



### Designated Substances Survey

St. Mary Catholic Elementary School

**Project Specific Areas** 

103B Lyle Street South, Grafton, Ontario

Prepared for:

Peterborough Victoria Northumberland and Clarington Catholic District School Board

Attn: Mr. Tom O'Grady

Prepared by:

**S2S Environmental Inc.** 

S2S PN: 11654

January 26, 2024

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#### 1.0 INTRODUCTION

S2S Environmental Inc. (S2S) was retained by the Peterborough Victoria Northumberland and Clarington Catholic District School Board (PVNCCDSB) to conduct a project specific Designated Substances Survey which included Classroom 101-103, Resource Room 109, Main Office 120/121, Principal Office 123 and Snoezelen Room 142 (Subject Areas) within St. Mary Catholic Elementary School located at 103B Lyle Street South in Grafton, Ontario (Subject Building). The site visit was completed by Mr. Jack Glassco on December 19, 2023.

The project specific DSS included a visual examination and evaluation of the presence and condition of substances designated under the Occupational Health and Safety Act (OHSA) (R.S.O. 1990). These substances include: acrylonitrile, arsenic, asbestos, benzene, coke oven emissions, ethylene oxide, isocyanates, lead, mercury, silica and vinyl chloride. In addition to these substances, S2S also surveyed for other hazardous materials including suspect mould, polychlorinated biphenyls (PCBs), ozone depleting substances (ODSs).

Date of Inspection: December 19, 2023 S2S Site Assessor: Mr. Jack Glassco

Property Use: School

Description of Subject

Building: Stand-alone, one-story purpose-built school building with one

mechanical/storage mezzanine

Construction Date: Approximately 1985

Subject Building

Footprint Area: Approximately 1,920 m<sup>2</sup> (20,670 ft<sup>2</sup>)

. Walls: Drywall, concrete block and brick

Interior Ceilings: Lay-in acoustic tile ceiling, drywall and open steel deck

Floors: Vinyl floor tile, concrete slab and carpet

#### 2.0 SCOPE OF WORK

#### 2.1 Scope of Work

S2S assessed building systems, structures and finishes in the Subject Areas to determine the presence and extent of Designated Substances.

The DSS conducted by S2S consisted of the following:

- Records review, including previous reports made available;
- Inquiry with site personnel and/or visual inspection as to the possible presence of suspected designated substances. This included site observations for evident usage and/or storage of chemicals and materials that may contain the designated substances



and confirmation of content by review of available background information or testing (i.e. for asbestos and lead);

- Identification, quantification and recording of such substances;
- Development of a sampling strategy (for asbestos and lead containing paints);
- Collection and submission of suspected asbestos-containing materials (ACMs) and lead containing paints for laboratory analyses (where applicable);
- Visual assessment for visible suspect mould growth;
- Photography of site conditions; and
- Preparation of this report with methodology, findings, photographs, conclusions and recommendations.

#### 2.2 Records Review

As part of the DSS, S2S reviewed the following reports made available:

- "Asbestos & Designated Substance Survey #124 St. Mary Catholic Elementary School –
  103B Lyle Street South, Box 40 Grafton, ON" report, prepared by WSP, dated September,
  2016:
- "Annual Asbestos Containing Materials and Designated Substances Inspection St. Mary Catholic Elementary School – 103B Lyle Street South, Box 40 Grafton, ON" report, prepared by S2S dated November 20, 2017;
- "Annual Asbestos Containing Materials and Designated Substances Inspection St. Mary Catholic Elementary School 103B Lyle Street South, Grafton, ON" report, prepared by S2S dated October 12, 2018;
- "Annual Asbestos Containing Materials and Designated Substances Inspection St. Mary Catholic Elementary School 103B Lyle Street South, Grafton, ON" report, prepared by S2S dated October 11, 2019;
- "Annual Asbestos Containing Materials and Designated Substances Inspection St. Mary Catholic Elementary School – 103B Lyle Street South, Grafton, ON" report, prepared by S2S dated June 8, 2020;
- "Limited Designated Substances Survey St. Mary Catholic Elementary School 103B Lyle Street South, Grafton, ON" report, prepared by S2S dated June 22, 2021;
- "Annual Asbestos Containing Materials and Designated Substances Inspection St. Mary Catholic Elementary School – 103B Lyle Street South, Grafton, ON" report, prepared by S2S dated September 24, 2021;
- "Asbestos Bulk Sampling of Roof Materials St. Mary Catholic Elementary School 103B Lyle Street South, Grafton, ON" report, prepared by S2S dated December 30, 2022;
- "Annual Asbestos Containing Materials and Designated Substances Inspection St. Mary Catholic Elementary School – 103B Lyle Street South, Grafton, ON" report, prepared by S2S dated October 24, 2022; and
- "Annual Asbestos Containing Materials and Designated Substances Inspection St. Mary Catholic Elementary School 103B Lyle Street South, Grafton, ON" report, prepared by S2S dated October 6, 2023.



As noted in the above reports, asbestos, lead, mercury, silica, PCBs, ODSs, and water damaged materials were previously identified/suspected to be present within the Subject Building. Previous laboratory sample results and findings for asbestos and lead containing materials have been assumed to be accurate.

#### 3.0 REGULATIONS AND GUIDELINES

#### 3.1 Designated Substances

The Ontario Ministry of Labour, Immigration, Training and Skills Development (MLITSD) has issued specific regulations under OHSA for a number of substances known to be harmful to human health. As of July 1, 2010, the majority of the regulations controlling the exposure limits, waste management and transfer of designated substances were consolidated into one regulation, OHSA Ontario Regulation (O. Reg.) 490/09 (as amended by O. Reg. 148/12). The regulation does not apply to construction projects.

The disturbance of asbestos materials during project work is controlled by the MLITSD Regulation, O. Reg. 278/05 – Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations (as amended by O. Reg. 479/10). The regulation classifies all disturbances as Type 1, Type 2, or Type 3, each of which has defined work practices. All asbestos-containing materials (if they are to be disturbed) are subject to special handling and disposal requirements and must be removed before partial or full demolition. The MLITSD must be notified in writing of any project involving the removal of more than a minor amount of friable asbestos material.

The disturbance of lead containing materials during project work is controlled by the MLITSD Guideline: Lead on Construction Projects, issued by the Occupational Health and Safety Branch of the Ontario MLITSD, published in September 2004 and revised in April 2011. This guideline provides classifications for types of lead disturbance activities and assigns different levels of respiratory protection and work procedures for anticipated worker exposure to airborne lead. The concentration of total lead present in a surface coating material is regulated by the federal Surface Coating Materials Regulation (SOR/2005-109) made under the Canada Consumer Product Safety Act. This regulation limits total lead levels in new surface coating materials and products with surface coatings applied to them to 90 mg/kg (or 0.009% by weight). Despite this threshold limit, the level of airborne lead expected to be present in a work area is dependent on the likelihood of producing airborne lead dust or fumes (i.e. hand scraping, sanding, welding, torch cutting, and sandblasting) and is not related to the percentage of lead within the coating. Therefore, for the purpose of this survey, paints with detectable lead concentrations should be considered to be lead containing.

The disturbance of silica containing materials (i.e. concrete, cinder block, drywall ceiling tiles, mortar and any other aggregates used throughout the visibly accessible areas of the Subject Building) should completed following procedures outlined by the MLITSD Guideline: Silica on Construction Projects, issued by the Occupational Health and Safety Branch of the Ontario MLITSD, published in September 2004 and revised in April 2011, when carrying out work that will create airborne silica dust.



The disposal of common mercury wastes (i.e. thermostats or fluorescent light tubes) is controlled by the Ontario Ministry of the Environment, Conservation, and Parks (MECP) Regulation, O. Reg. 347, R.R.O. 1990 (as amended by O. Reg. 334/13).

#### 3.2 Other Hazardous Materials

Procedures for remediation and waste management of mould are outlined by the Environmental Abatement Council of Canada (EACC) "Mould Abatement Guidelines" Edition 3, dated 2015 and the Canadian Construction Association's (CCA) "Mould Guidelines for the Canadian Construction Industry," dated 2018.

Handling, waste management and storage of PCB containing materials should be carried out following procedures outlined by O. Reg. 362/90 (as amended by O. Reg. 232/11). In addition, other procedures outlined by the federal regulation SOR/2008-273, as amended, made under the Canadian Environmental Protection Act (CEPA) should be followed.

Removal, discharge and disposal of refrigerants that contain ODSs and other halocarbons are controlled by O. Reg. 463/10 made under the Ontario Environmental Protection Act, R.S.O. 1990, as amended.

#### 4.0 METHODOLOGY

The DSS was performed by Mr. Jack Glassco of S2S on December 19, 2023. Site access was provided by a representative of PVNCCDSB.

Additional information was obtained through review of design drawings, system schematic drawings and discussions about the building history with maintenance and service staff, where available.

The presence or absence of the following designated substances: acrylonitrile, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, mercury, silica, and vinyl chloride has been inferred based on the historical building usage and site observations. Further, no confirmatory sampling for these designated substances, visual suspect mould growth, PCBs, or ODSs (if observed) was conducted.

Representative samples and locations for possible ACMs and lead containing paints were identified based on determining the age and renovation time periods of the Subject Building and associated components.

In general, samples of suspect ACMs were obtained in compliance with the requirements of O. Reg. 278/05, which states a minimum number of samples are to be obtained and analyzed (3, 5, or 7 depending on quantity, application and friability) from each area of homogeneous material for the material to be considered non-asbestos containing. This protocol is further outlined in Table 1 below. A homogeneous sampling area is defined by the United States Environmental Protection



Agency (USEPA) as containing material that is uniform in texture and appearance, was installed at one time and is unlikely to consist of more than one type or formulation of material. The surveyor used information obtained on site by visual examination, available information on the phases of the construction and information on renovations obtained from the client/site representative to determine the extent of each homogeneous area and the number of samples required.

Table 1 – Protocol for Determining the Number of Samples for Suspect ACMs

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

Asbestos-cement products such as piping for rainwater leaders and flat panels for exterior siding are commonly referred to as Transite materials; thereby indicating the material to be an asbestos-cement product. This type of material is readily identifiable through visual observation by a trained professional. Transite products are generally difficult to sample due to the tendency to break into fragments when sampling or damaging the product, and therefore sampling and analyses of visually observed Transite materials were not undertaken as part of this survey.

Suspect samples of lead containing paint were collected from representative areas of distinctive painted walls and interior finishes if more than a very limited application was present.

The suspect ACMs and suspect lead containing paint samples were collected using appropriate sampling techniques (as applicable) and sampling tools, placed in labelled sealable plastic bags and submitted for laboratory analysis of type and percentage of asbestos or percentage of lead.

A site plan showing the approximate sample locations of suspect ACMs is provided in Appendix A as Drawing No. 1. Selected photographs of building materials submitted for laboratory analysis and confirmed designated substances are included in Appendix B. A copy of the Laboratory Certificate of Analysis is included in Appendix C.



#### 4.1 ACMs Survey Exclusions

The materials listed below are generally excluded during an assessment due to the potential for irreparable damage to the building components from sampling and due to accessibility issues. The presence of asbestos is presumed in the materials noted below.

- components or wiring within motors or lights;
- high voltage wiring;
- mechanical packing, ropes and gaskets;
- exterior cladding, soffit and fascia boards on building;
- fire-door cores;
- vermiculite above solid ceilings, inside masonry or other wall assemblies;
- underground services or piping;
- concrete levelling compound (for floors);
- refractory brick in boilers or incinerators; and
- dust in ductwork.

#### 4.2 Evaluation Criteria of ACMs

The condition of identified and presumed ACMs as well as the potential of disturbance was evaluated. These evaluations were based on the conclusions of published studies, existing Ontario regulations, and S2S's experience involving buildings that contain friable ACMs.

Examples of damaged ACMs include, but not limited to, delamination on sprayed material, mechanical insulation with damaged/missing insulation or jacketing, exposed under-pad on vinyl sheet flooring, or a non-friable material that has been pulverized which causes it to become friable. The precedence for remedial action is based not solely on the evaluation of condition but is also based on several other factors which include:

- Accessibility or potential for direct contact and disturbance which can cause release of asbestos to the air;
- Practicality of repair (e.g. if damage to the ACMs will continue even if they are repaired); and
- Efficiency of the work (e.g. if damaged ACMs are being removed in a given area, it may be most practical to remove all ACMs in the area even if they are in good condition).

For the purposes of this assessment, Good, Fair and Poor were utilized to describe the condition of the known or suspect ACMs present in the Subject Building.

Known ACMs are further classified into two categories based on their friability properties. Friable material is material that (a) when dry, can be crumbled, pulverized or powered by hand pressure, or (b) is crumbled, pulverized or powdered. ACMs that are friable have a much greater potential



than non-friable ACMs to release airborne asbestos fibres when disturbed. Typical friable ACMs include surfacing materials (e.g. sprayed fireproofing, texture, decorative or acoustic plaster) and thermal insulations (e.g. parging cement) on mechanical systems. Asbestos-containing manufactured materials include vinyl floor tiles, ceiling tiles, gasket materials, asbestos cement pipe or board, and asbestos textiles. Depending on the formulation, these materials may be friable or non-friable. Note that though a product may be considered non-friable when new, if the product releases fine dust due to deterioration or during removal, the free dust is considered friable. For example, lay-in acoustic ceiling tiles or plaster may release significant dust at the time of removal, and therefore are considered friable.

S2S utilizes each of the above noted hazard ratings (i.e. condition, accessibility and friability) during our site assessments to determine the risk level of exposure. Detailed notations are obtained on a room by room basis, where accessible during each of our surveys.

S2S utilizes this hazard rating protocol to evaluate ACMs present within a building that may require repair or removal procedures. The information obtained from site assessments is utilized to draft detailed specifications on the procedures to remove and or repair the ACMs (if required).

#### 4.3 Accessible Areas

S2S was reliant on PVNCCDSB to provide access to locked or limited-access areas of the Subject Areas on the date of the site visit. During the DSS, all areas of the Subject Areas were generally accessible for visual observation and completion of the survey.

The following areas were generally inaccessible:

• Behind concrete block, and brick /wall assemblies Within enclosed pipe chases.

#### 5.0 RESULTS AND DISCUSSION

A total of 17 representative suspect asbestos bulk samples (including layers) were submitted to Paracel Laboratories Ltd. in Mississauga, Ontario for analysis of asbestos content by <u>Polarized Light Microscopy EPA Analysis Method 600/R-93/116 and 40 CFR, Part 763, Subpart E, App. E</u>.

Designated Substances identified within the Subject Areas by visual observations and/or bulk sampling during the DSS are outlined below:



Table 3 – Designated Substances or Hazardous Materials Identified

Designated Substances/ Hazardous Materials	Findings
	Approximately 54 ln ft of Brown caulking (Sample Nos: CLK-01a to CLK-01c) observed around the metal door frames within Classroom 101, 102 and 103 was identified to contain <b>1% Chrysotile</b> asbestos. Based on the homogeneous grouping of this material, all visually similar brown caulking in the Subject Building is to be considered as asbestos containing. The asbestos containing brown caulking within Classroom 101, 102 and 103 was observed to be in good condition at the time of the site visit.
Asbestos	Yellow caulking observed on the lining of concrete block walls and concrete block ceiling in the Hallway parallel to the General Office (above ceiling tiles) on the Ground Floor of the Subject building was previously identified to contain 4% Chrysotile asbestos (S2S, 2021). The asbestos containing yellow caulking on the lining of concrete block walls and concrete block ceiling in the Hallway parallel to the General Office (above ceiling tiles) was observed to be in good condition at the time of the site visit.
	ACMs may be present behind or within materials in inaccessible areas as noted above within Sections 4.1 and 4.3 of this report.
	Blue paint (Layer 2) observed behind the non-lead containing beige paint on the closet and storage cupboard within Classroom 101 was previously identified to contain <b>0.0084% lead</b> by dry weight (S2S, 2023). The paint was observed to be in fair condition at the time of site visit.
Lead	White paint present on concrete ceiling of Classroom 101 was previously identified to contain <b>150 ppm</b> ( <b>0.015%</b> ) lead content by dry weight (S2S, 2021). The paint was observed to be in good condition at the time of site visit.
Boud	Dark blue paint present on wooden closet built-ins of Classroom 101 was previously identified to contain <b>960 ppm</b> ( <b>0.096%</b> ) lead content by dry weight (S2S, 2021). The paint was observed to be in good condition at the time of site visit.
	Lead may be present in paints of limited application not sampled, electronic components (e.g., wiring connections, wire bundles, etc.), plumbing solder, roof flashing, noise baffles, emergency lighting batteries, and cast-iron piping gaskets



Designated Substances/ Hazardous Materials	Findings			
	(i.e., bell & spigots). Where present within the Subject Areas, they are presumed to be lead-containing.			
Mercury	No potential sources of mercury were identified within the Subject Areas at the time of the site visit.			
The concrete, cinder block, mortar and any other aggregates used throughout Subject Areas may contain free crystalline silica. Conditions for silica to becairborne (i.e. due to extensive concrete damage or crushing/grinding of concrete during regular activities were not observed.				
Other Designated Substances	No other designated substances were observed or are suspected to be present in the Subject Areas. The substances that were not found or observed include:  • Acrylonitrile; • Arsenic; • Benzene; • Coke oven emissions; • Ethylene oxides; • Isocyanates, and; • Vinyl chloride.  Please note that paints, adhesives and plastics present within the Subject Building may contain trace amounts of acrylonitrile, arsenic, benzene, ethylene oxides, isocyanates, lead, mercury and vinyl chloride; however, none of these materials were observed in a hazardous or unsafe condition.			
PCBs	Fluorescent light ballasts were observed within the Subject Building; however individual ballasts were not investigated during the Designated Substances Survey. In general, the majority of ballasts are not suspected to contain PCBs based on the presence of T8 bulbs (indicating new-non-PCBs containing ballasts). However, at the time of removal and decommissioning, all ballasts in fixtures should be investigated for PCB content at the time they are dismantled through a review of manufacture labels.			
Mould/Water Damage	No evidence of visual suspect mould growth or apparent water staining/ damage was observed in the Subject Areas at the time of the site visit.			

All other bulk samples (for suspect ACMs) not outlined in Table 2 above, were identified to be non-asbestos containing or were identified to have concentrations of lead below the laboratory's



limit of detection. This includes the following materials sampled by S2S at the time of the site visit:

#### **Non-Asbestos Containing Materials:**

- i. Grey Mortar (Sample Nos. MOR-01a to MOR-01e) collected from Snoezelen Room 142 and Resource Room 109;
- ii. Yellow Mastic (Sample Nos. CMAS-01a to CMAS-01c) collected from below the carpet within the Resource Room 109;
- iii. Grey Acoustic Ceiling Tile (Sample Nos. ACT-01a to ACT-01c) collected from Principal Room 123;
- iv. Black Mastic (Sample Nos: MAS-01a to MAS-01c) collected from below the non-ACM white 12"x12" vinyl floor tiles located in the hallway of the recently converted office and storage room (previously a changeroom) and storage behind the vinyl cove base in Room 143.

Additionally, the following materials were visually identified to be non-asbestos containing, or were materials not suspected to contain asbestos and therefore, no samples were collected:

- All pipes and ducts observed were noted to be uninsulated or insulated with fiberglass;
- 2'x4' acoustic ceiling tiles with small pinholes and large horizontal fissures were observed to have a manufacturing stamp of 2000
- 2'x4' acoustic ceiling tiles with small pinholes and random assures were observed to have a manufacturing stamp of 2017

The survey also included an investigation for the following materials, none of which were observed:

- Vermiculite Insulation;
- Asbestos paper products;
- Plaster;
- Drywall Finishes;

- Texture Finishes; and
- Vinyl flooring products.

#### 6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this Limited DSS, S2S concludes the following:

- 1) S2S recommends that the following asbestos containing materials identified in Table 2 above be managed in place and/or removed following Type 1 asbestos abatement procedures in accordance with O. Reg. 275/05:
  - a. Brown caulking observed around the doors in the Subject Areas;
  - b. Yellow caulking observed on the lining of concrete block walls and concrete block ceiling (above ceiling tiles) in the Hallway parallel to the General Office;



- c. 9" x 9" beige vinyl floor tiles with brown streaks observed in Classroom 101; and
- d. Cement board observed in the Custodian Room

Additional ACMs may be present in inaccessible areas as noted in Sections 4.1 and 4.3 of this report.

- 2) Paints identified in Table 2 were found to contain detectable concentrations of lead. Paints with similar texture and appearance that are present in other areas of the Subject Building should be presumed to contain similar concentrations of lead. During any planned renovation, these materials should be regarded as lead containing.
- 3) Lead may also be present in electronic components (e.g., wiring connections, wire bundles, etc.), plumbing solder, batteries, and cast-iron piping gaskets (i.e., bell & spigots) and paints not sampled. Where present, S2S presumes that they are lead-containing. Appropriate worker protection (i.e. respiratory protection), as outlined in the Ontario "Guideline Lead on Construction Projects", published in September 2004 and revised in April 2011 by the Occupational Health and Safety branch of the Ontario MLITSD, should be employed when conducting demolition or renovation work that will create lead dust.
- 4) Mercury in the form of vapour may be present within the fluorescent light tubes observed throughout the Subject Areas. At the time of the site visit, all visually observed fluorescent light tubes where accessible, were noted to be intact. It is recommended that disposal of out-of-service fluorescent light tubes, or any other mercury containing materials or equipment be completed in accordance with O. Reg. 490/09 and O. Reg. 347.
- 5) Suspect silica-containing materials were observed throughout the Subject Areas. Free crystalline silica has been linked to respiratory illnesses when inhalation of silica dust occurs. At the time of the site visit, suspect silica containing materials were generally observed to be in good condition. Conditions for silica to become airborne (i.e. due to extensive damage or crushing/grinding of building materials) during regular activities within the School was not observed. Suspect silica containing materials are to be managed in place or removed following appropriate dust control measures and worker precautions (i.e. respiratory protection), as outlined in the Ontario MLITSD "Guideline Silica on Construction Projects", April 2011, when conducting demolition or renovation work that will create silica dust.
- 6) When suspect PCB containing fluorescent light fixtures, High Intensity Discharge (HID) lamps or electrical transformers are taken out of service, the ballasts or equipment should be examined to verify for the presence of PCBs. This can be performed by comparing the manufactures date code stamped on the ballasts to information presented in the document "Identification of Lamp Ballasts Containing PCBs" published by Environment Canada. Handling, waste management and storage of PCB containing materials should be carried out following procedures outlined by O. Reg. 362/90 and the federal regulation SOR/2008-273 made under CEPA.



- 7) When suspected ODSs and halocarbon-containing equipment is removed from service, the refrigerants must be captured and reclaimed prior to disposal by a licensed refrigeration technician as outlined by O. Reg. 463/10.
- 8) Visual suspect mould growth and water-staining was not observed within the Subject Areas during the site visit.

It is recommended that the appropriate precautions and/or worker protection be used when dealing with any of the identified/presumed designated substances and other hazardous materials.

#### 7.0 CLOSURE

This report has been prepared for the sole benefit of Peterborough Victoria Northumberland and Clarington Catholic District School Board (PVNCCDSB). S2S Environmental Inc. (S2S) understands that this report may be provided to and relied upon by contractors as background information on the location and condition of designated substances within the specified areas. Any other person or entity without the express written consent of S2S and PVNCCDSB may not rely upon the report. Any use that a party makes of this report, or any reliance on decisions made based on it, is the responsibility of such parties. S2S accepts no responsibility for damages, if any, suffered by any party as a result of decisions made or actions based on this report.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted engineering and scientific practices current at the time the work was performed.

S2S has not evaluated health risks associated with building occupant exposure to hazardous materials (i.e. designated substances, mould) which may be identified in this report. Evaluation of health risks on an individual should only be made by a licensed medical practitioner who has knowledge of the individual's medical history.

Mould is a naturally occurring organism and regardless of the findings of an assessment or effectiveness of a remediation, it could occur/reoccur when conditions are favourable. Therefore, buildings and surfaces should be maintained to prevent conditions that are favourable for mould growth. The scope of services did not include a detailed evaluation of the thermal and moisture characteristics of the exterior wall assembly, or a detailed building envelope investigation to assess all potential cause of the water infiltration that created an environment favourable to mould proliferation.

All standards, regulations and guidelines referenced in this report are subject to change with time and may no longer be applicable at a later date.

S2S makes no other representation whatsoever, including those concerning the legal significance of its findings, or as to the other legal matters addressed incidentally in this report, including but not limited to the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation. These interpretations may



change over time, thus PVNCCDSB should review such issues with appropriate legal counsel. The designated substance locations and conclusions provided are based on information obtained from visual inspection and limited sampling carried out, at the specific test locations, and information obtained from building management personnel. The results can only be extrapolated to an undefined area around the test locations. It is possible that additional, concealed designated substances may become evident during demolition/renovation activities.

The quantities provided in this report are order-of-magnitude values and are not considered exact quantities. Contractors are not to use these quantities for providing quotations and will need to inspect the areas to verify the quantity of materials and site conditions that may affect the cost of any abatement work (if required).

We trust that the above meets your current requirements. If you have any questions or require additional information, please do not hesitate to contact the undersigned.

Respectfully submitted,

**S2S ENVIRONMENTAL INC.** 

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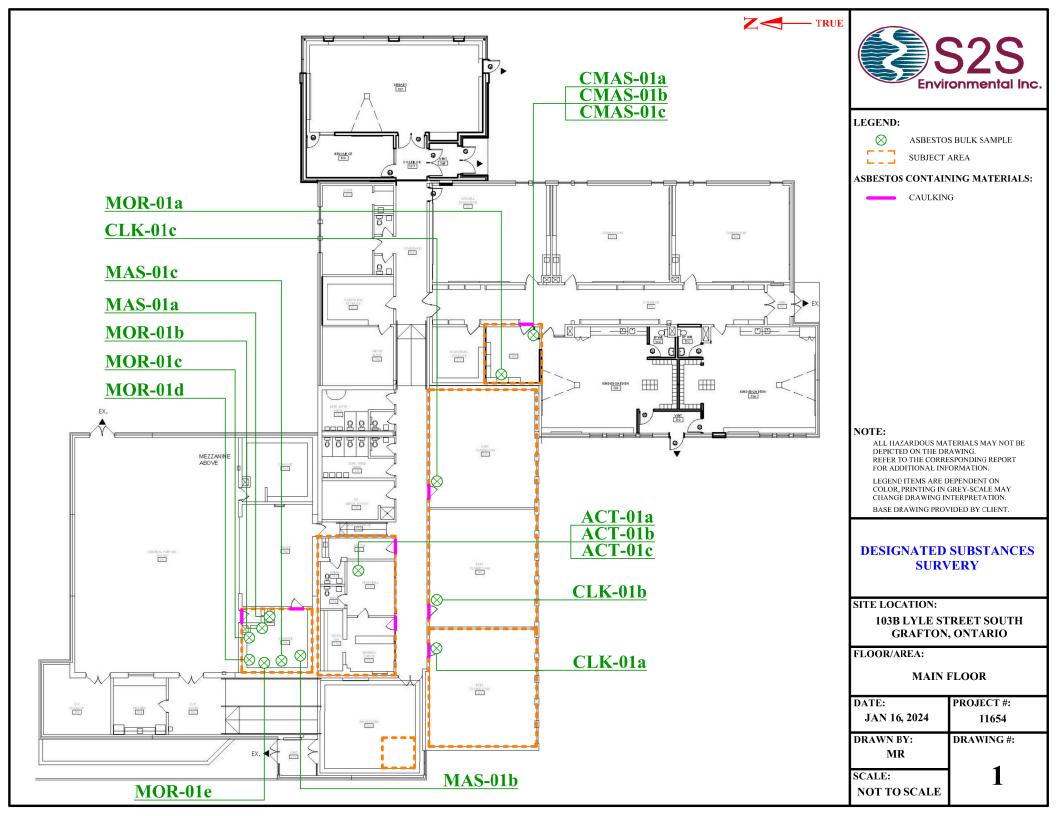
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## APPENDIX A SITE DRAWING





# APPENDIX B SELECTED PHOTOGRAPHS







Photo 1: View of lead containing blue paint (layer 2) (see arrow) observed behind the non-lead containing beige paint on the closet and storage cupboard within Classroom 101 of the Subject Building.

Photo 2: View of non asbestos containing grey acoustic ceiling tiles (see arrow) observed within Principal Room 123 of the Subject Building.



## APPENDIX C LABORATORY CERTIFICATES OF ANALYSES





15 - 6800 Kitimat Rd Mississauga, ON, L5N 5M1 1-800-749-1947 www.paracellabs.com

### Certificate of Analysis

#### S2S Environmental Inc.

1099 Kingston Rd., Suite 260 Pickering, ON L1V 1B5

Attn: Jack Glassco

Client PO: 11654-1

Project: 11654-PVNCCDSB

Custody:

Report Date: 3-Jan-2024 Order Date: 22-Dec-2023

\_\_\_\_\_\_

Order #: 2351475

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2351475-01	MOR-01a
2351475-02	MOR-01b
2351475-03	MOR-01c
2351475-04	MOR-01d
2351475-05	MOR-01e
2351475-06	CMAS-01a
2351475-07	CMAS-01b
2351475-08	CMAS-01c
2351475-09	CLK-01a
2351475-10	CLK-01b
2351475-11	CLK-01c
2351475-12	ACT-01a
2351475-13	ACT-01b
2351475-14	ACT-01c
2351475-15	MAS-01a
2351475-16	MAS-01b
2351475-17	MAS-01c

Approved By:

Diaz

Emma Diaz

Senior Analyst



Certificate of Analysis

Client: S2S Environmental Inc.

Crder #: 2351475

Report Date: 03-Jan-2024 Order Date: 22-Dec-2023

Client PO: 11654-1 Project Description: 11654-PVNCCDSB

#### Asbestos, PLM Visual Estimation \*\*MDL - 0.5%\*\*

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2351475-01	19-Dec-23	Grey	Mortar	No	Client ID: MOR-01a	
					Non-Fibers	100
2351475-02	19-Dec-23	Grey	Mortar	No	Client ID: MOR-01b	
					Non-Fibers	100
2351475-03	19-Dec-23	Grey	Mortar	No	Client ID: MOR-01c	
					Non-Fibers	100
2351475-04	19-Dec-23	Grey	Mortar	No	Client ID: MOR-01d	
					Non-Fibers	100
2351475-05	19-Dec-23	Grey	Mortar	No	Client ID: MOR-01e	
					Non-Fibers	100
2351475-06	19-Dec-23	Yellow	Mastic	No	Client ID: CMAS-01a	
					Non-Fibers	100
2351475-07	19-Dec-23	Yellow	Mastic	No	Client ID: CMAS-01b	
					Non-Fibers	100
2351475-08	19-Dec-23	Yellow	Mastic	No	Client ID: CMAS-01c	
					Non-Fibers	100
2351475-09	19-Dec-23	Brown	Caulking	Yes	Client ID: CLK-01a	
					Chrysotile	1
					Non-Fibers	99
2351475-10	19-Dec-23	Brown	Caulking		Client ID: CLK-01b	
					not analyzed, positive stop	
2351475-11	19-Dec-23	Brown	Caulking		Client ID: CLK-01c	
					not analyzed, positive stop	



Certificate of Analysis

Client: S2S Environmental Inc.

LABORATORIES LTD. Order #: 2351475

Report Date: 03-Jan-2024 Order Date: 22-Dec-2023

Client PO: 11654-1 Project Description: 11654-PVNCCDSB

#### Asbestos, PLM Visual Estimation \*\*MDL - 0.5%\*\*

Paracel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
2351475-12	19-Dec-23	Grey	Acoustic Tile	No	Client ID: ACT-01a	
					Cellulose	40
					MMVF	30
					Non-Fibers	30
2351475-13	19-Dec-23	Grey	Acoustic Tile	No	Client ID: ACT-01b	
					Cellulose	40
					MMVF	30
					Non-Fibers	30
2351475-14	19-Dec-23	Grey	Acoustic Tile	No	Client ID: ACT-01c	
					Cellulose	40
					MMVF	30
					Non-Fibers	30
2351475-15	19-Dec-23	Black	Mastic	No	Client ID: MAS-01a	
					Non-Fibers	100
2351475-16	19-Dec-23	Black	Mastic	No	Client ID: MAS-01b	
					Non-Fibers	100
2351475-17	19-Dec-23	Black	Mastic	No	Client ID: MAS-01c	
					Non-Fibers	100

<sup>\*</sup> MMVF: Man Made Vitreous Fibers: Fiberglass, Mineral Wool, Rockwool, Glasswool

Mississauga Lab: 15 - 6800 Kitimat Rd Mississauga, Ontario, L5N 5M1

#### **Analysis Summary Table**

Analysis	Method Reference/Description	Lab Location	Lab Accreditation	Analysis Date
Asbestos, PLM Visual Estimation	AppE to SubE of 40CFR Part763 and EPA/600/R-93/116	1 - Mississauga	CALA 3762	3-Jan-24

OTTAWA - MISSISSAUGA - HAMILTON - KINGSTON - LONDON - NIAGARA - WINDSOR - RICHMOND HILL

<sup>\*\*</sup> Analytes in bold indicate asbestos mineral content.



Certificate of Analysis

Client: S2S Environmental Inc.

Order #: 2351475

Report Date: 03-Jan-2024 Order Date: 22-Dec-2023

Client PO: 11654-1 Project Description: 11654-PVNCCDSB

#### **Work Order Revisions | Comments**

None