

Hazardous Materials Investigation

4210 Commerce Circle, Victoria, BC



Prepared for
McElhanney
500-3960 Quadra Street,
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Island EHS Project #63921

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Executive Summary

Island EHS was engaged by McElhanney to carry out a destructive hazardous materials investigation at 4210 Commerce Circle, Victoria, BC. This investigation was conducted prior to demolition of the building. The building was unoccupied at the time of the investigation. This investigation was carried out on March 11, 2025 and was intended to identify the locations and types of hazardous materials that are present in the building. Roof sampling was conducted on May 3, 2025.

The building was constructed in 1988 and was a one-storey, wood-framed commercial building on a concrete foundation. All accessible areas of the building were inspected; invasive sampling was carried out.

The following hazardous materials were reviewed:

Material	Description		Recommendation
Asbestos	None identified	Not applicable	No action necessary
Lead	Lead containing paints were not identified on interior and exterior surfaces	Not applicable	If unidentified materials are encountered, work must stop until the material is identified and assessed No action necessary
Silica	Presumed in concrete, acoustic ceiling tiles, concrete block, mortar, torch on asphalt roofing, ceramic tile, grout, and drywall	Located throughout Not quantified	Personal protective equipment during demolition Silica exposure control plan
Mercury	Fluorescent light tubes were observed in the building. Thermostats were not observed in the building.	Located throughout Not quantified	Remove for proper disposal
Hantavirus - Rodent Droppings	Rodent droppings were not observed in the building	Not applicable	No action necessary
CCA-Pressure Treated Wood	Pressure treated wood not observed in the building	Not applicable	No action necessary
Radioactive Materials	Smoke detectors were not observed in the building	Not applicable	No action necessary
Mould	None observed in the building	Not applicable	No action necessary

Material	Description		Recommendation
PCBs	Fluorescent light fixtures were observed in the building.	Not applicable	Based on the age of construction, no PCBs are suspected to be present. No action necessary
Ozone Depleting Substances	Older refrigeration equipment were not present in the building	Not applicable	No action necessary
Urea Formaldehyde Foam Insulation	None observed in the building	Not applicable	No action necessary
Above Ground Storage Tanks (AGST)	None observed in the building	Not applicable	No action necessary
Leachable Lead	Painted surface concentrations tested were below the 100 ppm threshold	Not applicable	There are no special disposal requirements for these materials with regards to leachable levels of lead.
Other Hazardous Materials	Fire extinguishers present in the building Synthetic Insulation observed	7 extinguishers located throughout Throughout in wall and ceiling cavities	Remove for proper disposal Personal protective equipment during demolition

* Materials may be encountered during work activities that are not identified in this report. If this happens, work must stop in those areas until the materials are properly identified

* Recommendations highlighted in **RED** will be followed by abatement contractors and are based on WorkSafeBC guidelines

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1.0 Introduction

Island EHS was engaged to carry out a destructive hazardous materials investigation at 4210 Commerce Circle, Victoria, BC, on behalf of McElhanney. This investigation was conducted prior to demolition of the building. The building was unoccupied at the time of the investigation on March 11, 2025. Roof sampling was conducted on May 3, 2025.

The building was constructed in 1988 and was a one-storey, wood-framed commercial building on a concrete foundation. Interior finishes included carpet, vinyl sheet flooring, drywall, ceramic tile, and acoustic ceiling tiles. Exterior finishes included concrete block, metal siding, torch-on asphalt roofing, and aluminum windows (with rubber gaskets). The building was heated by a forced air HVAC system. No attic space was identified during the assessment. Fibreglass insulation was observed in the wall cavities. Coring of concrete block was conducted, and no vermiculite insulation was identified.

The proposed scope of work includes demolition of the building. All areas of the building were assessed.

2.0 Hazardous Materials

Hazardous materials that are present in many common building materials must be removed or controlled prior to or during renovations or demolition to mitigate worker exposures and prevent cross contamination into adjacent areas. The British Columbia *Occupational Health and Safety Regulations* (OHSR) and *Guidelines* establish the handling and management of several hazardous materials. Other materials are regulated by Federal Environmental laws. Section 20.112(b) of the OHSR requires that this report be on site during any renovation, construction, or demolition work.

2.1 Materials Subject to WorkSafeBC Regulations & Guidelines

2.1.1 Asbestos

Asbestos is a generic term used to describe a group of naturally occurring fibrous minerals divided based on their mineralogical properties into; **serpentine** (snake-like or “S”-shaped); and **amphiboles** (“needle-like”). Three (3) types of asbestos were used commercially and were commonly encountered here in B.C. - Chrysotile (white), Amosite (brown) and Crocidolite (blue). Other forms of asbestos, which typically had little commercial value or use include Actinolite, Anthophyllite and Tremolite. These forms of asbestos also belong to the amphibole family and may be found in Vermiculite insulation.

Asbestos is a very common component of building materials. Most asbestos containing materials went out of use in the early 1980s. However, asbestos was only recently banned in 2019 and so some building materials may still contain asbestos and must be inspected prior to the start of renovation or demolition activities.

Asbestos becomes a hazard when it is disturbed, and airborne dust is created. Employers must ensure that asbestos containing materials are not unintentionally and uncontrollably disturbed. Asbestos exposure is known to cause asbestosis, lung cancer and mesothelioma.

Asbestos has been used in approximately 3,000 manufactured products, for its fire-resistance, high tensile strength, chemical degradation resistance, high electrical resistance and insulating properties. Common sources of asbestos containing materials in residential structures include:

- Vinyl floor products (sheet flooring and floor tiles)
- Drywall filler compounds
- Plasters and stuccos
- Textured ceiling applications
- Duct tape (on heating system ducting and around forced air registers)
- Vermiculite
- Caulking and putties (on windows and doors and in levelling compounds)
- Cement products (siding and shingles as well as underground drainage pipes)
- Roofing felts and papers
- Pipe insulation (on piping, boilers and hot water tanks)

WorkSafeBC defines an asbestos containing material (ACM) as one containing 0.5% or more asbestos by weight. Vermiculite is an ACM if any asbestos is present. WorkSafeBC has designated asbestos as an ALARA substance, which means that exposures must be kept “as low as reasonably achievable”. Section 6.3 of the Occupational Health and Safety Regulation states that employers are required to develop and implement an exposure control plan when workers may be exposed to asbestos.

All asbestos waste must be handled, transported, and disposed of in accordance with the Ministry of Environment and Parks *Hazardous Waste Regulations*.

2.1.2 Lead

Lead is a naturally occurring, blueish-grey metal that is soft, malleable, corrosion-resistant and easily melted (melting point of 327°C). It can be found in a wide variety of consumer and industrial products, from electrical equipment, x-ray equipment, vehicle batteries, decorate glass, extruded ammunition, pigments, and coatings to storage containers for nuclear waste.

There are two types of lead: organic and inorganic. Organic lead is less common having been phased out in the 1970s and banned since 1990 in British Columbia, except for certain applications (e.g., non-road vehicles).

Employee exposures to inorganic lead in the workplace are more common having been commonly used in paints and coatings. Coatings manufactured prior to 1970 are likely to contain high concentrations of lead. In the late 1970s, Canada restricted the concentration of lead in consumer paints to 5,000 micrograms per gram (µg/g). These restrictions did not apply to exterior paints. The level of lead in consumer paints was last reduced by the Federal government to 90 µg/g in 2010. Lead can still be added to certain classes of paint if the display panel carries a warning. Lead in paint concentration is not regulated when used in commercial or industrial worksites.

Lead becomes a hazard when painted surfaces are disturbed and airborne dust is created. Caution must be taken to ensure that lead containing materials are not disturbed. Lead exposure is known to have several health effects including damage to the central and peripheral nervous systems. It also affects the uptake of oxygen in the blood and can accumulate in bones. Lead is toxic to both male and female reproductive system and can have damaging effects to a developing fetus. Lead exposures can also occur when lead products are touched and lead contamination is ingested (eaten).

Lead is used in plumbing fixtures. Flashings and other products found on roofs may be made of pure lead. Lead has also been used in solders. This may be found on plumbing lines as well as on electrical equipment.

WorkSafeBC has designated lead as an ALARA substance. This means that exposures to this material must be kept “as low as reasonably achievable”. An employer must not permit workers

to engage in a work activity or lead process that may expose workers to lead dust, fumes or mist unless a risk assessment has first been completed by a qualified person. If the risk assessment indicates potential for lead exposure, an exposure control plan meeting the requirements of Section 5.54 of the Occupational Health and Safety Regulation must be developed.

Disposal of lead-painted waste materials are regulated by the Ministry of Environment and Parks *Hazardous Waste Regulations*. This regulation requires lead painted materials to undergo leachate analysis to evaluate if the waste is considered hazardous. Painted materials that leach lead under the regulated limit may be disposed of as regular waste.

2.1.3 Silica

Respirable crystalline silica (RCS) is a natural component of stone, rock, soil, and sand. It is also found in other materials such as concrete, mortar, granite, and artificial stone. The most common form of crystalline silica is quartz. Cutting, drilling, chipping, sanding, or grinding materials that contain crystalline silica can release hazardous levels of respirable dust in the air that workers breathe.

Exposure to RCS can also cause Silicosis, which is an incurable lung disease that can lead to disability and death. Silicosis is the result of the body's response to the presence of the silica particles in the lung. Silica particles are very small in size and can reach deep into the lungs (all the way into the alveoli) where they are removed by white blood cells. Free crystalline silica causes the white blood cells to break open, which form scar-like patches on the surface of the alveolus. When many these "scars" form, the alveolar surfaces become less elastic. Over time, this damage reduces the transfer of gases, which can lead to shortness of breath.

There are three major types of silicosis each with their own set of symptoms:

- **Acute Silicosis** occurs after a few months or as long as 2 years after exposures to extremely high concentrations of silica dust. Signs and symptoms of acute silicosis include shortness of breath, weakness, fever, cough, and weight loss.
- **Chronic Silicosis** is the most common and occurs after 15–20 years of moderate to low exposures. Symptoms may or may not be obvious. People suspected of having chronic silicosis may need to have a chest x-ray to determine if there is lung damage. As the disease progresses, sufferers may experience shortness of breath when exercising and have clinical signs of poor oxygen/carbon dioxide exchange. In the later stages, the sufferers may experience fatigue, extreme shortness of breath, chest pain, or respiratory failure.
- **Accelerated Silicosis** onset is quicker than chronic silicosis and can be detected after 1–10 years of high exposures. Symptoms include severe shortness of breath, weakness, and weight loss.

Because RCS is classified as carcinogenic to humans, WorkSafeBC considers RCS as a **Designated Substance**, which are chemicals that can cause cancer, sensitization, or reproductive effects. WorkSafeBC requires exposures to Designated Substances to be kept As Low As Reasonably Achievable (ALARA). Accordingly, an employer must have a qualified person perform a risk assessment prior to engaging activities that may expose workers to respirable crystalline silica dust. The employer must also have an exposure control plan meeting the requirements of Section 5.54 of the Occupational Health and Safety Regulation and accompanying safe work procedures for the work performed.

2.1.4 Mercury

Mercury is a metal that is liquid at room temperatures and vaporizes at low temperatures and is found in thermostats, thermometers, and inside fluorescent light tubes.

Mercury has a significant toxic effect on the central nervous system and can cause disease and even death. Mercury becomes a hazard when it is released into the environment where vapours are inhaled, or the liquid is unintentionally ingested (hand-to-mouth action). Mercury vaporizes at room temperatures, which can lead to significant airborne concentrations. This can occur when mercury thermometers, thermostat bulbs, or fluorescent light tubes are broken.

WorkSafeBC has designated mercury as an ALARA substance. This means that exposures to this material must be kept “as low as reasonably achievable”. Section 5.54 of the OHSR requires employers to develop and implement an exposure control plan when workers may be exposed to airborne concentrations of mercury greater than 50% of the exposure limit.

Mercury wastes are disposed of in accordance with current Ministry of Environment and Parks requirements, and/or as per local landfill requirements. Some communities may accept fluorescent light tubes at recycling depots.

2.1.5 Hantavirus

Hantavirus Pulmonary Syndrome may be contracted when encountering the airborne contaminated particles of urine, saliva or droppings of infected deer mice. Since it is not possible to readily differentiate rodent droppings between various species, WorkSafeBC considers all rodent droppings to be potentially contaminated with the Hantavirus.

WorkSafeBC requires employers to develop and implement an exposure control plan when workers may be exposed to potentially contaminated rodent droppings. Refer to the WorkSafeBC publication *A Hantavirus Exposure Control Program for Employers and Workers*. Other diseases are associated from contact with other animal droppings, most notably Histoplasmosis, from contact with infected bird droppings.

Any (potentially) hantavirus-contaminated waste should be treated/sprayed with a disinfectant (i.e., 10 percent chlorine bleach) and doubled bagged in plastic and sealed. Once treated and appropriately sealed, it can be disposed of with regular construction waste, or household garbage.

2.1.6 CCA-Pressure Treated Wood

Prior to 2004 pressure treated wood manufactured used chromated copper and arsenate (CCA) as an insecticide, fungicide, and rodenticide preservative. CCA was a major source of treated wood for decks, playgrounds, and other outdoor residential structures.

Exposure concerns are centered around arsenic, an element that can increase the risk of cancer when the CCA wood is aggressively disturbed creating contaminated airborne dust where it can be inhaled. Sawdust from cutting pressure treated wood or burning these materials can result in significant airborne arsenic concentrations. Workers should use the appropriate PPE when handling or cutting pressure treated wood.

Disposal of arsenic waste must be in accordance with the Ministry of Environment and Parks *Hazardous Waste Regulations*.

2.1.7 Radioactive Materials

A very small amount of radioactive material ($^{241}\text{Americium}$) is sealed in a metal case inside smoke detectors. These detectors may be of the ionization type or photoelectric type. Ionization smoke alarms contain a small amount of a material called Americium 241, which emits alpha particles that collide with the oxygen and nitrogen in the air to create ions. Photo-electric smoke detectors use a tiny beam of light to detect smoke particles with no radioactive materials. If smoke detectors are used as directed and not opened, or damaged, they pose no radiation health risk to humans.

Some ceramic tiles and forms of granite have also been found to contain radioactive materials. Radon is a naturally occurring gas found in the earth's crust created during the decay of other radioactive materials. Radon may seep into buildings through porous below-grade foundations.

Dispose smoke detectors in accordance with Canadian Nuclear Safety Commission requirements and/or disposed of as per local landfill requirements. Radiation exposures from smoke detectors is not considered hazardous to workers.

2.1.8 Mould

Mould is prevalent with mould spores being present in all indoor and outdoor environments. Mould is a type of fungus and is nature's way of breaking down and recycling organic materials. Mould spores require suitable moisture, temperatures, and food sources to begin the fungal growing sequence. Water leaks (even very minor leaks) and moisture accumulation are usually sufficient for mould to begin growing inside buildings.

Prolonged exposures to mould spores indoors most may result in allergy type responses in susceptible individuals. These are similar in nature to "hay fever" and can include runny eyes and noses and throat irritation. In more extreme cases, exposure to mould spores can result in "pneumonia-like" responses or infections in immunocompromised individuals.

WorkSafeBC, or any other regulatory body, have not established exposure levels for airborne mould spores. Section 4.79 of the BC *Occupational Health and Safety Guideline* outlines protocols for assessing and remediating mould contamination. The Canadian Construction Association document "Mould Guidelines for the Canadian Construction Industry," CCA82-2018 also provides protocols for fungal remediation. Mould contaminated materials may be disposed of as regular construction waste.

2.2 Materials Controlled by Environmental Regulations

2.2.1 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) must be handled, stored, labelled, and disposed of in accordance with the Federal Canadian Environmental Protection Act, *PCB Regulations* (SOR/2008-273) and the BC Ministry of Environment and Parks *Hazardous Waste Regulations*.

Fluorescent light ballasts manufactured prior to 1981 must be treated as PCB waste and stored and disposed of in accordance with current regulations. Fluorescent light fixtures removed during demolition, construction or maintenance activities must be inspected for the presence of PCBs. Each ballast identified as containing PCBs must be sent to a licenced facility in accordance with the *Hazardous Waste Regulations*. Transformer fluids or other non-liquid PCBs were not assessed.

2.2.2 Ozone Depleting Substances

Ozone depleting substances (ODS) and chlorofluorocarbons are commonly found in older refrigerators, air conditioning units, and fire suppression systems. When systems or equipment contains ODS are set for disposal all the ODS must be collected for recycling or disposal by a licenced contractor in accordance with the Environmental Management Act, *Ozone Depleting Substances and Other Halocarbons Regulation* (B.C. Reg. 253/2022).

2.2.3 Urea Formaldehyde Foam Insulation

Urea formaldehyde foam insulation (UFFI) was used as a retrofit insulation in older buildings. The expanding foam would be sprayed into wall and ceiling cavities to provide additional insulation in older buildings. It was most used in residential settings. Over time, in the presence of moisture, the insulation can break down and release formaldehyde gas. This insulating material was banned in 1978. If identified, UFFI may be disposed of as regular construction waste.

2.2.4 Fuel Oil Storage Tanks

Fuel oil storage tanks (above and below ground) are found in many houses and commercial buildings. The tanks can corrode and leak as they age spilling their contents and contaminating local soils and groundwater.

Tanks no longer in use must be removed for disposal and the surrounding soil checked for contamination. There are currently no specific provincial regulations to govern petroleum storage tank disposal. We recommend follow the Ministry of Environment and Parks publication *A Field Guide to Fuel Handling, Transportation, and Storage* (3rd Edition, February 2002).

2.2.5 Leachable Metals

The Ministry of Environment and Parks *Hazardous Waste Regulation* requires lead containing materials to be tested for leachability prior to disposal at a licensed landfill. We recommend having lead containing materials with concentrations over 0.01% by weight (100 µg/g or ppm) tested using the Toxicity Characteristic Leachate Procedure (TCLP) analysis. Those materials that leach more than 5.0 milligrams of lead per liter (mg/L) must be disposed of as hazardous waste to comply with the *Hazardous Waste Regulation*.

2.2.6 Other Materials

Other toxic, flammable, or explosive chemicals may be present that will be affected by renovations or demolition, including:

- Propane or butane cylinders
- Paint
- Solvents
- Toxic or corrosive products
- Other flammable materials

3.0 Methodology

3.1 Visual Inspection

Island EHS conducted a visual inspection collecting detailed notes with each sample including a room identifier, type of material, and sample location. We also collected digital photographs of each sampling location and of representative hazardous building materials.

Only reasonably accessible areas were surveyed, which included areas above dropped ceilings, within manufactured hatches or behind unlocked doors, and areas not impeded by any structure, article or item. Inaccessible areas that were excluded from our survey are defined as any space or system that required substantial demolition to access or operational equipment, such as boilers or HVAC systems. Confined spaces, any areas requiring fall protection, or areas otherwise deemed unsafe for the surveyor were not entered.

3.2 Asbestos Containing Materials

Island EHS collected fifty-one (51) bulk samples of building materials for analysis of asbestos content (see Appendix 2 for a complete list of materials and the analytical results). Bulk samples were collected by a WorkSafeBC Level S: Surveyor Safety certified person. Quantities and materials sampled were selected based on our experience and on the WorkSafeBC guideline "Safe Work Practices for Handling Asbestos" (current edition). Bulk samples were analyzed at our in-house laboratory in accordance with the National Institute for Occupational Safety and Health (NIOSH) Analytical Method 9002, "Asbestos (bulk) by Polarized Light Microscopy."

Island EHS's laboratory is deemed proficient by the American Industrial Hygiene Association (AIHA) and participates in quarterly rounds of proficiency testing to maintain registration. Refer to Appendix 2 for analytical results.

3.3 Lead Containing Paints

Island EHS collected three (3) representative sample of paint chips for analysis. The samples were collected in labelled re-sealable containers and submitted to our in-house laboratory for analysis of lead content using ASTM E1645-01 (for sample preparation of dried paint) and EPA 7000B (using Flame Atomic Absorption Spectrophotometry).

Wherever a contradiction regarding control measures exists, the more stringent of the controls (e.g. asbestos controls) to satisfy WorkSafeBC must be implemented and strictly followed.

Refer to Appendix 2 for analytical results.

3.4 Other Hazardous Materials

The presence of mercury, CCA-pressure treated wood, ozone-depleting substances (ODS), polychlorinated biphenyls (PCBs), radioactive sources, silica, rodent/avian feces, mould, urea-formaldehyde foam insulation (UFFI), oil storage tanks, and other hazardous chemicals was determined by visual inspection only; no sampling of these materials was carried out.

4.0 Results and Recommendations

The building was inspected for the presence of a variety of hazardous materials. WorkSafeBC requirements specify that precautions are necessary when handling these materials. The necessary precautions will depend on the disposition of each hazardous material.

Trained qualified contractors are required to carry out remedial work on hazardous materials. All general demolition work should be carried out by workers wearing the proper personal protective equipment (PPE), including respirators and disposable coveralls.

Copies of this report must be provided to contractors engaged to renovate the building.

Notices of Project must be submitted in accordance with WorkSafeBC requirements.

Materials may be encountered during work activities that are not identified in this report. If this happens, work must stop in those areas until the materials are properly identified.

Photographs of all samples analyzed are presented in Appendix 1. Analytical results are presented in Appendix 2. Floor plans showing sample locations are presented in Appendix 3.

4.1 Asbestos

Island EHS collected fifty-one (51) representative bulk samples of drywall joint filler, vinyl sheet flooring, vinyl floor tile, grout, acoustic ceiling tile, firestop, mortar, mastic, torch-on asphalt, sealant, and caulking from the renovation area. No asbestos was identified in the samples collected.

All efforts were made to determine all potential layers of material; additional layers may still exist. If discovered, work must stop and the material should be tested for the presence of asbestos.

Our visual inspection of accessible areas did not find vermiculite insulation. Coring of select concrete block was conducted, and no vermiculite insulation was identified. Vermiculite may be present in areas we did not inspect such as beneath insulation, within false ceilings, within wall/ceiling cavities and within concrete block that was not cored. If discovered, work must stop and the material should be tested for the presence of asbestos prior to disturbance.

The Capital Regional District requires Hazardous Materials Survey and Bulk Analysis Reports to be less than a year old from the time of analysis for asbestos containing material. Please contact the CRD's information line, at info@crd.bc.ca or 250-360-3030, if you have any questions. At their discretion, they will accept data older than one year dependent on applicable circumstances.

The WorkSafeBC Occupational Health & Safety Regulation *Part 6 "Substance Specific Requirements"*, Section 6.6 subsections (1), (2), (3), & (4) require that a qualified person perform a Risk Assessment prior to the performance of any work that may disturb asbestos containing materials.

Prior to commencement of any work involving the disturbance of asbestos containing materials, a Notice of Project (NOP) Asbestos must be submitted to WorkSafeBC a minimum of 48 hours prior to the work commencing. In conjunction with the NOP, the Contractor must also submit a copy of this report, any bulk sample analysis results, a site-specific Risk Assessment, and site-specific work procedures.

All asbestos abatement activities must follow the guidelines outlined in the WorkSafeBC publication *Safe Work Practices for Handling Asbestos* (current edition) and must be carried out by a WorkSafeBC-Licensed contractor having qualified Level 2 and 3 Certified workers.

Asbestos cement piping was sometimes used for perimeter drains, storm drains and sewer lines. Bell & spigot gasket piping may contain asbestos gaskets. Knob and tube wiring insulation may also contain asbestos. These products may be encountered on the site.

4.2 Lead Containing Paints

The allowable level of lead in new paints is set by Health Canada under the Canada Consumer Protection Act, Surface Coating Materials Regulation (SOR 2005-09). Under this regulation the maximum allowable concentration of lead in new paint sold to consumers is 0.009% (90 µg/g). WorkSafeBC considers paint which contains lead at any concentration to present a potential health hazard if it is removed incorrectly.

We analyzed three (3) paint samples collected from drywall, and concrete block. All three samples were not lead containing, with concentrations less than the laboratory detection limit. Analytical results are summarized in Table 1 below.

Table 1: Summary of Lead in Paint Analytical Results – March 11, 2025

Location	Description	Lead Content (µg/g)
Hallway	White Paint on Drywall	<2*
Hallway	Tan Paint on Drywall	<3*
Exterior - Siding	White Paint on Concrete Block	<8

µg/g = micrograms of lead per gram of substrate

< = result is less than the limit of detection

*substrate/matrix interference possible

Untested painted surfaces are presumed lead containing until sampling and analysis determine otherwise. Lead may be present as solder on plumbing systems (bell & spigot packing) and on other fixtures such as flashings or roof vents.

The BC Occupational Health and Safety Regulation (OHSR) requires employers to have a qualified person complete a risk assessment prior to exposing workers to lead dust, fumes or mist. The employer must have an Exposure Control Plan meeting the requirements of Section 5.54 of the OHSR if the risk assessment indicates potential for lead exposure prior to commencing work. The OHSR also requires the employer to confirm that the applied controls are adequately protecting workers through personal air monitoring during lead abatement work. A qualified person may also rely on existing exposure monitoring data for assessing control measures under Section 6.59.1(4) of the OHSR.

The BC *Hazardous Waste Regulation* requires lead-containing materials destined for disposal at a licensed landfill facility to be tested for leachability to determine if they should be handled as a hazardous waste.

4.3 Leachable Metals

The BC *Hazardous Waste Regulation* requires lead containing materials to be tested for leachability prior to disposal at a licensed landfill. We recommend having lead-containing materials with concentrations over 0.01% by weight (100 µg/g or ppm) tested for lead leachability. Those materials that leach more than 5.0 milligrams of lead per liter (mg/L) must be disposed of as hazardous waste to comply with the *Hazardous Waste Regulation*.

Lead was not detected in the interior and exterior painted surfaces we tested. These painted materials may be disposed as regular demolition waste.

4.4 Silica

We did not test building materials for silica, but we presume silica is present in concrete, mortar, grout, ceiling tiles, ceramic tile, torch-on asphalt, and possibly in drywall filler compounds.

The employer must control worker exposures to crystalline silica during demolition and renovation activities. **The OHSR requires contractors to have a Silica Exposure Control Plan and Safe Work Procedures prior to work commencing that disturbs crystalline silica.**

Appropriate controls are required to mitigate worker exposure to silica dust during abrasive blasting, jackhammering, chipping, drilling, cutting, sawing or other disturbance of identified concrete, plaster or drywall walls or cementitious products. Procedures will vary depending on the nature of the work but should consider, as a minimum, the following:

- Using half-face respirators equipped with P100 class filters, disposable Tyvek™ or equivalent coveralls and work gloves,
- Continuously applying water to materials being disturbed,
- Using drop sheets and tarps to prevent spread of silica-containing dust,
- Using HEPA filter equipped vacuum(s),
- HEPA equipped negative air unit for dust suppression inside enclosures, and
- Personal full-shift worker exposure air monitoring as per WorkSafeBC requirements.

4.5 Mercury

Fluorescent lights were observed in the building.

Mercury containing thermostats were not observed. If encountered, ensure that the glass bulb containing mercury is not damaged.

Fluorescent light tubes and bulbs containing mercury vapour should be disposed of in accordance with BC *Hazardous Waste Regulations* and/or local landfill requirements. Systems are in place that can facilitate recycling of the glass and mercury in fluorescent lights while mitigating worker exposure during the disposal process.

4.6 Hantavirus (and other Animal Droppings)

Rodent faeces were not observed in the building. If encountered, we recommend that controls listed in the WorkSafeBC publication *A Hantavirus Exposure Control Program for Employers and Workers* (current edition) are employed. **The OHSR requires contractors to have a Hantavirus Exposure Control Plan and Safe Work Procedures prior to handling/cleaning animal and rodent feces.**

4.7 CCA-Pressure Treated Wood

Pressure treated wood was not observed in the renovation area. If encountered, the pressure treated wood should be discarded as landfill waste, or recycled responsibly. Workers should wear protection (e.g., goggles, gloves, and dust mask) when sawing, cleaning, or handling CCA-pressure treated wood, and **not** burned. Following handling, workers should properly decontaminate by washing hands/face and laundering any contaminated clothing.

4.8 Radioactive Materials

Smoke detectors were not observed in the building.

If encountered, the contractor must ensure that the smoke detectors' sources are not damaged during upcoming renovation/demolition. Smoke detectors may be disposed of as regular household waste in accordance with Canadian Nuclear Safety Commission requirements and/or disposed of as per local landfill requirements.

4.9 Mould

Mould was not observed in the building. If mould is encountered during demolition activities, the contractor must ensure workers exposure to mould spores are controlled. These controls may include half or full-face respirators fitted with HEPA filtered P100 cartridges, disposable/impermeable coveralls, impermeable gloves, and eye protection. Engineered controls may include HEPA filtered negative air cabinets, HEPA filtered vacuums and amended water, in accordance with WorkSafeBC Occupational Health and Safety Guideline G4.79.

4.10 Polychlorinated Biphenyls

Fluorescent light fixtures were observed in the building.

The federal government restricted the use of PCBs in light ballasts in 1981. Since this building was erected in 1988, PCB ballasts are not expected.

4.11 Ozone Depleting Substances

Older refrigeration equipment that may contain chlorofluorocarbons was not observed in the building. If encountered, the refrigerant must be removed by a qualified refrigeration specialist for disposal in accordance with the *Ozone Depleting Substances and Other Halocarbons Regulation* when the units are taken out of service.

4.12 Urea Formaldehyde Foam Insulation

Urea Formaldehyde Foam Insulation was not observed in the building. This material is not suspected of being present.

4.13 Fuel Oil Storage Tanks

Fuel oil storage tanks (above ground) were not observed during the investigation.

The identification of the presence of (any) underground tanks was not included within the scope of this investigation.

4.14 Other Materials

Synthetic glass fibre insulation exists throughout the wall cavities. Removal of these materials should be conducted wearing proper respiratory protection and protective clothing including impermeable gloves, eye protection and half-face respiratory protection equipped with P-100 particulate filters.

Stored fire extinguishers were observed within the building. These materials should be safely removed from the site prior to any demolition activities taking place.

No other hazardous, toxic, flammable, or explosive substances were observed. Owner's contents were not assessed.

4.15 Abatement Clearance Documentation

To comply with BC Occupational Health & Safety Regulation Part 20.112(8) a qualified person (Island EHS) must conduct a final inspection after all the hazardous materials identified in this report have been safely contained or removed. Once all the hazardous materials have been removed and the final inspection has been completed, a written clearance letter can be provided.

Should asbestos abatement be undertaken by unqualified persons (i.e., those not licensed / not having qualified Level 2 and 3 Certified workers) and without appropriate controls in place, the work area will require aggressive air clearance sampling. This air sampling will extend to any adjacent areas that have not been isolated from the hazard and potential contamination. Clearance letters, required to document removal of asbestos for issuance of building permits and contractors hired to work in the space, will not be granted subject to failure of this testing. The owner/client is responsible for the additional fees incurred for these services.

5.0 Closure

This document was prepared for the exclusive use of our client. All conclusions and recommendations are based upon conditions at the site at the time of this investigation. Changes may occur over time that will require a re-evaluation of the site. All conclusions and recommendations are based upon professional opinions. These opinions are in accordance with accepted industrial hygiene assessment standards and practices and comply with current WorkSafeBC requirements.

All work was carried out based on the Scope of Work that was agreed upon with the client prior to the start of work, constraints imposed by the client and availability of access to the site. A Phase 1 Environmental Site Assessment (ESA) and Stage 1 Preliminary Site Investigation (PSI) was not part of Island EHS scope of work.

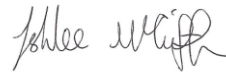
No warranty or guarantee, whether expressed or implied, are made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions at the time of the investigation.

This report may not be used, relied upon, copied, published, or quoted by any parties other than McElhanney Ltd and BC Transit without the written consent of Island EHS. Other parties reading this report must independently verify the completeness and accuracy of this report and its contents.

This report is not intended as a Scope of Work for tender or bidding purposes. Any use of this report in that fashion is at the sole discretion and liability of the Owner.



Brian Salmon
Senior Occupational Hygienist
Field Investigation and Report
Level S Certificate No.: 10002749



Ashlee McGiffin
Senior Occupational Hygienist
Original, Rev01 and Rev02 Report Reviews
Level S Certificate No.: 10002605

Appendix 1

Photographs



Sample: 63921-1
 Location: Electrical Room
 Description: Drywall Joint Compound
 Asbestos: None Detected

Sample: 63921-2
 Location: Safety Demonstration Room
 Description: Drywall Joint Compound
 Asbestos: None Detected



Sample: 63921-3
 Location: Office 3
 Description: Drywall Joint Compound
 Asbestos: None Detected

Sample: 63921-4
 Location: Women's Washroom
 Description: Drywall Joint Compound
 Asbestos: None Detected

			
Sample:	63921-5	Sample:	63921-6
Location:	Reception	Location:	Room 104
Description:	Drywall Joint Compound	Description:	Drywall Joint Compound
Asbestos:	None Detected	Asbestos:	None Detected
			
Sample:	63921-7	Sample:	63921-8
Location:	Room 107	Location:	Fire Exit Adjacent to Room 105
Description:	Drywall Joint Compound	Description:	Drywall Joint Compound
Asbestos:	None Detected	Asbestos:	None Detected



Sample:	63921-9
Location:	Room 112
Description:	Drywall Joint Compound
Asbestos:	None Detected

Sample:	63921-10
Location:	Men's Washroom
Description:	Vinyl Floor Tile
Asbestos:	None Detected



Sample:	63921-11
Location:	Kitchen
Description:	Vinyl Floor Tile
Asbestos:	None Detected

Sample:	63921-12
Location:	IT Room
Description:	Vinyl Floor Tile
Asbestos:	None Detected

			
Sample:	63921-13	Sample:	63921-14
Location:	IT Room	Location:	IT Room
Description:	Vinyl Floor Tile	Description:	Vinyl Floor Tile
Asbestos:	None Detected	Asbestos:	None Detected
			
Sample:	63921-15	Sample:	63921-16
Location:	Room 102	Location:	Room 102
Description:	Grout	Description:	Grout
Asbestos:	None Detected	Asbestos:	None Detected

			
Sample:	63921-17	Sample:	63921-18
Location:	Room 102	Location:	Room 106
Description:	Grout	Description:	Acoustic Ceiling Tile 1
Asbestos:	None Detected	Asbestos:	None Detected
			
Sample:	63921-19	Sample:	63921-20
Location:	Room 109	Location:	Hallway Adjacent to Room 105
Description:	Acoustic Ceiling Tile 1	Description:	Acoustic Ceiling Tile 1
Asbestos:	None Detected	Asbestos:	None Detected

			
Sample:	63921-21	Sample:	63921-22
Location:	Reception	Location:	Hallway Adjacent to Kitchen
Description:	Acoustic Ceiling Tile 1	Description:	Acoustic Ceiling Tile 1
Asbestos:	None Detected	Asbestos:	None Detected
			
Sample:	63921-23	Sample:	63921-24
Location:	Room 106	Location:	Room 109
Description:	Acoustic Ceiling Tile 2	Description:	Acoustic Ceiling Tile 2
Asbestos:	None Detected	Asbestos:	None Detected



Sample:	63921-25
Location:	Hallway Adjacent to Room 105
Description:	Acoustic Ceiling Tile 2
Asbestos:	None Detected



Sample:	63921-26
Location:	Reception
Description:	Acoustic Ceiling Tile 2
Asbestos:	None Detected



Sample:	63921-27
Location:	Hallway Adjacent to Kitchen
Description:	Acoustic Ceiling Tile 2
Asbestos:	None Detected



Sample:	63921-28
Location:	Men's Washroom
Description:	Vinyl Sheet Floor
Asbestos:	None Detected



Sample: 63921-29
 Location: Electrical Room
 Description: Firestop – Red
 Asbestos: None Detected



Sample: 63921-30
 Location: Electrical Room
 Description: Firestop – Red
 Asbestos: None Detected



Sample: 63921-31
 Location: Electrical Room
 Description: Firestop – Red
 Asbestos: None Detected



Sample: 63921-32
 Location: Loading Dock
 Description: Concrete Block Mortar
 Asbestos: None Detected



Sample: 63921-33
 Location: Loading Dock
 Description: Concrete Block Mortar
 Asbestos: None Detected



Sample: 63921-34
 Location: Loading Dock
 Description: Concrete Block Mortar
 Asbestos: None Detected



Sample: 63921-35
 Location: Mezzanine
 Description: Duct Mastic – Grey
 Asbestos: None Detected



Sample: 63921-36
 Location: Mezzanine
 Description: Duct Mastic – Grey
 Asbestos: None Detected

			
Sample:	63921-37	Sample:	63921-38
Location:	Mezzanine	Location:	Exterior – Metal Siding
Description:	Duct Mastic – Grey	Description:	Caulking – Grey
Asbestos:	None Detected	Asbestos:	None Detected
			
Sample:	63921-39	Sample:	63921-40
Location:	Exterior – Metal Siding	Location:	Exterior – Metal Siding
Description:	Caulking – Grey	Description:	Caulking – Grey
Asbestos:	None Detected	Asbestos:	None Detected

			
Sample:	63921-41	Sample:	63921-42
Location:	Exterior – Windows	Location:	Exterior – Windows
Description:	Caulking – Brown	Description:	Caulking – Brown
Asbestos:	None Detected	Asbestos:	None Detected
			
Sample:	63921-43	Sample:	63921-44
Location:	Exterior - Windows	Location:	Roof
Description:	Caulking – Brown	Description:	Torch-on Asphalt
Asbestos:	None Detected	Asbestos:	None detected



Sample:	63921-45
Location:	Roof
Description:	Torch-on Asphalt
Asbestos:	None Detected



Sample:	63921-46
Location:	Roof
Description:	Duct Mastic – Grey
Asbestos:	None Detected



Sample:	63921-47
Location:	Roof
Description:	Duct Mastic – Grey
Asbestos:	None Detected



Sample:	63921-48
Location:	Roof
Description:	Duct Mastic – Grey
Asbestos:	None Detected



Sample:	63921-49
Location:	Roof
Description:	Sealant
Asbestos:	None Detected



Sample:	63921-50
Location:	Roof
Description:	Sealant
Asbestos:	None Detected



Sample:	63921-51
Location:	Roof
Description:	Sealant
Asbestos:	None Detected

Appendix 2

Laboratory Results



Asbestos Bulk Sample Report

201 - 990 Hillside Avenue
Victoria, B.C. V8T 2A1
Tel: 778-406-0933
E-Mail: admin@islandehs.ca

Job: 63921
Project: 4210 Commerce Circle
Client: McElhanney
Client PO#:

Submitted By: BS
Date Received: 2025-03-11
Analyst: JT/AK

SP	#	Location	Material	Analysis Date	Layer	Description	% of Sample	Asbestos Minerals	% Asbestos per Layer	Other Fibres	% Fibres per Layer
N	1	Electrical Room	Drywall Joint Compound	2025-03-18	1	White chalky	60.0	None Detected	0.0	Non-fibrous	100.0
					2	Beige paper	40.0	None Detected	0.0	Cellulose	100.0
N	2	Safety Demonstration Room	Drywall Joint Compound	2025-03-18	1	White paint	40.0	None Detected	0.0	Non-fibrous	100.0
					2	White chalky	60.0	None Detected	0.0	Non-fibrous	100.0
N	3	Office 3	Drywall Joint Compound	2025-03-18	1	Grey paint	20.0	None Detected	0.0	Non-fibrous	100.0
					2	White chalky	20.0	None Detected	0.0	Non-fibrous	100.0
					3	Beige paper	40.0	None Detected	0.0	Cellulose	100.0
					4	Drywall	20.0	None Detected	0.0	Cellulose	80.0
										Non-fibrous	20.0
N	4	Women's Washroom	Drywall Joint Compound	2025-03-18	1	White paint	40.0	None Detected	0.0	Non-fibrous	100.0
					2	White chalky	60.0	None Detected	0.0	Non-fibrous	100.0
N	5	Reception	Drywall Joint Compound	2025-03-18	1	Grey paint	40.0	None Detected	0.0	Non-fibrous	100.0

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Project: 4210 Commerce Circle
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Client PO#:

Submitted By: BS
Date Received: 2025-03-11
Analyst: JT/AK

SP	#	Location	Material	Analysis Date	Layer	Description	% of Sample	Asbestos Minerals	% Asbestos per Layer	Other Fibres	% Fibres per Layer
N	6	Room 104	Drywall Joint Compound	2025-03-18	2	White chalky	60.0	None Detected	0.0	Non-fibrous	100.0
					1	Grey paint	40.0	None Detected	0.0	Non-fibrous	100.0
N	7	Room 107	Drywall Joint Compound	2025-03-18	2	White chalky	60.0	None Detected	0.0	Non-fibrous	100.0
					1	Grey paint	40.0	None Detected	0.0	Non-fibrous	100.0
N	8	Fire Exit Adjacent to Room 108	Drywall Joint Compound	2025-03-18	2	White chalky	60.0	None Detected	0.0	Non-fibrous	100.0
					1	Grey paint	40.0	None Detected	0.0	Non-fibrous	100.0
N	9	Room 112	Drywall Joint Compound	2025-03-18	2	White chalky	60.0	None Detected	0.0	Non-fibrous	100.0
					1	Grey paint	20.0	None Detected	0.0	Non-fibrous	100.0
N	10	Men's Washroom	Vinyl Floor Tile	2025-03-18	2	Grey chalky	40.0	None Detected	0.0	Non-fibrous	100.0
					3	Drywall paper	40.0	None Detected	0.0	Cellulose	100.0
					1	Grey tile	90.0	None Detected	0.0	Non-fibrous	100.0
					2	Black mastic	3.0	None Detected	0.0	Non-fibrous	100.0
					3	Grey cement	7.0	None Detected	0.0	Non-fibrous	100.0

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Client PO#:

Submitted By: BS
Date Received: 2025-03-11
Analyst: JT/AK

SP	#	Location	Material	Analysis Date	Layer	Description	% of Sample	Asbestos Minerals	% Asbestos per Layer	Other Fibres	% Fibres per Layer
N	11	Kitchen	Vinyl Floor Tile	2025-03-18	1	Grey tile	100.0	None Detected	0.0	Non-fibrous	100.0
N	12	IT Room	Vinyl Floor Tile	2025-03-18	1	Grey mosaic tile	95.0	None Detected	0.0	Non-fibrous	100.0
					2	Black mastic	3.0	None Detected	0.0	Non-fibrous	100.0
					3	Grey cement	2.0	None Detected	0.0	Non-fibrous	100.0
N	13	IT Room	Vinyl Floor Tile	2025-03-18	1	Grey tile	100.0	None Detected	0.0	Non-fibrous	100.0
N	14	IT Room	Vinyl Floor Tile	2025-03-18	1	Grey tile	95.0	None Detected	0.0	Non-fibrous	100.0
					2	Black mastic	5.0	None Detected	0.0	Non-fibrous	100.0
N	15	Room 102	Grout	2025-03-18	1	Beige cement	100.0	None Detected	0.0	Non-fibrous	100.0
N	16	Room 102	Grout	2025-03-18	1	Beige cement	100.0	None Detected	0.0	Non-fibrous	100.0
N	17	Room 102	Grout	2025-03-18	1	Beige cement	100.0	None Detected	0.0	Non-fibrous	100.0
N	18	Room 106	Acoustic Ceiling Tile 1	2025-03-18	1	White paint	5.0	None Detected	0.0	Non-fibrous	100.0
					2	Beige fibrous tile	95.0	None Detected	0.0	Non-fibrous	30.0

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Client PO#:

Submitted By: BS
Date Received: 2025-03-11
Analyst: JT/AK

SP	#	Location	Material	Analysis Date	Layer	Description	% of Sample	Asbestos Minerals	% Asbestos per Layer	Other Fibres	% Fibres per Layer
										Glass	30.0
										Cellulose	40.0
N	19	Room 109	Acoustic Ceiling Tile 1	2025-03-18	1	White paint	5.0	None Detected	0.0	Non-fibrous	100.0
					2	Beige fibrous tile	95.0	None Detected	0.0	Non-fibrous	30.0
										Glass	30.0
										Cellulose	40.0
N	20	Hallway Adjacent to Room 105	Acoustic Ceiling Tile 1	2025-03-18	1	White paint	5.0	None Detected	0.0	Non-fibrous	100.0
					2	Beige fibrous tile	95.0	None Detected	0.0	Non-fibrous	30.0
										Glass	30.0
										Cellulose	40.0
N	21	Reception	Acoustic Ceiling Tile 1	2025-03-18	1	White paint	5.0	None Detected	0.0	Non-fibrous	100.0
					2	Beige fibrous tile	95.0	None Detected	0.0	Non-fibrous	30.0
										Glass	30.0
										Cellulose	40.0
N	22	Hallway Adjacent to Kitchen	Acoustic Ceiling Tile 1	2025-03-18	1	White paint	5.0	None Detected	0.0	Non-fibrous	100.0



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SP	#	Location	Material	Analysis Date	Layer	Description	% of Sample	Asbestos Minerals	% Asbestos per Layer	Other Fibres	% Fibres per Layer
					2	Beige fibrous tile	95.0	None Detected	0.0	Non-fibrous	30.0
										Glass	30.0
										Cellulose	40.0
N	23	Room 106	Acoustic Ceiling Tile 2	2025-03-18	1	White paint	5.0	None Detected	0.0	Non-fibrous	100.0
					2	Beige fibrous tile	95.0	None Detected	0.0	Non-fibrous	30.0
										Glass	30.0
										Cellulose	40.0
N	24	Room 109	Acoustic Ceiling Tile 2	2025-03-18	1	White paint	5.0	None Detected	0.0	Non-fibrous	100.0
					2	Beige fibrous tile	95.0	None Detected	0.0	Non-fibrous	30.0
										Glass	30.0
										Cellulose	40.0
N	25	Hallway Adjacent to Room 105	Acoustic Ceiling Tile 2	2025-03-18	1	White paint	5.0	None Detected	0.0	Non-fibrous	100.0
					2	Beige fibrous tile	95.0	None Detected	0.0	Non-fibrous	30.0
										Glass	30.0
										Cellulose	40.0

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Analyst: JT/AK

SP	#	Location	Material	Analysis Date	Layer	Description	% of Sample	Asbestos Minerals	% Asbestos per Layer	Other Fibres	% Fibres per Layer
N	26	Reception	Acoustic Ceiling Tile 2	2025-03-18	1	White paint	5.0	None Detected	0.0	Non-fibrous	100.0
					2	Beige fibrous tile	95.0	None Detected	0.0	Non-fibrous	30.0
										Glass	30.0
										Cellulose	40.0
N	27	Hallway Adjacent to Kitchen	Acoustic Ceiling Tile 2	2025-03-18	1	White paint	5.0	None Detected	0.0	Non-fibrous	100.0
					2	Beige fibrous tile	95.0	None Detected	0.0	Non-fibrous	30.0
										Glass	30.0
										Cellulose	40.0
N	28	Men's Washroom	Vinyl Sheet Flooring	2025-03-19	1	Grey mosaic flooring	90.0	None Detected	0.0	Non-fibrous	90.0
										Synthetic	10.0
					2	Yellow adhesive	10.0	None Detected	0.0	Non-fibrous	100.0
N	29	Electrical Room	Fire Stop - Red	2025-03-19	1	Red mastic/caulking	100.0	None Detected	0.0	Non-fibrous	100.0
N	30	Electrical Room	Fire Stop - Red	2025-03-19	1	Red mastic/caulking	50.0	None Detected	0.0	Non-fibrous	100.0
					2	Wood	50.0	None Detected	0.0	Cellulose	100.0

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SP	#	Location	Material	Analysis Date	Layer	Description	% of Sample	Asbestos Minerals	% Asbestos per Layer	Other Fibres	% Fibres per Layer
N	31	Electrical Room	Fire Stop - Red	2025-03-19	1	Red mastic/caulking	100.0	None Detected	0.0	Non-fibrous	100.0
N	32	Loading Dock	Concrete Black Mortar	2025-03-19	1	Grey cement	100.0	None Detected	0.0	Non-fibrous	100.0
N	33	Loading Dock	Concrete Black Mortar	2025-03-19	1	Grey cement	100.0	None Detected	0.0	Non-fibrous	100.0
N	34	Loading Dock	Concrete Black Mortar	2025-03-19	1	Grey cement	100.0	None Detected	0.0	Non-fibrous	100.0
N	35	Mezzanine	Duct Mastic - Grey	2025-03-19	1	Grey mastic	100.0	None Detected	0.0	Non-fibrous	100.0
N	36	Mezzanine	Duct Mastic - Grey	2025-03-19	1	Grey mastic	100.0	None Detected	0.0	Non-fibrous	100.0
N	37	Mezzanine	Duct Mastic - Grey	2025-03-19	1	Grey mastic	100.0	None Detected	0.0	Non-fibrous	100.0
N	38	Exterior - Metal Siding	Caulking - Grey	2025-03-19	1	Grey caulking	100.0	None Detected	0.0	Non-fibrous	100.0
N	39	Exterior - Metal Siding	Caulking - Grey	2025-03-19	1	Grey caulking	100.0	None Detected	0.0	Non-fibrous	100.0
N	40	Exterior - Metal Siding	Caulking - Grey	2025-03-19	1	Grey caulking	100.0	None Detected	0.0	Non-fibrous	100.0



Asbestos Bulk Sample Report

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Job: 63921
Project: 4210 Commerce Circle
Client: McElhanney
Client PO#:

Submitted By: BS
Date Received: 2025-03-11
Analyst: JT/AK

SP	#	Location	Material	Analysis Date	Layer	Description	% of Sample	Asbestos Minerals	% Asbestos per Layer	Other Fibres	% Fibres per Layer
N	41	Exterior - Windows	Caulking - Brown	2025-03-19	1	Brown caulking	100.0	None Detected	0.0	Non-fibrous	100.0
N	42	Exterior - Windows	Caulking - Brown	2025-03-19	1	Brown caulking	100.0	None Detected	0.0	Non-fibrous	100.0
N	43	Exterior - Windows	Caulking - Brown	2025-03-19	1	Brown caulking	100.0	None Detected	0.0	Non-fibrous	100.0
N	44	Roof	Torch On Asphalt	2025-05-07	1	Black roofing with grey aggregates	30.0	None Detected	0.0	Non-fibrous	85.0
										Synthetic	15.0
					2	Black tar/material	30.0	None Detected	0.0	Non-fibrous	80.0
										Cellulose	20.0
					3	Black mastic/tar	10.0	None Detected	0.0	Non-fibrous	100.0
					4	Silver metallic	30.0	None Detected	0.0	Non-fibrous	100.0
N	45	Roof	Torch On Asphalt	2025-05-07	1	Black roofing with grey aggregates	30.0	None Detected	0.0	Non-fibrous	85.0
										Synthetic	15.0
					2	Black tar/material	40.0	None Detected	0.0	Non-fibrous	80.0
										Cellulose	20.0
					3	Black mastic/tar	30.0	None Detected	0.0	Non-fibrous	100.0



Asbestos Bulk Sample Report

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Date Received: 2025-03-11
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SP	#	Location	Material	Analysis Date	Layer	Description	% of Sample	Asbestos Minerals	% Asbestos per Layer	Other Fibres	% Fibres per Layer
N	46	Roof	Duct Mastic	2025-05-07	1	Grey caulking/mastic	100.0	None Detected	0.0	Non-fibrous	100.0
N	47	Roof	Duct Mastic	2025-05-07	1	Grey caulking/mastic	100.0	None Detected	0.0	Non-fibrous	100.0
N	48	Roof	Duct Mastic	2025-05-07	1	Grey caulking/mastic	100.0	None Detected	0.0	Non-fibrous	100.0
N	49	Roof	Sealant	2025-05-07	1	Grey mastic	100.0	None Detected	0.0	Non-fibrous	100.0
N	50	Roof	Sealant	2025-05-07	1	Black tar/aggregate mix	20.0	None Detected	0.0	Non-fibrous	100.0
					2	Grey mastic	80.0	None Detected	0.0	Non-fibrous	100.0
N	51	Roof	Sealant	2025-05-07	1	Black tar/aggregate mix	20.0	None Detected	0.0	Non-fibrous	100.0
					2	Grey mastic	80.0	None Detected	0.0	Non-fibrous	100.0



Island Environmental Health and Safety
 201 - 990 Hillside Avenue
 Victoria B.C, V8T 2A1
 (778)406-0933
admin@islandehs.ca

Certificate of Analysis

Client Name	McElhanney	Report #	63921
Site Address	4210 Commcerce Circle	Report Date	3/20/2025
Collection Date	3/13/2025	PO	
Collected by	BS	Notes	

Analysis Summary: Lead in Paint

Sample #	Pb1	Result (ug/g)	<2
Location	Hallway		
Description	White Paint on Drywall	Comments	Possible Substrate Interference
Sample #	Pb2	Result (ug/g)	<3
Location	Hallway		
Description	Tan Paint on Drywall	Comments	Possible Substrate Interference
Sample #	Pb3	Result (ug/g)	<8
Location	Exterior - Siding		
Description	White Paint on Concrete Block	Comments	

Island Environmental Health & Safety Ltd.

Notes

Results in green are below the limit of quantitation for that sample (not detectable)
 Results in red are above the limit of quantitation for that sample (detectable)

Analysed using ASTM E1645-01 and EPA 7000B

AIHA ELPAT Lab ID: 214686

Lead in Paint Report



Island Environmental Health and Safety
201 - 990 Hillside Avenue
Victoria B.C, V8T 2A1
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Certificate of Analysis

Client Name	McElhanney	Report #	63921
Site Address	4210 Commcerce Circle	Report Date	3/20/2025
Collection Date	3/13/2025	PO	
Technician	BS	Notes	

Quality Assurance Report

	Result	Unit	Limits	Pass/Fail?
Duplicate	0	Rel. % Diff.	0% - 15%	PASS
CRM	89	% recovery	80% - 120%	PASS
QCS	94	% recovery	90% - 110%	PASS
MS	100	% recovery	80% - 120%	PASS
LRB	<0.06	mg/L	<0.242 mg/L	PASS

Duplicate: Paired analysis of a two portions of the same sample. Used to evaluate the variance in the measurement and homogeneity of the sample.

Certified Reference Material (CRM): A paint sample of known lead concentration prepared by an external agency. Used as an independent check of method accuracy.

Quality Control Sample (QCS): A blank matrix sample to which a known amount of lead from a second source has been added. Used to verify instrument calibration.

Matrix Spike (MS): A portion of a sample to which a known amount of lead is added before digestion. Used to evaluate matrix effects of the sample.

Laboratory Reagent Blank (LRB): A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Results relate only to the items tested

A handwritten signature in blue ink, appearing to read "Laura Martin".

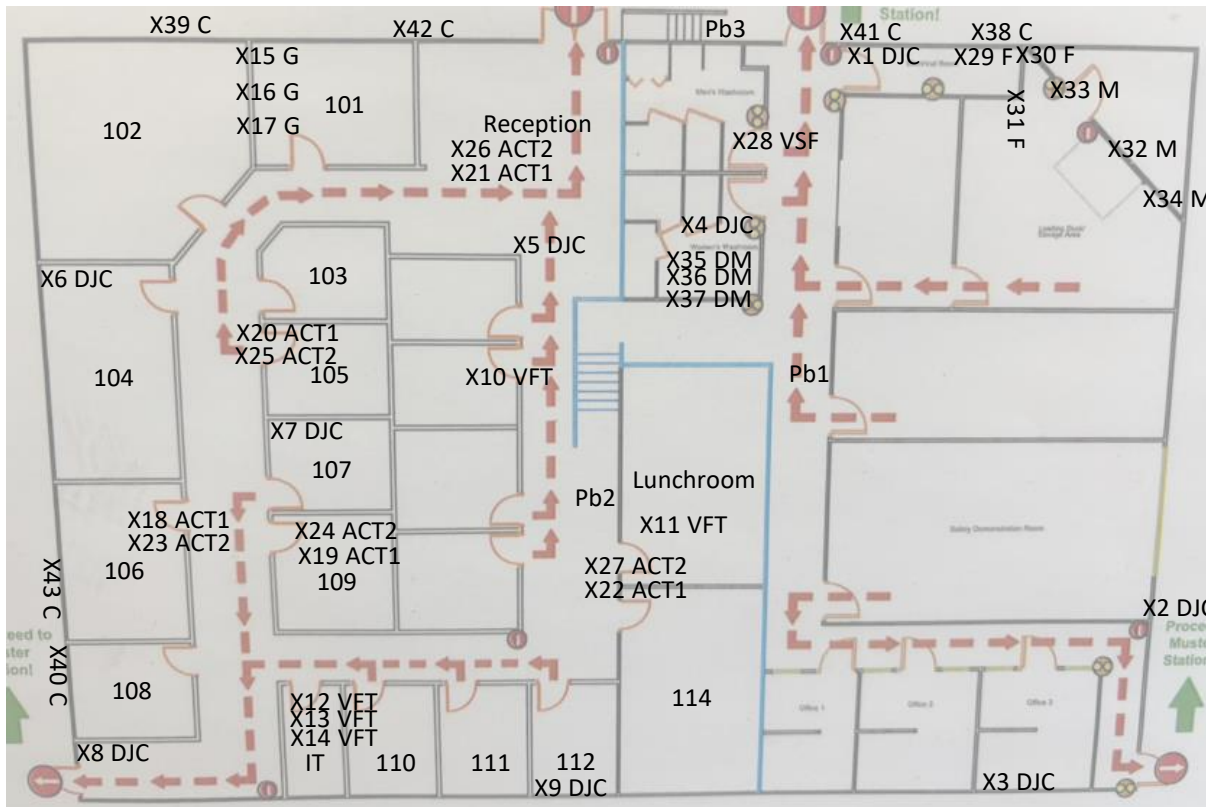
Laura Martin
Laboratory Analyst

End of Report

Appendix 3

Sample Locations

1st Floor



Not to Scale

LEGEND:

- x# Asbestos containing sample location
x# Non-asbestos containing sample location
Pb# Lead containing paint sample location
Pb# Non-lead containing paint sample location

- | | |
|------|-------------------------|
| DJC | Drywall Joint Compound |
| VFT | Vinyl Floor Tile |
| ACT1 | Acoustic Ceiling Tile 1 |
| ACT2 | Acoustic Ceiling Tile 2 |
| F | Firestop |
| G | Grout |
| M | Concrete Block Mortar |
| DM | Duct Mastic |
| C | Caulking |
| VSF | Vinyl Sheet Floor |

Samples 35-37 are located within the mezzanine

Project #: 63921

Date of Issue: July 2025

Hazardous Materials Investigation
Sample Locations
Site: 4210 Commerce Circle, Victoria, BC

McElhanney
500-3960 Quadra Street,
Victoria, BC V8X 4A3

Roof



Not to Scale

LEGEND:

x# Asbestos containing sample location
x# Non-asbestos containing sample location
Pb# Lead containing paint sample location
Pb# Non-lead containing paint sample location

TOA Torch On Asphalt

DM Duct Mastic

S Sealant

Project #: 63921

Date of Issue: July 2025

Hazardous Materials Investigation
Sample Locations
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McElhanney
500-3960 Quadra Street,
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