Other designated substances (i.e. acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, and vinyl chloride) are typically not expected to be encountered in building materials as significant constituents or in a form that would represent an exposure concern. These substances were not included in the assessment unless specific information regarding their use (e.g. in a manufacturing process) was provided to us. No sampling for these designated substances was performed.

### **A.6 Other Hazardous Materials**

#### ***A.6.1 Chemical Hazards***

##### ***A.6.1.1 Urea Formaldehyde Foam Insulation (UFFI)***

A visual inspection to evaluate the possible presence of Urea Formaldehyde Foam Insulation (UFFI) was conducted in the subject area. Our visual inspection was limited to identifying evidence of possible UFFI installation (i.e. repaired nozzle holes in walls) and overspray at wall/ceiling joints, etc. No destructive testing or material sampling was conducted as part of the assessment.

### **A.7 Biological Hazards**

#### ***A.7.1.1 Mould Contamination***

A visual inspection to determine the possibility of mould growth was conducted in the subject area. The assessment was limited to identifying evidence of mould growth and water damage (staining, material deterioration, efflorescence, etc.) on the surface of building materials, which may be an indicator of hidden mould growth. No moisture content readings of building materials were taken to determine their current condition. Additionally, destructive testing to confirm the presence/absence of hidden mould growth and material sampling to verify the presence/absence of mould on suspect surfaces was beyond the scope of this assessment.

### **A.7.1.2 Pest Infestation**

The presence and extent of pest infestation in the subject area was based on visually inspecting for evidence of significant pest activity, including signs of nesting, droppings/fecal accumulation, dead insects/carcass accumulation, etc. Evidence of minor pest presence was not considered to be indicative of pest infestation.

## **A.8 Environmental Hazards**

### **A.8.1 Polychlorinated Biphenyls (PCBs)**

The presence of PCB-containing electrical equipment in the subject area was identified through visual inspection and knowledge of the timeline of historical use.

For stand-alone transformers and capacitors, information from the manufacturer nameplate (such as the date of manufacture, dielectric fluid trade name or “Type Number”, etc.) was gathered, where possible, to further evaluate if the equipment may contain PCBs. This information was then compared to the information provided in the Environment Canada document entitled “Handbook on PCB’s in Electrical Equipment” (Third Edition, April 1988) to aid in identification. Transformers and capacitors confirmed to be manufactured after 1979 were assumed to not contain PCBs. If appropriate information could not be obtained it was assumed that the transformer or capacitor contained PCBs.

For fluorescent light ballasts, a representative number of fixtures were inspected, if possible, for assessment areas that were constructed prior to 1980 and where there was no history or evidence of a complete lighting retrofit. The light fixtures were examined by removing any lenses and ballast covers to expose the ballast and identify information such as ballast make, model number, serial number, and date code. This information was then compared to the information provided in the Environment Canada document entitled “Identification of Lamp Ballasts Containing PCBs” (Report EPS 2/CC/2 (revised) August 1991) to aid in identification. Ballasts that could not be confirmed Non-PCB-containing were assumed to contain PCBs. The light fixtures were not de-energized and ballasts were not removed to obtain manufacturer information that may be on the back of the ballast. If visual confirmation of ballast type could not be made it was assumed that light fixtures in areas constructed prior to 1980 that have not undergone a complete lighting retrofit have PCB-containing ballasts until proven otherwise.

No sampling of materials or fluids within equipment was conducted to verify the presence/absence of PCBs. Inspection and testing of other materials for PCB content, including (but not limited to) caulking, asphalt, oil-based paint, plastics, switches, electric cables and hydraulic fluids was beyond the scope of the assessment.

### **A.8.2 Ozone Depleting and Global Warming Substances**

The presence of fixed equipment likely to contain ozone-depleting substances (ODS) and/or global-warming substances (GWS) was identified through visual inspection and



knowledge of the timeline of historical use. This included equipment such as chillers, air-conditioners, walk-in refrigeration and freezer units and fixed dry-chemical fire extinguishers, where chemicals such as hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs) or halons may be present. Where possible, information regarding the type and quantity of refrigerant present was obtained from the manufacturer nameplate. Our visual assessment was limited to fixed equipment in the subject area and did not include portable equipment such as stand-alone refrigerators, freezers, water coolers, air-conditioners and fire extinguishers, etc.