

HALTON DISTRICT SCHOOL BOARD

# **SURVEY OF ASBESTOS- CONTAINING MATERIALS**

HOWARD WIGGLESWORTH PUBLIC  
SCHOOL (GARY ALLAN)

96 GUELPH STREET, GEORGETOWN, ONTARIO

December 20, 2018

702170-182

A large, solid orange geometric shape, resembling a stylized triangle or a section of a larger triangle, is positioned in the bottom right corner of the page. It is composed of two overlapping triangular shapes, creating a complex, angular form that extends from the bottom edge towards the top right corner.

SURVEY OF ASBESTOS-CONTAINING MATERIALS  
HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)



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## SURVEY OF ASBESTOS-CONTAINING MATERIALS

Howard Wigglesworth Public School  
(Gary Allan)  
96 Guelph Street, Georgetown, Ontario

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SURVEY OF ASBESTOS-CONTAINING MATERIALS  
HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)

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## SURVEY OF ASBESTOS-CONTAINING MATERIALS

### HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)

# 1 INTRODUCTION

Arcadis Canada Inc. (Arcadis) was retained by the Halton District School Board to provide an updated survey of the locations of asbestos-containing materials at Howard Wigglesworth (Gary Allan) Public School located at 96 Guelph Street in Georgetown, Ontario following asbestos remediation associated with the renovation project between August to November 2018.

Asbestos has been widely used in buildings, both in friable applications (materials which can be easily crumbled such as pipe and tank insulation, sprayed-on fireproofing and acoustic and texture coat applications) and in non-friable materials such as floor tile, fire-rated ceiling tile, gaskets, cement board, cement pipe, drywall joint compound and so on. Plaster applications (walls, ceilings, bulkheads, etc.) may also contain asbestos. The use of asbestos in friable applications was curtailed in Ontario around the mid-1970s. Most buildings constructed prior to about the mid-1970s contain some form of friable asbestos-containing material. The use of asbestos in certain non-friable products continued beyond the 1970s. A sample list of suspect asbestos containing building materials is provided in Appendix C.

Control of exposure to asbestos is governed in Ontario by Regulation 278/05 - *Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations*. Disposal of asbestos waste (friable and non-friable materials) is governed by Ontario Regulation 278/05 and by Ontario Regulation 347, Waste Management - General.

The major requirements of O.Reg. 278/05 with respect to asbestos surveys and assessments are as follows:

#### **Survey Records:**

- non-friable asbestos-containing materials (e.g., vinyl floor tiles, ceiling tiles, drywall joint compound, plaster, etc.) are to be included in asbestos survey records effective 1 November 2007;
- asbestos survey records are to be updated:
  - (a) at least once in every 12-month period;
  - (b) whenever the owner becomes aware of new information; and
- asbestos-containing materials are to be inspected at reasonable intervals in order to determine their condition.

#### **Bulk Samples:**

- the minimum number of bulk samples to be collected from an area of homogeneous material is set out in Table 1 of the regulation (Table 1 is reproduced below).
- if analysis establishes that a bulk material sample contains 0.5 per cent or more asbestos by dry weight:
  - (a) it is not necessary to analyze other bulk material samples taken from the same area of homogeneous material; and
  - (b) the entire area of homogeneous material from which the bulk materials sample was taken is deemed to be asbestos-containing material.

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**Table 1.1: Bulk Material Samples (from O.Reg. 278/05)**

Item	Type of Material	Size of Area of Homogeneous Material	Minimum Number of Bulk Material Samples to be Collected
1.	Surfacing material, including without limitation material that is applied to surfaces by spraying, by trowelling or otherwise, such as acoustical plaster on ceilings and fireproofing materials on structural members	Less than 90 square metres	3
		90 or more square metres, but less than 450 square metres	5
		450 or more square metres	7
2.	Thermal insulation, except as described in Item 3	Any size	3
3.	Thermal insulation patch	Less than 2 linear metres or 0.5 square metres	1
4.	Other material	Any size	3

In practice, application of the Table 1 requirements means that the specified minimum number of negative (i.e., less than 0.5% asbestos) bulk sample analysis results will be required in order to classify a material as non-asbestos.

Section 10 of O.Reg. 278/05 – *Owner's Responsibility before requesting tender or arranging work* – requires that an owner shall have an investigation carried out in order to determine if materials, that are likely to be handled, dealt with, disturbed or removed during the alteration of a building, are asbestos-containing and, if so, whether the asbestos-containing material is friable or non-friable and to identify the type of asbestos in the material. Section 10 also requires that the owner shall have a report prepared detailing the investigation findings which is to be provided to any prospective constructor.

### **Corrective Actions**

If asbestos containing fireproofing or acoustical or thermal insulation has fallen and is being disturbed so that exposure to the material is likely to occur, O.Reg. 278/05 requires that the owner shall cause the fallen material to be cleaned up and, if it is readily apparent that material will continue to fall because of the deterioration, the owner shall repair, seal, remove or permanently enclose the material.

O.Reg. 278/05 classifies the asbestos work operations into three types (Type 1, 2 and 3) and specifies procedures to be followed in conducting asbestos abatement work.

## **2 METHODOLOGY**

### **2.1 Survey**

Site inspections were carried out by DCS staff in August and October 2007 to determine the locations of building construction materials suspected of containing asbestos. All readily accessible areas, including spaces above accessible suspended ceilings, were inspected throughout the facility.

Site inspections were also performed in select areas of the building on June 25, 2018. This report has been updated to include additional findings of the site inspections performed in the selected areas in 2018.

Representative bulk samples of material from different ages of construction were collected by Arcadis staff during the course of the site inspection and were forwarded to EMSL Canada Inc. for analysis of asbestos content. Determination of the locations of asbestos-containing materials were made based on results of bulk sample analysis, and on visual observations and physical characteristics of the applications at each inspection location.

### **2.2 Assessment**

During the survey, the condition of all friable materials is assessed. Assessment involves the evaluation of a number of factors, including:

- asbestos content;
- physical damage;
- water damage;
- accessibility;
- adjacent activity, vibrations;
- air distribution system (air plenum); and
- friability.

Recommendations for appropriate corrective measures are based on findings of the assessment and consist primarily of either repair or removal (and replacement) of the asbestos containing materials. No recommended corrective actions were required at the time that this report was prepared.

### 3 SURVEY RESULTS

Arcadis reviewed reports prepared by Arcadis for the Halton District School Board entitled *Survey of Asbestos-Containing Materials, Howard Wigglesworth Public School, Georgetown, Ontario* dated August 2013, *Designated Substances and Hazardous Materials Survey, Howard Wigglesworth (Gary Allan) Public School, 96 Guelph Street, Georgetown, Ontario* dated March 2012, and *Pre-Renovation Designated Substances and Hazardous Materials Survey, Howard Wigglesworth (Gary Allan) Public School, 96 Guelph Street, Georgetown, Ontario* dated July 17, 2018. Information and/or bulk sample analysis results obtained from these reports were utilized by Arcadis in the preparation of this report.

On the basis of the survey work carried out, we report that friable asbestos-containing materials are present in the Howard Wigglesworth (Gary Allan) Building in the following accessible applications:

- Thermal insulation on pipe fittings and pipe straights in Rooms 1, 1A, 8, 9, 10, 11, 12 and 24.

Asbestos-containing thermal insulation applied to pipe fittings observed throughout the facility is a grey-coloured cementitious-like material.

Asbestos-containing thermal insulation applied to pipe straights is “Air-Cell” insulation or “Anti-sweat” insulation. “Aircell” is a trade name for a grey-coloured corrugated paper-like type of pipe insulation, usually found on heating and domestic hot water piping.

Glass fibre insulation is readily visually distinguishable (typically yellow in colour) from asbestos containing insulation materials and was, therefore, not tested for asbestos content.

All thermal insulation, with the exception of glass fibre material, should be assumed to contain asbestos unless a bulk sample analysis indicates otherwise.

Visual inspections and laboratory analyses of representative bulk samples of materials confirm that non-friable asbestos-containing materials are present in the following accessible applications: Visual inspections and laboratory analyses of representative bulk samples of materials confirm that non-friable asbestos-containing materials are present in the following accessible applications:

- 9" x 9" vinyl floor tiles in various locations throughout the facility;
- Mastic associated with 9" x 9" vinyl floor tiles in Rooms 8 and 11;
- Vinyl baseboard and associated mastic in Rooms 8 and 11;
- 12" x 12" vinyl floor tiles in Rooms 17, 18 and 29;
- 12" x 12" vinyl floor tiles (assumed asbestos) in Rooms 2 and 5A;
- Cement board behind radiator in Rooms 8, 9, 10, 11, 12 and 21;
- Cement piping in Rooms 29A, 29C and 31; and
- Cement wall panels in Rooms 17 and 19.

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A room-by-room summary of the locations and conditions of asbestos-containing materials identified is presented in Table 3.2. The locations of accessible asbestos containing materials are identified on the floor plans provided in Appendix A.

A summary of the results of laboratory analysis of bulk samples is presented in Table 3.1. The laboratory reports are provided in Appendix B.

**Table 3.1: Summary of Laboratory Analyses of Bulk Samples**

#### Howard Wigglesworth Public School

Sample No.	Sample Location	Sample Description	Asbestos Content
1A	Room 7	2'x4' ceiling tile - pinhole	None detected <sup>(1)</sup>
1B	Room 10	2'x4' ceiling tile - pinhole	None detected <sup>(1)</sup>
1C	Room 20	2'x4' ceiling tile - pinhole	None detected <sup>(1)</sup>
2A	Room 7	9" vinyl floor tile – green with beige streaks	<b>10.5% chrysotile</b> <sup>(1,5)</sup>
3A	Room 7	Mastic under 9" vinyl floor tile	<b>8% chrysotile</b>
4A	Room 27	Levelling compound	None detected <sup>(1)</sup>
4B	Room 27	Levelling compound	None detected <sup>(1)</sup>
4C	Room 27	Levelling compound	None detected <sup>(1)</sup>
5A	Room 27	Mastic under 12" vinyl floor tile	<b>2% chrysotile</b> <sup>(1,5)</sup>
6A	Room 27A	Mastic under 12" vinyl floor tile	<b>8% chrysotile</b> <sup>(1,5)</sup>
7A	Room 9	Mastic under (new look) 12" vinyl floor tile	None detected <sup>(1)</sup>
7B	Room 10	Mastic under (new look) 12" vinyl floor tile	None detected <sup>(1)</sup>
7C	Room 12	Mastic under (new look) 12" vinyl floor tile	None detected <sup>(1)</sup>
8A	Room 11	Carpet mastic	None detected <sup>(1)</sup>
8B	Room 11	Carpet mastic	None detected <sup>(1)</sup>
8C	Room 11	Carpet mastic	None detected <sup>(1)</sup>
9A	Room 7	Baseboard (hard and black)	<b>10% chrysotile</b> <sup>(1,5)</sup>
10A	Room 7	Mastic under hard baseboard (brown)	<b>2% chrysotile</b> <sup>(1,5)</sup>
11A	Room 9	Baseboard (black) and baseboard mastic	None detected <sup>(1)</sup>
11B	Room 10	Baseboard (black) and baseboard mastic	None detected <sup>(1)</sup>
11C	Room 12	Baseboard (black) and baseboard mastic	None detected <sup>(1)</sup>
12A	Corridor 13	Paint on brick	None detected <sup>(1)</sup>
12B	Room 9	Paint on brick	None detected <sup>(1)</sup>
12C	Room 10	Paint on brick	None detected <sup>(1)</sup>
13A	Corridor 13	Brick mortar	None detected <sup>(1)</sup>
13B	Room 7	Brick mortar	None detected <sup>(1)</sup>

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Sample No.	Sample Location	Sample Description	Asbestos Content
13C	Room 8	Brick mortar	None detected <sup>(1)</sup>
14A	Room 20	Concrete block mortar	None detected <sup>(1)</sup>
14B	Room 20	Concrete block mortar	None detected <sup>(1)</sup>
14C	Room 20	Concrete block mortar	None detected <sup>(1)</sup>
15	Room 12	Vermiculite	None detected <sup>(1)</sup>
107-TH-2A	Rm: 107	Caulking, Clear, interior window frame.	None Detected (TEM) <sup>(2)</sup>
111-TH-2B	Rm: 111	Caulking, Clear, interior window frame.	None Detected <sup>(2)</sup>
117-TH-2C	Rm: 117	Caulking, Clear, interior window frame.	None Detected <sup>(2)</sup>
107-TH-3	Rm: 107	Cement board insulation, radiators.	<b>24.3% Chrysotile</b> <sup>(2)</sup>
107-TH-4A	Rm: 107	Caulking, clear/yellow, between metal frame and window.	None Detected <sup>(2)</sup>
109-TH-4B	Rm: 109	Caulking, clear/yellow, between metal frame and window.	None Detected <sup>(2)</sup>
111-TH-4C	Rm: 111	Caulking, clear/yellow, between metal frame and window.	None Detected <sup>(2)</sup>
110A-TH-5A	Rm: 110A	Caulking, Blue grey, interior door frame.	None Detected (TEM) <sup>(2)</sup>
113A-TH-5B	Rm: 113A	Caulking, Blue grey, interior door frame.	None Detected <sup>(2)</sup>
113A-TH-5C	Rm: 113A	Caulking, Blue grey, interior door frame.	None Detected <sup>(2)</sup>
100-TH-6A	Rm: 100	Caulking, white, interior bottom window frame.	None Detected (TEM) <sup>(2)</sup>
100-TH-6B	Rm: 100	Caulking, white, interior bottom window frame.	None Detected <sup>(2)</sup>
100-TH-6C	Rm: 100	Caulking, white, interior bottom window frame.	None Detected <sup>(2)</sup>
C100-TH-7A	Rm: C100	Caulking, white, interior wood window frames.	None Detected (TEM) <sup>(2)</sup>
C100-TH-7B	Rm: C100	Caulking, white, interior wood window frames.	<b>3% Chrysotile</b> <sup>(2)</sup>
EXT101-CK-1A	EXT: 101	Caulking, grey, exterior window, frame and brick. (old)	<b>8.2% Chrysotile</b> <sup>(2)</sup>
EXT106-CK-3A	EXT: 106	Caulking, grey, exterior window, frame and brick.	<0.25% Chrysotile (TEM) <sup>(2,4)</sup>
EXT120-CK-3B	EXT: 120	Caulking, grey, exterior window, frame and brick.	<b>&lt;1% Chrysotile</b> <sup>(2)</sup>
EXT109-CK-3C	EXT: 109	Caulking, grey, exterior window, frame and brick.	<b>3% Chrysotile</b> <sup>(2)</sup>
EXT106-CK-4A	EXT: 106	Caulking, grey, exterior window, glass and frame.	<b>0.72% Chrysotile (TEM)</b> <sup>(2)</sup>
EXT106-CK-5A	EXT: 106	Caulking, white, exterior window, glass and frame.	<b>0.63% Chrysotile</b> <sup>(2)</sup>
EXT108-CK-6A	EXT: 108	Caulking, clear, exterior window, glass and frame.	None Detected (TEM) <sup>(2)</sup>

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Sample No.	Sample Location	Sample Description	Asbestos Content
EXT120-CK-6B	EXT: 120	Caulking, clear, exterior window, glass and frame	None Detected <sup>(2)</sup>
EXT111-CK-6C	EXT: 111	Caulking, clear, exterior window, glass and frame	None Detected <sup>(2)</sup>
EXT110-CK-7A	EXT: 110	Caulking, grey, exterior door.	None Detected (TEM) <sup>(2)</sup>
EXT110-CK-7B	EXT: 110	Caulking, grey, exterior door.	None Detected <sup>(2)</sup>
EXT113-CK-7C	EXT: 113	Caulking, grey, exterior door.	None Detected <sup>(2)</sup>
EXT116-CK-9A	EXT: 116	Caulking, shiny white, exterior window, frame and glass wall.	None Detected (TEM) <sup>(2)</sup>
EXT107-CK-9B	EXT: 107	Caulking, shiny white, exterior window, frame and glass wall.	None Detected <sup>(2)</sup>
EXT109-CK-9C	EXT: 109	Caulking, shiny white, exterior window, frame and glass wall.	None Detected <sup>(2)</sup>
110-TXPL-1A	Rm: 110	Texture plaster on wall	None Detected <sup>(2)</sup>
110-TXPL-1B	Rm: 110	Texture plaster on wall	None Detected <sup>(2)</sup>
110A-TXPL-1C	Rm: 110A	Texture plaster on wall	<0.40% Actinolite <sup>(2,4)</sup>
113A-TXPL-1D	Rm: 113A	Texture plaster on wall	<b>0.52% Actinolite</b> <sup>(2)</sup>
100-DW-1A	Rm: 100	Drywall joint compound on drywall wall	None Detected <sup>(2)</sup>
2C100-DW-1B	Rm: C100	Drywall joint compound on drywall ceiling	None Detected <sup>(2)</sup>
C100-DW-1C	Room C100	Drywall joint compound on drywall ceiling	None Detected <sup>(2)</sup>
101-DW-1D	Room 101	Drywall joint compound on drywall wall	None Detected <sup>(2)</sup>
W.SOF-TC-1A	Exterior Soffit – West - Outside Corridor C102	Texture coat and drywall joint compound	None Detected <sup>(2)</sup>
W.SOF-TC-1B	Exterior Soffit – West - Outside Corridor C102	Texture coat and drywall joint compound	None Detected <sup>(2)</sup>
E.SOF-TC-1C	Exterior Soffit – East - Outside Corridor C102	Texture coat and drywall joint compound	None Detected <sup>(2)</sup>
RF-1	1971 Building	Roof Felts	None Detected (TEM) <sup>(2)</sup>
RF-2	1971 Building	Roof Felts	None Detected (TEM) <sup>(2)</sup>
RF-4	1955 Building	Roof Felts	None Detected (TEM) <sup>(2)</sup>
RF-5	1951 Building	Roof Felts	<0.25% Chrysotile (TEM) <sup>(2,4)</sup>

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Sample No.	Sample Location	Sample Description	Asbestos Content
RF-6	1951 Building	Roof Felts	None Detected (TEM) <sup>(2)</sup>
RF-7	1951 Building	Roof Felts	None Detected (TEM) <sup>(2)</sup>
RF-8	1951 Building	Roof Felts	<0.25% Chrysotile (TEM) <sup>(2,4)</sup>
RF-9	1951 Building	Roof Felts	<0.25% Chrysotile (TEM) <sup>(2,4)</sup>
1A-SCT-29A	Room 29A	2'x4' Suspended Ceiling Tile- Random small short line fissure	None Detected <sup>(3)</sup>
1B-SCT-29A	Room 29A	2'x4' Suspended Ceiling Tile- Random small short line fissure	None Detected <sup>(3)</sup>
1C-SCT-29C	Room 29C	2'x4' Suspended Ceiling Tile- Random small short line fissure	None Detected <sup>(3)</sup>
2A-SCT-29A	Room 29A	2'x4' Suspended Ceiling Tile- Deep long fissure on 2'	None Detected <sup>(3)</sup>
2B-SCT-29A	Room 29A	2'x4' Suspended Ceiling Tile- Deep long fissure on 2'	None Detected <sup>(3)</sup>
* 4	Room 29C	2'x4' Ceiling Tile	None Detected <sup>(3)</sup>
3A-SCT-29C	Room 29C	2'x4' Suspended Ceiling Tile- Flower pinhole	None Detected <sup>(3)</sup>
3B-SCT-29C	Room 29C	2'x4' Suspended Ceiling Tile- Flower pinhole	None Detected <sup>(3)</sup>
* 5	Room 29C	2'x4' Ceiling Tile	None Detected <sup>(3)</sup>
4A-SCT-29C	Room 29C	2'x4' Suspended Ceiling Tile- Thick long fissure on 4'	None Detected <sup>(3)</sup>
4B-SCT-29C	Room 29C	2'x4' Suspended Ceiling Tile- Thick long fissure on 4'	None Detected <sup>(3)</sup>
* 6	Room 29C	2'x4' Ceiling Tile	None Detected <sup>(3)</sup>
5A-VFT-12	Room 12	12" Vinyl Floor Tile- Gray with white & gray speckles (New Look)	None Detected <sup>(3)</sup>
5B-VFT-10	Room 10	12" Vinyl Floor Tile- Gray with white & gray speckles (New Look)	None Detected <sup>(3)</sup>
5C-VFT-12	Room 12	12" Vinyl Floor Tile- Gray with white & gray speckles (New Look)	None Detected <sup>(3)</sup>
6A-ACT-12	Room 12	12" Acoustic Ceiling Tile- Plain white	None Detected <sup>(3)</sup>
6B-ACT-10	Room 10	12" Acoustic Ceiling Tile- Plain white	None Detected <sup>(3)</sup>
* 2	Room 14	12" x 12" Ceiling Tile	None Detected <sup>(3)</sup>
7A-ACT-12	Room 12	12" Acoustic Ceiling Tile- Uniformed holes	None Detected <sup>(3)</sup>
7B-ACT-10	Room 10	12" Acoustic Ceiling Tile- Uniformed holes	None Detected <sup>(3)</sup>
* 1	Room 21	12" x 12" Ceiling Tile	None Detected <sup>(3)</sup>
8A-VFT-8A	Room 8A	12" Vinyl Floor Tile- White with black speckles	None Detected <sup>(3)</sup>
8B-VFT-8A	Room 8A	12" Vinyl Floor Tile- White with black speckles	None Detected <sup>(3)</sup>

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Sample No.	Sample Location	Sample Description	Asbestos Content
8C-VFT-6	Room 6	12" Vinyl Floor Tile- White with black speckles	None Detected <sup>(3)</sup>
9A-JC-18	Room 18	Drywall Joint Compound- Wall	None Detected <sup>(3)</sup>
9B-JC-18	Room 18	Drywall Joint Compound- Wall	None Detected <sup>(3)</sup>
9C-JC-18	Room 18	Drywall Joint Compound- Wall	None Detected <sup>(3)</sup>
10A-VFT-27A	Room 27A	12" Vinyl Floor Tile- Beige with swivel purple speckles	<b>1.3% Chrysotile</b> <sup>(3,5)</sup>
11A-ACT-Cor2	Corridor 2	12" Acoustic Ceiling Tile- Random large/small holes	None Detected <sup>(3)</sup>
11B-ACT-Cor2	Corridor 2	12" Acoustic Ceiling Tile- Random large/small holes	None Detected <sup>(3)</sup>
11C-ACT-Cor2	Corridor 2	12" Acoustic Ceiling Tile- Random large/small holes	None Detected <sup>(3)</sup>
12A-JC-27	Room 27	Drywall Joint Compound- Wall	None Detected <sup>(3)</sup>
12B-JC-27	Room 27	Drywall Joint Compound- Pipe chase	None Detected <sup>(3)</sup>
12C-JC-27	Room 27	Drywall Joint Compound- Wall	None Detected <sup>(3)</sup>
13A-VFT-27	Room 27	12" Vinyl Floor Tile- Beige with brown streaks	<b>0.96% Chrysotile</b> <sup>(3,5)</sup>
14A-OT-11	Room 11	Black Paper between 12" Acoustic ceiling tile & drywall	None Detected <sup>(3)</sup>
14B-OT-11	Room 11	Black Paper between 12" Acoustic ceiling tile & drywall	None Detected <sup>(3)</sup>
14C-OT-11	Room 11	Black Paper between 12" Acoustic ceiling tile & drywall	None Detected <sup>(3)</sup>
15A-ACT-11	Room 11	12" Acoustic Ceiling Tile- 2 Layered Textured white	None Detected <sup>(3)</sup>
15B-ACT-11	Room 11	12" Acoustic Ceiling Tile- 2 Layered Textured white	None Detected <sup>(3)</sup>
15C-ACT-11	Room 11	12" Acoustic Ceiling Tile- 2 Layered Textured white	None Detected <sup>(3)</sup>
16A-VFT-22	Room 22	12" Vinyl Floor Tile- Light gray with faded darker speckles	None Detected <sup>(3)</sup>
16B-VFT-22	Room 22	112" Vinyl Floor Tile- Light gray with faded darker speckles	None Detected <sup>(3)</sup>
16C-VFT-22	Room 22	12" Vinyl Floor Tile- Light gray with faded darker speckles	None Detected <sup>(3)</sup>
17A-VFT-14	Room 14	12" Vinyl Floor Tile- Light tan with random brown speckles	None Detected <sup>(3)</sup>
17B-VFT-14	Room 14	12" Vinyl Floor Tile- Light tan with random brown speckles	None Detected <sup>(3)</sup>
17C-VFT-14	Room 14	12" Vinyl Floor Tile- Light tan with random brown speckles	None Detected <sup>(3)</sup>

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Sample No.	Sample Location	Sample Description	Asbestos Content
18A-ACT-21	Room 21	12" Acoustic Ceiling Tile- Long fissure with pinholes	None Detected <sup>(3)</sup>
18B-ACT-21	Room 21	12" Acoustic Ceiling Tile- Long fissure with pinholes	None Detected <sup>(3)</sup>
18C-ACT-21	Room 21	12" Acoustic Ceiling Tile- Long fissure with pinholes	None Detected <sup>(3)</sup>
19A-VFT-29	Room 29	12" Vinyl Floor Tile- Brown with random white streaks	< 0.5% Chrysotile <sup>(3,4)</sup>
19B-VFT-29	Room 29	12" Vinyl Floor Tile- Brown with random white streaks	None Detected <sup>(3)</sup>
19C-VFT-29	Room 29	12" Vinyl Floor Tile- Brown with random white streaks	< 0.25% Chrysotile <sup>(3,4)</sup>
20A-IN-25	Room 25	Insulation on Pipe Straight	None Detected <sup>(3)</sup>
21A-PL-21	Room 21	Plaster – smooth (wall)	None Detected <sup>(3)</sup>
21B-PL-21A	Room 21A	Plaster – smooth (wall)	None Detected <sup>(3)</sup>
21C-PL-21	Room 21	Plaster – smooth (wall)	None Detected <sup>(3)</sup>
22A-IN-1	Room 1	Insulation on Pipe Straight- Antisweat	None Detected <sup>(3)</sup>
22B-IN-1	Room 1	Insulation on Pipe Straight- Antisweat	None Detected <sup>(3)</sup>
* 15	Room 1	Medium hot water heating pipe straight insulation –(Antisweat)	< 0.5% Chrysotile <sup>(3,4)</sup>
23A-TC-Ex Soffit	Exterior Soffit	Texture Coat	None Detected <sup>(3)</sup>
23B-TC-Ex Soffit	Exterior Soffit	Texture Coat	None Detected <sup>(3)</sup>
* 9	Room 31	Exterior Texture Coat	None Detected <sup>(3)</sup>
* 8	Room 1	Medium hot water heating pipe straight insulation –(Aircell)	<b>36% Chrysotile <sup>(3)</sup></b>
* 10	Room 19	Asbestos Cement Board	<b>5.5% Chrysotile <sup>(3)</sup></b> <b>&lt; 0.5% Amosite</b>
* 12	Room 1	Small hot water heating pipe fitting insulation	<b>40% Chrysotile <sup>(3)</sup></b>
* 13	Room 1	Medium hot water heating pipe fitting insulation	<b>80% Chrysotile <sup>(3)</sup></b>

### NOTES:

- Sample results derived from a report prepared by Arcadis for the Halton District School Board entitled *Pre-Renovation Designated Substances and Hazardous Materials Survey, Howard Wigglesworth (Gary Allan) Public School, 96 Guelph Street, Georgetown, Ontario* dated July 17, 2018.
- Sample results derived from a report prepared by DCS for the Halton District School Board entitled *Designated Substances and Hazardous Materials Survey, Howard Wigglesworth (Gary Allan) Public School, 96 Guelph Street, Georgetown, Ontario* dated March 2012.
- Bulk sample results derived from a report prepared by DCS for the Halton District School Board entitled *Survey of Asbestos-Containing Materials, Howard Wigglesworth Public School, Georgetown, Ontario* dated August 2013.

## SURVEY OF ASBESTOS-CONTAINING MATERIALS

### HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)

- (4) "Asbestos-containing material" is defined as material that contains 0.5% or more asbestos by dry weight.
- (5) Material collected in the area have since been removed and are provided here for references purposes only.

< = Less than.  
Chrysotile = Chrysotile asbestos.  
Amosite = Amosite asbestos.  
Actinolite = Actinolite asbestos.

# SURVEY OF ASBESTOS-CONTAINING MATERIALS

HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)

**Table 3.2: Summary of Asbestos-Containing Materials**

**Howard Wigglesworth Public School (Gary Allan)**

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	1	Pipe fitting insulation	40%- 80% Chrysotile	Below Ceiling	> 30 pipe fittings	Friable		
		Pipe straight insulation	36% Chrysotile	Below Ceiling	30-60 m pipe straights	Friable		
1	1A	Pipe fitting insulation	80% Chrysotile	Below Ceiling	5-10 pipe fittings	Friable		
		Pipe straight insulation	36% Chrysotile	Below Ceiling	3-15 m pipe straights	Friable		
1	2	9" vinyl floor tile	Assumed asbestos	Floors	50-100 m <sup>2</sup>	Non-friable		
		12" vinyl floor tile	Assumed asbestos	Floors	<10 m <sup>2</sup>	Non-friable		
1	3	9" vinyl floor tile	Assumed asbestos	Floors	50-100 m <sup>2</sup>	Non-friable		
1	4	9" vinyl floor tile	Assumed asbestos	Floors	50-100 m <sup>2</sup>	Non-friable		
1	5	9" vinyl floor tile	Assumed asbestos	Floors	50-100 m <sup>2</sup>	Non-friable		
1	5A	9" vinyl floor tile	Assumed asbestos	Floors	<10 m <sup>2</sup>	Non-friable		
		12" vinyl floor tile	Assumed asbestos	Floors	10-50 m <sup>2</sup>	Non-friable		
1	6	9" vinyl floor tile	Assumed asbestos	Floors	50-100 m <sup>2</sup>	Non-friable		
1	7							NACMO

# SURVEY OF ASBESTOS-CONTAINING MATERIALS

## HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	8	9" vinyl floor tile	10.5% Chrysotile	Floors	50-100 m <sup>2</sup>	Non-friable		
		Floor tile mastic	8% Chrysotile	Under 9" vinyl floor tiles	50-100 m <sup>2</sup>	Non-friable		
		Vinyl baseboard	10% chrysotile	On wall	10-50 m <sup>2</sup>	Non-friable		
		Vinyl baseboard mastic	2% Chrysotile	On wall	10-50 m <sup>2</sup>	Non-friable		
		Cement board	24.3% Chrysotile	Behind radiator	<10 m <sup>2</sup>	Non-friable		
		Pipe fitting insulation	80% Chrysotile	Behind radiator	< 5 pipe fittings	Friable		
		Pipe straight insulation	36% Chrysotile	Behind radiator	3-15 m pipe straights	Friable		
1	8A							NACMO
1	9	Cement board	24.3% Chrysotile	Behind radiator	<10 m <sup>2</sup>	Non-friable		
		Pipe fitting insulation	80% Chrysotile	Behind radiator	< 5 pipe fittings	Friable		
		Pipe straight insulation	36% Chrysotile	Behind radiator	3-15 m pipe straights	Friable		
1	10	Cement board	24.3% Chrysotile	Behind radiator	<10 m <sup>2</sup>	Non-friable		
		Pipe fitting insulation	80% Chrysotile	Behind radiator	< 5 pipe fittings	Friable		
		Pipe straight insulation	36% Chrysotile	Behind radiator	3-15 m pipe straights	Friable		

# SURVEY OF ASBESTOS-CONTAINING MATERIALS

## HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	11	9" vinyl floor tile	10.5% Chrysotile	Below carpet	50-100 m <sup>2</sup>	Non-friable		
		Floor tile mastic	8% Chrysotile	Under 9" vinyl floor tiles	50-100 m <sup>2</sup>	Non-friable		
		Vinyl baseboard	10% chrysotile	On wall	10-50 m <sup>2</sup>	Non-friable		
		Vinyl baseboard mastic	2% Chrysotile	On wall	10-50 m <sup>2</sup>	Non-friable		
		Cement board	24.3% Chrysotile	Behind radiator	<10 m <sup>2</sup>	Non-friable		
		Pipe fitting insulation	80% Chrysotile	Behind radiator	< 5 pipe fittings	Friable		
		Pipe straight insulation	36% Chrysotile	Behind radiator	3-15 m pipe straights	Friable		
1	12	Cement board	24.3% Chrysotile	Behind radiator	<10 m <sup>2</sup>	Non-friable		
		Pipe fitting insulation	80% Chrysotile	Behind radiator	< 5 pipe fittings	Friable		
		Pipe straight insulation	36% Chrysotile	Behind radiator	3-15 m pipe straights	Friable		
1	13	9" vinyl floor tile	Assumed asbestos	Floors	50-100 m <sup>2</sup>	Non-friable		
1	14							NACMO
1	15							NACMO
1	16							NACMO
1	17	Cement board	5.5% Chrysotile <0.5% Amosite	On wall	<10 m <sup>2</sup>	Non-friable		
		12" vinyl floor tile	0.96% Chrysotile	Floors	10-50 m <sup>2</sup>	Non-friable		
1	18	12" vinyl floor tile	0.96% Chrysotile	Floors	10-50 m <sup>2</sup>	Non-friable		

# SURVEY OF ASBESTOS-CONTAINING MATERIALS

## HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	19	Cement board	5.5% Chrysotile <0.5% Amosite	On wall	10-50 m <sup>2</sup>	Non-friable		
1	21	Cement board	5.5% Chrysotile <0.5% Amosite	Behind radiator	<10 m <sup>2</sup>	Non-friable		
1	21A	9" vinyl floor tile	Assumed asbestos	Floor	<10 m <sup>2</sup>	Non-friable		
1	22							NACMO
1	23							NACMO
1	24	Pipe fitting insulation Pipe straight insulation	80% Chrysotile 36% Chrysotile	Below ceiling Below ceiling	<5 pipe fittings 3 - 15 m	Friable Friable		
1	25							NACMO
1	25A							No access at the time of site inspection.
1	27							NACMO
1	27A							NACMO
1	29	12" vinyl floor tile 12" vinyl floor tile	1.3% Chrysotile 0.96% Chrysotile	Floor Floor	10-50 m <sup>2</sup> 10-50 m <sup>2</sup>	Non-friable Non-friable		
1	29A	Cement pipe	Assumed asbestos	Above ceiling	3-15 m <sup>2</sup>	Non-friable		
1	29B							NACMO
1	29C	Cement pipe	Assumed asbestos	Above ceiling	3-15 m <sup>2</sup>	Non-friable		

# SURVEY OF ASBESTOS-CONTAINING MATERIALS

## HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)

Level	Room	Material	Asbestos Content	Location Within Space	Estimated Quantity	Friable or Non-Friable	Condition	Comments
1	29D							NACMO
1	29E							NACMO
1	29F							NACMO
1	Cor-1							NACMO
1	Cor- 2							NACMO
1	Cor- 3							NACMO
1	EX-1							NACMO
1	S-1							NACMO
2	31	Cement pipe	Assumed asbestos	Above ceiling	<3-m <sup>2</sup>	Non-friable		

### NOTES:

Condition: G = Good.  
F = Fair.  
P = Poor.

NACMO: No Asbestos-Containing Materials Observed.

NOTE!: Asbestos may also be present in locations that are presently inaccessible (e.g., in pipe chases, behind walls, above suspended gypsum board or plaster ceilings, and below carpets).

## 4 DISCUSSION

The owner of a building is required to provide information on the locations of asbestos containing material to:

- i) any person who is an “occupier”<sup>(1)</sup> of the building. The occupier is then responsible for providing the information to their own employees;
- ii) any prospective constructors, contractors and subcontractors prior to requesting tenders or arranging for the demolition, alteration or repair of all or part of a building. The information to be provided shall identify whether any material that is likely to be handled, dealt with, disturbed or removed is asbestos-containing material; describe the condition of the material; state whether the material is friable or non-friable; and contain drawings, plans and specifications, as appropriate, to show the locations of material;
- iii) any employer with whom the owner arranges or contracts for work not described in ii) above that may involve asbestos-containing material or is to be carried out in close proximity to and may disturb the material;
- iv) owner’s staff, if they perform work that involves asbestos-containing material or work that is to be carried out in close proximity to and may disturb the material.

If material suspected of containing asbestos which is not identified in the asbestos survey records is discovered during the course of any work in a facility, then either the constructor or the owner is required to immediately notify (orally and in writing):

- a) an inspector at the office of the Ministry of Labour nearest the workplace;
- b) the owner;
- c) the contractor; and
- d) the joint health and safety committee or the health and safety representative.

The owner is also responsible for providing tenderers with a list of designated substances (including asbestos) at the tendering stage of a project.

This report was prepared as part of the asbestos management program, not for the purposes of construction or renovation projects. Additional investigation and testing may be required prior to construction or renovation projects.

Bulk sampling of building materials was carried out in accordance with the minimum sampling requirements specified in Table 1 of O.Reg. 278/05. We recommend that additional samples of certain types of material which may have been mixed on site at the time of construction (plaster, drywall joint compound, ceiling

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<sup>(1)</sup> An “occupier” is defined as:

- (a) a person who is in physical possession of premises, or
- (b) a person who has responsibility for and control over the condition of premises or the activities carried on there, or control over persons allowed to enter the premises.

## SURVEY OF ASBESTOS-CONTAINING MATERIALS

### HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)

texture coat, etc.) be tested for asbestos content prior to the disturbance of these materials at the time of renovations, alterations or demolition work.

Asbestos may also be present in materials which were not sampled during the course of the asbestos survey carried out by Arcadis, including, but not limited to, roofing materials, fire doors, mastics or cementitious levelling compound under vinyl flooring, acoustic ceiling tile adhesive, grout, caulking, gaskets in piping, internal components of boilers, paints and coatings, components of electrical equipment, (e.g. – electrical wiring insulation, non-metallic sheathed cable, electrical panel partitions, arc chutes, high-grade electrical paper, etc.), concrete, etc., and/or in locations that are presently inaccessible (e.g., in pipe chases, behind walls, above suspended gypsum board or plaster ceilings, and below carpets). Asbestos may also be present in the form of vermiculite insulation in cavities in concrete or cement block walls (used as in-fill insulation). Confirmatory testing of any such materials could be undertaken as the need arises (i.e., at the time of renovations, modifications or demolition) or the materials can be assumed to contain asbestos based on findings in adjacent areas.

As noted above, if any materials which may contain asbestos and which were not tested during the course of the asbestos survey are discovered during any construction activities, the work shall not proceed until such time as the required notifications have been made and an appropriate course of action is determined.

## **5 USE AND LIMITATIONS OF THIS REPORT**

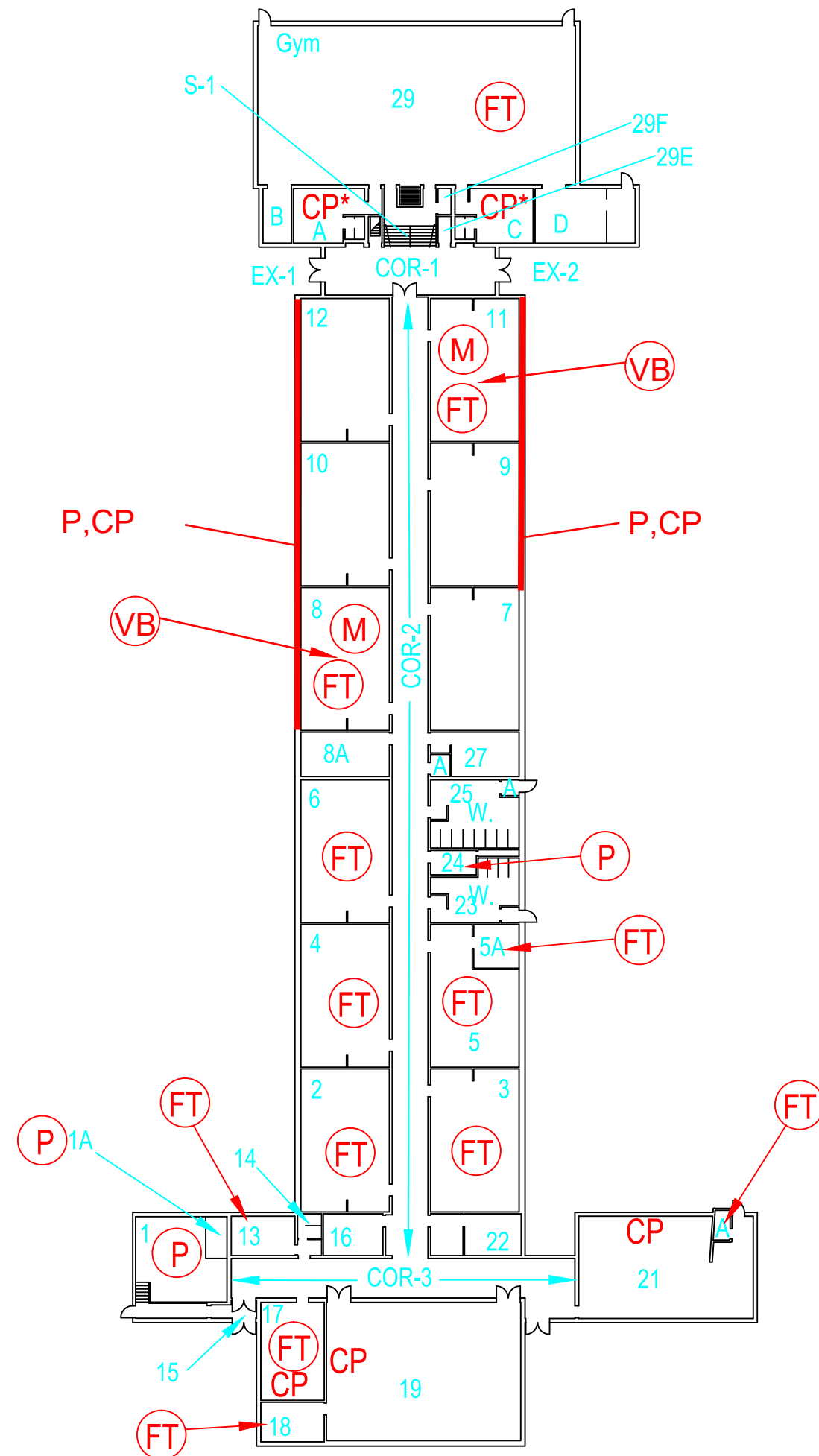
This report, prepared for the Halton District School Board, does not provide certification or warranty, expressed or implied, that the investigation conducted by Arcadis identified all asbestos-containing materials present in the subject facilities. The work undertaken by Arcadis was directed to provide information on the presence of asbestos-containing building materials based on visual inspection of readily accessible areas of the building and on the results of laboratory analysis of bulk samples of material gathered in the course of the visual inspection. The survey did not include for identification of asbestos in process materials, equipment (including electrical equipment and wiring), furniture (e.g., chairs, table tops, chalkboards, etc.), nor material outside of the building (e.g. asphaltic pavement).

This report was prepared by Arcadis for the Halton District School Board. Any use which a third party makes of the report, or reliance on, or decisions to be based on it, is the responsibility of such third parties.

# APPENDIX A

## Floor Plans





# LEGEND:

- 1 FUNCTIONAL SPACE
- THROUGHOUT FUNCTIONAL SPACE
- \* ABOVE CEILING ASSEMBLY
- P ASBESTOS ON PIPING (FRIABLE)
- CP ASBESTOS CEMENT PRODUCT (NON-FRIABLE)
- FT ASBESTOS FLOOR TILE (NON-FRIABLE)
- M ASBESTOS FLOOR TILE MASTIC (NON-FRIABLE)
- VB ASBESTOS VINYL BASEBOARD AND ASSOCIATED MASTIC (NON-FRIABLE)

## NOTES:

1.

## REVISIONS:

No.	Date:	By:	Revisions

## REFERENCE:

1.



HALTON DISTRICT SCHOOL BOARD  
LOCATIONS OF ASBESTOS-CONTAINING MATERIALS

HOWARD WIGGLESWORTH PUBLIC SCHOOL (GARY ALLAN)

FIRST FLOOR

Drawn By: D.J.K	Approved By: R.A.	Project No: 702170-182
Date: Dec 2018	Scale: N.T.S	Drawing No: 702170-182-1

# APPENDIX B

Laboratory Reports





# 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](mailto:torontolab@emsl.com)

EMSL Canada Order 551807652  
 Customer ID: 55DCSL97  
 Customer PO: 702170-178  
 Project ID:

**Attn:** Dwayne Kellyman  
 ARCADIS Canada Inc.  
 121 Granton Drive  
 Unit 12  
 Richmond Hill, ON L4B 3N4

**Phone:** (905) 882-5984  
**Fax:** (905) 882-8962  
**Collected:**  
**Received:** 6/28/2018  
**Analyzed:** 7/03/2018

**Proj:** Howard Wigglesworth /702170-178

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

<b>Client Sample ID:</b> 1A		<b>Lab Sample ID:</b> 551807652-0001				
<b>Sample Description:</b> Room 7/2'x4' Ceiling Tile - Pinhole						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray/White	80%	20%	None Detected	
<b>Client Sample ID:</b> 1B		<b>Lab Sample ID:</b> 551807652-0002				
<b>Sample Description:</b> Room 10/2'x4' Ceiling Tile - Pinhole						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray/White	80%	20%	None Detected	
<b>Client Sample ID:</b> 1C		<b>Lab Sample ID:</b> 551807652-0003				
<b>Sample Description:</b> Room 20/2'x4' Ceiling Tile - Pinhole						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray/White	0%	100%	None Detected	
<b>Client Sample ID:</b> 2A		<b>Lab Sample ID:</b> 551807652-0004				
<b>Sample Description:</b> Room 7/9" Vinyl Floor Tile - Green With Beige Streaks						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	7/03/2018	Green	0.0%	89.5%	10.5% Chrysotile	
TEM Grav. Reduction	7/03/2018				Positive Stop (Not Analyzed)	
<b>Client Sample ID:</b> 2B		<b>Lab Sample ID:</b> 551807652-0005				
<b>Sample Description:</b> Room 8/9" Vinyl Floor Tile - Green With Beige Streaks						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018				Positive Stop (Not Analyzed)	
<b>Client Sample ID:</b> 2C		<b>Lab Sample ID:</b> 551807652-0006				
<b>Sample Description:</b> Room 11/9" Vinyl Floor Tile - Green With Beige Streaks						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018				Positive Stop (Not Analyzed)	
<b>Client Sample ID:</b> 3A		<b>Lab Sample ID:</b> 551807652-0007				
<b>Sample Description:</b> Room 7/Mastic under 9" Vinyl Floor Tile						
TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Black	0%	92%	8% Chrysotile	



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EMSL Canada Order 551807652  
Customer ID: 55DCSL97  
Customer PO: 702170-178  
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:** 551807652-0008

**Sample Description:** Room 8/Mastic under 9" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018					Positive Stop (Not Analyzed)

**Client Sample ID:** 3C **Lab Sample ID:** 551807652-0009

**Sample Description:** Room 11/Mastic under 9" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018					Positive Stop (Not Analyzed)

**Client Sample ID:** 4A **Lab Sample ID:** 551807652-0010

**Sample Description:** Room 27/Levelling Compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray	0%	100%	None Detected	

**Client Sample ID:** 4B **Lab Sample ID:** 551807652-0011

**Sample Description:** Room 27/Levelling Compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray	0%	100%	None Detected	

**Client Sample ID:** 4C **Lab Sample ID:** 551807652-0012

**Sample Description:** Room 27/Levelling Compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray	0%	100%	None Detected	

**Client Sample ID:** 5A **Lab Sample ID:** 551807652-0013

**Sample Description:** Room 27/Mastic under 12" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Black	0%	98%	2% Chrysotile	

**Client Sample ID:** 5B **Lab Sample ID:** 551807652-0014

**Sample Description:** Room 27/Mastic under 12" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018					Positive Stop (Not Analyzed)

**Client Sample ID:** 5C **Lab Sample ID:** 551807652-0015

**Sample Description:** Room 27/Mastic under 12" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018					Positive Stop (Not Analyzed)



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EMSL Canada Order 551807652  
Customer ID: 55DCSL97  
Customer PO: 702170-178  
Project ID:

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

**Client Sample ID:** 6A **Lab Sample ID:** 551807652-0016

**Sample Description:** Room 27A/Mastic under 12" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Black	0%	92%	8% Chrysotile	

**Client Sample ID:** 6B **Lab Sample ID:** 551807652-0017

**Sample Description:** Room 27A/Mastic under 12" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018				Positive Stop (Not Analyzed)	

**Client Sample ID:** 6C **Lab Sample ID:** 551807652-0018

**Sample Description:** Room 27A/Mastic under 12" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018				Positive Stop (Not Analyzed)	

**Client Sample ID:** 7A **Lab Sample ID:** 551807652-0019

**Sample Description:** Room 9/Mastic under 12" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Black	0%	100%	None Detected	

**Client Sample ID:** 7B **Lab Sample ID:** 551807652-0020

**Sample Description:** Room 10/Mastic under 12" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Black	0%	100%	None Detected	

**Client Sample ID:** 7C **Lab Sample ID:** 551807652-0021

**Sample Description:** Room 12/Mastic under 12" Vinyl Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Black	0%	100%	None Detected	

**Client Sample ID:** 8A **Lab Sample ID:** 551807652-0022

**Sample Description:** Room 11/Carpet Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Brown	0%	100%	None Detected	

**Client Sample ID:** 8B **Lab Sample ID:** 551807652-0023

**Sample Description:** Room 11/Carpet Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Brown	0%	100%	None Detected	



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EMSL Canada Order 551807652  
Customer ID: 55DCSL97  
Customer PO: 702170-178  
Project ID:

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

**Client Sample ID:** 8C **Lab Sample ID:** 551807652-0024

**Sample Description:** Room 11/Carpet Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Brown	0%	100%	None Detected	

**Client Sample ID:** 9A **Lab Sample ID:** 551807652-0025

**Sample Description:** Room 7/Baseboard (Hard and Black)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Black	0%	90%	10% Chrysotile	

**Client Sample ID:** 9B **Lab Sample ID:** 551807652-0026

**Sample Description:** Room 8/Baseboard (Hard and Black)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018				Positive Stop (Not Analyzed)	

**Client Sample ID:** 9C **Lab Sample ID:** 551807652-0027

**Sample Description:** Room 11/Baseboard (Hard and Black)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018				Positive Stop (Not Analyzed)	

**Client Sample ID:** 10A **Lab Sample ID:** 551807652-0028

**Sample Description:** Room 7/Mastic under Hard Baseboard (Brown)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Brown	0%	98%	2% Chrysotile	

**Client Sample ID:** 10B **Lab Sample ID:** 551807652-0029

**Sample Description:** Room 8/Mastic under Hard Baseboard (Brown)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018				Positive Stop (Not Analyzed)	

**Client Sample ID:** 10C **Lab Sample ID:** 551807652-0030

**Sample Description:** Room 11/Mastic under Hard Baseboard (Brown)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018				Positive Stop (Not Analyzed)	

**Client Sample ID:** 11A-Baseboard **Lab Sample ID:** 551807652-0031

**Sample Description:** Room 9/Baseboard (Black) and Baseboard Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Black	0%	100%	None Detected	



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EMSL Canada Order 551807652  
Customer ID: 55DCSL97  
Customer PO: 702170-178  
Project ID:

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

**Client Sample ID:** 11A-Mastic **Lab Sample ID:** 551807652-0031A

**Sample Description:** Room 9/Baseboard (Black) and Baseboard Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Beige	0%	100%	None Detected	

**Client Sample ID:** 11B-Baseboard **Lab Sample ID:** 551807652-0032

**Sample Description:** Room 10/Baseboard (Black) and Baseboard Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Black	0%	100%	None Detected	

**Client Sample ID:** 11B-Mastic **Lab Sample ID:** 551807652-0032A

**Sample Description:** Room 10/Baseboard (Black) and Baseboard Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Beige	0%	100%	None Detected	

**Client Sample ID:** 11C-Baseboard **Lab Sample ID:** 551807652-0033

**Sample Description:** Room 12/Baseboard (Black) and Baseboard Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Black	0%	100%	None Detected	

**Client Sample ID:** 11C-Mastic **Lab Sample ID:** 551807652-0033A

**Sample Description:** Room 12/Baseboard (Black) and Baseboard Mastic

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Beige	0%	100%	None Detected	

**Client Sample ID:** 12A **Lab Sample ID:** 551807652-0034

**Sample Description:** Corridor 13/Paint on Brick

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	White/Yellow	0%	100%	None Detected	

**Client Sample ID:** 12B **Lab Sample ID:** 551807652-0035

**Sample Description:** Room 9/Paint on Brick

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	White/Yellow	0%	100%	None Detected	

**Client Sample ID:** 12C **Lab Sample ID:** 551807652-0036

**Sample Description:** Room 10/Paint on Brick

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	White/Yellow	0%	100%	None Detected	



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Customer ID: 55DCSL97  
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Project ID:

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

**Client Sample ID:** 13A **Lab Sample ID:** 551807652-0037  
**Sample Description:** Corridor 13/Brick Mortar

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray	0%	100%	None Detected	

**Client Sample ID:** 13B **Lab Sample ID:** 551807652-0038  
**Sample Description:** Room 7/Brick Mortar

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray	0%	100%	None Detected	

**Client Sample ID:** 13C **Lab Sample ID:** 551807652-0039  
**Sample Description:** Room 8/Brick Mortar

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray	0%	100%	None Detected	

**Client Sample ID:** 14A **Lab Sample ID:** 551807652-0040  
**Sample Description:** Room 20/Concrete Block Mortar

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray	0%	100%	None Detected	

**Client Sample ID:** 14B **Lab Sample ID:** 551807652-0041  
**Sample Description:** Room 20/Concrete Block Mortar

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray	0%	100%	None Detected	

**Client Sample ID:** 14C **Lab Sample ID:** 551807652-0042  
**Sample Description:** Room 20/Concrete Block Mortar

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Gray	0%	100%	None Detected	

**Client Sample ID:** 15 **Lab Sample ID:** 551807652-0043  
**Sample Description:** Room 12/Vermiculite

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	7/03/2018	Tan/Various	0%	100%	None Detected	



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

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#### Analyst(s):

Matthew Davis PLM (33)  
Michelle Lung PLM Grav. Reduction (1)

#### Reviewed and approved by:

Matthew Davis or other approved signatory  
or Other Approved Signatory

None Detected = <0.1%. EMSL maintains liability limited to cost of analysis. 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. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP of any agency of the U.S. Government.

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

Initial report from: 07/03/2018 17:01:10



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EMSL Canada Order 551200853  
 Customer ID: 55DCSL97  
 Customer PO: 701508-000  
 Project ID:

**Attn:** Ryan Farnsworth  
 Decommissioning Consulting Services Ltd.  
 121 Granton Drive  
 Unit 11  
 Richmond Hill, ON L4B 3N4

**Phone:** (905) 882-5984  
**Fax:** (905) 882-8962  
**Collected:**  
**Received:** 3/08/2012  
**Analyzed:** 3/13/2012

**Proj:** WRIGGLESWORTH H.S.

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

**Client Sample ID:** 107-TH-2A **Lab Sample ID:** 551200853-0001

**Sample Description:** ROOM 107/CAULKING, CLEAR, INTERIOR WINDOW FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	Clear	0.0%	100%	None Detected	
TEM Grav. Reduction	3/13/2012	Clear	0.0%	100%	None Detected	

**Client Sample ID:** 111-TH-2B

**Lab Sample ID:** 551200853-0002

**Sample Description:** ROOM 111/CAULKING, CLEAR, INTERIOR WINDOW FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Clear	0%	100%	None Detected	

**Client Sample ID:** 117-TH-2C

**Lab Sample ID:** 551200853-0003

**Sample Description:** ROOM 117/CAULKING, CLEAR, INTERIOR WINDOW FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Clear	0%	100%	None Detected	

**Client Sample ID:** 107-TH-3

**Lab Sample ID:** 551200853-0004

**Sample Description:** ROOM 107/CEMENT BOARD INSULATION, RADIATORS

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	Gray	0.0%	75.7%	24.3% Chrysotile	

**Client Sample ID:** 107-TH-4A

**Lab Sample ID:** 551200853-0005

**Sample Description:** ROOM 107/CAULKING, CLEAR/YELLOW, BETWEEN METAL FRAME & WINDOW

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	Yellow /Clear	0.0%	100%	None Detected	

**Client Sample ID:** 109-TH-4B

**Lab Sample ID:** 551200853-0006

**Sample Description:** ROOM 109/CAULKING, CLEAR/YELLOW, BETWEEN METAL FRAME & WINDOW

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Yellow/Clear	0%	100%	None Detected	

**Client Sample ID:** 111-TH-4C

**Lab Sample ID:** 551200853-0007

**Sample Description:** ROOM 111/CAULKING, CLEAR/YELLOW, BETWEEN METAL FRAME & WINDOW

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Yellow/Clear	0%	100%	None Detected	



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 Customer ID: 55DCSL97  
 Customer PO: 701508-000  
 Project ID:

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

**Client Sample ID:** 110A-TH-5A **Lab Sample ID:** 551200853-0008  
**Sample Description:** ROOM 110A/CAULKING, BLUE GREY, INTERIOR DOOR FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	Gray /Blue	0.0%	100%	None Detected	
TEM Grav. Reduction	3/13/2012	Gray /Blue	0.0%	100%	None Detected	

**Client Sample ID:** 113A-TH-5B **Lab Sample ID:** 551200853-0009  
**Sample Description:** ROOM 113A/CAULKING, BLUE GREY, INTERIOR DOOR FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Gray/Various	0%	100%	None Detected	

**Client Sample ID:** 113A-TH-5C **Lab Sample ID:** 551200853-0010  
**Sample Description:** ROOM 113A/CAULKING, BLUE GREY, INTERIOR DOOR FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Gray/Various	0%	100%	None Detected	

**Client Sample ID:** 100-TH-6A **Lab Sample ID:** 551200853-0011  
**Sample Description:** ROOM 100/CAULKING, WHITE, INTERIOR BOTTOM WINDOW FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White	0.0%	100%	None Detected	
TEM Grav. Reduction	3/13/2012	White	0.0%	100%	None Detected	

**Client Sample ID:** 100-TH-6B **Lab Sample ID:** 551200853-0012  
**Sample Description:** ROOM 100/CAULKING, WHITE, INTERIOR BOTTOM WINDOW FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	White	0%	100%	None Detected	

**Client Sample ID:** 100-TH-6C **Lab Sample ID:** 551200853-0013  
**Sample Description:** ROOM 100/CAULKING, WHITE, INTERIOR BOTTOM WINDOW FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	White	0%	100%	None Detected	

**Client Sample ID:** C100-TH-7A **Lab Sample ID:** 551200853-0014  
**Sample Description:** ROOM C100/CAULKING, WHITE, WOOD WINDOW FRAMES

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/13/2012	White	0.0%	100%	None Detected	Trace amount of brown caulking present.
TEM Grav. Reduction	3/13/2012	White	0.0%	100%	None Detected	

**Client Sample ID:** C100-TH-7B **Lab Sample ID:** 551200853-0015  
**Sample Description:** ROOM C100/CAULKING, WHITE, WOOD WINDOW FRAMES

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	White	0%	97%	3% Chrysotile	Variable amounts of brown caulking present. Asbestos detected in brown caulking. Sample result is a composite of white and brown caulking.



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EMSL Canada Order 551200853  
Customer ID: 55DCSL97  
Customer PO: 701508-000  
Project ID:

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

**Client Sample ID:** C100-TH-7C **Lab Sample ID:** 551200853-0016

**Sample Description:** ROOM C100/CAULKING, WHITE, WOOD WINDOW FRAMES

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012					Stop Positive (Not Analyzed)

**Client Sample ID:** EXT101-CK-1A

**Lab Sample ID:** 551200853-0017

**Sample Description:** EXT 101/CAULKING, GREY, EXTERIOR WINDOW, FRAME & BRICK (OLD)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	Gray	0.0%	91.8%	8.2% Chrysotile	

**Client Sample ID:** EXT120-CK-1B

**Lab Sample ID:** 551200853-0018

**Sample Description:** EXT 120/CAULKING, GREY, EXTERIOR WINDOW, FRAME & BRICK (OLD)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012					Stop Positive (Not Analyzed)

**Client Sample ID:** EXT100-CK-1C

**Lab Sample ID:** 551200853-0019

**Sample Description:** EXT 100/CAULKING, GREY, EXTERIOR WINDOW, FRAME & BRICK (OLD)

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012					Stop Positive (Not Analyzed)

**Client Sample ID:** EXT106-CK-3A

**Lab Sample ID:** 551200853-0020

**Sample Description:** EXT 106/CAULKING, GREY, EXTERIOR WINDOW, FRAME & BRICK

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/13/2012	Gray	0.0%	100%	<0.25% Chrysotile	
TEM Grav. Reduction	3/13/2012	Gray	0.0%	99.8%	<0.25% Chrysotile	

**Client Sample ID:** EXT120-CK-3B

**Lab Sample ID:** 551200853-0021

**Sample Description:** EXT 120/CAULKING, GREY, EXTERIOR WINDOW, FRAME & BRICK

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Gray	0%	100%	<1% Chrysotile	

**Client Sample ID:** EXT109-CK-3C

**Lab Sample ID:** 551200853-0022

**Sample Description:** EXT 109/CAULKING, GREY, EXTERIOR WINDOW, FRAME & BRICK

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Gray	0%	97%	3% Chrysotile	

**Client Sample ID:** EXT106-CK-4A

**Lab Sample ID:** 551200853-0023

**Sample Description:** EXT 106/CAULKING, GREY, EXTERIOR WINDOW, GLASS & FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	Gray	0.0%	100%	<0.25% Chrysotile	
TEM Grav. Reduction	3/13/2012	Gray	0.0%	99.3%	0.72% Chrysotile	



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Project ID:

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

**Client Sample ID:** EXT116-CK-4B **Lab Sample ID:** 551200853-0024

**Sample Description:** EXT 116/CAULKING, GREY, EXTERIOR WINDOW, GLASS & FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012					Stop Positive (Not Analyzed)

**Client Sample ID:** EXT111-CK-4C **Lab Sample ID:** 551200853-0025

**Sample Description:** EXT 111/CAULKING, GREY, EXTERIOR WINDOW, GLASS & FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012					Stop Positive (Not Analyzed)

**Client Sample ID:** EXT106-CK-5A **Lab Sample ID:** 551200853-0026

**Sample Description:** EXT 106/CAULKING, WHITE, EXTERIOR WINDOW, GLASS & FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White	0.0%	99.4%	0.63% Chrysotile	

**Client Sample ID:** EXT120-CK-5B **Lab Sample ID:** 551200853-0027

**Sample Description:** EXT 120/CAULKING, WHITE, EXTERIOR WINDOW, GLASS & FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012					Stop Positive (Not Analyzed)

**Client Sample ID:** EXT109-CK-5C **Lab Sample ID:** 551200853-0028

**Sample Description:** EXT 109/CAULKING, WHITE, EXTERIOR WINDOW, GLASS & FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012					Stop Positive (Not Analyzed)

**Client Sample ID:** EXT108-CK-6A **Lab Sample ID:** 551200853-0029

**Sample Description:** EXT 108/CAULKING, CLEAR, EXTERIOR WINDOW, GLASS & FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	Clear	0.0%	100%	None Detected	
TEM Grav. Reduction	3/13/2012	Clear	0.0%	100%	None Detected	

**Client Sample ID:** EXT120-CK-6B **Lab Sample ID:** 551200853-0030

**Sample Description:** EXT 120/CAULKING, CLEAR, EXTERIOR WINDOW, GLASS & FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Clear	0%	100%	None Detected	

**Client Sample ID:** EXT111-CK-6C **Lab Sample ID:** 551200853-0031

**Sample Description:** EXT 111/CAULKING, CLEAR, EXTERIOR WINDOW, GLASS & FRAME

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Clear	0%	100%	None Detected	



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Project ID:

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

Client Sample ID: EXT110-CK-7A

Lab Sample ID: 551200853-0032

Sample Description: EXT 110/CAULKING, GREY, EXTERIOR DOOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	Gray	0.0%	100%	None Detected	
TEM Grav. Reduction	3/13/2012	Gray	0.0%	100%	None Detected	

Client Sample ID: EXT110-CK-7B

Lab Sample ID: 551200853-0033

Sample Description: EXT 110/CAULKING, GREY, EXTERIOR DOOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Gray/Various	0%	100%	None Detected	

Client Sample ID: EXT113-CK-7C

Lab Sample ID: 551200853-0034

Sample Description: EXT 113/CAULKING, GREY, EXTERIOR DOOR

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	Gray/Various	0%	100%	None Detected	

Client Sample ID: EXT116-CK-9A

Lab Sample ID: 551200853-0035

Sample Description: EXT 116/CAULKING, SHINY WHITE, EXTERIOR WINDOW, FRAME & GLASS WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White	0.0%	100%	None Detected	
TEM Grav. Reduction	3/13/2012	White	0.0%	100%	None Detected	

Client Sample ID: EXT107-CK-9B

Lab Sample ID: 551200853-0036

Sample Description: EXT 107/CAULKING, SHINY WHITE, EXTERIOR WINDOW, FRAME & GLASS WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	White	0%	100%	None Detected	

Client Sample ID: EXT109-CK-9C

Lab Sample ID: 551200853-0037

Sample Description: EXT 109/CAULKING, SHINY WHITE, EXTERIOR WINDOW, FRAME & GLASS WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	3/13/2012	White	0%	100%	None Detected	

Client Sample ID: 110-TXPL-1A

Lab Sample ID: 551200853-0038

Sample Description: ROOM 110/TEXTURE PLASTER, HARD COAT, WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White /Various	<1%	100%	None Detected	

Client Sample ID: 110-TXPL-1B

Lab Sample ID: 551200853-0039

Sample Description: ROOM 110/TEXTURE PLASTER, HARD COAT, WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White /Various	0.0%	100%	None Detected	



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EMSL Canada Order 551200853  
Customer ID: 55DCSL97  
Customer PO: 701508-000  
Project ID:

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

**Client Sample ID:** 110A-TXPL-1C **Lab Sample ID:** 551200853-0040

**Sample Description:** ROOM 110A/TEXTURE PLASTER, HARD COAT, WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White /Various	0.0%	100%	<0.40% Actinolite	

**Client Sample ID:** 113A-TXPL-1D **Lab Sample ID:** 551200853-0041

**Sample Description:** ROOM 113A/TEXTURE PLASTER, HARD COAT, WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White /Various	0.0%	99.5%	0.52% Actinolite	

**Client Sample ID:** 113A-TXPL-1E **Lab Sample ID:** 551200853-0042

**Sample Description:** ROOM 113A/TEXTURE PLASTER, HARD COAT, WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012				Positive Stop (Not Analyzed)	

**Client Sample ID:** 100-DW-1A **Lab Sample ID:** 551200853-0043

**Sample Description:** ROOM 100/DRYWALL, WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White	0.0%	100%	None Detected	

**Client Sample ID:** C100-DW-1B **Lab Sample ID:** 551200853-0044

**Sample Description:** ROOM C100/DRYWALL, CEILING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White	0.0%	100%	None Detected	

**Client Sample ID:** C100-DW-1C **Lab Sample ID:** 551200853-0045

**Sample Description:** ROOM C100/DRYWALL, CEILING

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White	0.0%	100%	None Detected	

**Client Sample ID:** 101-DW-1D **Lab Sample ID:** 551200853-0046

**Sample Description:** ROOM 101/DRYWALL, WALL

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/09/2012	White /Blue	0.0%	100%	None Detected	

**Client Sample ID:** W.SOF-TC-1A **Lab Sample ID:** 551200853-0047

**Sample Description:** NOT ON COC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/13/2012	Gray /White	0.0%	100%	None Detected	

**Client Sample ID:** W.SOF-TC-1B **Lab Sample ID:** 551200853-0048

**Sample Description:** NOT ON COC

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/13/2012	White /Various	0.0%	100%	None Detected	



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EMSL Canada Order 551200853  
Customer ID: 55DCSL97  
Customer PO: 701508-000  
Project ID:

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

Client Sample ID: E.SOF-TC-1C

Lab Sample ID: 551200853-0049

Sample Description: NOT ON COC

TEST	Analyzed	Color	Non-Asbestos		Asbestos	Comment
	Date		Fibrous	Non-Fibrous		
PLM Grav. Reduction	3/13/2012	White /Various	0.0%	100%	None Detected	

### Analyst(s)

Kevin Pang	TEM Grav. Reduction	(9)
Lisa Podzyhun	PLM	(17)
	PLM Grav. Reduction	(3)
Matthew Davis	PLM Grav. Reduction	(18)
Merriam Haffar	PLM Grav. Reduction	(3)

  
Kevin Pang  
or other Approved Signatory

Any questions please contact Kevin Pang.

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. 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. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP of any agency of the U.S. Government.

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

Initial report from: 03/13/2012 12:00:29



# EMSL Canada Inc.

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EMSL Canada Order 551200794  
Customer ID: 55DCSL97  
Customer PO: 701309  
Project ID:

**Attn:** Jean Daigle  
Decommissioning Consulting Services Ltd.  
121 Granton Drive  
Unit 11  
Richmond Hill, ON L4B 3N4

**Phone:** (905) 882-5984  
**Fax:** (905) 882-8962  
**Collected:**  
**Received:** 3/03/2012  
**Analyzed:** 3/07/2012

**Proj:** 7-1508/GARY ALLAN

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

**Client Sample ID:** RF-1 **Lab Sample ID:** 551200794-0001

**Sample Description:** ROOF FELTS/1971

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	03/07/2012	Black	0.0%	100%	<0.25% Chrysotile	
TEM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	

**Client Sample ID:** RF-2

**Lab Sample ID:** 551200794-0002

**Sample Description:** ROOF FELTS/1971

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	
TEM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	

**Client Sample ID:** RF-4

**Lab Sample ID:** 551200794-0003

**Sample Description:** ROOF FELTS/1955

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	
TEM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	

**Client Sample ID:** RF-5

**Lab Sample ID:** 551200794-0004

**Sample Description:** ROOF FELTS/1951

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	03/07/2012	Black	0.0%	100%	<0.25% Chrysotile	
TEM Grav. Reduction	03/07/2012	Black	0.0%	99.8%	<0.25% Chrysotile	

**Client Sample ID:** RF-6

**Lab Sample ID:** 551200794-0005

**Sample Description:** ROOF FELTS/1951

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	
TEM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	

**Client Sample ID:** RF-7

**Lab Sample ID:** 551200794-0006

**Sample Description:** ROOF FELTS/1951

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	
TEM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	



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EMSL Canada Order 551200794  
Customer ID: 55DCSL97  
Customer PO: 701309  
Project ID:

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

Client Sample ID: RF-8

Lab Sample ID: 551200794-0007

Sample Description: ROOF FELTS/1951

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	
TEM Grav. Reduction	03/07/2012	Black	0.0%	100%	<0.25% Chrysotile	

Client Sample ID: RF-9

Lab Sample ID: 551200794-0008

Sample Description: ROOF FELTS/1951

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	03/07/2012	Black	0.0%	100%	None Detected	
TEM Grav. Reduction	03/07/2012	Black	0.0%	100%	<0.25% Chrysotile	

**EMSL Analytical, Inc.**

490 Rowley Road, Depew, NY 14043

Phone: (716) 651-0930 Fax: (716) 651-0394 Email: [buffalolab@emsl.com](mailto:buffalolab@emsl.com)**Attn: Homa Monfared  
Decommissioning Consulting Services Ltd.****121 Granton Drive, Unit 11**

Fax: (905) 882-8962 Phone: (905) 882-5984

Project: 49103 HDSB Howard Wrigglesworth Public School

Customer ID: DCSL97  
Customer PO: 49103  
Received: 09/06/07 10:05 AM  
EMSL Order: 140704921

EMSL Proj:

Analysis: 9/17/2007  
Report Date: 9/17/2007**Asbestos Analysis of Non-Friable Organically Bound materials by Transmission  
Electron Microscopy via NYS ELAP Method 198.4**

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES	% TOTAL ASBESTOS
5A-VFT-12 140704921-0051	room 12, 12" vinyl floor tile gray with white & gray	Gray/Olive	100.0	None	No Asbestos Detected	
8A-VFT-8A 140704921-0052	room 8A, 12" vinyl floor tile white with black	White/Black	100.0	None	No Asbestos Detected	
10A-VFT-27A 140704921-0053	room 27A, 12" vinyl floor tile beige with swivel	Beige	98.7	None	1.3% Chrysotile	1.3
13A-VFT-27 140704921-0054	room 27, 12" vinyl floor tile beige with brown	Beige	99.0	None	0.96% Chrysotile	0.96
14A-OT-11 140704921-0055	room 11, black paper between 12" acoustic	Black	100.0	None	No Asbestos Detected	
16A-VFT-22 140704921-0056	room 22, 12" vinyl floor tile light gray with fade	Gray	100.0	None	No Asbestos Detected	
17A-VFT-14 140704921-0057	room 14, 12" vinyl floor tile light tan with rand	Tan	100.0	None	No Asbestos Detected	
19A-VFT-29 140704921-0058	room 29, 12" vinyl floor tile brown with random	Brown	100.0	None	<0.5% Chrysotile	<0.5

Analytical Sensitivity &lt;0.5% Asbestos.

Analyst(s)  
Ken Najuch (8)Rhonda McGee, Laboratory Manager  
or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted.

ACCREDITATIONS: NVLAP #200056-0 and NY STATE ELAP #11606

NYTNOB-2

**THIS IS THE LAST PAGE OF THE REPORT.**

1



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**Richmond Hill, Ontario, CN L4B3N4**

Fax: (905) 882-8962 Phone: (905) 882-5984  
 Project: 49103 HDSB Howard Wrigglesworth Public School

Customer ID: DCSL97  
 Customer PO: 49103  
 Received: 09/06/07 10:05 AM  
 EMSL Order: 140704921

EMSL Proj:  
 Analysis Date: 9/18/2007  
 Report Date: 10/24/2007

## Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation using 400 Point Count Procedure.

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
1A-SCT-29A 140704921-0001	room 29A, 2'x4' suspended ceiling tile random	Gray Fibrous Homogeneous	40.00% Cellulose 30.00% Glass	30.00% Non-fibrous (other)	None Detected
1B-SCT-29A 140704921-0002	room 29A, 2'x4' suspended ceiling tile random	Gray Fibrous Homogeneous	40.00% Cellulose 30.00% Glass	30.00% Non-fibrous (other)	None Detected
1C-SCT-29C 140704921-0003	room 29C, 2'x4' suspended ceiling tile random	Gray Fibrous Homogeneous	40.00% Cellulose 40.00% Min. Wool	20.00% Non-fibrous (other)	None Detected
2A-SCT-29A 140704921-0004	room 29A, 2'x4' suspended ceiling tile clean linn	Gray Fibrous Homogeneous	50.00% Cellulose 20.00% Glass	30.00% Non-fibrous (other)	None Detected
2B-SCT-29A 140704921-0005	room 29A, 2'x4' suspended ceiling tile clean linn	Gray Fibrous Homogeneous	60.00% Cellulose 20.00% Min. Wool	20.00% Non-fibrous (other)	None Detected
3A-SCT-29C 140704921-0007	room 29C, 2'x4' suspended ceiling tile flower nin	Gray Fibrous Homogeneous	30.00% Cellulose 50.00% Glass	20.00% Non-fibrous (other)	None Detected
3B-SCT-29C 140704921-0008	room 29C, 2'x4' suspended ceiling tile flower nin	Gray Fibrous Homogeneous	30.00% Cellulose 50.00% Min. Wool	20.00% Non-fibrous (other)	None Detected
4A-SCT-29C 140704921-0010	room 29C, 2'x4' suspended ceiling tile thick linn	Gray Fibrous Homogeneous	30.00% Cellulose 40.00% Glass	30.00% Non-fibrous (other)	None Detected
4B-SCT-29C 140704921-0011	room 29C, 2'x4' suspended ceiling tile thick linn	Gray Fibrous Homogeneous	30.00% Cellulose 50.00% Min. Wool	20.00% Non-fibrous (other)	None Detected

Analyst(s)

Brian Walczak (31)  
 Tom Hanes (14)

*Rhonda McGee*

Rhonda McGee, Laboratory Manager  
 or other approved signatory

Unless otherwise noted, the results in this report have not been blank corrected. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Buffalo (NVLAP #200056-0), NY ELAP #11606

PLMPointCount-1



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Project: 49103 HDSB Howard Wrigglesworth Public School

Customer ID: DCSL97  
Customer PO: 49103  
Received: 09/06/07 10:05 AM  
EMSL Order: 140704921

EMSL Proj:  
Analysis Date: 9/18/2007  
Report Date: 10/24/2007

### Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation using 400 Point Count Procedure.

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
5B-VFT-10 140704921-0013	room 10, 12" vinyl floor tile gray with white & nr	Green Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
5C-VFT-12 140704921-0014	room 12, 12" vinyl floor tile gray with white & nr	Green Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
6A-ACT-12 140704921-0015	room 12, 12" acoustic ceiling tile plain white	Brown Fibrous Homogeneous	90.00% Cellulose	10.00% Non-fibrous (other)	None Detected
6B-ACT-10 140704921-0016	room 10, 12" acoustic ceiling tile plain white	Brown Fibrous Homogeneous	90.00% Cellulose	10.00% Non-fibrous (other)	None Detected
7A-ACT-12 140704921-0018	room 12, 12" acoustic ceiling tile uniformed holes	Tan Fibrous Homogeneous	90.00% Cellulose	10.00% Non-fibrous (other)	None Detected
7B-ACT-10 140704921-0019	room 10, 12" acoustic ceiling tile uniformed holes	Brown Fibrous Homogeneous	90.00% Cellulose	10.00% Non-fibrous (other)	None Detected
8B-VFT-8A 140704921-0021	room 8A, 12" vinyl floor tile white with black sra	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
8C-VFT-6 140704921-0022	room 6, 12" vinyl floor tile white with black sra	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
9A-JC-18 140704921-0023	room 18, drywall joint compound wall	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analyst(s)

Brian Walczak (31)  
Tom Hanes (14)

*Rhonda McGee*

Rhonda McGee, Laboratory Manager  
or other approved signatory

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Analysis performed by EMSL Buffalo (NVLAP #200056-0), NY ELAP #11606

PLMPointCount-1



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 Project: 49103 HDSB Howard Wrigglesworth Public School

Customer ID: DCSL97  
 Customer PO: 49103  
 Received: 09/06/07 10:05 AM  
 EMSL Order: 140704921

EMSL Proj:  
 Analysis Date: 9/18/2007  
 Report Date: 10/24/2007

### Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation using 400 Point Count Procedure.

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
9B-JC-18 140704921-0024	room 18, drywall joint compound wall	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
9C-JC-18 140704921-0025	room 18, drywall joint compound wall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
10B-VFT-27A 140704921-0026	room 27A, 12" vinyl floor tile beige with swivel				Not Analyzed
Positive stop					
10C-VFT-27A 140704921-0027	room 27A, 12" vinyl floor tile beige with swivel				Not Analyzed
Positive stop					
11A-ACT-COR2 140704921-0028	corridor 2, 12" acoustic ceiling tile random lar	Tan Fibrous Homogeneous	90.00% Cellulose	10.00% Non-fibrous (other)	None Detected
11B-ACT-COR2 140704921-0029	corridor 2, 12" acoustic ceiling tile random lar	Tan Fibrous Homogeneous	90.00% Cellulose	10.00% Non-fibrous (other)	None Detected
11C-ACT-COR2 140704921-0030	corridor 2, 12" acoustic ceiling tile random lar	Brown Fibrous Homogeneous	90.00% Cellulose	10.00% Non-fibrous (other)	None Detected
12A-JC-27 140704921-0031	room 27, drywall joint compound, wall	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
12B-JC-27 140704921-0032	room 27, drywall joint compound, pipe chase	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analyst(s)

Brian Walczak (31)  
 Tom Hanes (14)

*Rhonda McGee*

Rhonda McGee, Laboratory Manager  
 or other approved signatory

Unless otherwise noted, the results in this report have not been blank corrected. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Buffalo (NVLAP #200056-0), NY ELAP #11606

PLMPointCount-1

3



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 Project: 49103 HDSB Howard Wrigglesworth Public School

Customer ID: DCSL97  
 Customer PO: 49103  
 Received: 09/06/07 10:05 AM  
 EMSL Order: 140704921  
 EMSL Proj:  
 Analysis Date: 9/18/2007  
 Report Date: 10/24/2007

### Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation using 400 Point Count Procedure.

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
12C-JC-27 140704921-0033	room 27, drywall joint compound, wall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
13B-VFT-27 140704921-0034	room 27, 12" vinyl floor tile beige with brown				Not Analyzed
		Positive stop			
13C-VFT-27 140704921-0035	room 27, 12" vinyl floor tile beige with brown				Not Analyzed
		Positive stop			
14B-OT-11 140704921-0036	room 11, black paper between 12" acoustic	Brown/Black Fibrous Homogeneous	85.00% Cellulose	15.00% Non-fibrous (other)	None Detected
14C-OT-11 140704921-0037	room 11, black paper between 12" acoustic	Black Fibrous Homogeneous	80.00% Cellulose	20.00% Non-fibrous (other)	None Detected
15A-ACT-11 140704921-0038	room 11, 12" acoustic ceiling tile 2 layered tex	Gray Fibrous Homogeneous	40.00% Cellulose 30.00% Glass	30.00% Non-fibrous (other)	None Detected
15B-ACT-11 140704921-0039	room 11, 12" acoustic ceiling tile 2 layered tex	Gray Fibrous Homogeneous	40.00% Cellulose 30.00% Glass	30.00% Non-fibrous (other)	None Detected
15C-ACT-11 140704921-0040	room 11, 12" acoustic ceiling tile 2 layered tex	Gray Fibrous Homogeneous	40.00% Cellulose 40.00% Min. Wool	20.00% Non-fibrous (other)	None Detected
16B-VFT-22 140704921-0041	room 22, 12" vinyl floor tile light gray with fade	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analyst(s)

Brian Walczak (31)  
 Tom Hanes (14)

*Rhonda McGee*

Rhonda McGee, Laboratory Manager  
 or other approved signatory

Unless otherwise noted, the results in this report have not been blank corrected. Samples received in good condition unless otherwise noted.  
 Analysis performed by EMSL Buffalo (NVLAP #200056-0), NY ELAP #11606



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 Project: 49103 HDSB Howard Wigglesworth Public School

Customer ID: DCSL97  
 Customer PO: 49103  
 Received: 09/06/07 10:05 AM  
 EMSL Order: 140704921

EMSL Proj:  
 Analysis Date: 9/18/2007  
 Report Date: 9/18/2007

### Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation using 400 Point Count Procedure.

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
14C-OT-11 140704921-0037	room 11, black paper between 12" acoustic	Black Fibrous Homogeneous	80.00% Cellulose	20.00% Non-fibrous (other)	None Detected
15A-ACT-11 140704921-0038	room 11, 12" acoustic ceiling tile 2 layered tex	Gray Fibrous Homogeneous	40.00% Cellulose 30.00% Glass	30.00% Non-fibrous (other)	None Detected
15B-ACT-11 140704921-0039	room 11, 12" acoustic ceiling tile 2 layered tex	Gray Fibrous Homogeneous	40.00% Cellulose 30.00% Glass	30.00% Non-fibrous (other)	None Detected
15C-ACT-11 140704921-0040	room 11, 12" acoustic ceiling tile 2 layered tex	Gray Fibrous Homogeneous	40.00% Cellulose 40.00% Min. Wool	20.00% Non-fibrous (other)	None Detected
16B-VFT-22 140704921-0041	room 22, 12" vinyl floor tile light gray with fade	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
16C-VFT-22 140704921-0042	room 22, 12" vinyl floor tile light gray with fade	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
17B-VFT-14 140704921-0043	room 14, 12" vinyl floor tile light tan with rand	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
17C-VFT-14 140704921-0044	room 14, 12" vinyl floor tile light tan with rand	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
18A-ACT-21 140704921-0045	room 21, 12" acoustic ceiling tile linn fissure	Gray Fibrous Homogeneous	40.00% Cellulose 30.00% Glass	30.00% Non-fibrous (other)	None Detected

Analyst(s)

Brian Walczak (36)  
 Tom Hanes (14)

*Rhonda McGee*

Rhonda McGee, Laboratory Manager  
 or other approved signatory

Unless otherwise noted, the results in this report have not been blank corrected. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Buffalo (NVLAP #200056-0), NY ELAP #11606

PLMPointCount-1

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EMSL Analytical, Inc.

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**Decommissioning Consulting Services Ltd.**  
**121 Granton Drive, Unit 11**  
**Richmond Hill, Ontario, CN L4B3N4**

Fax: (905) 882-8962 Phone: (905) 882-5984  
 Project: 49103 HDSB Howard Wrigglesworth Public School

Customer ID: DCSL97  
 Customer PO: 49103  
 Received: 09/06/07 10:05 AM  
 EMSL Order: 140704921

EMSL Proj:  
 Analysis Date: 9/18/2007  
 Report Date: 9/18/2007

### Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation using 400 Point Count Procedure.

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
18B-ACT-21 140704921-0046	room 21, 12" acoustic ceiling tile long fissure	Gray Fibrous Homogeneous	40.00% Cellulose 30.00% Glass	30.00% Non-fibrous (other)	None Detected
18C-ACT-21 140704921-0047	room 21, 12" acoustic ceiling tile long fissure	Gray Fibrous Homogeneous	30.00% Cellulose 40.00% Min. Wool	30.00% Non-fibrous (other)	None Detected
19B-VFT-29 140704921-0048	room 29, 12" vinyl floor tile brown with random	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
19C-VFT-29 140704921-0049	room 29, 12" vinyl floor tile brown with random	Brown Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
20A-IN-25 140704921-0050	room 25, insulation on pipe straight	Tan/Black Fibrous Homogeneous	70.00% Cellulose	30.00% Non-fibrous (other)	None Detected

Analytical Sensitivity <0.5% Asbestos.

Analyst(s)

Brian Walczak (36)  
 Tom Hanes (14)

*Rhonda McGee*

Rhonda McGee, Laboratory Manager  
 or other approved signatory

Unless otherwise noted, the results in this report have not been blank corrected. Samples received in good condition unless otherwise noted.  
 Analysis performed by EMSL Buffalo (NVLAP #200056-0), NY ELAP #11606

PLMPointCount-1

**THIS IS THE LAST PAGE OF THE REPORT.**

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**EMSL Analytical, Inc.**

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Fax: (905) 882-8962 Phone: (905) 882-5984  
Project: 49103/ HDSB-Howard Wrigglesworth Public School

Customer ID: DCSL97  
Customer PO: 49103  
Received: 10/15/07 10:00 AM  
EMSL Order: 140705600

EMSL Proj:  
Analysis Date: 10/20/2007  
Report Date: 10/20/2007

**Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation using 400 Point Count Procedure.**

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
22a-in-1 140705600-0001	rm 1 insulation on pipe straight anit-sweat	Gray Fibrous Homogeneous	85.00% Cellulose	15.00% Non-fibrous (other)	None Detected
22b-in-1 140705600-0002	rm 1 insulation on pipe straight anit-sweat	Gray Fibrous Homogeneous	90.00% Cellulose	10.00% Non-fibrous (other)	None Detected
23a-tc-ex soffit 140705600-0003	exterior soffit texture coat	White Fibrous Homogeneous	<1% Cellulose	100.00% Non-fibrous (other)	None Detected
23b-tc-ex soffit 140705600-0004	exterior soffit texture coat	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analytical Sensitivity &lt;0.5% Asbestos.

## Analyst(s)

Brian Walczak (2)  
Tom Hanes (2)

Rhonda McGee, Laboratory Manager  
or other approved signatory

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Analysis performed by EMSL Buffalo (NVLAP #200056-0), NY ELAP #11606



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Fax: (905) 882-8962 Phone: (905) 882-5984  
Project: **49103/ HDSB-Howard Wrigglesworth Public School**

Customer ID: DCSL97  
Customer PO: 49103  
Received: 10/15/07 10:00 AM  
EMSL Order: 140705600  
EMSL Proj:  
Analysis Date: 10/19/2007  
Report Date: 10/20/2007

**Polarized Light Microscopy (PLM) - Point Count Performed by EPA 600/R-93/116**  
**Method with Gravimetric Reduction and 400 Point Count**

SAMPLE ID	LOCATION	APPEARANCE	(% Matrix Organic Acid		ASBESTOS % TYPES	NON- ASBESTOS % Fibrous	NON- ASBESTOS % NON-FIBROUS
21a-pl-21 140705600-0005	rm 21 plaster smooth wall	White	18.6	78.1	None Detected		3.3 Non-fibrous (other)
21b-pl-21a 140705600-0006	rm 21a plaster smooth wall	White	25.1	50.9	None Detected		24.1 Non-fibrous (other)
21c-pl-21 140705600-0007	rm 21 plaster smooth wall	White	17.2	69.3	None Detected		13.5 Non-fibrous (other)

Analytical Sensitivity <0.5% Asbestos.

Analyst(s)

Brian Walczak (3)

*Rhonda McGee*

Rhonda McGee, Laboratory Manager  
or other approved signatory

Disclaimers: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. EMSL Analytical Inc. suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layer samples. EMSL Analytical Inc. liability is limited to the cost of sample analysis. Samples received in good condition unless otherwise noted.

# APPENDIX C

Sample List of Suspect Asbestos-Containing Building Materials from  
A Guide to the Regulation Respecting Asbestos on Construction  
Projects and in Buildings and Repair Operations



## APPENDIX C

### SAMPLE LIST OF SUSPECT ASBESTOS-CONTAINING BUILDING MATERIALS

There are an estimated 3,000 products that contain asbestos. In Ontario, asbestos was widely used in sprayed-on material and in pipe and boiler insulation until 1973<sup>(1)</sup>. The use of many other asbestos-containing materials continued until the mid-1980s. Asbestos is still used in the manufacture of a limited number of products, including some floor tiles, cement products, friction materials and textiles. The following list was adapted from the United States Environmental Protection Agency's (EPA) *Sample List of Suspect Asbestos Containing Materials*<sup>(2)</sup>. It is not an all inclusive list but is intended as a general guide to show which types of building materials may contain asbestos.

#### *Possible Asbestos-Containing Materials in Buildings*

- Acoustical Plaster
- Adhesives
- Asphalt Floor Tile
- Base Flashing
- Blown-in (Loose Fill) Insulation
- Boiler Insulation
- Breaching Insulation
- Caulking/Putties
- Ceiling Tiles and Lay-in Panels
- Cement Pipes
- Cement Siding
- Cement Wallboard
- Construction Mastics (floor tile, carpet, ceiling tile, etc.)
- Cooling Towers
- Decorative Plaster
- Ductwork Flexible Fabric Connections
- Electrical Cloth
- Electrical Wiring Insulation
- Elevator Brake Shoes
- Elevator Equipment Panels
- Fire Doors
- Fireproofing Materials
- Flooring Backing
- Heating and Electrical Ducts
- High Temperature Gaskets
- HVAC Duct Insulation
- Joint Compounds
- Pipe Insulation (corrugated air-cell, block, etc.)
- Roofing Felt
- Roofing Shingles
- Spackling Compounds
- Sprayed-on Insulation
- Taping Compounds (thermal)
- Textured Paper Products
- Vinyl Floor Tile
- Vinyl Sheet Flooring
- Vinyl Wall Coverings
- Wallboard

(1) J.S. Dupre, J.F. Mustard & R.J. Uffin, *Report of the Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos in Ontario*, Ontario Ministry of the Attorney General, Toronto, Ontario, 1984, page 12.

(2) U.S. Environmental Protection Agency, <http://www.epa.gov/Region06/6pd/asbestos/asbmatl.htm>.

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