

DESIGNATED SUBSTANCES AND HAZARDOUS BUILDING MATERIALS ASSESSMENT REPORT

Interior & Exterior Renovation Project
Tomken Twin Arena
4495 Tomken Road
Mississauga, Ontario
L4W 1J9

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Safetech Project Number: 1-3220120

Date of Site Work: February 23, 2022 Date of Issue: March 2, 2022





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EXECUTIVE SUMMARY

Safetech Environmental Limited (Safetech) was commissioned by City of Mississauga to conduct a designated substances and hazardous materials assessment in Project Specific Location of 4495 Tomken Road, Mississauga, 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. Interior & Exterior Renovation Project) 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) and Site Drawings (Appendix A) of our report for additional details.

Table 1: Summary of Hazardous Materials and Designated Substances

Designated Substance	Findings	Recommendations
Asbestos	No asbestos-containing materials were identified in the areas assessed that would be impacted during the project.	No action required.
Lead	White, grey, green and off white paint was confirmed to be a low-level lead-containing paint (≤0.1% lead content). The following materials are assumed to be lead-containing: - paints and surface coatings (not sampled) - glazing associated with ceramic tiles - batteries associated with emergency lighting - batteries associated with the emergency generator - solder in copper pipe fittings - solder in electrical components	Disturbance of lead-containing materials must be conducted in accordance with the Ontario Ministry of Labour, Training and Skills Development (MLTSD) Lead on Construction Projects guideline (2011) and/or the Environmental Abatement Council of Canada (EACC) Lead Guideline (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, General- Waste Management.



	Sources of mercury were observed in the subject area and include the following:	
Mercury	 vapour in fluorescent lamps vapour in HID lamps liquid in thermostats thermometers associated with the boiler thermometers associated with mechanical equipment 	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: - drywall walls/drywall joint compound - concrete - mortar - 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 "Silica on Construction Projects" 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.
Other Hazardous Materials	Findings	Recommendations
Urea Formaldehyde Foam Insulation	No UFFI was identified or is suspected in the subject area.	No action required.
Mould Contamination	No suspect mould contamination was observed on building finishes in the subject area.	No action required.
Pest Infestation	No pest infestations were observed in the areas assessed.	No action required.
Polychlorinated Biphenyls	Given that the building is known to be constructed after 1980, no light fixtures are expected to have PCB-containing ballasts as the manufacture of PCBs in the U.S. was banned in 1979 and Canada banned the import, manufacture and sale of PCBs in 1977.	No action required.

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air-conditioning Purge unit(s) remaining refrigerant prior to removal and disposal. This should be conducted by a certified person who One (1) large air-conditioning unit at holds a valid Ozone Depletion the exterior North side is suspected to Prevention Certificate. contain HCFC-22. Ozone Depleting and Global Warming Servicing and testing of refrigeration Five (5) small air-conditioning units in Substances equipment should be conducted in the Rinks and Mechanical Rooms is accordance with Environment suspected to contain HCFC-22. Canada's "Environmental Code of Practice for Elimination of Fluorocarbon **Emissions** from Refrigeration and Air Conditioning Systems".

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

James Macklin Project Manager



March 2, 2022

City of Mississauga 950 Burnhamthorpe Road West Mississauga, Ontario

Attention: Ms. Wing-See Wu, M. Arch, OAA

Project Manager

RE: Designated Substances and Hazardous Materials Assessment

Interior & Exterior Renovation Project

Tomken Twin Arena

4495 Tomken Road, Mississauga, Ontario

1.0 INTRODUCTION

1.1 Background and Objectives

Safetech Environmental Limited (Safetech) was commissioned by City of Mississauga to conduct a designated substances and hazardous materials assessment in Project Specific Location at 4495 Tomken Road, Mississauga, Ontario (subject building). The objective of the assessment was to determine the presence, location, condition and quantities of designated substances and other hazardous materials in the subject building that have the potential to be disturbed as part of planned construction activities (i.e. Interior & Exterior Renovation Project) 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 February 23, 2022 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 building 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:

- Architectural Floor Plans by Rounthwaite, Dick and Hadley Architects, dated 1991.
- Scope of Work Floor Plans, provided by City of Mississauga.

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);
- Assessing enclosed wall or ceiling cavities; and
- Assessing risers, pipe chases or elevator shafts.

1.3 Description of Area(s) Assessed

The area(s) investigated included all accessible locations of the subject building. The extent of the area investigated is indicated on the floor plan(s) provided in Appendix B.



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

Table 2: Building Description

Estimated Year of Construction	1992
Number of Floors	2
Estimated Size of Building	20,0000 SF
Heating System	Radiant heating
Structure	Wood, concrete
Ceilings	Drywall, wood
Walls	Drywall
Floors	Vinyl finishes

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 B.

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

Sample No.	Material Description	Sample Location	Asbestos Content	Material Classification
1a		3rd Floor Mech Room (via coats 214)		
1b		Stairwell		
1c	Drywall Joint	2nd Floor Meeting Room 213		
1d	Compound	1st Floor Lobby	None Detected	Non-ACM
1e		2nd Floor Lobby		
1f		Stairwell		
1g		1st Floor Elec Vault G43A		



Sample No.	Material Description	Sample Location	Asbestos Content	Material Classification
2a	1x1 White/Green Fleck			
2b	Vinyl Floor Tile	2nd Floor Coats 214	None Detected	Non-ACM
2c	VIII TOOL THE			
2a	Mastic 1x1			
2b	White/Green Fleck	2nd Floor Coats 214	None Detected	Non-ACM
2c	Vinyl Floor Tile			
3a	4v4 Croop Vinyl Floor	Ond Floor Monting		
3b	1x1 Green Vinyl Floor Tile	2nd Floor Meeting Room 213	None Detected	Non-ACM
3c	THO	1100111 2 1 0		
4a	44 \M\\:\ta\\O\\\\.\\	On d Floor I Figure		
4b	1x1 White/Grey Fleck Vinyl Floor Tile	2nd Floor Figure Skating 208	None Detected	Non-ACM
4c	VIIIyI I IOOI TIIC	Skating 200		
4a	Mastic 1x1	0.151151		
4b	White/Grey Fleck Vinyl	2nd Floor Figure Skating 208	None Detected	Non-ACM
4c	Floor Tile	Okating 200		
5a		3rd Floor Mech Room (via coats 214)		
5b	Concrete Block Mortar	2nd Floor Mech Room 203	None Detected	Non-ACM
5c		1st Floor Rink		
6a		Ord Floor Mook Doom		
6b	Red Mastic HVAC	3rd Floor Mech Room (via coats 214)	None Detected	Non-ACM
6c		(VIG 00013 214)		
7a				
7b	Window Caulking	Exterior	None Detected	Non-ACM
7c				
8a				
8b	Door Caulking	Exterior	None Detected	Non-ACM
8c				
9a				
9b	Brick Mortar	Exterior	None Detected	Non-ACM
9с				

As per O.Reg. 278/05, ACM contains ≥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 to the exterior North side and in the Refrigeration Room G41. Due to the age of the building, this material is non-asbestos.
Sprayed Insulation	None identified in subject building.
Loose Fill / Vermiculite Insulation	None identified in subject building. Interior portions of concrete block walls could not be assessed. However, it is not expected that these walls are insulated with loose fill or vermiculite insulation
Thermal System Insulation	Location/Description
Mechanical Pipe Insulation – Straights	Pipe insulation was found to be fiberglass and therefore would not contain asbestos.



Mechanical Pipe Insulation – Fittings (elbows, valves, tees, hangars, etc.)	Pipe fitting insulation was found to be fiberglass and therefore would not contain asbestos.	
HVAC Duct	Duct insulation was found to be either non-insulated or insulated with fiberglass and therefore would not contain	
Insulation	asbestos.	
Breeching / Exhaust Insulation	Breeching insulation was found to be fiberglass and therefore would not contain asbestos.	
Tank Insulation	Tank insulation was found to be fiberglass under metal jacket and therefore would not contain asbestos.	



Boiler Insulation	Boiler insulation was found to be fiberglass under metal jacket and therefore would not contain asbestos.
Other Mechanical Equipment Insulation	None identified in subject building.
Architectural Finishes & Finishing Materials	Location/Description
Sprayed Texture / Stucco Finishes	None identified in subject building.
Plaster Finishes	None identified in subject building.



Drywall Joint Compound	Drywall joint compound was observed in the subject building. 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.	
Ceiling Tiles	Location/Description	
Lay-in Acoustic Ceiling Tiles	Lay-in ceiling tiles were observed in the subject building. These tiles were date stamped with the year 2003 and therefore would not contain asbestos.	
Glued-on Acoustic Ceiling Tiles	None identified in subject buildin	g.
Cement Ceiling Panels	None identified in subject buildin	g.



Flooring	Location/Description	
	1x1 white/green fleck vinyl floor tiles were observed throughout the 2 nd floor. 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.	
Vinyl Floor Tiles	1x1 green vinyl floor tiles were observed throughout the 2 nd floor. 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.	
	1x1 white/grey fleck vinyl floor tiles were observed in the 2 nd floor Figure Skating 208. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 4 in Table 3	
Vinyl Sheet Flooring	New rubber vinyl sheet flooring was identified throughout the 1st floor. This material is new and does not contain asbestos.	
Mastic	Mastic/leveler associated with 1x1 white/green fleck vinyl floor tiles was observed in the subject building. 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.	

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Mastic	Mastic associated with 1x1 white/grey fleck vinyl floor tiles was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestoscontaining. Refer to sample set 4 in Table 3.	
(continued)	Mastic associated with ductwork was observed in the 3 rd floor Mech Room (via coats 214). Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestoscontaining. Refer to sample set 6 in Table 3.	
Cement		
Products	Location/Description	
Products Piping	Location/Description None identified in subject building	g.
	•	
Piping Roofing, Siding,	None identified in subject buildin	g.



Exterior Building Materials	Location/Description	
	Window caulking was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is	
Caulking	not asbestos-containing. Refer to sample set 7 in Table 3.	
	Door caulking was observed in the subject building. Bulk samples were collected during the assessment and	THAT PROCESSES
	results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 8 in Table 3	



Other Cement Products	Concrete block mortar was observed in the subject building. Bulk samples were collected during the assessment and results of analysis confirmed that this building material is not asbestos-containing. Refer to sample set 9 in Table 3	
Roof Membrane	The roof and siding were found to be clad with metal and therefore would not contain asbestos.	
Misc. Materials	Location/Description	
Piping	Pipes in the Refrigeration Room G41 were found to be made of fiberglass and therefore would not contain asbestos.	AMMONIA SUCTION

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 C. 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	2 nd Floor Coats 214	Drywall	White	Good	<0.0081	LLLP
L2	2 nd Floor Mech Room 203	Concrete	Grey	Fair	<0.0081	LLLP
L3	2 nd Floor Mech Room 203	Metal HVAC	Green	Poor	<0.0081	LLLP
L4	1 st Floor Refrigeration Room G41	Concrete	Grey	Poor	<0.0082	LLLP
L5	2 nd Floor Mech Room (Storage 211)	Metal HVAC	Off White	Poor	<0.0080	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 building included the following:

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

2.1.3 Mercury

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

- vapour in fluorescent lamps
- vapour in HID lamps
- liquid in thermostats
- thermometers associated with the boiler
- thermometers associated with mechanical equipment

2.1.4 Silica

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



- drywall walls/drywall joint compound
- concrete
- mortar
- 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 building. In addition, due to the age of construction and use of the building, the presence of UFFI insulation within wall cavities is not suspected.

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 building 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 building 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 building.

2.2.3 Environmental Hazards

2.2.3.1 Polychlorinated Biphenyls (PCBs)

Given that the building is known to be constructed after 1980, no light fixtures are expected to have PCB-containing ballasts as the manufacture of PCBs in the U.S. was banned in 1979 and Canada banned the import, manufacture and sale of PCBs in 1977. Similarly, no other electrical equipment (such as transformers and capacitors) present in the subject area(s) is expected to contain PCBs based on the age of building construction.



2.2.3.2 Ozone Depleting and Global Warming Substances

Equipment identified in the subject building 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
Exterior	Munters – Air- Conditioning Unit	Suspect R-22 (HCFC-22)	ODS/GWS
Rinks	Air-Conditioning Unit x2	Suspect R-22 (HCFC-22)	ODS/GWS
Mech Rooms	Air-Conditioning Unit x3	Suspect R-22 (HCFC-22)	ODS/GWS

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 Designated Substances

3.1.1 Asbestos

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As results summarized in Table 3 indicate, no asbestos was detected in any of the bulk samples of drywall joint compound, vinyl floor finishes, mastics, block mortar or caulking retrieved for analysis. Therefore, this building material is considered to be Non-ACM and there are no requirements for management, disturbance or removal of this material under O. Reg. 278/05.

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.

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

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Results of paint chip analysis for the determination of lead content indicated that white, grey, green and off white paint associated with drywall, concrete and ductwork 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.

Emergency lighting is present on perimeter walls in the subject building and are suspected to contain lead-acid batteries. If emergency lighting is removed/replaced as part of the scheduled work activities, the batteries are recommended to be sent to a recycling facility for proper treatment.

Additional suspect lead-containing products not anticipated to be disturbed during construction includes solder on pipe fittings and electrical components. Future testing of these materials and specific handling/disposal requirements may be necessary if/when these materials are to be disturbed.

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.

	e EACC guideline.
Operation	Description
Class 1	 Removal of lead-containing or lead-based paints and surface coatings with a chemical gel/stripper or paste; Application of lead-containing or lead-based paints and surface coatings with a brush, roller or sponge. Installation or removal of lead sheeting or flashing. Installation or removal of lead-containing packing, babbitt, caulking, gasket or similar material. 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. 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. Soldering with lead solder.
	 8. Removing lead-containing or lead-based paints or surface coatings with a heat gun. 9. Removing lead-containing and lead-based paints and surface coatings using a high-pressure water jet (e.g. pressure washer).
Class 2a	 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*. 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. Welding, torching or high temperature cutting of lead-containing and lead-based paints and surface coatings or lead-containing materials outdoors. Removal of lead-containing mortar using handheld non-powered tools. 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. Demolition of plaster or building components that crumble, pulverize or powder and are covered with lead-containing or lead-based paints or surface coatings. 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.
Class 2b	Spray application of lead-containing paints and surface coatings

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Operation	Description
Class 3a	 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. Welding, torching or high temperature cutting of lead-containing materials indoors or in a confined space (e.g. within a ditch or pit). Removal of lead-containing mortar using a powered cutting device. Burning of a material containing lead. Removal, cleaning or repair of a ventilation system or ductwork used for controlling lead exposure. Spray application of lead-based paints and surface coatings. In the absence of an exposure assessment: 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. 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.
Class 3b	 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).

^{*} Effective implies that the dust collection system should be capable of controlling airborne lead concentration levels to below 0.05 mg/m³. 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

Safetech Project No: 1-3220120

Fluorescent and HID lamps that require removal should be handled with care and kept intact to avoid potential exposure to mercury vapour present within the lamps. 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.

A mercury-containing thermostat, gauges and thermometers associated with the boiler and other mechanical equipment were observed in the subject building. These items are not expected to be removed as part of the construction project. However, care should be taken not to disturb these items during the work as breakage could cause a spill of liquid mercury. If any of these items are to be removed it should be done so carefully to avoid spillage and stored/packaged in a manner that will prevent breakage or spillage. Any



mercury-containing equipment that is to be removed is recommended to be recycled rather than disposed of in landfill.

Liquid mercury is suspected to be present in 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.) associated with mechanical equipment. These items are expected to be removed as part of the construction project. Care should be taken not to disturb these items during the work as breakage could cause a spill of liquid mercury. If any of these items are to be removed it should be done so carefully to avoid spillage and stored/packaged in a manner that will prevent breakage or spillage. Any mercury-containing equipment that is to be removed is recommended to be recycled rather than 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

Safetech Project No: 1-3220120

Suspect silica-containing materials were identified to be present in the subject building. 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
•	1. The drilling of holes in concrete or rock that is not part of a tunneling operation or
	road construction.
	Milling of asphalt from concrete highway pavement
	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)
Type 1	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.
	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.
	6. Working within 25 metres of an area where compressed air is being used to
	remove silica-containing dust outdoors.
	Removal of silica containing refractory materials with a jackhammer
	2. The drilling of holes in concrete or rock that is part of a tunneling or road
	construction.
	3. The use of a power tool to cut, grind, or polish concrete, masonry, terrazzo or refractory materials.
	4. The use of a power tool to remove silica containing materials.
	5. Tunneling (operation of the tunnel boring machine, tunnel drilling, and tunnel mesh
Type 2	installation).
	6. Tuckpoint and surface grinding
	7. Dry mortar removal with an electric or pneumatic cutting device
	Dry method dust cleanup from abrasive blasting operations
	9. The use of compress air outdoors for removing silica dust
	10. Entry into area where abrasive blasting is being carried out for more than 15
	minutes
Type 3	Abrasive blasting with an abrasive that contains >1% silica
i ype 3	2. Abrasive blasting or a material that contains >1% silica

3.1.5 Other Designated Substances

No other designated substances are expected to be a component of building materials in the subject building 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

Safetech Project No: 1-3220120

As no UFFI was identified or is suspected to be present in the subject building, 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

No mould contamination was identified in the subject building 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 building, 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

Safetech Project No: 1-3220120

No visual evidence of any significant pest infestation was observed in the subject building. 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)

Given that the building is known to be constructed after 1980, no light fixtures are expected to have PCB-containing ballasts as the manufacture of PCBs in the U.S. was banned in 1979 and Canada banned the import, manufacture and sale of PCBs in 1977. Similarly, no other electrical equipment (such as transformers and capacitors) present in the subject area(s) is expected to contain PCBs based on the age of building construction.

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) large air-conditioning unit was noted at the exterior North side within a fenced enclosure. Five (5) small air-conditioning units were noted in the rinks and mechanical rooms. These air-conditioning units may require removal as part of the construction project and the assessment listed the units as suspect containing HCFC-22. 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).

4.0 LIMITATIONS

Safetech Project No: 1-3220120

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

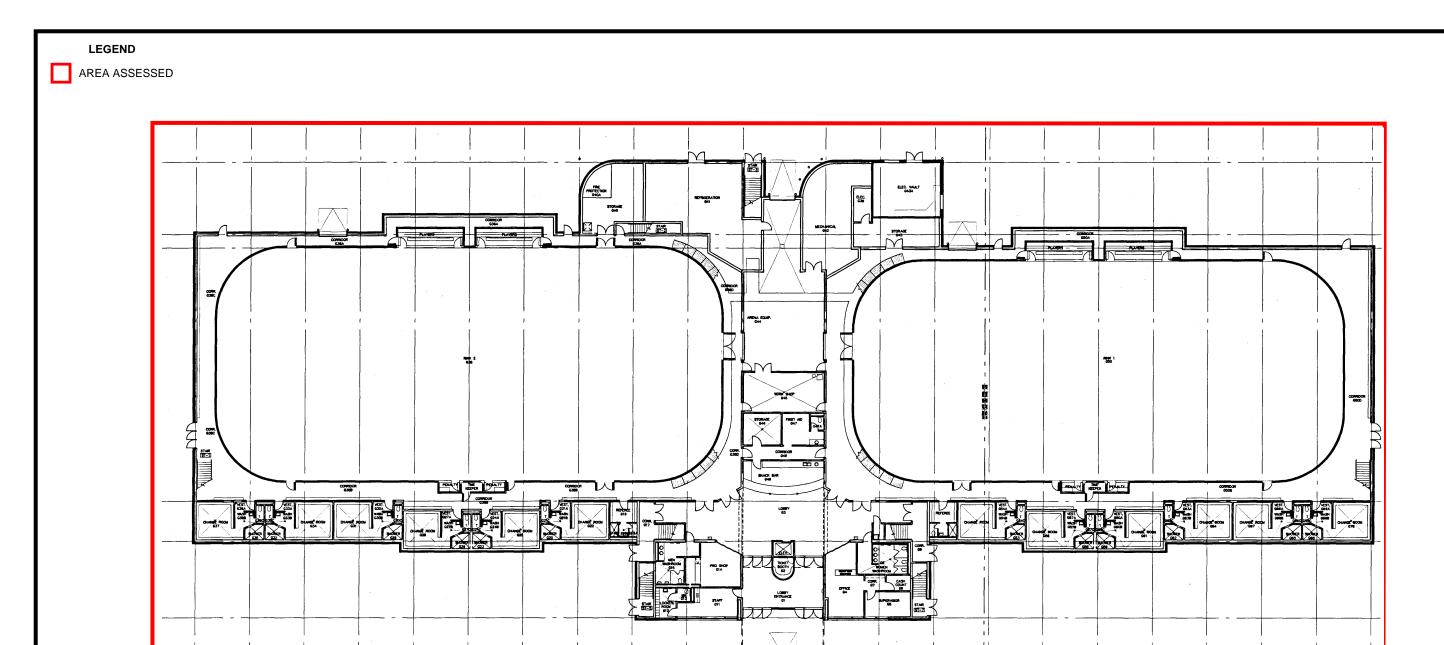


uncovered during renovation/demolition activities should be properly assessed by a qualified person prior to their disturbance. Safetech cannot warrant against undiscovered environmental liabilities. If any information becomes available that differs from the findings in this report, we request that we 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: Site Drawings





- 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".

1ST FLOOR

INTERIOR AND EXTERIOR RENOVATION

TOMKEN TWIN ARENA

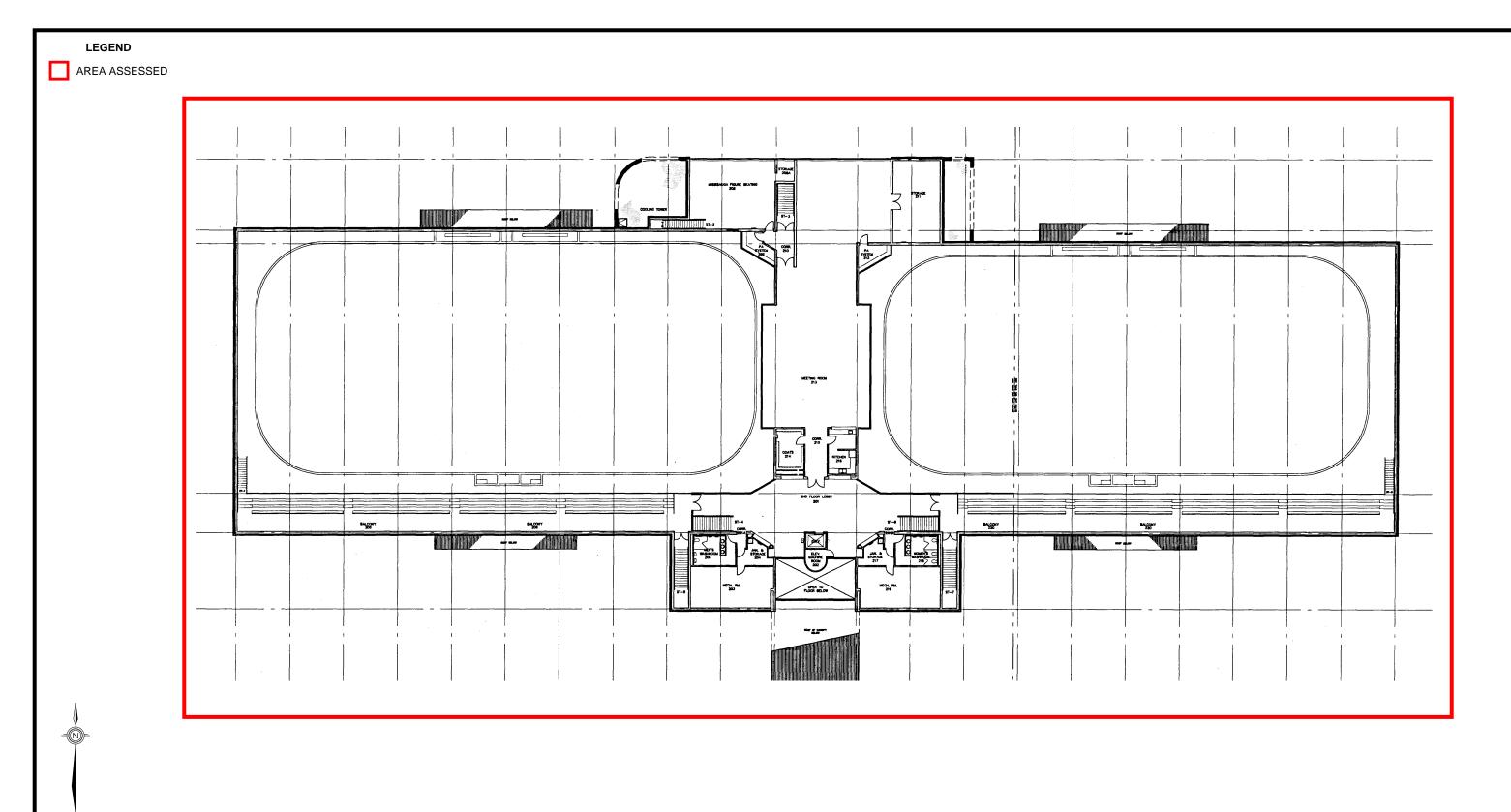
DRAWING NO.

DATE: FEB 23, 2022

SAFETECH PROJECT NO. 1-3220120



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



- 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".

2ND FLOOR

INTERIOR AND EXTERIOR RENOVATION

TOMKEN TWIN ARENA

DRAWING NO.

DS-2

DATE: FEB 23, 2022

SAFETECH PROJECT NO. 1-3220120



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



Appendix B: Laboratory Certificate of Analysis – Asbestos



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3 Phone/Fax: (289) 997-4602 / (289) 997-4607 http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 552202899 55SELI62 Customer ID: 1-3220120 Customer PO:

Lab Sample ID:

552202899-0003

Project ID:

Attn: Jim Macklin

> Safetech Environmental 3045 Southcreek Road

Unit 14

Mississauga, ON L4X 2X7 Collected: Received:

Fax:

Phone:

2/24/2022

(905) 624-2722

(905) 624-4306

Analyzed: 3/02/2022

Proj: 1-3220120 - Tomken Twin Arena

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Lab Sample ID: 552202899-0001 Client Sample ID:

Sample Description: 3rd Floor | Mech Room (via coats 214)/Drywall Joint Compound

Analyzed Non-Asbestos Comment TEST Date Color **Fibrous** Non-Fibrous Asbestos PLM 3/02/2022 100.0% Beige 0.0% None Detected Lab Sample ID: 552202899-0002 Client Sample ID: 1b

Sample Description: Stairwell/Drywall Joint Compound

1c

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous Asbestos Comment PLM 3/02/2022 White 0.0% 100.0% None Detected

Client Sample ID: Sample Description: 2nd Floor | Meeting Room 213/Drywall Joint Compound

Non-Asbestos Analyzed **TEST** Date Fibrous Non-Fibrous Comment Color Asbestos PLM 3/02/2022 White 0.0% 100.0% None Detected Client Sample ID: Lab Sample ID: 552202899-0004

Sample Description: 1st Floor | Lobby/Drywall Joint Compound

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous Asbestos Comment PLM 3/02/2022 White 0.0% 100.0% None Detected

Client Sample ID: Lab Sample ID: 552202899-0005 1e

Sample Description: 2nd Floor | Lobby/Drywall Joint Compound

Analyzed Non-Asbestos TEST Date Fibrous Non-Fibrous Comment Color Asbestos PLM 3/02/2022 Beige 0.0% 100.0% None Detected

Lab Sample ID: 552202899-0006 Client Sample ID:

Sample Description: Stairwell/Drywall Joint Compound

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous Asbestos Comment PLM 3/02/2022 White 0.0% 100.0% None Detected Lab Sample ID: 552202899-0007 Client Sample ID:

Sample Description: 1st Floor | Elec Vault G43A/Drywall Joint Compound

Analyzed Non-Asbestos **TEST** Fibrous Non-Fibrous Comment Date Color Asbestos PLM 3/02/2022 White 0.0% 100.0% None Detected



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3 Phone/Fax: (289) 997-4602 / (289) 997-4607 http://www.EMSL.com/torontolab@emsl.com/

EMSL Canada Order 552202899 Customer ID: 55SELI62 Customer PO: 1-3220120

Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

			7000/10	-33/110 MCtil	<u> </u>		
Client Sample ID:	2a					Lab Sample ID:	552202899-0008
Sample Description:	2nd Floor Coats 214/1	(1 White/Green Fleck V	inyl Floor Til	e			
	Analyzed		Non	-Asbestos			
TEST	Date	Color		Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	White	0.0%	100.0%	None Detected		
Client Sample ID:	2b					Lab Sample ID:	552202899-0009
Sample Description:	2nd Floor Coats 214/1)	v1 White/Green Fleck V	inyl Floor Til	е		•	
	·		•				
	Analyzed			-Asbestos			
TEST	Date	Color		Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	White	0.0%	100.0%	None Detected		
Client Sample ID:	2c					Lab Sample ID:	552202899-0010
Sample Description:	2nd Floor Coats 214/12	d White/Green Fleck V	inyl Floor Til	Э			
	A 1			Ashasta			
TEST	Analyzed Date	Color	Non Fibrous	-Asbestos Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	White	0.0%	100.0%	None Detected	- Commone	
					50.00.00	Lah Comple ID:	552202899-0011
Client Sample ID:	2a Sand Floor I Conta 24.4/M	antia I dud Milita (O	Flack March	Eleas Tila		Lab Sample ID:	JJ220203 3- 0011
Sample Description:	2nd Floor Coats 214/M	astic 1x1 White/Greer	ı Fleck Vinyl	Floor Tile			
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Brown/Gray/Black	0.0%	100.0%	None Detected		
Client Sample ID:	2b					Lab Sample ID:	552202899-0012
Sample Description:	2nd Floor Coats 214/M	astic I 1x1 White/Greer	Fleck Vinvl	Floor Tile		•	
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Brown/Gray/Black	0.0%	100.0%	None Detected		
Client Sample ID:	2c-Mastic					Lab Sample ID:	552202899-0013
Sample Description:	2nd Floor Coats 214/M	astic 1x1 White/Greer	Fleck Vinyl	Floor Tile			
T-0T	Analyzed	•		-Asbestos	A . I.	0	
TEST	Date	Color		Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Black	0.0%	100.0%	None Detected		
Client Sample ID:	2c-Leveler					Lab Sample ID:	552202899-0013A
Sample Description:	2nd Floor Coats 214/M	astic 1x1 White/Greer	Fleck Vinyl	Floor Tile			
	Angly-od		No-	-Asbestos			
TEST	Analyzed Date	Color		-Aspestos Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Gray/White	0.0%		None Detected		
						Lab Sample ID:	552202899-0014
Client Sample ID: Sample Description:	3a	m 040/4v4 (0 \1"	Floor Tile			Las Salliple ID.	002202033 - 0014
атріє резсприоп:	2nd Floor Meeting Roo	III 213/1X1 Green Vinyl	FIOOT THE				
	Analyzed		Non	-Asbestos			
TEST	Date	Color		Non-Fibrous	Asbestos	Comment	
	3/02/2022	Green	0.0%				



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3 Phone/Fax: (289) 997-4602 / (289) 997-4607 http://www.EMSL.com / torontolab@emsl.com EMSL Canada Order 552202899 Customer ID: 55SELI62 Customer PO: 1-3220120

Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID:	3b					Lab Sample ID:	552202899-0015
Sample Description:	2nd Floor Meeting Room	213/1x1 Green Vin	yl Floor Tile				
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Green	0.0%	100.0%	None Detected		
Client Sample ID:	3c					Lab Sample ID:	552202899-0016
Sample Description:	2nd Floor Meeting Room	213/1x1 Green Vin	yl Floor Tile			,	
TEST	Analyzed Date	Color		-Asbestos Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Green	Fibrous 0.0%		None Detected	Comment	
	3/02/2022	Gleen	0.070	100.0%	None Detected		
Client Sample ID:	4a					Lab Sample ID:	552202899-0017
Sample Description:	2nd Floor Figure Skating	208/1x1 White/Gre	y Fleck Vinyl F	loor Tile			
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Gray	0.0%	100.0%	None Detected		
Client Sample ID:	4b					Lab Sample ID:	552202899-0018
Sample Description:	2nd Floor Figure Skating 2	208/1y1 White/Cre	v Fleck Vinvl E	loor Tile		•	
p.c 2000.ipaon.	Zila i loui i ligule Skallilg i	200/ IAT WHITE/GIE	y i icok villyi F	IOOI TIIC			
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Gray	0.0%	100.0%	None Detected		
Client Sample ID:	4c					Lab Sample ID:	552202899-0019
Sample Description:	2nd Floor Figure Skating	208/1x1 White/Gre	v Fleck Vinvl F	loor Tile			
	Zha i looi i igare okating i	200/ TXT VVIII.C/ GIC	y i look viilyi i	iooi Tiic			
	Analyzed		Non	-Asbestos			
TEST							
DI M	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Color Gray/White			Asbestos None Detected	Comment	
			Fibrous			Comment Lab Sample ID:	552202899-0020
Client Sample ID:	3/02/2022 4a	Gray/White	Fibrous 0.0%	100.0%			552202899-0020
Client Sample ID:	3/02/2022	Gray/White	Fibrous 0.0%	100.0%			552202899-0020
Client Sample ID:	3/02/2022 4a 2nd Floor Figure Skating 2	Gray/White	Fibrous 0.0% hite/Grey Flec	100.0%			552202899-0020
Client Sample ID:	3/02/2022 4a	Gray/White	Fibrous 0.0% hite/Grey Flec	100.0% k Vinyl Floor Tile			552202899-0020
Client Sample ID: Sample Description: TEST	3/02/2022 4a 2nd Floor Figure Skating 2	Gray/White 208/Mastic 1x1 W	Fibrous 0.0% hite/Grey Flec	100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous	None Detected	Lab Sample ID:	552202899-0020
Client Sample ID: Sample Description: TEST	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022	Gray/White 208/Mastic 1x1 W Color	Fibrous 0.0% hite/Grey Flect Non Fibrous	100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous	None Detected Asbestos	Lab Sample ID: Comment	
Client Sample ID: Sample Description: TEST PLM Client Sample ID:	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022	Gray/White 208/Mastic 1x1 W Color Yellow	Fibrous 0.0% hite/Grey Flect Non Fibrous 0.0%	h Vinyl Floor Tile -Asbestos Non-Fibrous 100.0%	None Detected Asbestos	Lab Sample ID:	552202899-0020 552202899-0021
Client Sample ID: Sample Description: TEST PLM Client Sample ID:	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022	Gray/White 208/Mastic 1x1 W Color Yellow	Fibrous 0.0% hite/Grey Flect Non Fibrous 0.0%	h Vinyl Floor Tile -Asbestos Non-Fibrous 100.0%	None Detected Asbestos	Lab Sample ID: Comment	
Client Sample ID: Sample Description: TEST PLM Client Sample ID:	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022	Gray/White 208/Mastic 1x1 W Color Yellow	Fibrous 0.0% hite/Grey Flect Non Fibrous 0.0% hite/Grey Flect	h Vinyl Floor Tile -Asbestos Non-Fibrous 100.0%	None Detected Asbestos	Lab Sample ID: Comment	
Client Sample ID: Sample Description: TEST PLM Client Sample ID:	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022 4b 2nd Floor Figure Skating 2	Gray/White 208/Mastic 1x1 W Color Yellow	Fibrous 0.0% hite/Grey Flec Non Fibrous 0.0% hite/Grey Flec	100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0% k Vinyl Floor Tile	None Detected Asbestos	Lab Sample ID: Comment	
Client Sample ID: Sample Description: TEST PLM Client Sample ID: Sample Description:	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022 4b 2nd Floor Figure Skating 2 Analyzed	Gray/White 208/Mastic 1x1 W Color Yellow 208/Mastic 1x1 W	Fibrous 0.0% hite/Grey Flec Non Fibrous 0.0% hite/Grey Flec	100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous	Asbestos None Detected	Lab Sample ID: Comment Lab Sample ID:	
Client Sample ID: Sample Description: TEST PLM Client Sample ID: Sample Description: TEST PLM	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022 4b 2nd Floor Figure Skating 2 Analyzed Date	Gray/White 208/Mastic 1x1 W Color Yellow 208/Mastic 1x1 W Color	Pibrous 0.0% Chite/Grey Flect Non Fibrous 0.0% Chite/Grey Flect Non Fibrous	100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous	Asbestos Asbestos Asbestos	Lab Sample ID: Comment Lab Sample ID:	
Client Sample ID: Sample Description: TEST PLM Client Sample ID: Sample Description: TEST PLM Client Sample ID:	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022 4b 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022 4c	Gray/White 208/Mastic 1x1 W Color Yellow 208/Mastic 1x1 W Color Black	hite/Grey Flect Non Fibrous 0.0% hite/Grey Flect Non Fibrous 0.0%	100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0%	Asbestos Asbestos Asbestos	Lab Sample ID: Comment Lab Sample ID: Comment	552202899-0021
Client Sample ID: Sample Description: TEST PLM Client Sample ID: Sample Description: TEST PLM Client Sample ID:	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022 4b 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022	Gray/White 208/Mastic 1x1 W Color Yellow 208/Mastic 1x1 W Color Black	hite/Grey Flect Non Fibrous 0.0% hite/Grey Flect Non Fibrous 0.0%	100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0%	Asbestos Asbestos Asbestos	Lab Sample ID: Comment Lab Sample ID: Comment	552202899-0021
Client Sample ID: Sample Description: TEST PLM Client Sample ID: Sample Description: TEST PLM Client Sample ID:	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022 4b 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022 4c	Gray/White 208/Mastic 1x1 W Color Yellow 208/Mastic 1x1 W Color Black	Pibrous 0.0% Phite/Grey Flect Non Fibrous 0.0% Phite/Grey Flect Non Fibrous 0.0% Phite/Grey Flect Phite/Grey Flect Phite/Grey Flect Phite/Grey Flect	100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0%	Asbestos Asbestos Asbestos	Lab Sample ID: Comment Lab Sample ID: Comment	552202899-0021
PLM Client Sample ID: Sample Description:	3/02/2022 4a 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022 4b 2nd Floor Figure Skating 2 Analyzed Date 3/02/2022 4c 2nd Floor Figure Skating 2	Gray/White 208/Mastic 1x1 W Color Yellow 208/Mastic 1x1 W Color Black	Pibrous 0.0% Phite/Grey Flect Non Fibrous 0.0% Phite/Grey Flect Non Fibrous 0.0% Phite/Grey Flect Non Non Pibrous Non Pibrous Non	100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0% k Vinyl Floor Tile -Asbestos Non-Fibrous 100.0% k Vinyl Floor Tile	Asbestos Asbestos Asbestos	Lab Sample ID: Comment Lab Sample ID: Comment	552202899-0021



Client Sample ID:

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3 Phone/Fax: (289) 997-4602 / (289) 997-4607 http://www.EMSL.com / torontolab@emsl.com EMSL Canada Order 552202899 Customer ID: 55SELI62 Customer PO: 1-3220120

Lab Sample ID:

552202899-0023

Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Sample Description:	3rd Floor Mech Room (via	coats 214)/Concre	ete Block Mort	ar			
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Gray	0.0%	100.0%	None Detected		
Client Sample ID:	5b					Lab Sample ID:	552202899-0024
Sample Description:	2nd Floor Mech Room 203	3/Concrete Block M	1ortar				
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Gray/White	0.0%	100.0%	None Detected		
Client Sample ID:	5c-Block Fill					Lab Sample ID:	552202899-0025
Sample Description:	1st Floor Rink/Concrete B	lock Mortar					
	Analyzed		Non	-Asbestos			
TEST	Date	Color		Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	White	0.0%	100.0%	None Detected		
Client Sample ID:	5c-Mortar					Lab Sample ID:	552202899-0025A
Sample Description:	1st Floor Rink/Concrete B	lock Mortar					
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Gray	0.0%	100.0%	None Detected		
Client Sample ID:	6a					Lab Sample ID:	552202899-0026
Sample Description:	3rd Floor Mech Room (via	coats 214)/Red M	astic HVAC				
	, , ,	•	·				
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Brown	0.0%	100.0%	None Detected		
Client Sample ID:	6b					Lab Sample ID:	552202899-0027
Sample Description:	3rd Floor Mech Room (via	coats 214)/Red M	astic HVAC				
	()	,					
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Brown	0.0%	100.0%	None Detected		
Client Sample ID:	6c					Lab Sample ID:	552202899-0028
Sample Description:	3rd Floor Mech Room (via	coats 214)/Red M	astic HVAC				
•	(100						
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Brown	0.0%	100.0%	None Detected		
Client Sample ID:	7a					Lab Sample ID:	552202899-0029
Sample Description:	Exterior/Window Caulking					•	
, =====================================	Extensil village Gadiking						
	Analyzed		Non	-Asbestos			
TEST	Date	Color		Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	3/02/2022	Gray/Green	0.0%	100%	None Detected		



EMSL Canada Inc.

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EMSL Canada Order 552202899 Customer ID: 55SELI62 Customer PO: 1-3220120

Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Client Sample ID:	7b					Lab Sample ID:	552202899-0030
Sample Description:	Exterior/Window Caulking						
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	3/02/2022	Gray/Green	0.0%	100%	None Detected		
Client Semple ID:	7c					Lab Sample ID:	552202899-0031
Client Sample ID:						Lab Sample ID.	332202033-0031
Sample Description:	Exterior/Window Caulking						
	Analyzed			-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	3/02/2022	Gray/Green	0.0%	100%	None Detected		
Client Sample ID:	8a					Lab Sample ID:	552202899-0032
Sample Description:	Exterior/Door Caulking						
	3						
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	3/02/2022	Brown	0.0%		None Detected	· ·	
			2.370			1.1.0. 1.1-	
Client Sample ID:	8b					Lab Sample ID:	552202899-0033
Sample Description:	Exterior/Door Caulking						
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	3/02/2022	Brown	0.0%	100%	None Detected		
Client Sample ID:	8c					Lab Sample ID:	552202899-0034
Sample Description:	Exterior/Door Caulking						
	Exterior/Door Gaurking						
	Analyzed		Non	-Asbestos			
TEST	Date	Color		Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	3/02/2022	Brown	0.0%		None Detected	Comment	
1 LIVI Grav. Reduction		Blown	0.070	10070	None Detected		
Client Sample ID:	9a					Lab Sample ID:	552202899-0035
Sample Description:	Exterior/Brick Mortar						
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Gray	0.0%	100.0%	None Detected		
Client Sample ID:	9b					Lab Sample ID:	552202899-0036
·-							
Sample Description:	Exterior/Brick Mortar						
TEST	Analyzed	Color		-Asbestos	Anhastas	Comment	
TEST	Date	Crov		Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Gray	0.0%	100.0%	None Detected		
Client Sample ID:	9c					Lab Sample ID:	552202899-0037
Sample Description:	Exterior/Brick Mortar						
· •							
	Analyzed		Non	-Asbestos			
TEST	Date	Color		Non-Fibrous	Asbestos	Comment	
PLM	3/02/2022	Gray	0.0%		None Detected		
·	0/02/2022		0.070	100.070	None Detected		



EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3 Phone/Fax: (289) 997-4602 / (289) 997-4607 http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 552202899 Customer ID: 55SELI62 Customer PO: 1-3220120

Project ID:

Test Report: Asbestos Analysis of Bulk Materials for Ontario Regulation 278/05 via EPA600/R-93/116 Method

Analyst(s):

Delaney Breen PLM Grav. Reduction (4)

Elizabeth Mierzynski PLM (13)

Ruby Lai PLM Grav. Reduction (2)

Vanessa Gallego PLM (20)

Reviewed and approved by:

Matthew Davis or other approved signatory or Other Approved Signatory

and

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 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. Estimation of uncertainty available upon request. This report is a summary of multiple methods of analysis, fully compliant reports are available upon request. A combination of PLM and TEM analysis may be necessary to ensure consistently reliable detection of asbestos. This report must not be used to claim product endorsement by NVLAP of any agency or the U.S. Government.

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

Initial report from: 03/02/202214:29:12



Appendix C: Laboratory Certificate of Analysis – Lead



EMSL Canada Inc.

2756 Slough Street, Mississauga, ON L4T 1G3

Phone/Fax: (289) 997-4602 / (289) 997-4607

http://www.EMSL.com torontolab@emsl.com

Phone: (905) 624-2722
Fax: (905) 624-4306
Received: 2/24/2022 03:26 PM

EMSL Canada Or

CustomerID:

CustomerPO:

ProjectID:

552202890

55SELI62

1-3220120

Collected:

Attn: Jim Macklin
Safetech Environmental
3045 Southcreek Road

Unit 14 Mississauga, ON L4X 2X7

Project: 1-3220120 - Tomken Twin Arena

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

Client SampleDescription	Collected Analyzed	Weight	RDL	Lead Concentration
L1	2/25/2022	0.2480 g	0.0081 % wt	<0.0081 % wt
552202890-0001	Site: 2nd Floor - Coats 214 - White Paint (DW)			_
L2	2/25/2022	0.2464 g	0.0081 % wt	<0.0081 % wt
552202890-0002	Site: 2nd Floor - Mech Room 203 - Grey Paint (Concrete)			
L3	2/25/2022	0.2476 g	0.0081 % wt	<0.0081 % wt
552202890-0003	Site: 2nd Floor - Mech Room 203 - Green Paint (HVAC)			
L4	2/25/2022	0.2453 g	0.0082 % wt	<0.0082 % wt
552202890-0004	Site: 1st Floor - Refrigeration Room G41 - Grey Paint (Concrete)			
L5	2/25/2022	0.2510 g	0.0080 % wt	<0.0080 % wt
552202890-0005	Site: 2nd Floor - Mech Room (Storage 211) - Off White Paint (HV	AC)		

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 #196142

Initial report from 03/01/2022 14:03:32



Appendix D: Methodology



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.

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

A.1.2.3 Action

Recommended ACTION for compliance and for management of identified asbestoscontaining 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.