SIFTON RANGE
ENVIRONMENTAL CONSULTING

April 30, 2025

Sifton Range Project Number: 2025-138
Via E-mail: Larisse.McDonald@Yukon.ca

Highways & Public Works
Property Management Division
PO Box 2703 W5
Whitehorse, YT Y1A 2C6

Subject: REPORT – Pre-Renovation Hazardous Building Materials Assessment
Christ the King Elementary School, Whitehorse, Yukon

Attention: Larisse McDonald, A/ Senior Building Program Manager

1.0 INTRODUCTION

Sifton Range Environmental Consulting (Sifton Range) was retained by Yukon Government, Highways and Public Works Property Management Division (the Client) for consulting services. The services were for a pre-renovation hazardous building material assessment within the east gymnasium stairwell/ change room (subject area) located at Christ the King Elementary, 20 Nisutlin Drive, Whitehorse Yukon (subject building).

Sifton Range understands the assessment was required for due diligence purposes to identify potential hazardous building materials that may require special handling procedures prior to scheduled renovations of the subject area. This assessment attempted to assess for concealed building materials specific to the areas outlined for renovation in construction documents provided by the Client.

The assessment was conducted by Geoff Hann of Sifton Range on April 4, 2025. Mr. Hann is certified under the United States Environmental Protection Agency, *Asbestos Hazard Emergency Response Act* (*AHERA*) for the collection of suspect asbestos-containing materials (ACMs) and is a certified building inspector under the *Toxic Substance Control Act*, Title II, for conducting hazardous building materials assessments.

2.0 SUBJECT AREAS

Sifton Range separated the subject areas into two distinct areas: the change rooms and the east stairwell leading from the gymnasium level to the stage level.

Table 2.0-1: Summary of Area Construction – Changerooms, 20 Nisutlin Drive, Whitehorse, YT

Building Systems	Observations
Footprint in sq ft	Total interior footprint of approximately 62'x11.5' (713 ft^2/ 66 m^2)
Building construction	Concrete block
Interior finishes	Ceramic tile, resilient sheet flooring, gypsum ceilings and walls
HVAC	Heating was supplied by the subject buildings HVAC system

Table 2.0-2: Summary of Area Construction – Stairwell, 20 Nisutlin Drive, Whitehorse, YT

Building Systems	Observations
Footprint in sq ft	Total interior footprint of approximately 10'x8' (80 ft²/ 7.5 m²)
Building construction	Wood frame construction
Interior finishes	Rubber flooring, vinyl stair treads
HVAC	Heating was supplied by the subject buildings HVAC system

3.0 SCOPE OF SERVICES

The scope of services for the semi-intrusive (semi-destructive) assessment was as follows:

- Architectural (applications of asbestos-containing materials (ACMs), PolyChlorinated Biphenyls (PCB), visual confirmation of moisture ingress/staining and mould impacts).
  - Sampling included all accessible architectural finishes, if present, including but not limited to; drywall taping compound, sheet flooring, floor tiles, ceiling textures, void space insulation, ceiling tiles, mastics and other suspect materials as determined by the assessor.
- Mechanical (applications of ACMs, halocarbons, and visual confirmation of mould impacts).
  - Sampling included all accessible, if present, mechanical insulation, Heating Ventilation and Air Conditioning (HVAC) mastic, duct insulation, flexible duct joints and other suspect materials as determined by the assessor.
- Electrical (applications of ACMs, PCBs, and mercury in thermostatic controls).
  - Visual assessment for textile wire coverings, fluorescent light ballasts, and thermostatic controls.
- Civil/ structural (applications of ACMs and visual confirmation of mould impacts).
  - Sampling included interior finishes suspect of ACMs as determined by the assessor.
- Visual assessment for:
  - Silica.
  - Mercury containing equipment.
  - PCBs in transformers, capacitors, and light ballasts.
  - Radioactive materials.
  - Halocarbon-Containing Equipment/ Ozone depleting substances.
  - Mould/moisture impacted materials.
  - Animal droppings and/or carcasses.
- Reporting
  - Sifton Range provided this report which includes introduction, area description, scope, methodology, limitations, assessment findings, and recommendations for identified hazardous

building materials. The appendices include guidelines and regulations, select site photos of materials determined to be hazardous and analytical certificates of analysis.

4.0 METHODOLOGY

Due to the assessment being required for pre-renovation, the assessment was semi-intrusive (semi-destructive). The assessment attempted to identify the presence of various hazardous building materials which may be surficial and/or concealed. If demolition of the subject building is proposed, a full intrusive assessment should be conducted to assess building areas not within the scope of services.

4.1 Asbestos-Containing Materials (ACMs)

An assessment of identified suspected ACMs was conducted as part of the assessment. Suspected ACMs were assessed through semi-intrusive sample collection and were analyzed for asbestos type and percentage content using Polarized Light Microscopy in accordance with National Institute of Occupational Safety and Health (NIOSH) Analytical Method 9002. ACM samples were submitted to EMSL Analytics (EMSL) of Burnaby, BC for analysis (independent third-party laboratory). EMSL is a member of the American Industrial Hygiene Association BPAT (bulk) program.

4.2 Lead Containing Surface Coatings

Paint samples were collected from the subject area to determine total lead content. Samples were submitted to EMSL Analytics of Calgary, AB for analysis by Atomic Adsorption Spectrophotometry. Ceramic tile samples were sent to EMSL Analytics of Cinnaminson, New Jersey for analysis by handheld X-ray Fluorescence Spectroscopy.

4.3 Designated Substances

During the assessment, the subject area was visually reviewed for the potential presence of these parameters.

5.0 DISCUSSION OF ASSESSMENT

5.1 Asbestos Sampling Results and Discussion

Building materials visually identified suspect of asbestos content included drywall joint compound, gypsum board, ceiling tile, skim coat, mastics, floor tile, vinyl cove basin, resilient sheet flooring, skim coat, and tile grout. Of the thirty-nine samples submitted for analysis, one sample was analytically determined to **CONTAIN** asbestos.

Materials identified to contain asbestos are included within Table 5.1-1 below. All materials assessed for asbestos content are included within Table 1 in the tables section. Regulations and guidelines are included within Appendix A. Photographic documentation for the subject area are included within Appendix B and analytical certificates of analysis are included within Appendix C.

Table 5.1-1: Analytical Results, Materials Containing Asbestos – CKES, 20 Nisutlin Drive, Whitehorse, YT

Sample Identifier	ACM Location	Material Type	Percentage of Asbestos	Condition
4-SC-001B	East stairwell	Skim coat on gypsum board	2% Chrysotile	Good

Drywall Joint Compound

Three samples of drywall joint compound were collected from the changerooms. All three samples were analytically determined to **NOT** contain asbestos.

Three samples of drywall joint compound and texture coat associated with the stairwell were collected. One sample was analytically determined to **CONTAIN** asbestos.

Gypsum Board

Four samples of gypsum board were collected from the changeroom ceilings. All samples were analytically determined to **NOT** contain asbestos.

Countertop

Three samples of countertop were collected from the vanities. All samples were analytically determined to **NOT** contain asbestos.

Skim Coat

Three samples of skim coat associated with the east changeroom walls were sampled. All samples were analytically determined to **NOT** contain asbestos.

Vinyl Cove Base

Six samples of two visually distinct vinyl cove baseboard (beige and black) were collected throughout the changerooms. All samples were analytically determined to **NOT** contain asbestos.

Mastics

Two samples of mastics were collected associated with stage floor linoleum. These samples were analytically determined to **NOT** contain asbestos.

Ceramic Tiles

Three samples of two visually distinct ceramic tiles and the associated adhesives were collected from the changerooms. The mastic associated with the tiles was determined to **NOT** contain asbestos.

Tile Grout

Nine samples of four visually distinct grout including brown grout associated with the small floor tiles, and three visually different grey grouts associated with three other types of tiles located throughout the change rooms were sampled. All samples were analytically determined to **NOT** contain asbestos.

Stair Tread

Three samples of stair tread and the associated adhesives were collected from the lift access stairwell for analysis. All samples were analytically determined to **NOT** contain asbestos.

5.1.1 Materials Presumed to Contain Asbestos

Materials which might contain asbestos were not sampled during this assessment due to limitations in scope or were too destructive to sample effectively and would compromise the operation of the associated equipment or the safety of the assessor. Where present, these materials are presumed to contain asbestos until otherwise proven by sampling and analysis.

- Concealed components that are not accessible until deconstruction of the subject area/building.
- Areas not included in this assessment.

5.2 Lead-Containing Surface Coatings and Lead Containing Equipment

Sifton Range collected five samples of paint colors present for the subject area where renovations are proposed to occur. Since the assessment was for pre-renovation purposes and is within a school, results greater than 90 mg/kg (or 90 ppm) were considered lead containing. 90 ppm was used as the criteria as the building will have those who are considered high risk to lead exposure which include pregnant women, children and immunocompromised individuals. Among the samples collected, three were determined to be above 90 ppm.

Analytical results, sample point locations and descriptions for all materials investigated for lead content are summarized within Table 5.2-1 below. Regulations and guidelines are included within Appendix A. Photographic documentation for the subject area are included within Appendix B and analytical certificates of analysis are included within Appendix C.

Table 5.2-1: Analytical Results, Materials Assessed for Lead Content – 20 Nisutlin Drive, Whitehorse, YT

Sample Number	Sample Location	Color	Total lead (ppm)	Condition
CK-LCP-001	Changeroom floors – ceramic tile	White	<50	Good
CK-LCP-002	**Shower walls and base of all changeroom walls – ceramic tile**	**White**	**530**	**Good**
CK-LCP-003	Changeroom walls	White	<64	Good
CK-LCP-004	Changeroom ceiling	White	<64	Good
CK-LCP-005	East changeroom shower floor - ceramic tile	Blue	70	Good
CK-LCP-006	East changeroom shower floor - ceramic tile	Purple	<50	Good

Sample Number	Sample Location	Color	Total lead (ppm)	Condition
4-LCP-001	**East lift stairwell walls**	**Blue**	**1600**	**Good**
4-LCP-002	**East stairwell walls and ceiling**	**White**	**610**	**Good**
4-LCP-003	East stairwell baseboards	Black	<64	Good

NOTE: LCP >90 ppm

Additional materials suspected to be lead containing were not identified which would be impacted by the project.

5.3 Designated Substances

The subject area was visually assessed for the following parameters.

Table 5.3-1: Silica, Mercury, PCB's, ODS, Radioactive Materials, Mould and Microbiological Impacts CKES, 20 Nisutlin Drive, Whitehorse, YT

Parameter	Quantity and Type	Location	Summary
Silica	**Gypsum board, concrete and ceramic tiles**	**Walls and ceilings**	**Contains silica at time of manufacturing**
Mercury	**26 florescent bulbs**	**Changerooms**	**Contains mercury at time of manufacturing**
PCB's	N/A*	N/A	None identified at time of assessment
ODS			
Radioactive Materials			
Mould			
Microbiological			

NOTE: *N/A – Non applicable as none identified

6.0 RECOMMENDATIONS

6.1 Asbestos-Containing Materials

1. Asbestos containing materials were identified at the time of assessment as follows.
    a. Skim coat applied to gypsum board associated with the east gymnasium stairwell. If the ACM requires abatement based on project requirements, it should be abated following enhanced moderate risk safe work procedures where controls are put in place to minimize dust migration from the enclosure. As the material is non-friable if not disturbed, the potential for fiber release is low, the risk to building occupants is considered low, therefore the ACM can be managed in place if abatement is not required.

2. If during renovation activities, workers encounter a new and previously un-sampled suspect ACM, work must stop until that material can be sampled and analyzed for asbestos content by a competent individual and accredited laboratory. If the material is determined to be an ACM, a risk assessment must be conducted to determine the appropriate safe work procedure.
3. If the material identified is asbestos-containing and needs to be removed or impacted based on project scope, the requirements of Yukon Workers' Safety and Compensation Board (YWSCB) must be followed, and a risk assessment conducted by a qualified individual to determine the level of safe work procedures to be implemented if they are to vary from those as outlined above.
4. Prior to conducting any asbestos abatement work, safe work procedures must be submitted to YWSCB and a pre-project meeting conducted, in accordance with the Yukon Workplace Health & Safety Regulation.
5. Sifton Range recommends a copy of this report and supporting documents to be available at the site prior to and during renovation activities.

6.2 Lead-Containing Paint and Lead Containing Equipment

1. Painted surfaces analyzed for total lead identified paints and ceramic tiles as containing lead above the regulated limit of 90 ppm. A risk assessment must be conducted to determine the appropriate safe work procedure based on project impacts.
2. If any of the painted surfaces need to be salvaged/saved and the paint removed, a risk assessment needs to be completed on the paint removal methods. Consequently, an exposure control plan and safe work procedures will need to be developed for this work, if applicable.

6.3 Silica

1. Building materials known to produce silica dust were identified within the gypsum board, cement products and ceramic tiles. During renovations, if these materials are to be impacted, dust suppression should be utilized to control airborne dust. If renovations were to occur without dust suppression, air monitoring should be conducted to ensure workers are not being exposed to silica levels as outlined by the YWSCB Workplace Health & Safety Regulations.

6.4 Mercury

1. Mercury-containing equipment was identified within the subject area as florescent light tubes. If mercury containing equipment is identified and if disposal is required, the mercury containing equipment should be removed, stored with care, and then transported to a specialized recycling facility as per applicable regulations and the Yukon Department of Environment.

6.5 PCBs

1. PCB containing equipment was not identified within the subject area. If materials suspect as containing PCB are identified, they should be assessed and analyzed to determine if the material requires regulated disposal as per applicable regulations and the Yukon Department of Environment.

6.6 Hydro Fluorocarbons/Hydro Chlorodifluoromethane (HFC/HCFC) – also known as Ozone Depleting Substances (ODS)

1. Suspect ODS containing equipment was not identified. During renovation activities, if ODS equipment is identified and requires removal and disposal, Sifton Range recommends the equipment is removed by a certified mechanical contractor and disposed in accordance with the requirements of the Federal Halocarbon Regulations, TDG Regs/*Act* and the Yukon Ministry of Environment.

6.7 Radioactive Materials

1. Radioactive materials were not identified within the subject area. If radioactive materials are identified it should be disposed in accordance with the *Nuclear Safety and Control Act*, the Nuclear Substances and Radiation Devices Regulations and the TDG Regs/*Act*.

6.8 Mould/Moisture Impacted Materials

1. Mould/moisture impacts were not identified. If impacts are identified a competent person trained in mould assessment should be retained to conduct an assessment to determine applicable safe work procedures. The assessment should be conducted in accordance with the Canadian Construction Association and Health Canada.

6.9 Microbiological Impacts

1. Microbiological impacts were not identified at the time of assessment. If microbiological impacts are identified, an appropriate safe work procedure should be implemented during clean up.

7.0 LIMITATIONS

In the performance of this hazardous building material assessment, Sifton Range Environmental Consulting has exercised a degree of thoroughness and competence that is consistent with the profession. Sifton Range Environmental Consulting believes the information presented in this assessment report to be factual at the time of assessment, for the building areas that were safely accessible to the assessor and within the outlined scope. The full extent of mould impacts vertically and horizontally within the wall cavities, ceilings, floors, and other inaccessible areas are not known at this time as the assessment was non-intrusive in nature.

Due to the nature of building construction, especially in buildings that have gone through extensive renovations, limitations exist as to the identification of areas of asbestos-containing materials, and access to different layers of paint. As renovations occur, materials not assessed within this assessment may be uncovered. Professional judgment has been exercised in gathering and analyzing the information obtained. We cannot warrant or guarantee that the conclusions we reach are complete or accurate, however, we commit ourselves to care and competence in reaching those conclusions.

The information provided within this report is intended for the sole use of our client (Yukon Government Highways and Public Works Property Management Division), according to the terms of reference. Others who may have an interest in the subject building must conduct their own assessment to determine if the site conditions may impact their projects. Sifton Range Environmental Consulting reserves the right to review the comments on any interpretation of the data or conclusions derived by others. No other warranty or representation, either expressed or implied, is included in this report.

8.0 CLOSURE

Thank you, Yukon Government Highways and Public Works Property Management Division for the opportunity to be of assistance on this project. Sifton Range looks forward to working with you on projects in the future.

Sifton Range Environmental Consulting

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Christ The King Elementary School
Project Number 2025-138
April 2025

TABLES

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Christ The King Elementary School
Project Number 2025-138
April 2025

Materials Assessed for Asbestos Content					
Christ The King Elementary School					
Lab Sample Id	**Sample Id**	**Location and Sample Description**	**Classification**	**Total Asbestos %**	**Asbestos Type**
692501537-0001	CK-DWJC-001A	WEST CHANGEROOM CEILING JOINT COMPOUND	Non-ACM	N/A	None detected
692501537-0002	CK-DWJC-001B	WEST CHANGEROOM CEILING JOINT COMPOUND	Non-ACM	N/A	None detected
692501537-0003	CK-DWJC-001C	EAST CHANGEROOM CEILING JOINT COMPOUND	Non-ACM	N/A	None detected
692501537-0004	CK-GYP-001A	EAST W/C CEILING GYPSUM BOARD	Non-ACM	N/A	None detected
692501537-0005	CK-GYP-001B	EAST CHANGEROOM CEILING GYPSUM BOARD	Non-ACM	N/A	None detected
692501537-0006	CK-GYP-001C	WEST CHANGEROOM CEILING GYPSUM BOARD	Non-ACM	N/A	None detected
692501537-0007	CK-GYP-001D	WEST CHANGEROOM CEILING GYPSUM BOARD	Non-ACM	N/A	None detected
692501537-0008	CK-CT-001A	LAVATORY COUNTER ADHESIVE	Non-ACM	N/A	None detected
692501537-0009	CK-CT-001B	VANITY COUNTER ADHESIVE	Non-ACM	N/A	None detected
692501537-0010	CK-CT-001C	VANITY COUNTER ADHESIVE	Non-ACM	N/A	None detected
692501537-0011	CK-SC-001A	EAST CHANGEROOM WALL SKIM COAT	Non-ACM	N/A	None detected
692501537-0012	CK-SC-001B	EAST CHANGEROOM WALL SKIM COAT	Non-ACM	N/A	None detected
692501537-0013	CK-SC-001C	EAST CHANGEROOM CEILING SKIM COAT	Non-ACM	N/A	None detected
692501537-0014	CK-VCB-001A	BLACK VINYL COVE BASEBOARD ADHESIVE	Non-ACM	N/A	None detected
692501537-0015	CK-VCB-001B	BLACK VINYL COVE BASEBOARD ADHESIVE	Non-ACM	N/A	None detected
692501537-0016	CK-VCB-001C	BLACK VINYL COVE BASEBOARD ADHESIVE	Non-ACM	N/A	None detected
692501537-0017	CK-VCB-002A	TAN VINYL COVE BASEBOARD ADHESIVE	Non-ACM	N/A	None detected
692501537-0018	CK-VCB-002B	TAN VINYL COVE BASEBOARD ADHESIVE	Non-ACM	N/A	None detected
692501537-0019	CK-VCB-002C	TAN VINYL COVE BASEBOARD ADHESIVE	Non-ACM	N/A	None detected
692501537-0020	CK-MAS-001A	STAGE FLOORING, LINO ADHESIVE	Non-ACM	N/A	None detected
692501537-0021	CK-MAS-001B	STAGE FLOORING, LINO ADHESIVE	Non-ACM	N/A	None detected
692501537-0022	CK-TILE-001A	LARGE FLOOR TILE (BASEBOARD) ADHESIVE	Non-ACM	N/A	None detected
692501537-0023	CK-TILE-001B	LARGE FLOOR TILE (BASEBOARD) ADHESIVE	Non-ACM	N/A	None detected
692501537-0024	CK-TILE-002A	BLUE TILE, EAST CHANGEROOM SHOWER, ADHESIVE	Non-ACM	N/A	None detected
692501537-0025	CK-GR-001A-Grout 1	LARGE TILE GROUT (BASEBOARDS, WHOLE PERIMETER)	Non-ACM	N/A	None detected
692501537-0025A	CK-GR-001A-Grout 2	LARGE TILE GROUT (BASEBOARDS, WHOLE PERIMETER)	Non-ACM	N/A	None detected
692501537-0026	CK-GR-001B	LARGE TILE GROUT (BASEBOARDS, WHOLE PERIMETER)	Non-ACM	N/A	None detected
692501537-0027	CK-GR-001C	LARGE TILE GROUT (BASEBOARDS, WHOLE PERIMETER)	Non-ACM	N/A	None detected
692501537-0028	CK-GR-002A-Grout 1	SMALL TILE GROUT, ALL FLOORING	Non-ACM	N/A	None detected
692501537-0028A	CK-GR-002A-Grout 2	SMALL TILE GROUT, ALL FLOORING	Non-ACM	N/A	None detected
692501537-0029	CK-GR-002B-Grout 1	SMALL TILE GROUT, ALL FLOORING	Non-ACM	N/A	None detected
692501537-0029A	CK-GR-002B-Grout 2	SMALL TILE GROUT, ALL FLOORING	Non-ACM	N/A	None detected
692501537-0030	CK-GR-003A	BLUE TILE GROUT, EAST SHOWER	Non-ACM	N/A	None detected
692501537-0031	CK-GR-003B	BLUE TILE GROUT, EAST SHOWER	Non-ACM	N/A	None detected
692501537-0032	CK-GR-004A	PURPLE TILE GROUT, EAST SHOWER	Non-ACM	N/A	None detected
692501537-0033	CK-GR-004B	PURPLE TILE GROUT, EAST SHOWER	Non-ACM	N/A	None detected
692501537-0034	4-ST-001A-Cove Base	ACCESS LIFT STAIRWELL. BLACK STAIR TREAD AND ADHESIVE,	Non-ACM	N/A	None detected
692501537-0034A	4-ST-001A-Mastic	ACCESS LIFT STAIRWELL. BLACK STAIR TREAD AND ADHESIVE,	Non-ACM	N/A	None detected
692501537-0035	4-ST-001B-Cove Base	ACCESS LIFT STAIRWELL. BLACK STAIR TREAD AND ADHESIVE,	Non-ACM	N/A	None detected
692501537-0035A	4-ST-001B-Mastic	ACCESS LIFT STAIRWELL. BLACK STAIR TREAD AND ADHESIVE,	Non-ACM	N/A	None detected
692501537-0036	4-ST-001C-Stair Tread	ACCESS LIFT STAIRWELL. BLACK STAIR TREAD AND ADHESIVE,	Non-ACM	N/A	None detected
692501537-0036A	4-ST-001C-Mastic	ACCESS LIFT STAIRWELL. BLACK STAIR TREAD AND ADHESIVE,	Non-ACM	N/A	None detected
692501537-0037	4-SC-001A	SKIM COAT AND UNDERLYING GYPSUM BOARD, ACCESS LIFT STAIRWELL	Non-ACM	N/A	None detected
692501537-0038	**4-SC-001B-Joint Compound**	**SKIM COAT, ACCESS LIFT STAIRWELL**	**ACM**	**2%**	**Chrysotile**
692501537-0038B	4-SC-001B-Skim Coat	SKIM COAT, ACCESS LIFT STAIRWELL	Non-ACM	N/A	None detected
692501537-0038C	4-SC-001B-Rough Coat	SKIM COAT, ACCESS LIFT STAIRWELL	Non-ACM	N/A	None detected
692501537-0039	4-SC-001C	SKIM COAT, ACCESS LIFT STAIRWELL	Non-ACM	N/A	None detected
NOTE	Non-ACM	Non-asbestos-containing material			
	ACM	Asebstos-containing material			
	N/A	Non-Applicable			

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Christ The King Elementary School
Project Number 2025-138
April 2025

APPENDIX A

Guidelines and Regulations

GUIDELINES AND REGULATIONS

Territorial workplace health and safety is regulated within the Yukon by the Yukon Workers' Safety and Compensation Board (YWSCB) under the *Workers' Safety and Compensation Act* (the *Act*) amended 2022. Within the *Act* are the regulations that pertain to employers, employees, and others on a work site.

The Yukon *Workplace Health & Safety* (H&S) *Regulation* contains legal requirements that must be met by all workplaces under the inspectional jurisdiction of YWSCB.

The purpose of the *Workplace H&S Regulation* is to promote occupational health and safety and to protect workers and other persons present at workplaces from work-related risks to their health, safety, and well-being. Compliance with the requirements provides the basis on which workers and employers, in cooperation, can solve workplace health and safety problems. The requirements are not an end in themselves but are a foundation upon which to build an effective health and safety program.

Demolition Including Renovations

Within the *Workplace H&S* Regulations, section 1.04 "Eliminate or control hazards" requires that "*all reasonable precautions shall be taken, and measures implemented, to prevent occupational injuries and diseases to workers*". Section 10.56 "Demolition" outlines the requirement for a competent person adverse in hazardous building material assessments to assess the structure for hazardous materials that may require special handling prior to demolition or renovations. If materials that are suspected of containing hazardous components, such as lead or asbestos, are encountered during deconstruction that differ from or are in addition to those assessed within this report, work must stop until that material can be assessed.

Asbestos-Containing Materials

ACM requirements under the *Workplace H&S Regulation* are primarily presented in Section 33 - 39 but other areas may reference to asbestos as well.

The *Regulation* does not define an ACM and considers any asbestos content within a material to be an ACM; however, industry standard for ACM is defined as:

"asbestos-containing material" means the following:

- (a) a manufactured article or other material, other than vermiculite insulation, that would be determined to contain at least 1.0% asbestos by weight if tested in accordance with one of the following methods:
    - (i) Asbestos, Chrysotile by XRD, Method 9000 (Issue 2, dated August 15, 1994) in the NIOSH Manual of Analytical Methods, published by the United States National Institute for Occupational Safety and Health, Centre for Disease Control.
    - (ii) Asbestos (bulk) by PLM, Method 9002 (Issue 2, dated August 15, 1994) in the NIOSH Manual of Analytical Methods, published by the United States National Institute for Occupational Safety and Health, Centre for Disease Control.

- (iii) Test Method for the Determination of Asbestos in Bulk Building Materials (EPA/600/R-93/116, dated July 1993) published by the United States Environmental Protection Agency (EPA).

- (b) vermiculite insulation that would be determined to contain any asbestos if tested in accordance with the Research Method for Sampling and Analysis of Fibrous Amphibole in Vermiculite Attic Insulation (EPA/600/R-04/004, dated January 2004) published by the United States Environmental Protection Agency.

Under the *Transportation of Dangerous Goods Act* (TDG), Asbestos is classified under Class 9; Miscellaneous Products, Substances or Organisms.

Lead-Containing Paints and Equipment

A lead-containing surface material is:

> "*Defined by the federal Ministry of Health, under the Surface Coating Materials Regulation (SOR/2016-193), A surface coating materials mut not contain more than 90 mg/kg total lead when a dried sample is tested in accordance with a method that conforms to good laboratory practices.*"

When lead is present in a surface coating, consider the following:

- Information from the U.S. Occupational Safety and Health Administration (OSHA) suggests that the improper removal of lead paint containing a minimum of 600 mg/kg lead results in airborne lead concentrations that exceed half of the exposure limit.

- Lead concentrations as low as 90 mg/kg may present a risk to pregnant women and children. Any risk assessment should include for the presence of high-risk individuals within the workplace. If a risk assessment concludes high risk individuals will not be affected by the work, a limit of 600 mg/kg may be utilized with the implementation of an exposure control plan.

- Yukon Department of Environment considers any paint with a total lead concentration > 90 ppm to be a lead-based paint.

Additionally, under the *Yukon Environment Act* (*YEA*), *Special Waste Regulation* (O.I.C. 2005-379), identified LBPs must also undergo Toxicity Characteristic Leachate Properties (TCLP) testing to determine disposal procedures if the LBP and/or substrate requires disposal. The acceptable TCLP limit for disposal of LBP is less than 5 mg/L (5 ppm). If an identified LBP exhibits a TCLP result of less than 5 ppm, the paint is not considered a hazardous material and may be disposed of as construction waste.

Lead is a heavy metal that can be found in construction materials in addition to paints. Lead historically has been used in the manufacturing of surface coatings, pipes, solder, pipe packings, sheet metal, caulking, glazed ceramic products and cable splices. The National Plumbing Code allowed lead as an acceptable material for pipes until 1975 and in solder until 1986.

Within the *TDG Act*, lead in sheeting products is addressed under Class 9, Miscellaneous Products, Substances or Organisms.

Silica

Silica exists in several forms of which crystalline silica is of most concern with respect to potential worker exposures. Quartz is the most abundant type of crystalline silica. Some commonly used construction materials containing silica include brick, refractory brick, concrete, concrete block, cement, mortar, rock and stone, sand, fill dirt, topsoil and asphalt containing rock or stone.

Employers in the Yukon are required to develop an exposure control plan (ECP) when workers are or may be exposed to airborne silica dust in excess of 50 percent of the exposure limit of 0.025 mg/m^3.

Exposure Control Plan

To address the YWCHSB requirements related to asbestos and lead paint during renovation or demolition projects, an exposure control plan (ECP) is required. Written ECPs explain the work procedures and other controls that will be used to reduce workers' risk of exposure. ECPs must detail steps to eliminate risk or to control and reduce risk.

An ECP must include the following elements:

- Statement of purpose
- Responsibilities of employers, supervisors, and workers
- Risk identification and assessment
- Risk controls
- Written safe work procedures
- Worker education and training
- Written records
- Hygiene facilities and decontamination procedures; and
- Health monitoring.

Mercury Regulations

Mercury has been used in electrical equipment such as alkaline batteries, fluorescent light bulbs (lamps), high intensity discharge (HID) lights (mercury vapour, high pressure sodium and metal halide), "silent switches" and in instruments such as thermometers, manometers and barometers, pressure gauges, float and level switches and flow meters. Mercury-containing lamps, the bulk of which are 1.22 m (four foot) fluorescent lamps contain between 7 and 40 mg of mercury each. Mercury compounds have also been used historically as additives in latex paint to protect the paint from mildew and bacteria during production and storage.

Mercury-containing thermostats and silent light switches are mercury tilt switches which are small tubes with electrical contacts at one end of the tube. A mercury tilt switch is usually present when no switch is visible. Waste mercury from mercury switches or gauges should be properly collected and shipped to a recycling facility or disposed of as a hazardous waste. Removal of mercury-containing equipment (e.g., switches, gauges, controls, etc.) should be carried out in a manner which prevents spillage and exposure to workers.

Under the *TDG Act*, mercury contained within manufactured articles are under Class 8; Corrosive Materials.

Polychlorinated Biphenyl's Regulations

In most institutional and commercial facilities and in smaller industrial facilities, the primary source of equipment potentially containing PCBs is fluorescent and H.I.D. light ballasts. Small transformers may also be present. In larger industrial facilities, larger transformers and switch gear containing, or potentially containing, PCBs may also be present.

PCBs were also commonly added to industrial paints from the 1940s to the late 1970s. PCBs were added directly to the paint mixture to act as a fungicide, to increase durability and flexibility, to improve resistance to fires and to increase moisture resistance. The use of PCBs in new products was banned in Canada in the 1970s. PCB amended paints were used in speciality industrial/institutional applications prior to the 1970s including government buildings and equipment such as industrial plants, radar sites, ships as well as non-government rail cars, ships, grain bins, automobiles, and appliances.

Removal of in-service equipment containing PCBs, such as fluorescent light ballasts, capacitors, and transformers, is subject to the requirements of the federal PCB Regulations.

The PCB Regulations, which came into force on 5 September 2008, were made under the *Canadian Environmental Protection Act,* 1999 (*CEPA* 1999) with the objective of addressing the risks posed by the use, storage, and release to the environment of PCBs, and to accelerate their destruction. The PCB Regulations set different end-of-use deadlines for equipment containing PCBs at various concentration levels.

The Regulations amending the PCB Regulations and Repealing the Federal Mobile PCB Treatment and Destruction Regulations were published on 23 April 2014, in the Canada Gazette, Part II, and came into force on 1 January 2015. The most notable part of the amendments is the addition of an end-of-use deadline date of 31 December 2025 for specific electrical equipment located at electrical generation, transmission, and distribution facilities.

"PCB wastes" are defined in the *Yukon Environment Act*, Special Waste Regulation (O.I.C. 2005-379) as PCB liquid, PCB solid and PCB equipment that have been taken out of service for the purpose of treatment, recycling, reuse or disposal or for the purpose of storage prior to treatment, recycling, reuse or disposal. "PCB liquid" means any liquid containing more than 50 parts per million by weight of chlorobiphenyls. "PCB solid" means any material or substance other than PCB liquid that contains or is contaminated with chlorobiphenyls at a concentration greater than 50 parts per million by weight of chlorobiphenyls. "PCB equipment" means a manufactured item that contains or is contaminated with PCB liquids or PCB solids and includes transformers, capacitors, and containers.

Under the *TDG Act*, PCBs are under Class 9; Miscellaneous Products, Substances or Organisms.

Halocarbon-Containing Equipment

In Canada, the federal, provincial, and territorial governments have legislation in place for the protection of the ozone layer and management of ozone-depleting substances and their halocarbon alternatives. The use and handling of these substances are regulated by the provinces and territories in their respective jurisdictions, and through the Federal Halocarbon Regulations, 2003 (FHR 2003) for refrigeration, air-conditioning, fire-extinguishing and solvent systems under federal jurisdiction.

The FHR 2003 were published in August 2003 and amended in July 2009 under the authority of the *Canadian Environmental Protection Act*, 1999. The purpose of the FHR 2003 is to reduce and prevent emissions of ozone-depleting substances and of their halocarbon alternatives to the environment from air-conditioning units, refrigeration, fire-extinguishing and solvent systems that are:

- Located on federal or aboriginal lands; or
- Owned by federal departments, board agencies, Crown corporations, or federal works and undertakings.

The FHR 2003 replaced the former Federal Halocarbon Regulations and incorporated new provisions to achieve an orderly transition from chlorofluorocarbons (CFCs) and Halons to alternative substances and technologies, reflecting *Canada's Strategy to Accelerate the Phase-Out of CFC and Halon Uses and to Dispose of the Surplus Stocks*.

Under the FHR 2003, a person who installs, services, leak tests, or charges a refrigeration system or an air conditioning system or does any other work on the system that may result in the release of a halocarbon must do so in accordance with the *Environmental Code of Practice for the Elimination of Fluorocarbon Emissions from Refrigeration and Air Conditioning Systems*.

Some of the requirements of FHR 2003 include:

- Certification is required for all persons testing, repairing, filling or emptying equipment containing ozone-depleting substances and their halocarbon alternatives.
- No person shall store, transport or purchase a halocarbon unless it is in a container designed and manufactured to be refilled and to contain that specific type of halocarbon.
- Before dismantling, decommissioning or destruction of any system, a person shall recover all halocarbons contained in the system into a container designed and manufactured to be refilled and to contain that specific type of halocarbon.
- Before dismantling, decommissioning or destruction or destroying a system, a person shall affix a notice to the system containing information as required in Column 3, Item 1 of Schedule 2. This information includes the name and address of the owner of the system; name of the operator of the system, specific location of the system before its dismantling, decommissioning or destruction; description of the system; name of service technician who recovered the halocarbons; certificate number of the service technician (if applicable); name of employer of service technician (if applicable); type and quantity of halocarbon and date recovered; type and charging capacity of the system; and final destination of the system.
- In the case of dismantling, decommissioning or destruction of any system, the owner shall keep a record of the information contained in the notice as described above.

Under the *TDG Act*, Halocarbon Containing Equipment are under Class 2; Non-flammable Gas

Radioactive Materials

The *Nuclear Safety and Control Act* (1997, c.9), Nuclear Substances and Radiation Devices Regulations (SOR/2000-207) states that radioactive substances that do not contain more than 185 kBq of americium 241 or where it is in a commercial or industrial facility, more than 740 kBq of americium 241 is considered an acceptable radioactive source under the *Act*.

Under the *TDG Act*, radioactive components can be classed as a radioactive material under Class 7.

Mould Regulations

Moulds are forms of fungi that are found everywhere both indoors and outdoors all year round. Outdoors, moulds live in the soil, on plants and on dead and decaying matter. More than 1000 different kinds of indoor moulds have been found in buildings. Moulds spread and reproduce by making spores, which are all small and lightweight, able to travel through air, capable of resisting dry, adverse environmental conditions, and hence capable of surviving a long time. Moulds need moisture and nutrients to grow, and their growth is stimulated by warm, damp, and humid conditions.

Recommended work practices are outlined in the following document:

- *Mould Guidelines for the Canadian Construction Industry*. Standard Construction Document CCA 82 2004. Canadian Construction Association.

Environmental Regulations

In the Yukon, environmental matters pertaining to special or hazardous waste generally fall under the jurisdiction of *Yukon Environment Act* (*YEA*). The Special Waste Regulation (O.I.C. 2014-150) under the *YEA* refers to the handling, storage, transportation, treatment, recycling, and disposal of special (hazardous) wastes within the territory. The regulation outlines regulated materials and criteria to be used to characterize waste as hazardous.

SIFTON RANGE
ENVIRONMENTAL CONSULTING LTD

APPENDIX B

Photographic Documentation

Photo 1: Christ the King Elementary School change room.

Photo 2: Location of east stairwell with asbestos containing skim coat/joint compound.

SIFTON RANGE
ENVIRONMENTAL CONSULTING

APPENDIX C

Analytical Certificates of Analysis

EMSL Canada Inc.

7964 Winston Street Suite 200 Burnaby, BC V5A 2H5
Tel/Fax: (604) 757-3158 / (604) 757-4731
http://www.EMSL.com / vancouverlab@EMSL.com

EMSL Canada Order:	692501537
Customer ID:	55SREC42
Customer PO:	
Project ID:	

Attention:	Shane Dooley	**Phone:**	(867) 333-0735
	Sifton Range Environmental Consulting	**Fax:**	
	Box 20215	**Received Date:**	04/11/2025 12:12 PM
	Whitehorse, YT Y1A 7A2	**Analysis Date:**	04/21/2025
		Collected Date:	
Project:	CKES ACCESSIBILITY LIFT AND RENO 2025 - 138		

Test Report: Polarized Light Microscopy (PLM) Performed by Modified NIOSH Method 9002, Issue 2

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CK-DWJC-001A *692501537-0001*	WEST CHANGEROOM CEILING JOINT COMPOUND	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-DWJC-001B *692501537-0002*	WEST CHANGEROOM CEILING JOINT COMPOUND	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-DWJC-001C *692501537-0003*	EAST CHANGEROOM CEILING JOINT COMPOUND	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GYP-001A *692501537-0004*	EAST W/C CEILING GYPSUM BOARD	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GYP-001B *692501537-0005*	EAST CHANGEROOM CEILING GYPSUM BOARD	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GYP-001C *692501537-0006*	WEST CHANGEROOM CEILING GYPSUM BOARD	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GYP-001D *692501537-0007*	WEST CHANGEROOM CEILING GYPSUM BOARD	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-CT-001A *692501537-0008*	LAVATORY COUNTER ADHESIVE	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-CT-001B *692501537-0009*	VANITY COUNTER ADHESIVE	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-CT-001C *692501537-0010*	VANITY COUNTER ADHESIVE	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-SC-001A *692501537-0011*	EAST CHANGEROOM WALL SKIM COAT	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-SC-001B *692501537-0012*	EAST CHANGEROOM WALL SKIM COAT	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-SC-001C *692501537-0013*	EAST CHANGEROOM CEILING SKIM COAT	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-VCB-001A *692501537-0014*	BLACK VINYL COVE BASEBOARD ADHESIVE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Only the Adhesive layer analyzed as per the COC.

Initial report from: 04/21/2025 14:51:28

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Tel/Fax: (604) 757-3158 / (604) 757-4731
http://www.EMSL.com / vancouverlab@EMSL.com

EMSL Canada Order:	692501537
Customer ID:	55SREC42
Customer PO:	
Project ID:	

Test Report: Polarized Light Microscopy (PLM) Performed by Modified NIOSH Method 9002, Issue 2

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CK-VCB-001B *692501537-0015* *Only the Adhesive layer analyzed as per the COC.*	BLACK VINYL COVE BASEBOARD ADHESIVE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-VCB-001C *692501537-0016* *Only the Adhesive layer analyzed as per the COC.*	BLACK VINYL COVE BASEBOARD ADHESIVE	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-VCB-002A *692501537-0017* *Only the Adhesive layer analyzed as per the COC.*	TAN VINYL COVE BASEBOARD ADHESIVE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-VCB-002B *692501537-0018* *Only the Adhesive layer analyzed as per the COC.*	TAN VINYL COVE BASEBOARD ADHESIVE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-VCB-002C *692501537-0019* *Only the Adhesive layer analyzed as per the COC.*	TAN VINYL COVE BASEBOARD ADHESIVE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-MAS-001A *692501537-0020*	STAGE FLOORING, LINO ADHESIVE	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-MAS-001B *692501537-0021*	STAGE FLOORING, LINO ADHESIVE	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-TILE-001A *692501537-0022*	LARGE FLOOR TILE (BASEBOARD) ADHESIVE	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-TILE-001B *692501537-0023*	LARGE FLOOR TILE (BASEBOARD) ADHESIVE	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-TILE-002A *692501537-0024*	BLUE TILE, EAST CHANGEROOM SHOWER, ADHESIVE	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-001A-Grout 1 *692501537-0025*	LARGE TILE GROUT (BASEBOARDS, WHOLE PERIMETER)	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-001A-Grout 2 *692501537-0025A*	LARGE TILE GROUT (BASEBOARDS, WHOLE PERIMETER)	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-001B *692501537-0026*	LARGE TILE GROUT (BASEBOARDS, WHOLE PERIMETER)	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-001C *692501537-0027*	LARGE TILE GROUT (BASEBOARDS, WHOLE PERIMETER)	Brown/Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-002A-Grout 1 *692501537-0028*	SMALL TILE GROUT, ALL FLOORING	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-002A-Grout 2 *692501537-0028A*	SMALL TILE GROUT, ALL FLOORING	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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Test Report: Polarized Light Microscopy (PLM) Performed by Modified NIOSH Method 9002, Issue 2

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
CK-GR-002B-Grout 1 *692501537-0029*	SMALL TILE GROUT, ALL FLOORING	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-002B-Grout 2 *692501537-0029A*	SMALL TILE GROUT, ALL FLOORING	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-003A *692501537-0030*	BLUE TILE GROUT, EAST SHOWER	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-003B *692501537-0031*	BLUE TILE GROUT, EAST SHOWER	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-004A *692501537-0032*	PURPLE TILE GROUT, EAST SHOWER	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
CK-GR-004B *692501537-0033*	PURPLE TILE GROUT, EAST SHOWER	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-ST-001A-Cove Base *692501537-0034*	BLACK STAIR TREAD AND ADHESIVE, ACCESS LIFT STAIRWELL	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-ST-001A-Mastic *692501537-0034A*	BLACK STAIR TREAD AND ADHESIVE, ACCESS LIFT STAIRWELL	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-ST-001B-Cove Base *692501537-0035*	BLACK STAIR TREAD AND ADHESIVE, ACCESS LIFT STAIRWELL	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-ST-001B-Mastic *692501537-0035A*	BLACK STAIR TREAD AND ADHESIVE, ACCESS LIFT STAIRWELL	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-ST-001C-Stair Tread *692501537-0036*	BLACK STAIR TREAD AND ADHESIVE, ACCESS LIFT STAIRWELL	Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-ST-001C-Mastic *692501537-0036A*	BLACK STAIR TREAD AND ADHESIVE, ACCESS LIFT STAIRWELL	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4-SC-001A *692501537-0037*	SKIM COAT AND UNDERLYING GYPSUM BOARD, ACCESS LIFT STAIRWELL	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
Not enough skim coat for analysis, rough coat analyzed.					
4-SC-001B-Joint Compound *692501537-0038*	SKIM COAT, ACCESS LIFT STAIRWELL	Beige Non-Fibrous Homogeneous		98% Non-fibrous (Other)	**2% Chrysotile**

Initial report from: 04/21/2025 14:51:28

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Test Report: Polarized Light Microscopy (PLM) Performed by Modified NIOSH Method 9002, Issue 2

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
4-SC-001B-Skim Coat	SKIM COAT, ACCESS LIFT	White Non-Fibrous		100% Non-fibrous (Other)	None Detected
692501537-0038B	STAIRWELL	Homogeneous			
4-SC-001B-Rough Coat	SKIM COAT, ACCESS LIFT	Gray Non-Fibrous		100% Non-fibrous (Other)	None Detected
692501537-0038C	STAIRWELL	Homogeneous			
4-SC-001C	SKIM COAT, ACCESS LIFT	Gray Non-Fibrous		100% Non-fibrous (Other)	None Detected
692501537-0039	STAIRWELL	Homogeneous			
Only Rough Coat present					

Analyst(s)

Omid Ghayyur (17)

Xu Wan Li (30)

Nicole Yeo, Laboratory Manager
or Other Approved Signatory

Initial report from: 04/21/2025 14:51:28

EMSL Analytical, Inc.

200North, Route 130, Cinnaminson, NJ. 08077
Phone: (800) 220-3675

Attn.: *Shane Dooley*
Sifton Range Environmental Consulting
Box 20215
Whitehorse, YT Y1A 7A2
shane@siftonrangenvironmental.ca
Phone: 867-333-0735

EMSL Order No.: 652504548
Sample(s) Received: 4/14/2025
Date Reported: 4/24/2025
Date Printed: 4/24/2025
Reported By: J. Hu

- Laboratory Report -

Elemental Analysis/Lead

Project: CKES LIFT And CHANGEROOM RENO 2025-138

Procurement of Samples and Analytical Overview:

The samples (four, bulk) arrived at EMSL Analytical (Cinnaminson, NJ) on April 14, 2025. The package arrived in satisfactory condition with no evidence of damage to the contents. The data reported herein has been obtained using the following equipment and methodologies.

Methods & Equipment: Hand-Held X-Ray Fluorescence Spectroscopy (XRF)
CPSC-CH-E1002-08.3 (Mod)
Total Lead in Paint and Surface Coatings

Analyzed by: Jian Hu — April 24, 2025

Jian Hu, Ph.D.
Senior Laboratory Scientist

Date

Reviewed/Approved by: Eugenia Mirica — April 24, 2025

Eugenia Mirica, Ph.D.
Laboratory Director

Date

EMSL Analytical, Inc.

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EMSL Order No.: 652504548
Sample(s) Received: 4/14/2025
Date Reported: 4/24/2025
Date Printed: 4/24/2025
Reported By: J. Hu

Procurement of Samples:

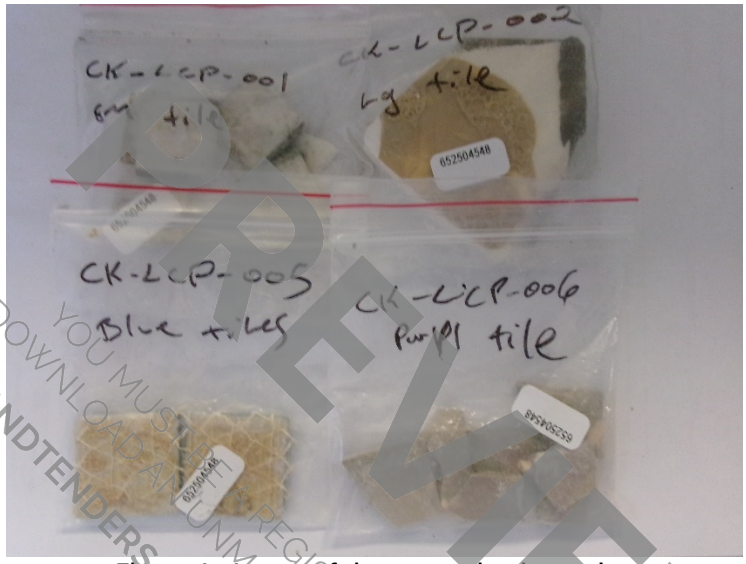

Figure 1. Image of the as-received sample.

Table 1: Identification of the samples submitted for analysis:

Customer Sample ID	EMSL Sample ID	Sample Description	Date Sampled
CK-LCP-001	652504548-0001	Floor Surface of both changerooms, small white tile	4/4/25
CK-LCP-002	652504548-0002	Perimeter baseboards, large white tile	4/4/25
CK-LCP-005	652504548-0003	Blue tiles, single shower east change room	4/4/25
CK-LCP-006	652504548-0004	Purple tile, single shower, East change room	4/4/25

The purpose of the analysis is to quantify the lead content present in the materials. The as-received glazed or painted surfaces were analyzed.

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EMSL Order No.: 652504548
Sample(s) Received: 4/14/2025
Date Reported: 4/24/2025
Date Printed: 4/24/2025
Reported By: J. Hu

Results:

EMSL ID:	652504548-0001			
Sample ID:	CK-LCP-001			
Sample Description:	Floor Surface of both changerooms, small white tile			
Analyte	Measured Value		Reporting Limit	
	wt%	mg/kg (ppm)	wt%	mg/kg (ppm)
Lead (Pb)	<0.005	<50	0.005	50

ppm = parts per million

EMSL ID:	652504548-0002			
Sample ID:	CK-LCP-002			
Sample Description:	Perimeter baseboards, large white tile			
Analyte	Measured Value		Reporting Limit	
	wt%	mg/kg (ppm)	wt%	mg/kg (ppm)
Lead (Pb)	0.053	530	0.005	50

ppm = parts per million

EMSL ID:	652504548-0003			
Sample ID:	CK-LCP-005			
Sample Description:	Blue tiles, single shower east change room			
Analyte	Measured Value		Reporting Limit	
	wt%	mg/kg (ppm)	wt%	mg/kg (ppm)
Lead (Pb)	0.007	70	0.005	50

ppm = parts per million

EMSL Analytical, Inc.

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EMSL Order No.: 652504548
Sample(s) Received: 4/14/2025
Date Reported: 4/24/2025
Date Printed: 4/24/2025
Reported By: J. Hu

EMSL ID:	652504548-0004			
Sample ID:	CK-LCP-006			
Sample Description:	Purple tile, single shower, East change room			
Analyte	Measured Value		Reporting Limit	
	wt%	mg/kg (ppm)	wt%	mg/kg (ppm)
Lead (Pb)	<0.005	<50	0.005	50

ppm = parts per million

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EMSL Order No.:	652504548
Sample(s) Received:	4/14/2025
Date Reported:	4/24/2025
Date Printed:	4/24/2025
Reported By:	J. Hu

Important Terms, Conditions, and Limitations:

Sample Retention: Samples analyzed by EMSL will be retained for 60 days after analysis date. Storage beyond this period is available for a fee with written request prior to the initial 30 day period. Samples containing hazardous/toxic substances which require special handling may be returned to the client immediately. EMSL reserves the right to charge a sample disposal or return shipping fee.

Change Orders and Cancellation: All changes in the scope of work or turnaround time requested by the client after sample acceptance must be made in writing and confirmed in writing by EMSL. If requested changes result in a change in cost the client must accept payment responsibility. In the event work is cancelled by a client, EMSL will complete work in progress and invoice for work completed to the point of cancellation notice. EMSL is not responsible for holding times that are exceeded due to such changes.

Warranty: EMSL warrants to its clients that all services provided hereunder shall be performed in accordance with established and recognized analytical testing procedures, when available. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. EMSL disclaims any other warranties, express or implied, including a warranty of fitness for particular purpose and warranty of merchantability.

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Sifton Range Environmental Consulting
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Whitehorse, YT Y1A 7A2

Phone:	(867) 333-0735
Fax:	
Received:	4/14/2025 08:50 AM
Collected:	4/4/2025

Project: **CKES LIFT AND CHANGEROOM RENO 2025-138**

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

Client Sample Description	*Lab ID*	*Collected*	*Analyzed*	*Weight*	*Lead Concentration*
CK-LCP-003	*652504548-0003*	4/4/2025	4/21/2025	0.2621 g	<64 ppm
	Site: WHITE PAINT, ALL INTERIOR WALLS, ON CONCRETE BLOCK				
CK-LCP-004	*652504548-0004*	4/4/2025	4/21/2025	0.2597 g	<64 ppm
	Site: WHITE PAINT, ALL CEILING, ON GYPSUM				
4-LCP-001	*652504548-0007*	4/4/2025	4/21/2025	0.2559 g	1600 ppm
	Site: BLUE PAINT, LIFT STAIRWELL WALLS				
4-LCP-002	*652504548-0008*	4/4/2025	4/21/2025	0.2622 g	610 ppm
	Site: WHITE PAINT, STUCCO WALLS THROUGHOUT				
4-LCP-003	*652504548-0009*	4/4/2025	4/21/2025	0.2638 g	<64 ppm
	Site: BLACK BASEBOARDS THROUGHOUT				

Jefferson Salvador, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Materials Lab Cinnaminson, NJ

Initial report from 04/22/2025 08:57:24