APPENDIX A4

Designated Substances Survey

4100 Keele Street, Fire Hall No. 141 Issued April 2021, by Fisher Environmental Ltd.



ENGINEERING



LABORATORY



DESIGNATED SUBSTANCES SURVEY FOR ACCESSIBILITY UPGRADES (IBI GROUP)

FIRE HALL 141 4100 KEELE STREET TORONTO, ONTARIO

400 Esna Park Drive, Unit 15 Markham, ON L3R 3K2

Tel: (905) 475-7755 Fax: (905) 475-7718 www.fisherenvironmental.com Project No. FE-P 21-11073 April, 2021

TABLE OF CONTENTS

1.0.	EXECUTIVE SUMMARY 1				
2.0.	INTRODUCTION				
3.0.	REGULATIONS				
4.0.	METH	IODOLOGY4	ł		
5.0.	REVIE	EW OF PREVIOUS REPORTS	;		
6.0.	FINDI	NGS AND RECOMMENDATIONS	;		
6.1.	ACF	SYLONITRILE	5		
6.2.	Ars	SENIC	5		
6.3.	ASB	ESTOS	5		
6	.3.1.	General Information	5		
6	.3.2.	Friable vs. Non-Friable ACM	3		
6	.3.3.	Regulations	7		
6	.3.4.	Findings	7		
6	.3.4.1.	Sprayed or Troweled Fireproofing and Thermal Insulation	3		
6	.3.4.2.	Texture Finish 8	3		
6	.3.4.3.	Mechanical Insulation	3		
6	.3.4.4.	Acoustic Ceiling Tile 8	3		
6	.3.4.5.	Plaster / Drywall Joint Compound 8	3		
6	.3.4.6.	Asbestos Cement Products 8	3		
6	.3.4.7.	Vinyl Sheet Flooring	3		
6	.3.4.8.	Vinyl Floor Tile 8	3		
6	.3.4.9.	Other ACM	3		
6	.3.5.	Recommendations	3		
6.4.	Ben	IZENE S)		
6.5.	COM	E OVEN EMISSIONS)		
6.6.	Етн	IYLENE OXIDES)		
6.7.		CYANATES			
6.8.	LEA	D 9			
6	.8.1.	General Information			
6	.8.2.	Regulations and Guidelines10)		



6.8.3.	Findings	10
6.8.4.	Recommendations	
6.9. Mer	RCURY	11
6.9.1.	General Information	11
6.9.2.	Regulations	
6.9.3.	Findings	
6.9.4.	Recommendations	
6.10. S	ILICA	12
6.10.1.	General Information	
6.10.2.	Regulations	12
6.10.3.	Findings	13
6.10.4.	Recommendations	13
6.11. V	INYL CHLORIDE	13
6.12. N	10ULD	13
7.0. LIMIT	ATIONS	14
	A – SITE PLAN(S)	A
APPENDIX I	B – PREVIOUS DSS REPORT	B



1.0. EXECUTIVE SUMMARY

Fisher Environmental Ltd. ('Fisher') was retained by IBI Group to carry out a survey for the Designated Substances and other potential hazardous materials within specified work area(s) for Fire Hall 141 located at 4100 Keele Street, Toronto, Ontario, herein after referred to as the "Site". The site inspection was conducted on March 19, 2021.

IBI Group has been commissioned by the City of Toronto to design and implement accessibility upgrades. The scope of the Designated Substances Survey (DSS) was to identify locations and types of designated substances within the building that may be impacted by the planned renovation work, and to provide recommendations for the safe handling or abatement of these materials, if any, prior to demolition.

The purpose of the project is to do the necessary construction and renovation at the locations are outlined on drawings provided by the IBI Group on March 16, 2021.

The survey was conducted in compliance with the Ontario Ministry of Labour (MOL) regulations for designated substances; O. Reg. 490/09 - *Designated Substances* and O. Reg. 278/05 - *Asbestos on Construction Projects and in Buildings and Repair Operations* made under the Occupational Health and Safety Act (OHSA), R.S.O. 1990.

<u>Asbestos</u>

Fisher was provided with the report of a previous DSS, which was conducted by Pinchin Ltd. on October 18, 2017. This report has indicated the only confirmed and assumed ACM was exterior window caulking.

Note: Fire doors, present within the specific work areas, may contain asbestos-containing thermal insulation inside the door panel. Removal of any asbestos containing fire doors, in intake condition, will require Type 1 to abatement procedures, as outlined in O. Reg. 278/05 and dispose of as asbestos waste.

<u>Lead</u>

Based on the age of the building (10 years old), it is unlikely that lead-based paints or lead plumbing are present within the building. During the current investigation, no samples were collected for lead analysis.

Fisher recommends that, prior to the planned renovation work, the removal of lead containing materials found within the specified work area(s), must be conducted using the appropriate lead abatement procedures. Lead abatement procedures to be used are determined by the method(s) of disturbance employed. Refer to *MOL Guideline: Lead on Construction Projects*, for details



Mercury

Mercury is presumed to be present in fluorescent light tubes and thermostatic controls. With the exception of fluorescent light bulbs and building thermostats, no other evidence of mercury was noted during the current survey. Prior to the planned renovation work, Fisher recommends that any presumed mercury-containing fluorescent light tubes and thermostats that will be impacted are to be removed and disposed of in accordance with O. Reg. 558/00.

<u>Silica</u>

No sampling for silica was conducted. However, as the building is constructed of concrete, brick and/or block walls with concrete floors, silica is expected to be found within these components of the buildings. If these materials will be disturbed during the planned renovation work, appropriate precautions should be taken to protect workers from inhaling silica dusts and debris. Refer to MOL *Guideline: Silica on Construction Projects* for details.

Other Designated Substances

The other Designated Substances would not be expected to be present at the Site. No immediate actions were recommended with regard to acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, and vinyl chloride.

<u>Mould</u>

During the current survey, no visible mould or favourable conditions for mould growth were observed in the specified work area(s). No action is recommended with regard to mould.



2.0. INTRODUCTION

Fisher Environmental Ltd. ('Fisher') was retained by IBI Group to carry out a survey for the Designated Substances and other potential hazardous materials within specified work area(s) for Fire Hall 141 located at 4100 Keele Street, Toronto, Ontario, herein after referred to as the "Site". The site inspection was conducted on March 19, 2021.

IBI Group has been commissioned by the City of Toronto to design and implement accessibility upgrades. The scope of the Designated Substances Survey (DSS) was to identify locations and types of designated substances within the building that may be impacted by the planned renovation work, and to provide recommendations for the safe handling or abatement of these materials, if any, prior to demolition.

The purpose of the project is to do the necessary construction and renovation at the locations are outlined on drawings provided by the IBI Group on March 16, 2021.

3.0. **REGULATIONS**

The survey was conducted in compliance with the Ontario Ministry of Labour (MOL) regulations for designated substances; O. Reg. 490/09 - *Designated Substances* and O. Reg. 278/05 - *Asbestos on Construction Projects and in Buildings and Repair Operations* made under the Occupational Health and Safety Act (OHSA), R.S.O. 1990.

The OHSA, R.S.O. 1990, under the Ontario MOL, defines a toxic substance as a biological, chemical or physical agent (or a combination of such agents) whose presence in the workplace may endanger the health and safety of a worker. Sections of the Act that deals with toxic substances are intended to:

- 1. ensure that worker exposure to toxic substances is controlled;
- 2. ensure that toxic substances in the workplace are clearly identified and that workers are provided with enough information to be capable of handling them safely; and,
- 3. provide the general public with access to information about toxic substances used by industry in their communities.

The Act makes provision for a toxic substance to be "designated", where its use in the workplace is prohibited, regulated, restricted, limited or controlled. Designation is reserved for eleven substances that are particularly hazardous, covered under O. Reg 490/09 – *Designated Substances* that was implemented on July 1, 2010, and include Acrylonitrile, Arsenic, Asbestos, Benzene, Coke Oven Emissions, Ethylene Oxides, Isocyanates, Lead, Mercury, Silica, and Vinyl Chloride. Formerly, regulations for these substances were passed separately and each outlined exposure limits where workers were likely to inhale, ingest and / or absorb the substance.



O. Reg. 490/09 provides a consistent approach to dealing with existing requirements and provisions, and outlines steps required to control worker exposure to these substances, including by inhalation, ingestion, skin absorption or skin contact. Each designated substance has an allowable level of exposure based on a time-weighted average (TWA) limit, and may also have a short-term exposure limit (STEL) and / or ceiling limit (C) assigned to it. TWA refers to the time-weighted average airborne concentration of a biological or chemical agent to which a worker may be exposed in a work day or work week, STEL refers to the maximum airborne concentration of a biological or chemical agent to which a worker may be exposed in any 15 minute period, and C refers to the maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time. Refer to O. Reg. 490/09 – *Designated Substances*.

A supplementary regulation regarding control of asbestos exposures in the construction industry has evolved into O. Reg. 278/05 – *Asbestos on Construction Projects and in Buildings and Repair Operations*. The regulation includes a definition of asbestos-containing materials (ACM), requirements for additional training and clearance air testing, procedures for determining materials that meet the definition of ACM and for the use of glove bags, and provisions for varying from measure and procedures set out in the regulation.

In addition to the OHSA and regulations regarding designated substances, the following regulations, guidelines and standards were also taken into account or referenced:

- O. Reg. 213/91 *Construction Projects* regulated under the OHSA and last amended by O. Reg. 443/09;
- O. Reg. 558/00 made under the Ministry of Environment (MOE) Environmental Protection Act, amending O. Reg. 347 *General Waste Management*;
- The Transport of Dangerous Goods Act (TDGA) provides regulations for the transport of asbestos-containing materials and wastes;
- MOL Guideline: Lead on Construction Projects, 2011; and,
- MOL Guideline: Silica on Construction Projects, 2011.

4.0. METHODOLOGY

Fisher followed the protocols outlined in O. Reg. 278/05 for collecting and analyzing bulk samples of materials suspected to contain asbestos. Visual assessment of the material was the primary method of identification with occasional physical contact for the purpose of collecting bulk samples or examining for underlying layers.

Where applicable, samples of suspect materials were collected in order to establish asbestos or lead content. Samples were grouped according to similarity of appearance ("homogeneous" materials). The frequency at which the samples were collected was sufficient to obtain a general representation of the presence of these materials at the Site. Samples collected are presumed to



be representative of respective building materials in-place at the Site. However, due to potential past renovations, alterations, repairs, or phases of construction, it is possible that individual materials may not be representative of samples collected.

Sampling of roofing materials was not part of the current scope of work. Further, sampling of materials found within operating equipment, portable building articles, or generally non-accessible components such as insulation within electrical switch gears, wiring, motors, light fixtures, elevator brakes, fire door cores, etc. was not performed as part of the current survey.

Samples collected during the survey were placed in plastic zip-lock bags which were labeled and submitted for laboratory analysis. Fisher Environmental Laboratories analysed bulk samples for asbestos type and approximate percent content by performing polarized light microscopy (PLM), as outlined in NIOSH Method 9002. Fisher Environmental Laboratories analysed samples for lead content in paint by performing acid digestion followed by Inductively Coupled Plasma (ICP) analysis.

Site Plan, indicating specific work area(s), is included in Appendix A.

5.0. REVIEW OF PREVIOUS REPORTS

Fisher was provided with the report of a previous DSS, which was conducted by Pinchin Ltd. on October 18, 2017, attached in Appendix B. This report has indicated the only confirmed ACM was exterior window caulking.

6.0. FINDINGS AND RECOMMENDATIONS

6.1. Acrylonitrile

Acrylonitrile would not be expected to be present at the Site and was not observed during the current survey. No recommendations for Acrylonitrile are warranted at this time.

6.2. Arsenic

Arsenic would not be expected to be present at the Site and was not observed during the current survey. No recommendations for Arsenic are warranted at this time.

6.3. Asbestos

6.3.1. General Information

Asbestos is the name given to a group of six different fibrous minerals (amosite, chrysotile, crocidolite, and the fibrous varieties of tremolite, actinolite and anthophyllite) that occur naturally in the environment. Asbestos minerals have separable long fibres that are strong and flexible enough to be spun and woven and are heat resistant.



Because of these characteristics, asbestos has been used for a wide range of manufactured goods, mostly in building materials (roofing shingles, ceiling and floor tiles, paper products, and asbestos cement products), friction products (automobile clutch, brake, and transmission parts), heat-resistant fabrics, packaging, gaskets, and coatings. Some vermiculite or talc products may also contain asbestos.

Asbestos fibres may be released into the air by the disturbance of ACM during product use, renovation or demolition work, building or home maintenance, repair and remodeling. In general, exposure may occur only when the ACM is disturbed in some way to release particles and fibres into the air.

6.3.2. Friable vs. Non-Friable ACM

Based on the requirements of O. Reg. 278/05 and due diligence, an asbestos survey and report must be available at any workplace where asbestos exists identifying locations and types of ACM in the building. The survey must include both friable and non-friable materials confirmed to contain asbestos, as well as any other materials which were not sampled but are suspected (presumed) ACM. The term friable refers to material(s) that could be readily reduced to dust or powder when crushed by hand or moderate pressure. Friable materials have a much greater chance of releasing airborne asbestos fibres when disturbed.

In the past, the most commonly used friable asbestos-containing building materials were surfacing materials (e.g. sprayed on fireproofing, texture, decorative or acoustic plaster) as well as thermal insulation. Examples of manufactured asbestos-containing materials include vinyl floor tiles, ceiling tiles, gasket materials, asbestos cement (transite) pipes or boards, and asbestos textiles. Depending on the above noted formulation, these materials range from non-friable to friable. Although some products are considered non-friable when in Good condition, severe damage or deterioration may cause non-friable materials to generate airborne dust more readily. Severely damaged non-friable materials, or those to be worked on with powered tools, may be considered as friable ACM for abatement purposes.

Examples of common types of ACM by friability include:

- Friable ACM
 - Sprayed Materials (or materials installed by roller or trowel), such as fireproofing, thermal insulation, texture finishes, etc.
 - Mechanical Insulation such as boiler and breeching, ductwork, piping, tanks and associated equipment.
 - Plaster
- Potentially Friable ACM
 - Acoustic Ceiling Tiles



- Vinyl Sheet Flooring
- Non-Friable ACM
 - Vinyl Floor Tiles
 - Asbestos cement ("transite") piping or paneling
 - Window Caulking

6.3.3. Regulations

Exposure to asbestos is controlled by two Regulations passed under Ontario's Occupational Health and Safety Act (OHSA), R.R.O. 1990.

- O. Reg. 490/09 Designated Substances regarding asbestos applies to:
 - every employer operating a mine for the purpose of mining, crushing, grinding or sifting asbestos;
 - every employer processing, adapting or using asbestos in connection with manufacturing or assembling of goods or products;
 - every employer engaged in the repair, alteration or maintenance of machinery, equipment, aircraft, ships, locomotives, railway cars and vehicles;
 - every employer engaged in work on a building that is necessarily incidental to the repair, alteration or maintenance of machinery or equipment; and,
 - to those workers of such employers who are likely to be exposed to asbestos.

Exposure limits for this substance are set at 0.1 f/cc (TWA) for all types of asbestos.

• O. Reg. 278/05 - Asbestos on Construction Projects and in Buildings and Repair Operations applies to buildings that contain friable and non-friable ACM and to the repair, alteration and/or maintenance of these buildings.

In addition to regulations for controlling work around asbestos-containing building materials there are regulations for packaging, transportation and disposal of asbestos-containing waste:

- O. Reg. 558/00 made under the Ministry of Environment (MOE) Environmental Protection Act, amending O. Reg. 347 *General Waste Management*; and,
- The Transport of Dangerous Goods Act (TDGA) provides regulations for the transport of asbestos-containing materials and wastes.

6.3.4. Findings

Fisher collected no bulk samples of building materials found within the specified work area that could potentially contain asbestos. Findings of all building materials identified within the specified work area are outlined in further detail below.



6.3.4.1. Sprayed or Troweled Fireproofing and Thermal Insulation

No indication of sprayed or troweled fireproofing and / or thermal insulation was noted in any of the specified work area(s) during the current survey.

6.3.4.2. Texture Finish

No texture finish was noted in any of the specified work area(s) during the current survey.

6.3.4.3. Mechanical Insulation

The majority of mechanical insulation observed throughout the building are either not insulated or are insulated with fiberglass which is not suspected to contain asbestos.

6.3.4.4. Acoustic Ceiling Tile

During the survey, one (1) type of ceiling tile was observed within the specific work areas.

• Ceiling Tiles 1 (2'×4' Lay-in textured)

The previous report confirmed that Ceiling Tile 1 was sampled for analysis. The results of analysis revealed this ceiling tile does not contain asbestos.

6.3.4.5. Plaster / Drywall Joint Compound

Plaster was not observed within the specified work areas. The previous report indicated that five (5) drywall joint compound (DJC) samples were collected for analysis. The results of analysis revealed that the DJC does not contain asbestos.

6.3.4.6. Asbestos Cement Products

No asbestos cement products, such as Transite pipe or board, were noted in the specified work area during the current survey.

6.3.4.7. Vinyl Sheet Flooring

No vinyl sheet flooring was noted in the specified work area during the current survey.

6.3.4.8. Vinyl Floor Tile

No vinyl floor tile was noted in the specified work area during the current survey.

6.3.4.9. Other ACM

No other materials suspected to contain asbestos were noted in the specified work area during the current survey.

6.3.5. Recommendations

No asbestos-containing materials were identified in any of the specified work area. Therefore, no recommendations with regards to ACM are warranted at this time. Provide a copy of this report to contractors bidding on or performing work within the subject work areas.



Note: Fire doors, present within the specific work areas, may contain asbestos-containing thermal insulation inside the door panel. Removal of any asbestos containing fire doors, in intake condition, will require Type 1 to abatement procedures, as outlined in O. Reg. 278/05 and dispose of as asbestos waste.

The presence of ACM should be presumed in locations not accessed during this survey. It is possible that ACM is present at the Site that is not identified in this report. Should additional suspected ACM be discovered, it should be presumed as ACM until sample analysis determines asbestos content.

Due to the limited nature of the current scope of work and the presence of solid building finishes (i.e. plaster or drywall walls and ceilings etc.) in many locations, the full extent of ACM may not be confirmed. Precautions should be taken when dismantling solid wall or ceiling finishes, or any other building surfaces which may conceal potential ACM. Such precautions include, but are not limited to, isolation measures and appropriate personal protective equipment.

6.4. Benzene

Benzene would not be expected to be present at the Site and was not observed during the current survey. No recommendations for Benzene are warranted at this time.

6.5. Coke Oven Emissions

Coke oven emissions would not be expected to be present at the Site and were not observed during the current survey. No recommendations for coke oven emissions are warranted at this time.

6.6. Ethylene Oxides

Ethylene oxides would not be expected to be present at the Site and were not observed during the current survey. No recommendations for ethylene oxides are warranted at this time.

6.7. Isocyanates

Isocyanates would not be expected to be present at the Site and were not observed during the current survey. No recommendations for isocyanates are warranted at this time.

6.8. Lead

6.8.1. General Information

Lead is a naturally occurring bluish–gray metal found in small amounts in the earth's crust. Most lead in the environment comes from human activities such as burning fossil fuels, mining and manufacturing. Lead is used in the production of batteries, ammunition, metal products (solder and pipes) and X-ray devices.



Lead does not break down but lead compounds are changed by sunlight, air and water. Exposure occurs when eating food or drinking water that contains lead. Deteriorated lead paint can contribute to lead dust. The main target for lead toxicity is the nervous system.

6.8.2. Regulations and Guidelines

The Ontario MOL has not prescribed criteria defining an analyzed sample of bulk material as "lead-containing". Further, the MOL has not established a lower limit for concentrations of lead in paint, below which precautions do not need to be considered during construction projects. However, except for very aggressive disturbance of painted finishes, (e.g., abrasive blasting, torch cutting, or grinding), Fisher believes that a lead content below 0.1% by weight (1,000 ug/g or 1000 ppm) represents a concentration in which the lead content is not the limiting hazard for construction hygiene purposes. Regular construction dust suppression techniques and worker hygiene practices are sufficient for disturbance of paint finishes determined to contain less than 0.1% lead by weight, provided that work is limited to non-aggressive operations.

The regulation for the designated substance lead applies to every employer and worker at a workplace where lead is present, produced, processed, used, handled or stored and at which a worker is likely to be exposed to lead. Exposure limits for this substance are set at 0.05 - 0.10 mg/m³ (TWA) depending on the type of lead, and for tetraethyl lead 0.30 mg/m³ (STEL).

Additionally, in 2011 the MOL revised *Guideline: Lead on Construction Projects* outlining practices that should be followed during construction projects to protect workers from exposure to lead. This includes the methods and equipment employed in the removal of lead-containing coatings that reduce the creation of dust, providing appropriate facilities for workers to wash after each shift, and providing protective clothing and respirators where necessary.

6.8.3. Findings

Based on the age of the building (10 years old), it is unlikely that lead-based paints and lead plumbing are present within the building. Lead can also be present in various ceramic tiles. During the current investigation, no samples were collected for lead analysis.

6.8.4. Recommendations

Where any lead-containing materials may be disturbed or removed, Fisher recommends that appropriate lead abatement procedures be used. The lead abatement procedures to be used are determined by the method(s) of disturbance employed. Regular construction dust suppression techniques and worker hygiene practices are sufficient for disturbance of paint finishes determined to contain less than 0.1% lead by weight, provided that work is limited to non-aggressive operations. The table below outlines lead abatement operations and associated respirator required, as outlined in Ontario MOL guidelines.



Classifications of Lead-Containing Operations and Required Respirator

Type 1 Operations (where concentrations of airborne lead would be expected to be < 0.05 mg/m ³)				
 Activities that include; Removal of lead containing coatings with chemical gel or paste and fibrous laminated cloth wrap Removal of lead containing coatings / materials using power tool that has an effective dust collection system equipped with HEPA filter Removal of lead containing coatings / materials using non-powered hand tools other than manual scraping or sanding 	Respirators should not be necessary if general procedures are followed and level of air is less than 0.05 mg/m ³ . However, if worker wishes to use a respirator, a half- mask particulate respirator with N-, R- or P- series filter, and 95, 99 or 100% efficiency should be provided.			
Type 2a Operations (where concentrations of airborne lead would b	be expected to be > 0.05 to 0.50 mg/m ³)			
 Activities that include; Removal of lead containing coatings / materials by scraping or sanding using non-powered hand tools Manual demolition of lead painted plaster walls / building components by striking with a sledgehammer or similar tool 	NIOSH APF = 10 Half-mask particulate respirator with N- , R- or P- series filter, and 95, 99 or 100% efficiency.			
Type 2b Operations (where concentrations of airborne lead would b	be expected to be > 0.50 to 1.25 mg/m ³)			
Not applicable to potential renovation activities.				
Type 3a Operations (where concentrations of airborne lead would b	be expected to be > 1.25 to 2.50 mg/m ³)			
Activities that include;	NIOSH APF = 50			
 Welding or high temperature cutting of lead-containing coatings or materials indoors or in a confined space. Dry removal of lead-containing mortar using an electronic or pneumatic 	Full-face piece air-purifying respirator with N-, R- or P- series filter and 100% efficiency.			
cutting device.	Tight-fitting powered air-purifying respirator with high efficiency filter.			
 Burning of a surface containing lead Removal of lead containing coatings / materials using power tools without an effective dust collection system equipped with HEPA filter 	Full-face piece supplied-air respirator operated in demand mode.			
	Half-mask or full-face piece supplied air respirator operated in continuous-flow mode.			
Type 3b Operations (where concentrations of airborne lead would be expected to be > 2.50 mg/m ³)				
Abrasive blasting of lead-containing coatings or materials.	NIOSH APF >=1000			
	Type CE abrasive-blast supplied respirator operated in a positive pressure mode with a tight-fitting half-mask face piece.			

Refer to MOL *Guideline: Lead on Construction Projects, 2011*, for details of the Ministry's health and safety guidelines regarding lead.

6.9. Mercury

6.9.1. General Information

Mercury is a naturally occurring metal. It is a shiny, silver-white and odourless liquid. It combines with other elements to form inorganic compounds or salts. Metallic mercury is used to produce chlorine gas and caustic soda, and is used in thermostats and thermometers, fluorescent light bulbs, dental fillings and batteries. Exposure occurs when eating fish or shellfish contaminated with methyl mercury, breathing vapors from spills, incinerators, etc.



The nervous system is very sensitive to all forms of mercury. Exposure to high levels of metallic inorganic or organic mercury can permanently damage the brain, kidneys and developing fetus. Short-term exposure may cause lung damage, nausea, vomiting and diarrhea as well as skin and eye irritation.

6.9.2. Regulations

The regulation for mercury applies to every employer and worker at a workplace where mercury is present, produced, processed, used, handled or stored and at which a worker is likely to be exposed to mercury. Exposure limits for this substance are set at $0.025 - 0.01 \text{ mg/m}^3$ (TWA) for all forms of mercury excluding alkyl, and for alkyl compounds of mercury 0.03 mg/m^3 (STEL).

6.9.3. Findings

Mercury is presumed to be present in fluorescent light tubes and thermostatic controls. With the exception of fluorescent light bulbs and building thermostats, no other evidence of mercury was noted during the current survey.

6.9.4. Recommendations

Prior to the planned renovation work, Fisher recommends that any presumed mercury-containing fluorescent light tubes and thermostats that will be impacted are to be removed and disposed of in accordance with O. Reg. 558/00.

6.10. Silica

6.10.1. General Information

Silica is a crystalline compound occurring abundantly as quartz, sand, and many other minerals, and used to manufacture a variety of materials, especially glass and concrete. When mining this substance, silica can be deadly when it becomes airborne. If inhaled, silica dust can cause silicosis which can be fatal.

Some of the following industries have a high potential for risk to workers: construction (sandblasting, rock drilling, masonry work, jack hammering, tunneling), mining (cutting or drilling through sandstone or granite), foundry work (grinding, mouldings, shakeout, core room), stone cutting (sawing, abrasive blasting, chipping, grinding), manufacturing and use of abrasives, etc.

6.10.2. Regulations

The regulation for silica applies to every employer and worker at a workplace where silica is present, produced, processed, used, handled or stored and at which a worker is likely to be exposed to silica. Exposure limits for this substance are set at 0.05 - 0.10 mg/m³ (TWA), depending on the type of silica.

Additionally, in 2011 the MOL revised *Guideline: Silica on Construction Projects* outlining practices that should be followed during construction projects to protect workers from exposure



to silica. This includes the methods and equipment employed in the removal of silica-containing materials that reduce the creation of dust, providing appropriate facilities for workers to wash after each shift, and providing protective clothing and respirators where necessary.

6.10.3. Findings

No sampling for silica was conducted. However, as the building is constructed of concrete, brick and/or block walls with concrete floors, silica is expected to be found within these components of the buildings.

6.10.4. Recommendations

If these materials will be disturbed during the planned renovation work, appropriate precautions should be taken to protect workers from inhaling silica dusts and debris. Refer to MOL *Guideline: Silica on Construction Projects* for details.

6.11. Vinyl Chloride

Vinyl chloride would not be expected to be present at the Site and was not observed during the current survey. No recommendations for vinyl chloride are warranted at this time.

6.12. Mould

During the current survey, no visible mould or favourable conditions for mould growth were observed in the specified work area. No action is recommended with regard to mould.



7.0. LIMITATIONS

Fisher Environmental Ltd. accepts responsibility for the competent performance of its duties in executing this assignment within the normal standards of the profession, but disclaims responsibility for consequential damages, if any.

The scope of the survey is based on prior agreement with the client, and the rationale given in this report. The survey findings rely on professional interpretation of selective sampling and analysis. Sample analysis results have been applied to homogenous materials in unsampled locations; it was not within the scope of work to carry out an exhaustive sampling and analysis program. For non-accessible building spaces, the likelihood of the presence or absence of asbestos and other designated substances has been described, but such assessment is not a definitive statement of presence or absence.

This report was prepared for the IBI Group. The scope of services performed may not be appropriate for the purposes of other users, and any use or reuse of this document or its findings or recommendations represented herein is at the sole risk of any other user.

We trust that the information provided in the report meets your current requirements. If you have any questions or concerns, please do not hesitate to contact the undersigned.

Respectfully submitted,

Renata Stec, M.Sc. Project Manager

PROFESSIONAL A. FISHER BROWINCE OF ONTARIO

David Fisher, P. Eng., C. Chem. Principal

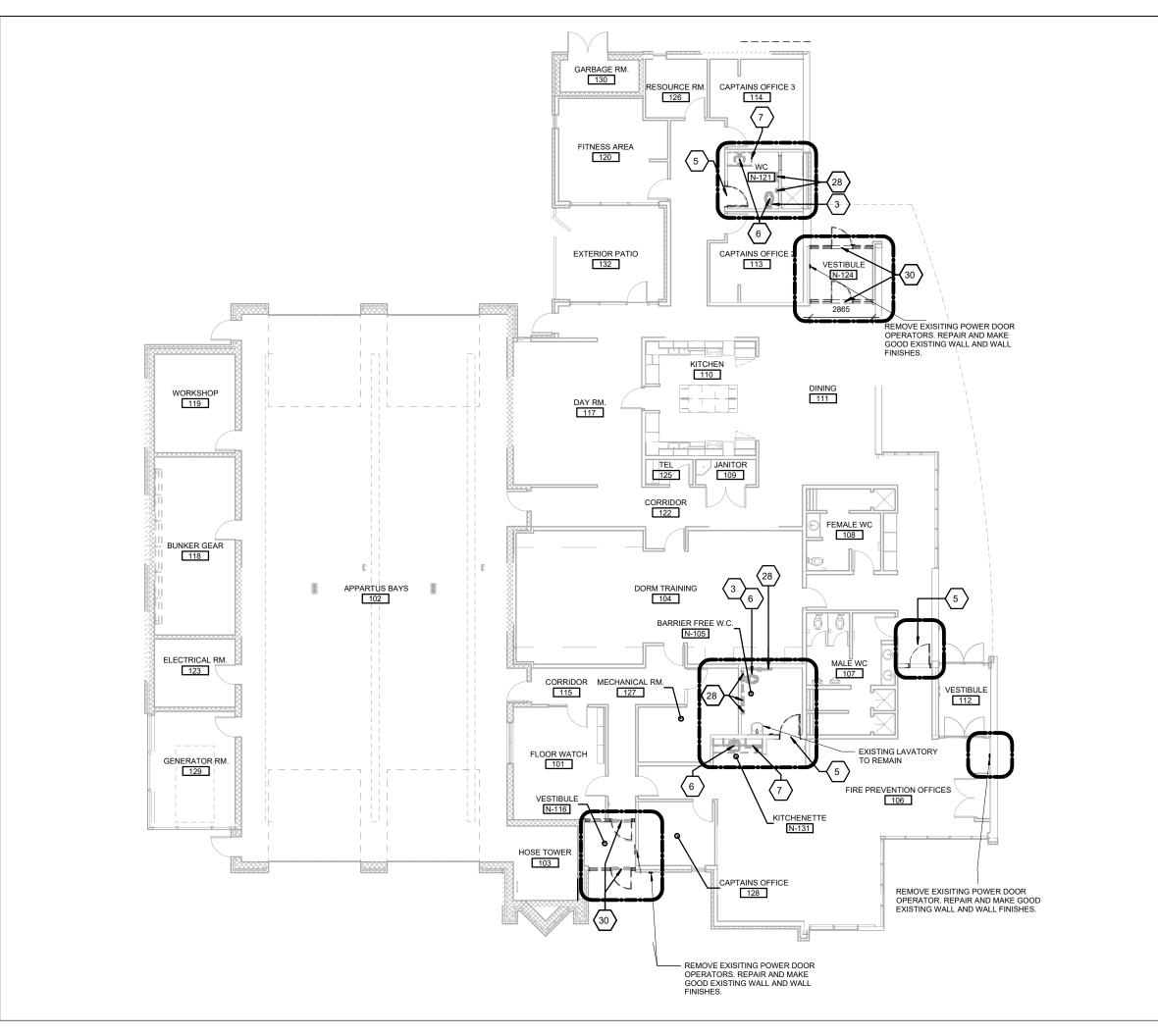


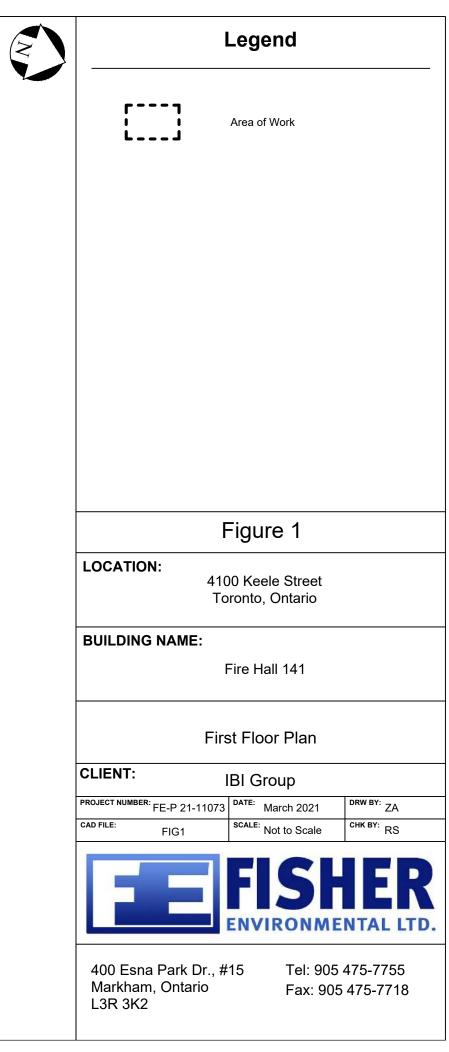
APPENDIX A - SITE PLAN(S)



Fisher Environmental Ltd

Project No. FE-P 21-11073, April 2021





APPENDIX B – PREVIOUS DSS REPORT



Fisher Environmental Ltd

Project No. FE-P 21-11073, April 2021

DA TORONTO





FINAL Designated Substances Survey Report

Toronto Fire Services Station 141 4100 Keele Street, Toronto, Ontario

Prepared for:

The City of Toronto

Facilities Management 55 John Street, 2nd Floor Toronto, Ontario, M5V 3C6

Attention:

Sara Reid Environmental Project Manager

January 5, 2018

Pinchin File: 202782



© 2018 Pinchin Ltd.



Designated Substances Survey Report 4100 Keele Street, Toronto, Ontario The City of Toronto January 5, 2018 Pinchin File: 202782 FINAL

Issued to:	The City of Toronto
Contact:	Sara Reid
	Environmental Project Manager
Issued on:	January 5, 2018
Pinchin file:	202782
Issuing Office:	50 Wellington Street East, Suite 200,
	Toronto, ON M5E 1C8
Primary Contact:	Andrew Quinn

Reviewer:

Andrew Quinn, B.Sc. Project Manager, Hazardous Materials 416.368.6555 ext. 1931 aquinn@pinchin.com

Reviewer:

Juliette McIntyre Operations Manager, Hazardous Materials 416.368.6555 ext. 1910 imcintyre@pinchin.com





January 5, 2018 Pinchin File: 202782 FINAL

EXECUTIVE SUMMARY

The City of Toronto (Client) retained Pinchin Ltd. (Pinchin) to conduct a Designated Substance survey of Toronto Fire Services Station 141, located at 4100 Keele Street, Toronto, Ontario. The survey was performed on October 18, 2017.

The objective of the survey was to document any changes in condition and quantity of specified Designated Substances, polychlorinated biphenyls (PCBs) and mould identified in the previous Designated Substances Survey (Fisher Environmental Ltd., Project Number FE-P 16-7715), and develop corrective action plans as required. The results of this survey are not intended for construction, renovation, demolition or project tendering purposes.

The assessed area consisted of the entire building. The building was occupied at the time of the survey.

SUMMARY OF FINDINGS

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

- Roofing materials.
- Exterior caulking.

<u>Lead:</u> No paint samples were collected during the assessment. Lead may be present in emergency light batteries.

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

Mercury: Mercury vapour is present in fluorescent lamps.

Polychlorinated Biphenyls (PCBs): PCB-containing materials were not confirmed.

Mould: Mould-impacted materials were not observed.

SUMMARY OF RECOMMENDATIONS

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

- 1. Remove and dispose of mercury-containing items when taken out of service.
- 2. Follow appropriate safe work procedures when handling or disturbing lead, mercury and silica.

Please refer to Section 4.0 of this report for detailed recommendations regarding administrative actions.

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





TABLE OF CONTENTS

1.0	.0 INTRODUCTION AND SCOPE		
	1.1	Scope of Survey	1
2.0	BACK	GROUND INFORMATION	2
	2.1	Building Description	2
3.0	FINDI	NGS	2
	3.1 3.2	Asbestos Lead	
	3.3	Silica	5
	3.4 3.5	Mercury Polychlorinated Biphenyls Mould	5 6
	3.6	Mould	6
4.0		MMENDATIONS	
	4.2	General On-going Management and Maintenance	6
5.0	LIMIT	ATIONS	7
6.0	REFERENCES7		

APPENDICES

APPENDIX I	Drawings
APPENDIX II-A	Asbestos Analytical Certificates
APPENDIX II-B	Lead Analytical Certificates (No Information to Report)
APPENDIX II-C	PCB Analytical Certificates (No Information to Report)
APPENDIX III	Methodology
APPENDIX IV	Survey Form





1.0 INTRODUCTION AND SCOPE

The City of Toronto (Client) retained Pinchin Ltd. (Pinchin) to conduct a Designated Substances Survey of Toronto Fire Services Station 141, located at 4100 Keele Street, Toronto, Ontario.

The survey was performed by Joseph Mainwaring, B.A., PCEM, on October 18, 2017. The surveyor was unaccompanied during the survey. The building was occupied at the time of the survey.

The objective of the survey was to document any changes in condition and quantity of specified Designated Substances, polychlorinated biphenyls (PCBs) and mould identified in the previous Designated Substances Survey (Fisher Environmental Ltd., Project Number FE-P 16-7715), and develop corrective action plans as required. This survey is only to be used for the purposes of long term management and routine maintenance. The results of this survey are not to be used for construction, renovation, demolition or project tendering purposes.

1.1 Scope of Survey

For the purpose of the survey and this report, hazardous building materials include the following Designated Substances:

- Asbestos
- Lead
- Silica
- Mercury

The survey also included:

- Polychlorinated Biphenyls (PCBs)
- Mould

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

- Arsenic
- Acrylonitrile
- Benzene
- Coke oven emissions
- Ethylene oxide
- Isocyanates
- Vinyl chloride monomer





2.0 BACKGROUND INFORMATION

2.1 Building Description

Item	Details
Building Use	Toronto Paramedic Services station
Number of Floors/Levels	One storey
Total Size of Building	Approximately 7,200 square feet
Year of Construction	2011
Structure	Structural steel
Exterior Cladding	Pre-cast concrete
HVAC	Rooftop AC, boiler and hot water heating
Roof	Built-up roofing, EPDM
Flooring	Ceramic tile, carpet, rubber, concrete
Interior Walls	Drywall, ceramic tile, concrete block
Ceilings	Drywall, acoustic ceiling tile

3.0 FINDINGS

3.1 Asbestos

3.1.1 Suspect Building Materials Not Found

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

- Spray-applied fireproofing or thermal insulation
- Texture finishes (acoustic/decorative)
- Plaster
- Asbestos cement products
- Vinyl sheet flooring
- Vinyl floor tiles and mastic





January 5, 2018 Pinchin File: 202782 FINAL

3.1.2 Thermal Systems Insulation (TSI)

3.1.2.1 Pipe Insulation

All pipes observed are either uninsulated or insulated with fibreglass.



Photo 1: Pipe insulated with fibreglass above the ceiling tiles in the Corridor (Location 1-02).

3.1.2.2 Duct Insulation

Ducts are either uninsulated or insulated with fibreglass and jacketed with foil.



Photo 2: Uninsulated duct above the ceiling tiles in the Office Area (Location 1-04).

3.1.2.3 Mechanical Equipment Insulation

Mechanical equipment is either not insulated or insulated with fibreglass.





3.1.3 Acoustic Ceiling Tiles

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

Size, Type, Pattern, Photo #	Locations	Sample Number	Asbestos Type
ACT01 – 2' x 4', lay-in, textured, Photo 3	*See Survey Form in Appendix IV for locations	2017-A0001A-C	None detected
ACT03 – 2' x 4', lay-in, fissure with pinhole, Photo 4	*See Survey Form in Appendix IV for locations	Not sampled (Date code: 10/14/14)	N/A





Photo 3: Non-asbestos ACT01 in the Corridor (Location 1-17). Photo 4: Non-asbestos ACT03 in the Office (Location 1-05).

3.1.4 Drywall Joint Compound

Drywall (gypsum board) and drywall joint compound is present as a wall and ceiling finish in the building. Seven samples of drywall joint compound were previously collected (samples 14-8993-01 to 07) and determined not to contain asbestos.

3.1.5 Assumed Asbestos Materials

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





Materials assumed to contain asbestos include:

- Roofing, felts and tar
- Concrete floor levelling compound
- Vermiculite in concrete block wall cavities
- Adhesives and duct mastics
- Caulking
- Fire resistant doors

3.2 Lead

3.2.1 Paints

No paint samples were collected from the assessed area to avoid causing visible damage to painted finishes. All paints observed were found to be in good condition and not flaking, peeling or delaminating. All paints are assumed to contain lead until sampling proves otherwise.

3.2.2 Lead Products and Applications

Lead-containing batteries may be present in emergency lighting.

3.3 Silica

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

- Poured or pre-cast concrete
- Masonry and mortar
- Ceramic tiles, grout

3.4 Mercury

3.4.1 Lamps

Mercury vapour is present in fluorescent lamps.

3.4.2 Mercury-Containing Devices

Mercury-containing devices were not found during the survey.





3.5 Polychlorinated Biphenyls

3.5.1 Lighting Ballasts

Confirmed by visual observations (evidence of T-8 fixtures) the building has been comprehensively relamped and will not contain PCB ballasts.

3.5.2 Transformers

All transformers in the building are dry type transformers and do not contain PCB-containing dielectric fluids.

3.6 Mould

Visible mould growth was not found in the assessed area.

4.0 **RECOMMENDATIONS**

4.1 General

Perform a detailed intrusive survey prior to building renovation or demolition operations. The survey should include; destructive testing (i.e. coring and/or removal of building finishes and components), and sampling of materials not previously tested (i.e. roofing materials, caulking, mastics).

4.2 On-going Management and Maintenance

The following recommendations are made regarding on-going management and maintenance work involving the hazardous materials identified.

4.2.1 Lead

Disturbance of lead in paint and coatings (or other materials) during maintenance activities may result in over-exposure to lead dust or fumes. The need for work procedures, engineering controls and personal protective equipment will need to be assessed on a project-by-project basis and must comply with provincial standards or guidelines. Performing an exposure assessment during work that disturbs lead in paints and coatings may be able to alleviate the use of some of the precautions specified by these standards or guidelines.

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





January 5, 2018 Pinchin File: 202782 FINAL

4.2.2 Silica

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

4.2.3 Mercury

Recycle and reclaim mercury from fluorescent light tubes when taken out of service. Do not break lamps. Light tubes are accepted free of charge at many local recycling depots.

5.0 LIMITATIONS

The work performed by Pinchin was conducted in accordance with the City of Toronto, Blanket Contract #47020968.

6.0 REFERENCES

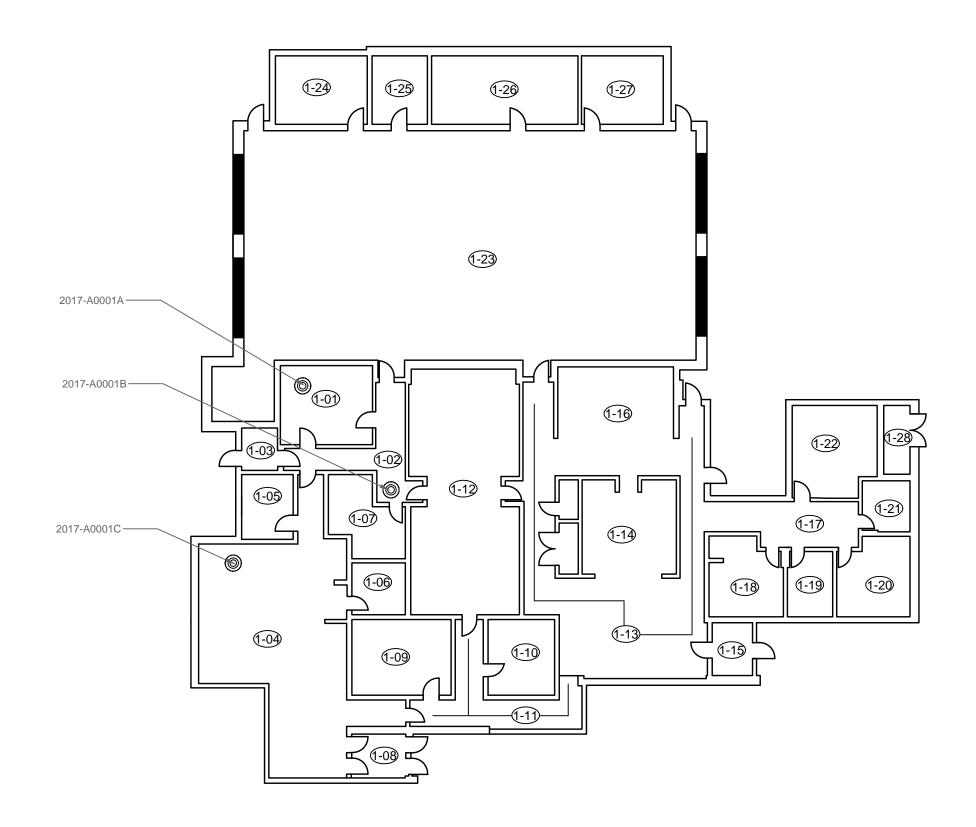
The following legislation and documents were referenced in completing the survey and this report:

- Asbestos on Construction Projects and in Buildings and Repair Operations, Ontario Regulation 278/05.
- 2. Designated Substances, Ontario Regulation 490/09.
- 3. Lead on Construction Projects, Ministry of Labour Guidance Document.
- 4. Ministry of the Environment Regulation, R.R.O. 1990 Reg. 347 as amended.
- 5. Surface Coating Materials Regulations, SOR/2005-109, Hazardous Products Act.
- 6. Silica on Construction Projects, Ministry of Labour Guidance Document.
- 7. Alert Mould in Workplace Buildings, Ontario Ministry of Labour.
- Standard Operating Procedures for Designated Substance Surveys, dated April, 2014, City of Toronto, Facilities Management.

\\pinchin.com\miss\Job\202000s\0202781.000 CITYOFTORONTO,Fire,DSUB,ASSMT\Deliverables\Locations\4100 Keele St\Deliverables\Final\202781_FINAL DSS_4100 Keele St, Toronto_2017.docx Template: Master Report City of Toronto, 2016 Designated Substance Survey, Haz, April 21, 2016



APPENDIX I Drawings



_	
	V



M TORONTO

LEGEND:

\langle	Х	2
	_	

X PINCHIN LOCATION NUMBER



ASBESTOS BULK SAMPLE

NOT ALL KNOWN OR ASSUMED DESIGNATED SUBSTANCES ARE IDENTIFIED ON THE DRAWING. REFER TO THE DESIGNATED SUBSTANCE SURVEY REPORT FOR A COMPLETE LIST OF KNOWN AND SUSPECTED DESIGNATED SUBSTANCES.

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

CLIENT:

CITY OF TORONTO

LOCATION:

TORONTO FIRE STATION 141 4100 KEELE STREET TORONTO, ONTARIO

TITLE: DESIGNATED SUBSTANCE SURVEY

GROUND FLOOR PROJECT # :

2017/12/06 202781 DRAWING:

1 OF 1

DRAWN BY:

DATE:

JH CHECKED BY:

JM

SCALE:

NT	S
----	---

APPENDIX II-A Asbestos Analytical Certificates





Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

Project Name:	City of Toronto, Toronto Fire Station 141				
	4100 Keele Stree	4100 Keele Street, Toronto ON			
Project No.:	0202781.000				
Prepared For:	J. Mainwaring / A. Quinn				
		Date Received:	October 25, 2017		
Lab Reference No.:	b179261	Date Analyzed:	November 1, 2017		
Analyst(s):	W. Mirza / K. Coc	3			
		# Phases analyzed:	3		

Method of Analysis:

EPA 600/R-93/116 - Method for the Determination of Asbestos in Bulk Building Materials dated July, 1993

Bulk samples are checked visually and scanned under a stereomicroscope. Slides are prepared and observed under a Polarized Light Microscope (PLM) at magnifications of 40X, 100X or 400X as appropriate. Asbestos fibres are identified by a combination of morphology, colour, refractive index, extinction, sign of elongation, birefringence and dispersion staining colours. A visual estimate is made of the percentage of asbestos present. A reported concentration of less than (<) the regulatory threshold (see chart below) indicates the presence of confirmed asbestos in trace quantities, limited to only a few fibres or fibre bundles in an entire sample. This method complies with provincial regulatory requirements where applicable. Multiple phases within a sample are analyzed and reported separately.

Provincial Jurisdiction	Regulatory Threshold	Provincial Jurisdiction	Regulatory Threshold
Ontario, British Columbia, Nova Scotia	0.5%	Manitoba	0.1% friable 1% non-friable
Quebec	0.1%	Saskatchewan	0.5% friable 1% non-friable
Alberta, NWT, Yukon, Nunavut	1%	Newfoundland and Labrador, PEI and New Brunswick	1%

All bulk samples submitted to this laboratory for asbestos analysis are retained for a minimum of three months. Samples may be retrieved, upon request, for re-examination at any time during that period.

Pinchin Ltd. is accredited by the National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP Lab Code 101270-0) for the 'EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples,' and the 'EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials'; and meets all requirements of ISO/IEC 17025:2005.

This report relates only to the items tested.

NOTE: This test report may not be reproduced, except in full, without the written approval of the laboratory. The client may not use this report to claim product endorsement by NVLAP or any agency of the U.S. Government. This report is valid only when signed in blue ink by the analyst. Vinyl asbestos floor tiles contain very fine fibres of asbestos and may be missed by some laboratories using the PLM method. Internal verification studies performed by Pinchin indicate that the chance of missing asbestos in floor tiles is no higher than about 2%. The vinyl tile study and laboratory documentation on measurement uncertainty is available upon request. The analysis of dust samples by PLM cannot be used as an indicator of past or present airborne asbestos fibre levels.





Pinchin Ltd. Asbestos Laboratory Certificate of Analysis

Project Name:	City of Toronto, Toronto Fire Station 141
	Toronto Fire Station 141, 4100 Keele Street, Toronto ON
Project No.:	0202781.000
Prepared For:	J. Mainwaring / A. Quinn

Lab Reference No.:b179261Date Analyzed:November 1, 2017

BULK SAMPLE ANALYSIS

SAMPLE	SAMPLE	% COMPOSITION (VISUAL ESTIMATE)	
IDENTIFICATION	DESCRIPTION	ASBESTOS	OTHER	
2017-A0001A	Homogeneous, beige,	None Detected	Cellulose	25-50%
24" x 48" textured acoustic	layered, compressed,		Man-made Vitreous	10-25%
ceiling tile, Office (Loc. 1-	acoustic ceiling tile.		Fibres	
01).			Perlite	25-50%
			Other Non-Fibrous	0.5-5%
2017-A0001B	Homogeneous, beige,	None Detected	Cellulose	25-50%
24" x 48" textured acoustic	layered, compressed,		Man-made Vitreous	10-25%
ceiling tile, Corridor (Loc. 1-	acoustic ceiling tile.		Fibres	
02).			Perlite	25-50%
			Other Non-Fibrous	0.5-5%
2017-A0001C	Homogeneous, beige,	None Detected	Cellulose	25-50%
24" x 48" textured acoustic	layered, compressed,		Man-made Vitreous	10-25%
ceiling tile, Office Area	acoustic ceiling tile.		Fibres	
(Loc. 1-04).			Perlite	25-50%
			Other Non-Fibrous	0.5-5%

Reviewed by:

Digitally signed by Julieth Oran Date: 2017.11.01 15:28:36 -04'00'

Reporting Analyst:





W.M Analyzed by: Neviewed in Report Sent by:_



Special Instructions:

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

Client Name:	City of Toronto			Project Address:	4100 Keele Street, Toronto ON 202781			
Portfolio/Building No:	Toronto Fire Station 141		Pinchin File:					
Submitted by:	Joseph Mainwaring			Email:	imainwaring@	pinchin.c	om	
CC Results to:	Andrew Quinn			CC Email:	aquinn@pinchin.com			
Invoice to:	Andrew Quinr	1		Invoice Email:	aquinn@pinchin.com			
Date Submitted:	October	24	2017	Required by:	October	31	2017	
# of Samples:	3			Priority: 5 Day Turnaround				
Year of Building Constr	uction (Mandat	ory Field):	2012				
Do NOT Stop on Positiv	e (Sample Num	bers):						
Pinchin Group Compan	y (Mandatory F	ield):			Pinchin			

To be Comp	leted by Lab	Personnel C)nly:							
Lab Referen	ce #:	61	Time:	24	24 hour clock					
Received by	:	DCT 2	57117 ()R	Letter Month Day Ye						
Name(s) of A	Analyst(s):	W.M/		Nov. 1/2017						
Sample Prefix	Sample No.	Sample Suffix		Sample Description	n/Location (Man	datory)				
2017-A	001	A	24" x 48" textu	red acoustic ceiling tile	e, Office (Loc. 1-01)NI) -			
2017-A	001	В	24" x 48" textu	red acoustic ceiling tile	e, Corridor (Loc. 1-0	02). <u>–</u> N	D-			
2017-A	001	с	24" x 48" textu	red acoustic ceiling tile	e, Office Area (Loc.	1-04). 👡	ND-			

APPENDIX II-B Lead Analytical Certificates (No Information to Report)

APPENDIX II-C PCB Analytical Certificates (No Information to Report)

APPENDIX III Methodology



1.0 GENERAL

The following survey methodology is based on the requirements of the *Standard Operation Procedure for Designated Substance Surveys,* dated April, 2014, provided by the City of Toronto (the "SOP").

Pinchin conducted a room-by-room survey (rooms, corridors, service areas, exterior, etc.) to identify the hazardous building materials as defined in Section 1.1. Information regarding the approximate quantity, location, and condition of hazardous building materials encountered and visually estimated quantities were recorded on the *Survey Form*, provided by the City of Toronto, found in Appendix V. The locations of any samples collected were recorded on small-scale plans, found in Appendix I.

Drawings (i.e., floor plans), previous reports, and Survey Forms, were referenced where provided.

1.1 Limitations on Scope

The survey excludes the following:

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

The survey was limited to non-intrusive testing. Concealed spaces such as those above solid ceilings and within shafts and pipe chases were accessed via existing access panels only. Pinchin did not conduct demolition of walls, solid ceilings, structural items, interior finishes or exterior building finishes, to determine the presence of concealed materials.

1.2 Asbestos

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





Pinchin collected samples at a rate that is in compliance with Table 1 of O.Reg. 278/05. A separate set of samples was collected of each of homogenous material sampled. A homogenous material is defined by the US EPA¹ as material that is uniform in texture and appearance, was installed at one time, and is unlikely to consist of more than one type or formulation of material. The homogeneous materials are determined by visual examination, available information on the phases of the construction and prior renovations.

The following materials were sampled:

- All friable materials historically known to contain asbestos, regardless of year of installation, not identified in previous reports;
- Friable materials previously sampled in insufficient quantity to conclude the materials are non-asbestos, in accordance with the requirements of O.Reg. 278/05;
- Friable materials previously reported to contain less than 1% asbestos, if sampled prior to the Ministry of Labour defining an asbestos-containing material as a material containing contains 0.5 percent or more asbestos by weight;
- Non-friable acoustic ceiling tiles;
- Non-friable vinyl floor tiles and mastic.

The following materials were **not** sampled:

- Materials previously identified in previous reports provided as asbestos-containing;
- Materials previously confirmed to be non-asbestos in accordance with O.Reg. 278/05;
- Unless damaged the following materials were not sampled: plaster, drywall joint compound, mastic, window caulking, roofing materials, vinyl sheet flooring. Materials not sampled are assumed to contain asbestos.
- Materials where sampling poses an inherent, imminent danger to the Assessor such as high voltage wiring, materials present at heights greater than 12 feet, or those in confined spaces. These materials are assumed to be asbestos-containing.

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







Pinchin submits the bulk samples to a NVLAP² accredited laboratory for analysis. The analysis is performed in accordance with Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, July 1993.

The asbestos analysis is completed using a stop positive approach. Only one result of greater than the regulated criteria (0.5%) is required to determine that a material is asbestos-containing, but all samples must be analyzed to conclusively determine that a material is non-asbestos. The laboratory stops analyzing samples from a homogeneous material once a result greater than the regulated criteria is detected in any of the samples of that material. All samples of a homogeneous material are analyzed if no asbestos is detected. In some cases, all samples are analyzed in the sample set regardless of result. Where building materials are described in the report as non-asbestos, or described as containing no asbestos, this is subject to the limitations of the analytical method used, and should be understood to mean no asbestos was detected.

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

- Friability (friable or non-friable).
- Condition (good, fair, poor, debris, based on definitions in the SOP).
- Accessibility (ranking from accessible to all building users to inaccessible).
- Visibility (whether the material is obscured by other building components).
- Efficiency of the work (for example, if damaged ACM is being removed in an area, it may be most practical to remove all ACM in the area even if it is in good condition).

This includes friability, condition and efficiency and practicality of the work.

1.3 Lead

Pinchin collected samples of damaged paint not identified in a previous report. Drawings included show sample locations.

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

For this report, all paints containing lead at a concentration 0.1% or greater are discussed. Paint was evaluated for condition.

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



² National Voluntary Laboratory Accreditation Program



January 5, 2018 Pinchin File: 202782 Appendix III

1.4 Silica

Pinchin identifies building materials suspected of containing crystalline silica (e.g. concrete, cement, tile, brick, masonry, mortar) by knowledge of current and historic applications and visual inspection only. Pinchin does not perform sampling of these materials for laboratory analysis of crystalline silica content.

1.5 Mercury

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

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

1.6 Polychlorinated Biphenyls

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

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

Pinchin records spills or leakage of suspect PCB-containing fluids where observed.

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

Non-liquid forms of PCBs (i.e. sealants or caulking) are not sampled for PCB content.

1.7 Visible Mould

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



APPENDIX IV Survey Form

Building Address:	4100 Keele Street	Date(s) of Current Survey:	October 18, 2017
Building Name:	Toronto Fire Station 141	Organization Completing Reassessment:	Pinchin Ltd.
Original Survey Conducted By:	Fisher Environmental Ltd.	Name of Surveyor:	Joseph Mainwaring
Date(s) of Original Survey:	November 29, 2011		

Notes

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Analytical Result	Quantity	Condition	Notes / Recommended Actions
0-00	Exterior	Roof	Roofing Materials	Asbestos	Not Sampled	ACM Assumed	7200 SF	Good	
0-00	Exterior	Windows	Window Caulking	Asbestos	Not Sampled	ACM Assumed	All	Good	
0-00	Exterior	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
1-01	Office	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-01	Office	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-01	Office	Walls	Block	N/A	N/A	N/A	N/A	N/A	
1-01	Office	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-01	Office	Ceiling	Ceiling Tile 3	Asbestos	Not Sampled	N/A	N/A	N/A	2' x 4' Fissure with Pinhole (Date code: 10/14/14)
1-01	Office	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-01	Office	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-02	Corridor	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-02	Corridor	Walls	Drywall (DJC)	Asbestos	14-8993-04*	None Detected	N/A	N/A	*From Fisher Project No.14-6915, dated June 2014
1-02	Corridor	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-02	Corridor	Structure	Steel	N/A	N/A	N/A	N/A	N/A	
1-02	Corridor	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-02	Corridor	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-02	Corridor	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-03	Entrance Foyer	Floor	Ceramic/Metal	N/A	N/A	N/A	N/A	N/A	
1-03	Entrance Foyer	Walls	Drywall (DJC)	Asbestos	14-8993-07*	None Detected	N/A	N/A	*From Fisher Project No.14-6915, dated June 2014
1-03	Entrance Foyer	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
1-03	Entrance Foyer	Ceiling	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	*No access above ceiling

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Analytical Result	Quantity	Condition	Notes / Recommended Actions
1-04	Office Area	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-04	Office Area	Walls	Drywall (DJC)	Asbestos	14-8993-03*	None Detected	N/A	N/A	*From Fisher Project No.14-6915, dated June 2014
1-04	Office Area	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-04	Office Area	Ceiling	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-04	Office Area	Ceiling	Not Found	N/A	N/A	N/A	N/A	N/A	Open to Metal Above
1-04	Office Area	Structure	Steel	N/A	N/A	N/A	N/A	N/A	
1-04	Office Area	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-04	Office Area	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-04	Office Area	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-04	Office Area	Duct	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-05	Office	Floor	Carpet	N/A	N/A	N/A	N/A	N/A	
1-05	Office	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-05	Office	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-05	Office	Ceiling	Ceiling Tile 3	Asbestos	Not Sampled	N/A	N/A	N/A	2' x 4' Fissure with Pinhole (Date code: 10/14/14)
1-05	Office	Structure	Steel	N/A	N/A	N/A	N/A	N/A	
1-05	Office	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-05	Office	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-05	Office	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-05	Office	Duct	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-06	Washroom	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-06	Washroom	Walls	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-06	Washroom	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-06	Washroom	Structure	Steel	N/A	N/A	N/A	N/A	N/A	
1-06	Washroom	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-07	Hydro/Server Room	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-07	Hydro/Server Room	Walls	Drywall (DJC)	Asbestos	14-8993-06*	None Detected	N/A	N/A	*From Fisher Project No.14-6915, dated June 2014
1-07	Hydro/Server Room	Ceiling	Not Found	N/A	N/A	N/A	N/A	N/A	Open to Metal Above

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Analytical Result	Quantity	Condition	Notes / Recommended Actions
1-07	Hydro/Server Room	Structure	Steel	N/A	N/A	N/A	N/A	N/A	
1-07	Hydro/Server Room	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-07	Hydro/Server Room	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-07	Hydro/Server Room	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-07	Hydro/Server Room	Mechanical	Uninsulated	N/A	N/A	N/A	N/A	N/A	Hot water tank
1-07	Hydro/Server Room	Mechanical	Fibreglass	N/A	N/A	N/A	N/A	N/A	Furnace
1-08	Vestibule	Floor	Ceramic/Metal	N/A	N/A	N/A	N/A	N/A	
1-08	Vestibule	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-08	Vestibule	Ceiling	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	*No access above ceiling
1-09	Men's Washroom	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-09	Men's Washroom	Walls	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-09	Men's Washroom	Ceiling	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	*No access above ceiling
1-10	Woman's Washroom	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-10	Woman's Washroom	Walls	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-10	Woman's Washroom	Ceiling	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	*No access above ceiling
1-11	Corridor	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-11	Corridor	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-11	Corridor	Ceiling	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	*No access above ceiling
1-11	Corridor	Ceiling	Not Found	N/A	N/A	N/A	N/A	N/A	Open to Metal Above
1-12	Dormitory	Floor	Carpet	N/A	N/A	N/A	N/A	N/A	
1-12	Dormitory	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-12	Dormitory	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-12	Dormitory	Structure	Steel	N/A	N/A	N/A	N/A	N/A	
1-12	Dormitory	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-12	Dormitory	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-12	Dormitory	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Analytical Result	Quantity	Condition	Notes / Recommended Actions
1-13	Lunch Room/Hallway	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-13	Lunch Room/Hallway	Walls	Drywall (DJC)	Asbestos	14-8993-01*	None Detected	N/A	N/A	*From Fisher Project No.14-6915, dated June 2014
1-13	Lunch Room/Hallway	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-13	Lunch Room/Hallway	Ceiling	Ceiling Tile 3	Asbestos	Not Sampled	N/A	N/A	N/A	2' x 4' Fissure with Pinhole (Date code: 10/14/14)
1-13	Lunch Room/Hallway	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-13	Lunch Room/Hallway	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-13	Lunch Room/Hallway	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-14	Kitchen	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-14	Kitchen	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-14	Kitchen	Walls	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-14	Kitchen	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-14	Kitchen	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-14	Kitchen	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-14	Kitchen	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-15	Vestibule	Floor	Ceramic/Metal	N/A	N/A	N/A	N/A	N/A	
1-15	Vestibule	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-15	Vestibule	Ceiling	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	*No access above ceiling
1-16	Lounge	Floor	Carpet	N/A	N/A	N/A	N/A	N/A	
1-16	Lounge	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-16	Lounge	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
1-16	Lounge	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-16	Lounge	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-16	Lounge	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-16	Lounge	Duct	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-17	Corridor	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-17	Corridor	Walls	Drywall (DJC)	Asbestos	14-8993-02*	None Detected	N/A	N/A	*From Fisher Project No.14-6915, dated June 2014

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Analytical Result	Quantity	Condition	Notes / Recommended Actions
1-17	Corridor	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-17	Corridor	Ceiling	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-18	Office	Floor	Carpet	N/A	N/A	N/A	N/A	N/A	
1-18	Office	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-18	Office	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-19	Washroom	Floor	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-19	Washroom	Walls	Ceramic	N/A	N/A	N/A	N/A	N/A	
1-19	Washroom	Ceiling	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	*No access above ceiling
1-20	Bedroom	Floor	Carpet	N/A	N/A	N/A	N/A	N/A	
1-20	Bedroom	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-20	Bedroom	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-20	Bedroom	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-20	Bedroom	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-21	Offfice	Floor	Carpet	N/A	N/A	N/A	N/A	N/A	
1-21	Offfice	Walls	Drywall (DJC)	Asbestos	Homogeneous w/ 14-8993-01 to 07	None Detected	N/A	N/A	
1-21	Offfice	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-22	Fitness Room	Floor	Rubber	N/A	N/A	N/A	N/A	N/A	
1-22	Fitness Room	Walls	Drywall (DJC)	Asbestos	14-8993-05*	None Detected	N/A	N/A	*From Fisher Project No.14-6915, dated June 2014
1-22	Fitness Room	Ceiling	Ceiling Tile 1	Asbestos	2017-A0001A-C	None Detected	N/A	N/A	2' x 4' Textured (Date code: 06/25/11)
1-22	Fitness Room	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-22	Fitness Room	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-22	Fitness Room	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-23	Apparatus Bay	Floor	Concrete	N/A	N/A	N/A	N/A	N/A	
1-23	Apparatus Bay	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
1-23	Apparatus Bay	Ceiling	Not Found	N/A	N/A	N/A	N/A	N/A	Open to Metal Above
1-23	Apparatus Bay	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Analytical Result	Quantity	Condition	Notes / Recommended Actions
1-23	Apparatus Bay	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-23	Apparatus Bay	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-24	Generator Room	Floor	Concrete	N/A	N/A	N/A	N/A	N/A	
1-24	Generator Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
1-24	Generator Room	Ceiling	Not Found	N/A	N/A	N/A	N/A	N/A	Open to Metal Above
1-24	Generator Room	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-24	Generator Room	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-24	Generator Room	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-24	Generator Room	Mechanical	Uninsulated	N/A	N/A	N/A	N/A	N/A	Generator
1-25	Electrical Room	Floor	Concrete	N/A	N/A	N/A	N/A	N/A	
1-25	Electrical Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
1-25	Electrical Room	Ceiling	Not Found	N/A	N/A	N/A	N/A	N/A	Open to Metal Above
1-25	Electrical Room	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-25	Electrical Room	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-26	Bunker Room	Floor	Concrete	N/A	N/A	N/A	N/A	N/A	
1-26	Bunker Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
1-26	Bunker Room	Ceiling	Not Found	N/A	N/A	N/A	N/A	N/A	Open to Metal Above
1-26	Bunker Room	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-26	Bunker Room	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-26	Bunker Room	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-26	Bunker Room	Duct	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-27	Janitor Storage	Floor	Concrete	N/A	N/A	N/A	N/A	N/A	
1-27	Janitor Storage	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
1-27	Janitor Storage	Ceiling	Not Found	N/A	N/A	N/A	N/A	N/A	Open to Metal Above
1-27	Janitor Storage	Pipe	Uninsulated	N/A	N/A	N/A	N/A	N/A	
1-27	Janitor Storage	Pipe	Fibreglass	N/A	N/A	N/A	N/A	N/A	
1-27	Janitor Storage	Duct	Uninsulated	N/A	N/A	N/A	N/A	N/A	

Location Number	Location Name	Building System	Material Observed	Potential Hazardous Material	Sample ID	Analytical Result	Quantity	Condition	Notes / Recommended Actions
1-28	Garbage Room	Floor	Concrete	N/A	N/A	N/A	N/A	N/A	
1-28	Garbage Room	Walls	Concrete Block	N/A	N/A	N/A	N/A	N/A	
1-28	Garbage Room	Ceiling	Not Found	N/A	N/A	N/A	N/A	N/A	Open to Metal Above