Appendix D

Designated Substances Reports

Project #: NL7689

HAZARDOUS MATERIALS ASSESSMENT
Building 11
308 Brookfield Road
St. John's, NL

Prepared for:

Mr. Scott Newport
Agriculture and Agri-Food Canada
308 Brookfield Road
St. John's, NL
A1E 0B2

Prepared by:

ALL-TECH
ENVIRONMENTAL SERVICES LIMITED

9 Allston Street, Unit 1, Mount Pearl, NL A1N 0A3
Tel: (709) 754-4146 Fax: (709) 754-4194

EXECUTIVE SUMMARY

ALL-TECH Environmental Services Limited personnel conducted a hazardous materials assessment of Building 11 – 308 Brookfield Road, St. John's, NL on November 16, 2020. The objective of the assessment was to determine the presence of Asbestos, PCB's, Lead, Mercury, and any other potential hazardous materials throughout the building. It was determined that:

- One (1) of the thirteen (13) suspect asbestos samples collected contained an asbestos concentration *equal to 1%.* (*Newfoundland and Labrador Regulation 111/98, Asbestos Abatement Regulations, 1998 under the Occupational Health and Safety Act).* Three (3) samples collected during the assessment were separated into layers due to the nature of the building material, thus a total of eighteen (18) samples were analyzed.

- Four (4) of the seven (7) suspect paint chip samples collected contained a lead concentration greater than the provincial guidelines of 0.06% of lead by weight. *Further leachable lead testing is required to determine disposal procedures should any renovation or demolition of building materials featuring the sampled paints be required.*

- No PCB containing equipment was observed at the time of the assessment.

- No mercury containing thermostats were observed

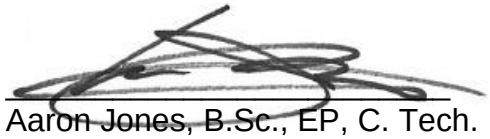
    - fluorescent light tubes were observed throughout the building.

- Equipment suspect to contain ozone depleting substances was observed in the Basement Cellar/Cooler Unit at the time of the assessment.

- Dark mould-like staining was not observed at the time of the assessment.

This summary is not to be used alone. The report must be reviewed in its entirety.

Thank you,



Aaron Jones, B.Sc., EP, C. Tech.
Senior Environmental Consultant
ALL-TECH Environmental Services Limited

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1.0 INTRODUCTION

ALL-TECH Environmental Services Limited (ALL-TECH) was contracted by Mr. Scott Newport of Agriculture and Agri-Foods Canada to complete a Hazardous Materials Assessment of Building 11 – 308 Brookfield Road, St. John's, NL. The purpose of the assessment was to identify the presence of asbestos containing materials, lead based paints, mercury containing products, PCB containing equipment and any other potentially hazardous materials located throughout the building prior to renovation or demolition activities. The assessment was carried out on November 16, 2020. This report covers the specific findings within the property as they were observed at the time of the assessment.

2.0 ASBESTOS ASSESSMENT

Asbestos is a general term which is used to describe a group of fibrous mineral silicates. The six major types of asbestos are; chrysotile (white asbestos), crocidolite (blue), amosite (brown), anthophyllite, tremolite and actinolite. Commercially, asbestos has been used widely in such applications as fireproofing, textiles, friction products, reinforcing materials (i.e. cement pipes, sheets) and insulation (both thermal and acoustic).

Asbestos materials can be found in one of two forms; friable or non-friable. Friable asbestos material refers to material that when dry, can be crumbled, pulverized or reduced to a powder by hand pressure thus releasing fibers into the air. This type of asbestos material is hazardous due to its potential to become airborne if damaged or disturbed. Friable asbestos building products used in the past were sprayed acoustic & fire protection insulations, ceiling/wall finishes, drywall joint compounds, mechanical insulations on pipes, tanks, boilers, vessels, etc. Non-friable building products used in the past were vinyl floor tiles, gaskets, transite panels, and transite shingles. Non-friable materials if handled improperly during removal or renovations, such as cutting transite panels with an electrical tool, can cause high fiber release. Also, non-friable asbestos products can become friable if damaged through years of aging (water damage, general deterioration of materials, etc.).

Asbestos containing materials (ACM) can be properly managed and left in place depending on their location, condition, and friability. Non-friable materials receive less attention than friable materials since the asbestos fibers in the non-friable material are bound or held tightly together, reducing the chance of fibers becoming airborne. This makes the non-friable products safer and easier to manage.

The mere presence of asbestos in building materials is not necessarily a problem; however, inhaling asbestos fibers can cause associated health problems. The hazards of asbestos exposure are directly related to the degree to which fibers are released (become airborne). Intact and undisturbed asbestos do not pose a health risk.

2.1 Scope of Work

Representative suspect asbestos containing materials were sampled from various materials located throughout the building.

The asbestos assessment involved a visual investigation of representative building structures, wall & ceiling finishes, and floors for the presence of asbestos materials. If these materials were suspected to contain asbestos, a bulk sample was collected of the representative material.

It should be noted that asbestos containing materials such as piping straight runs & fittings may exist behind existing gyproc walls, ceilings, columns, shafts, etc. not accessible at the time of the assessment. Additional care should be taken during renovation or demolition to ensure that no asbestos containing materials are disturbed, if present.

2.2 Methodology

A total of thirteen (13) suspect asbestos bulk samples were collected from the building (three (3) samples collected during the assessment were separated into layers due to the nature of the building materials, thus a total of eighteen (18) samples were analyzed). The samples were carefully collected and placed into labeled sealable plastic bags and transported to the EMSL Analytical in Ontario, for Polarized Light Microscopy/ Dispersion Staining (PLM/DS) analysis. The EPA test method for bulk analysis (EPA/600/R-93/116) states in paragraph 2.2.2 that *"the detection limit for visual estimation is a function of the quantity of the sample analyzed, the nature of matrix interference, sample preparation, and fiber size and distribution. Asbestos may be detected in concentrations of less than one percent by area if sufficient material is analyzed. Samples may contain fibers too small to be resolved by PLM (< 0.25 µm in diameter) so detection of those fibers by this method may not be possible."*

2.3 Applicable Standards

The province defines asbestos material as "material containing greater than 1% asbestos by dry weight." Materials identified as ACM must be managed, handled and disposed of as per the Newfoundland and Labrador Regulation 111/98, *Asbestos Abatement Regulations, 1998* under the *Occupational Health and Safety Act* (O.C. 98-730)*.*

Also, the Province of Newfoundland and Labrador have set standards for exposure to airborne asbestos fibres to as low as is reasonably achievable (ALARA) but in any case shall not exceed Threshold Limit Values (TLVs) as published by the American Conference of Governmental Industrial Hygienists (ACGIH) and are primarily used for the occupational exposure to employees and workers who from day to day come in contact with asbestos. ACGIH guidelines state the airborne asbestos limit as follows:

- Asbestos (all forms) 0.1 Fibres per cubic centimetre (f/cc) as determined by air sampling following the NIOSH 7400 Asbestos and Other Fibres by

Phase Contrast Microscopy.

The *Newfoundland Asbestos Abatement Regulations 111/98* requires that all employers, building owners and principal contractors follow this Regulation when handling or using asbestos in their workplace. This Regulation applies to every workplace covered under the Occupational Health and Safety Legislation where asbestos or materials containing asbestos, is likely to be handled, dealt with, disturbed or removed and includes every project, project owner, contractor, employer and employee engaged in or on the project. An owner/contractor to whom this Regulation applies shall take every reasonable precaution to ensure that every worker who is not an employee of the owner/contractor and who works in the workplace of the owner/contractor is protected and every such worker shall comply with the requirements of this Regulation.

2.4 Survey Findings

Laboratory analysis confirmed that one (1) of the thirteen (13) bulk samples analyzed from the building contained an asbestos concentration equal to 1%wt. Table 1.0 below illustrates the results of this sampling. Please see **Appendix I - Laboratory Asbestos Results** and **Appendix III – Photographs of ACM** for further details.

Table 1.0
Summary of Suspect Asbestos Containing Materials
Building 11
308 Brookfield Road
St. John's, NL

Sample No.	Sample Description	Location	Asbestos Results	Photograph
NL7689-A01	Drywall Joint Compound	Laboratory, Second Floor	None Detected	---
NL7689-A02	Vinyl Sheet Flooring and Base Layer Flooring *(Floor Tile 1)*	Laboratory, Second Floor	None Detected	---
	Vinyl Sheet Flooring and Base Layer Flooring *(Floor Tile 2)*	Laboratory, Second Floor	None Detected	---
	Vinyl Sheet Flooring and Base Layer Flooring *(Mastic)*	Laboratory, Second Floor	None Detected	---

Sample No.	Sample Description	Location	Asbestos Results	Photograph
NL7689-A03	Attic Insulation Material	Crawl Space above Stairwell to Laboratory	None Detected	---
NL7689-A04	Paper Backing on Wall Insulation *(Insulation)*	Crawl Space above Stairwell to Laboratory *(Throughout)*	None Detected	---
	Paper Backing on Wall Insulation *(Tar Felt)*	Crawl Space above Stairwell to Laboratory *(Throughout)*	None Detected	---
	Paper Backing on Wall Insulation *(Tar Paper)*	Crawl Space above Stairwell to Laboratory *(Throughout)*	None Detected	---
NL7689-A05	Tar Paper Backing (Beneath Vinyl and Clapboard Siding)	Building Exterior	None Detected	---
NL7689-A06	Straight-Run Pipe Insulation *(Insulation)*	Throughout	None Detected	---
	Straight-Run Pipe Insulation *(Canvas Wrap)*	Throughout	None Detected	---
NL7689-A07	Drywall Joint Compound	Office Area, Main Floor	None Detected	---
NL7689-A08	**Insulation Panel (Black with Foil Coating)**	**Cellar, Basement**	**6% Chrysotile**	**Photograph #1**
NL7689-A09	Drywall Joint Compound	Back Door (Near Cellar), Basement	None Detected	---
NL7689-A10	Drywall Joint Compound	Hallway (Near Electrical Room), Basement	None Detected	---
NL7689-A11	Drywall Joint Compound	Boiler Room, Basement	None Detected	---

Sample No.	Sample Description	Location	Asbestos Results	Photograph
NL7689-A12	Caulking Material	Building Exterior	None Detected	---
NL7689-A13	Roofing Material	Building Exterior	None Detected	---

Friable Mechanical and Pipe Material

Pipe elbow parging material was not observed throughout the building.

Straight-run pipe insulation material was not observed throughout the building. A total of one (1) suspect asbestos-containing pipe insulation material sample was collected and analyzed for asbestos content using the PLM detection method. Analysis of the material determined that the sample analyzed did not contain asbestos (See sample NL7689-A06 in Appendix I-Laboratory Asbestos Results).

Ductwork insulation was not observed throughout the building.

It should be noted that asbestos containing materials such as piping straight runs & fittings may exist behind walls, ceilings, columns, shafts, etc. not accessible at the time of the assessment. *Extra caution should be exercised during demolition and renovation activities.*

Friable Acoustic Texture Coats and Plaster Finishes

Drywall Joint Compound was not observed throughout the building. A total of four (4) suspect asbestos-containing drywall joint compound samples were collected and analyzed for asbestos content using the PLM detection method. Analysis of the materials determined that the samples analyzed did not contain asbestos (See samples NL7689-A01, NL7689-A07, NL7689-A09, and NL7689-A10 in Appendix I-Laboratory Asbestos Results).

Suspect asbestos containing friable stucco texture material was not observed in the building.

Friable Acoustic and Thermal Products

Suspect friable acoustic/thermal products were observed throughout the building during the assessment. A total of three (3) suspect asbestos-containing acoustic/thermal product samples were collected and analyzed for asbestos content using the PLM detection method. Analysis of the materials determined that one (1) of the three (3) samples analyzed did contain asbestos (See samples NL7689-A04, NL7689-A05, and NL7689-A08 in Appendix I-Laboratory Asbestos Results).

Friable Ceiling Tiles

Ceiling tiles were not observed throughout the building.

Vinyl Sheet/Linoleum Flooring

Vinyl sheet flooring was observed throughout the building. A total of one (1) suspect asbestos-containing vinyl sheet flooring material sample was collected and analyzed for asbestos content using the PLM detection method. Analysis of the material determined that the sample analyzed did not contain asbestos (See sample NL7689-A02 in Appendix I-Laboratory Asbestos Results).

Non-Friable Vinyl Floor Tile

Vinyl/adhesive floor tiles were not observed throughout the building during the assessment. A total of one (1) suspect asbestos-containing vinyl floor tile sample was collected and analyzed for asbestos content using the PLM detection method. Analysis of the material determined that the sample analyzed did not contain asbestos (See sample NL7689-A02 in Appendix I-Laboratory Asbestos Results).

*It should be noted that asbestos-containing vinyl floor tiles may be located under new 12”x12” vinyl floor tile or other flooring products throughout the building. Special caution should be given when working on/around all flooring materials.

Roofing and Exterior Finishing Materials

Roofing material was observed on the building. A total of one (1) suspect asbestos-containing roofing material sample was collected and analyzed for asbestos content using the PLM detection method. Analysis of the material determined that the sample analyzed did not contain asbestos (See sample NL7689-A13 in Appendix I-Laboratory Asbestos Results).

Caulking material was observed throughout the building. A total of one (1) suspect asbestos-containing caulking material sample was collected and analyzed for asbestos content using the PLM detection method. Analysis of the material determined that the sample analyzed did not contain asbestos (See sample NL7689-A12 in Appendix I-Laboratory Asbestos Results).

Non-Friable Transite Sheeting

Transite sheeting suspect to contain asbestos was not observed on the building during the assessment.

Electrical Wiring/ Lighting

Electrical wiring suspected to contain asbestos was not observed in the building during the assessment.

Other

Attic insulation was observed throughout the building. A total of one (1) suspect asbestos-containing attic insulation sample was collected and analyzed for asbestos content using the PLM detection method. Analysis of the material determined that the sample analyzed did not contain asbestos (See samples NL7689-A03 in Appendix I-Laboratory Asbestos Results).

2.5 Recommendations

This assessment identified that one (1) of the thirteen (13) samples analyzed contained a concentration of asbestos equal to or greater than 1% by dry weight. Because the owner is required by Regulation to implement and maintain specific health and safety measures, the following recommendations have been provided:

- Destructive testing was not conducted; therefore, it should be noted that asbestos containing pipe insulation may be located behind fixed wall cavities, ceiling plenums and crawl spaces that were inaccessible at the time of assessment. During renovation or demolition, precautionary measures must be taken to avoid disturbing any potential ACM in these areas if discovered.

- Ensure the asbestos removal contractor follows all federal and provincial regulations in accordance to the Newfoundland and Labrador Regulation 111/98.

- Provide asbestos air monitoring and inspection (where applicable) during the removal of asbestos to ensure that all government guidelines and regulations are followed throughout the removal process.

3.0 PCB ASSESSMENT

Polychlorinated biphenyls (PCBs) are synthetic chemical compounds of chlorine, carbon and hydrogen. They were developed in 1881 and first manufactured for commercial use in the 1920's. PCBs were used extensively in industry as cooling/insulating fluid in transformers and capacitors, such as those found in ballasts of fluorescent lighting.

For this report, PCB containing materials are defined as any product containing PCB concentrations greater than 50 ppm apart from the few instances where current Federal or Provincial regulations specify lower permissible concentrations. The exceptions stated under the Canadian Environmental Protection Act, 1999, Chlorobiphenyls Regulation (SOR/91-152) Section 5 are as follows:

CONCENTRATIONS OR QUANTITIES THAT MAY BE RELEASED

5. *(1) The concentration of chlorobiphenyls in any liquid that may be released*

into the environment, in the course of a commercial, manufacturing or processing activity in any geographical area of Canada, other than any water or place to which subsection 36(3) of the Fisheries Act applies, shall not exceed the concentration specified in subsection (2) in respect of that activity.

(2) For the purpose of subsection (1), the concentration that may be released

(a) Is 50 parts per million by weight of the liquid in respect of a commercial, manufacturing or processing activity other than

(i) An application to a road surface, or

(ii) An activity described in section 6; and

(b) Is 5 parts per million by weight of the liquid in respect of an application to a road surface.

The Federal government has specific responsibilities for the management of PCBs in accordance with the mandate prescribed in the Canadian Environmental Protection Act, including storage, handling and disposal requirements. However, the province of Newfoundland and Labrador has no landfills which are authorized to accept Hazardous Waste whereby those materials considered to be hazardous are defined by the CEPA Act, 1999 Schedule I Toxic Substances List. Therefore, when decommissioning any equipment or disposing of any materials containing PCB's it is mandatory that the CCME guidelines for the Management of Wastes Containing Polychlorinated Biphenyls, 1989 be adhered to and that waste materials be shipped in accordance with the PCB Waste Export Regulations, 1996.

3.1 Scope of Work

Representative suspect light fixtures were visually assessed to identify ballasts containing PCB's throughout the building. It should be noted that the assessment did not include the sampling/testing or analysis of suspect PCB containing materials.

3.2 Methodology

Select light fixtures that may contain PCB ballasts were visually assessed throughout the building.

3.3 Applicable Standards

In 1977 and 1980 the Canadian government passed regulations that prohibited the importation of PCBs and banned their use in all products manufactured or imported into Canada. Under the Environmental Contaminants Act, the Chlorobiphenyl Regulations No. 1, states that, "PCBs cannot be used as a constituent of electrical capacitors, electrical transformers and associated electrical equipment manufactured in or imported into Canada after July 1, 1980". Ballasts dating 1980 or earlier are therefore considered to contain 50 ppm of PCBs or more, and those dated after 1980 are assumed to be PCB-

free. It should be noted that although this method entails some level of error for a short period around the time of the adoption of the federal legislation (say from 1977 to 1981); it is a widely accepted method for quickly and reliably identifying those electrical components that are most likely to contain PCBs.

3.4 Survey Findings

10% of all light fixtures throughout the building were visually assessed. Potential PCB containing light fixtures were not observed at the time of the assessment.

3.5 Recommendations

Proper handling and disposal procedures should be taken when discarding PCB containing products. Be sure that all materials are inspected prior to disposal for PCB content. Further inspection should always be conducted on any potential PCB containing products before disposal. Proper PCB disposal procedures must be in place if any PCB containing products are identified.

4.0 LEAD ASSESSMENT

Lead is a naturally occurring metal that is present throughout the environment in rocks, soil, water, and air. It has been used as a pigment in many paints for centuries, in some applications it is still used today. From the occupational health standpoint, intact dry lead paint or particles pose little hazard, but a serious hazard can be created when lead coatings or materials are disturbed. Construction workers who weld, cut or blast structural steel coated with lead-based paint or demolish lead painted surfaces are at significant risk of lead poisoning. Paint is considered to be lead containing if it has a lead content greater than or equal to 600 mg/kg, 600 ppm, or 0.06 percent.

4.1 Scope of Work

Representative paint samples were collected and underwent laboratory analysis to identify lead content in the paint throughout the building.

Paint samples found to contain lead at a concentration less than 0.06 % are non-lead containing. Those with a concentration of greater than 0.06 % are considered lead containing.

4.2 Methodology

A total of seven (7) suspect lead containing paint chip samples were taken throughout the building. The lead paint samples were collected and placed in sample containers then forwarded to EMSL Analytical in Ontario, Canada for analysis.

4.3 Applicable Standards

The Treasury Board of Canada's *Handbook of Occupational Safety and Health* has several sections which apply to lead. Volume 12, Chapter 3, TB STD 3-2, Dangerous Substances Safety Standards has regulations for the control of airborne contaminants which also apply to lead. The standards indicate that airborne contaminants *"do not exceed the threshold limit value recommended by the American Conference of Governmental Industrial Hygienists in its pamphlet "Threshold Limit Values for Chemical Substances and Physical Agents, 1998."* At this point in time, the ACGIH have set the TLV levels for airborne concentrations of airborne lead at 0.05 mg/m^3. The Newfoundland and Labrador Occupational Health and Safety Regulations (RSNL1990 CHAPTER O-3) Section 25, 11A states:

"The employer shall ensure that

> *(a) atmosphere contamination of the workplace by chemical substances is kept as low as is reasonably practicable and in the case of the substances for which a threshold limit value is currently established by the ACGIH that threshold value shall not be exceeded"*

These limits represent conditions under which it is believed that nearly all workers can be repeatedly exposed day after day, without adverse health effects.

Newfoundland & Labrador guidelines have a set limit of 600mg/kg lead by weight (0.06% wt) of paint to be classified as Lead Based Paint.

4.4 Survey Findings

Laboratory analysis confirmed that four (4) of the seven (7) suspect lead paint samples collected contained a concentration of lead greater than 600 mg/kg (0.06%). See Table 2.0 below for a summary of lead results. Please see **Appendix II - Laboratory Lead Results** and **Appendix IV – Photographs of Lead Containing Paints** for further details.

Table 2.0
Summary of Suspect Lead Containing Materials
Building 11
308 Brookfield Road
St. John's, NL

Sample No.	Sample Description	Location	Lead Content (%wt)	Photograph
NL7689-L01	White Paint	Laboratory, Main Floor	<0.0081	---
NL7689-L02	Yellow Paint	Laboratory Stairwell, Main Floor	<0.0082	---

Sample No.	Sample Description	Location	Lead Content (%wt)	Photograph
NL7689-L03	**Green Paint**	**Cellar Door, Basement**	**0.4100**	**Photograph #2**
NL7689-L04	**Grey Paint**	**Boiler Room, Basement**	**0.2300**	**Photograph #3**
NL7689-L05	White Ceiling Paint	Boiler Room, Basement	<0.0081	---
NL7689-L06	**Grey Foundation Paint**	**Building Exterior**	**0.092**	**Photograph #4**
NL7689-L07	**White Paint (Beneath Siding)**	**Building Exterior**	**5.700**	**Photograph #5**

4.5 Recommendations

Laboratory analysis confirmed that four (4) of the seven (7) suspect lead paint samples collected contained a concentration of lead greater than 600 mg/kg (0.06%). Due to the confirmed lead content, prior to any demolition, renovation or disposal, the following recommendations are to be implemented:

- Due to the confirmed presence of lead containing paint, all lead containing material in the structure must be removed prior to demolition/renovations in areas where lead paint is present.
    - An external contractor is recommended.
    - The lead containing paint to be removed is located on various locations within the building.
        i. Areas where paint is to be removed are to be enclosed, be provided with HEPA negative air filtration, and have worker decontamination chambers present, where applicable.
        ii. All workers inside the enclosure are required to wear tight fitting respirators equipped with HEPA filters while removing the material.
        iii. All material is to be disposed of as lead contaminated waste unless further <u>lead leachate testing</u> proves that the leachable lead level is below the provincial guidelines of 5 mg/L.

5.0 MERCURY ASSESSMENT

Mercury is a naturally occurring metal that is present throughout the environment. It is predominantly used in switches in older electrical equipment and thermostats. From the occupational health standpoint, intact mercury containing equipment does not pose a hazard. However, a hazard can be created when mercury is released from such equipment. Mercury containing equipment may include fluorescent light tubes, mercury-vapour lamps, thermostats, thermometers, and mercury switches.

Lamps containing mercury can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if the outer envelope of the lamp is broken or punctured and the arc tubes continue to operate.

5.1 Scope of Work

Various types of controls and/or equipment that would typically contain mercury were visually assessed throughout the building, including heating thermostats.

5.2 Methodology

No sampling or testing was completed during the assessment. Suspect light fixtures, mercury lamps, and mercury filled control sensors, were visually examined, and noted during the walk through.

5.3 Applicable Standards

The Canadian Environmental Protection Act, 1999 Schedule I Toxic Substances classifies mercury as a hazardous waste and has set the requirements for proper handling and disposal. All mercury-containing devices are targeted by this act.

5.4 Survey Findings

During the assessment, mercury containing thermostats were not observed. However, fluorescent light tubes should be disposed of as mercury waste unless product labelling indicates otherwise.

5.5 Recommendations

Proper handling and disposal procedures should be taken when discarding mercury containing products. Be sure that all materials are inspected prior to disposal for mercury content. Further inspection should always be conducted on any potential mercury containing products before disposal. Proper mercury disposal procedures must be in place if any mercury containing products are identified.

6.0 Sources of Ozone Depleting Substances (ODS's)

Certain chemicals such as chlorofluorocarbon (CFC), hydrochlorofluorocarbon (HCFC), and Halon are considered Ozone Depleting Substances (ODSs) because they are capable of destroying ozone in the atmosphere. Commonly ODSs have been used in refrigeration, air conditioner, heat pumps, cooling systems and fire extinguishing systems for years. In 1994, the federal government filed the Ozone-Depleting Substances (ODS) Regulation to amend controls on production and consumption of chlorofluorocarbons (CFC's), halons, carbon tetrachloride and methyl chloroform. CFC's have been used in refrigeration, air conditioners, heat pumps, cooling systems and fire extinguishing systems for years. Regulations set forth are intended to prevent CFC gases from escaping into the environment. CFC's are primarily used as a cooling and heating agent inside mechanical units.

6.1 Scope of Work and Methodology

The current assessment does not include the sampling / testing or analysis of ODSs contained in equipment and systems throughout the building, however, does include the documentation of sources of ODSs observed at the time of the assessment.

6.2 Applicable Standards

Suspect units were visually checked for identification or markings that would indicate the presence of ozone depleting substances, including CFCs.

6.3 Applicable Standards

Ozone Depleting Substance Regulations, 2003 under the Environmental Protection Act (O.C. 2003-222).

6.4 Survey Findings

One (1) cooler unit within the Basement Cellar was observed to potentially contain ODS at the time of the assessment (Please see Photograph #6 in Appendix V – Photographs of Potential ODS Equipment).

6.5 Recommendations

Any units that may potentially contain ODS should be inspected on a regular basis to ensure that the unit remains sealed and in good condition. Prior to disposal, all units containing ODS must be drained by a certified technician and disposed of in accordance with applicable regulatory guidelines

7.0 MOULD ASSESSMENT

Mould is a particular type of fungus. Fungi are a distinct and unique group of organisms that are classified into a kingdom identified as decomposers. Unlike animals, fungi have no organs for food uptake or absorption. Therefore, they must secrete chemicals called

enzymes into the environment to degrade their complex food source into a soluble form. Moulds are ubiquitous to the environment. Indoor and outdoor environments naturally harbor a great variety of microscopic organisms such as mould. Prolonged exposure to excessive moisture enables microbes to flourish. If conditions are such that moisture is limited, then these microbes have a stable relationship with the built environment. However, when moisture accumulates more rapidly than the natural drying process, the ecology changes and favors the rapid amplification of mould.

There are several documented cases of health problems associated with exposure to indoor moulds. The most common symptoms from exposure to mould in indoor environments are runny nose, eye irritation, cough, congestion, and aggravation of asthma if the person is asthmatic. People with suppressed immune systems may be susceptible to serious fungal infections as a result of exposure to indoor moulds. People with suppressed immune systems, who can be adversely affected by mould and other host microorganisms, are normally patients in health care facilities.

Mould growth requires damp, moist conditions to survive. Moisture inside buildings can readily accumulate from water leaks, and flooding. Condensation build up on windows, exterior walls, uninsulated pipes and humidification/dehumidification systems are another source of moisture inside buildings. Persistent incidents of these problems or a one-time occurrence (i.e., flooding, condensation, major water leaks) can lead to the establishment of a mould amplifier inside the building.

7.1 Scope of Work

All areas of the building were visually assessed for precursors of mould growth such as water damage or dark mould-like staining present on porous building materials.

7.2 Methodology

No sampling or testing was completed during the assessment. Suspect porous building materials were visually examined and noted during the walk through.

7.3 Applicable Standards

Currently, Federal/Provincial regulations for airborne mould concentrations in indoor environments do not exist, however, there are numerous guidelines published regarding acceptable airborne mould concentrations. For the purposes of the assessment, mould-like growth (determined by technician interpretation on site) was recorded in order to make appropriate recommendations for remediation

7.4 Survey Findings

During the assessment, no areas depicting dark mould-like staining were observed.

7.5 Recommendations

No further action is required.

In the event mould-like growth is discovered, the first step to remediate any mould affected area is to stop the source of water infiltration/accumulation in that area. Once corrected, the inhabiting mould species no longer has a source of water/nutrients and future mould growth becomes much more limited. Any mould-contaminated porous materials observed in the affected areas of the building should be removed and discarded. Any non-porous materials affected by mould should be cleaned and scrubbed with an anti-microbial solution or removed and reinstated with new materials if possible. Once the remediation is complete, allow a 12-24 hour settling period with negative filtration and follow up with a visual inspection and microbial air sampling.

8.0 DISCLAIMER

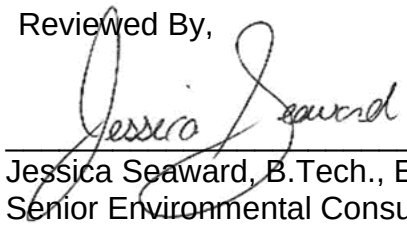
This report was prepared by ALL-TECH Environmental Services Limited for the sole benefit of our client Mr. Scott Newport with Agriculture and Agri-Foods Canada. The information in the report is based on information provided or obtained by ALL-TECH. The report is based on ALL-TECH's best judgment with the information provided at the time of the assessment. Any use and/or conclusions used by any third party, is the responsibility of that third party. ALL-TECH accepts no liability and/or damages occurred by any third party that uses information obtained in this report.

If you have any questions regarding this report, please feel free to contact me at your convenience (709) 754-4146 or via email at ajones@toalltech.com.

Thank You,

Aaron Jones, B.Sc., EP, C. Tech.
Senior Environmental Consultant
ALL-TECH Environmental Services Ltd.

Reviewed By,



Jessica Seaward, B.Tech., Env., P.Tech.
Senior Environmental Consultant
ALL-TECH Environmental Services Ltd.

APPENDIX I
LABORATORY ASBESTOS RESULTS

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 552015007
Customer ID: 55ATES44D
Customer PO: NL7689-308
Project ID:

Attn: Aaron Jones
All-Tech Environmental Services Limited
9 Allston Street
Unit 1
Mount Pearl, NL A1N 0A3

Phone: (709) 754-4146
Fax:
Collected: 11/16/2020
Received: 11/18/2020
Analyzed: 11/23/2020

Proj: NL7689-308 Brookfield Road, Building #11

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Client Sample ID: NL7689-A01 ***Lab Sample ID:*** **552015007-0001**

Sample Description: Drywall Joint Compound, Laboratory, Second Floor

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	White	0.0%	100.0%	None Detected	

Client Sample ID: NL7689-A02-Floor Tile 1 ***Lab Sample ID:*** **552015007-0002**

Sample Description: Vinyl Sheet Flooring and Base Layer Flooring, Laboratory, Second Floor

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Blue	0.0%	100.0%	None Detected	

Client Sample ID: NL7689-A02-Floor Tile 2 ***Lab Sample ID:*** **552015007-0002A**

Sample Description: Vinyl Sheet Flooring and Base Layer Flooring, Laboratory, Second Floor

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	White	0.0%	100.0%	None Detected	

Client Sample ID: NL7689-A02-Mastic ***Lab Sample ID:*** **552015007-0002B**

Sample Description: Vinyl Sheet Flooring and Base Layer Flooring, Laboratory, Second Floor

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Yellow	0.0%	100.0%	None Detected	

Client Sample ID: NL7689-A03 ***Lab Sample ID:*** **552015007-0003**

Sample Description: Attic Insulation Material, Crawl Space

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	White	90.0%	10.0%	None Detected	

Client Sample ID: NL7689-A04-Insulation ***Lab Sample ID:*** **552015007-0004**

Sample Description: Paper Backing on Wall Insulation, Throughout

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Pink	90.0%	10.0%	None Detected	

Client Sample ID: NL7689-A04-Tar Felt ***Lab Sample ID:*** **552015007-0004A**

Sample Description: Paper Backing on Wall Insulation, Throughout

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Black	35.0%	65.0%	None Detected	

EMSL Canada Inc.
2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 552015007
Customer ID: 55ATES44D
Customer PO: NL7689-308
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Client Sample ID: NL7689-A04-Tar Paper **Lab Sample ID:** **552015007-0004B**
Sample Description: Paper Backing on Wall Insulation, Throughout

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Brown/Black	55.0%	45.0%	None Detected	

Client Sample ID: NL7689-A05 **Lab Sample ID:** **552015007-0005**
Sample Description: Tar Paper Backing (Beneath Vinyl and Clapboard Siding, Building Exterior)

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Black	45.0%	55.0%	None Detected	

Client Sample ID: NL7689-A06-Insulation **Lab Sample ID:** **552015007-0006**
Sample Description: Straight-Run Pipe Insulation, Throughout

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Yellow	90.0%	10.0%	None Detected	

Client Sample ID: NL7689-A06-Canvas **Lab Sample ID:** **552015007-0006A**
Sample Description: Straight-Run Pipe Insulation, Throughout

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	White	60.0%	40.0%	None Detected	

Client Sample ID: NL7689-A07 **Lab Sample ID:** **552015007-0007**
Sample Description: Drywall Joint Compound, Office Area, Main Floor

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	White	0.0%	100.0%	None Detected	

Client Sample ID: NL7689-A08 **Lab Sample ID:** **552015007-0008**
Sample Description: Insulation Pane, Cellar, Basement

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Black/Silver	0.0%	94.0%	**6% Chrysotile**	

Client Sample ID: NL7689-A09 **Lab Sample ID:** **552015007-0009**
Sample Description: Drywall Joint Compound, Back Door (Near Cellar), Basement

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	White	0.0%	100.0%	None Detected	

Client Sample ID: NL7689-A10 **Lab Sample ID:** **552015007-0010**
Sample Description: Drywall Joint Compound, Hallway (Near Electrical Room), Basement

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	White	0.0%	100.0%	None Detected	

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 552015007
Customer ID: 55ATES44D
Customer PO: NL7689-308
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Client Sample ID: NL7689-A11 ***Lab Sample ID:*** **552015007-0011**

Sample Description: Drywall Joint Compound, Boiler Room, Basement

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	White	0.0%	100.0%	None Detected	

Client Sample ID: NL7689-A12 ***Lab Sample ID:*** **552015007-0012**

Sample Description: Caulking Material, Building Exterior

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	White	0.0%	100.0%	None Detected	

Client Sample ID: NL7689-A13 ***Lab Sample ID:*** **552015007-0013**

Sample Description: Roofing Material, Building Exterior

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Red/Black	0.0%	100.0%	None Detected	

Analyst(s):

Tiffany Pilon PLM (18)

Reviewed and approved by:

Matthew Davis or other approved signatory
or Other Approved Signatory

Samples analyzed by EPA 600/R-93/116 consistent with NLR 111/98. The estimated limit of detection for non-detect samples is <0.1%. Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL`s liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the US Government.

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

Initial report from: 11/23/202011:10:48

APPENDIX II
LABORATORY LEAD RESULTS

EMSL Canada Inc.
2756 Slough Street, Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com torontolab@emsl.com

EMSL Canada Or	552014964
CustomerID:	55ATES44D
CustomerPO:	NL7689-308
ProjectID:	

Attn: **Aaron Jones**
All-Tech Environmental Services Limited
9 Allston Street
Unit 1
Mount Pearl, NL A1N 0A3

Phone: (709) 754-4146
Fax:
Received: 11/18/2020 11:59 AM
Collected: 11/16/2020

Project: **NL7689-308 Brookfield Road, Building #11**

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

Client SampleDescription	Collected	Analyzed	Weight	RDL	Lead Concentration
NL7689-L01 *552014964-0001*	11/16/2020	11/19/2020 Site: White Paint, Main Floor	0.2460 g	0.0081 % wt	<0.0081 % wt
NL7689-L02 *552014964-0002*	11/16/2020	11/19/2020 Site: Yellow Paint, Main Floor	0.2434 g	0.0082 % wt	<0.0082 % wt
NL7689-L03 *552014964-0003*	11/16/2020	11/19/2020 Site: Green Paint, Cellar Door, Basement	0.2429 g	0.0082 % wt	0.41 % wt
NL7689-L04 *552014964-0004*	11/16/2020	11/19/2020 Site: Grey Paint, Boiler Room, Basement	0.2450 g	0.0082 % wt	0.23 % wt
NL7689-L05 *552014964-0005*	11/16/2020	11/19/2020 Site: White Ceiling Paint, Boiler Room, Basement	0.2479 g	0.0081 % wt	<0.0081 % wt
NL7689-L06 *552014964-0006*	11/16/2020	11/19/2020 Site: Grey Foundation Paint, Exterior	0.2444 g	0.0082 % wt	0.092 % wt
NL7689-L07 *552014964-0007*	11/16/2020	11/19/2020 Site: White Paint (Beneath Siding), Exterior	0.2499 g	0.16 % wt	5.7 % wt

Rowena Fanto, Lead Supervisor
or other approved signatory

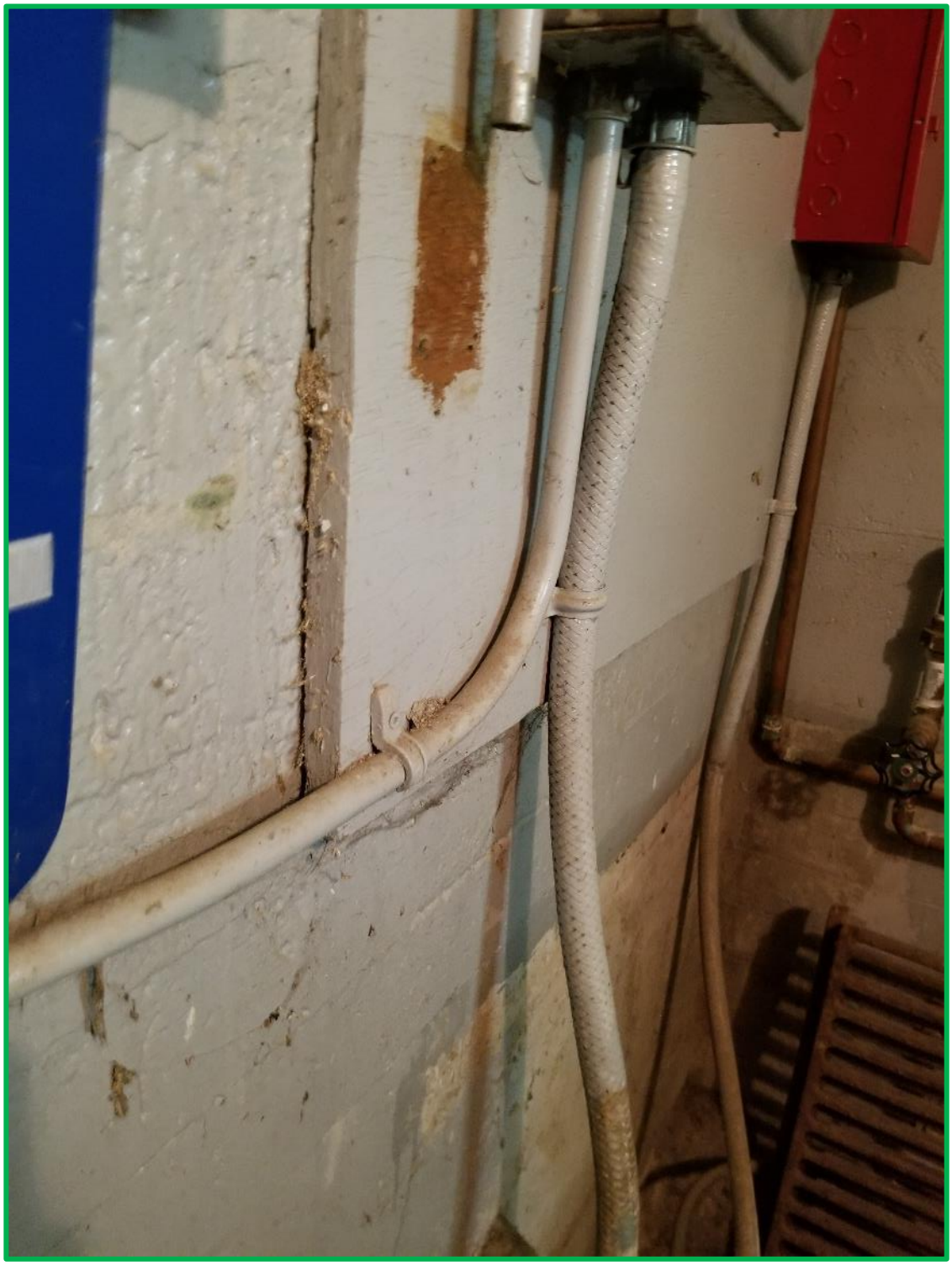
Initial report from 11/24/2020 08:52:05

APPENDIX III
PHOTOGRAPHS OF ACM

Photograph #1: Sample NL7689-A06 sample location. Insulation panel within the Basement Cellar. Photo taken on November 16, 2020.

APPENDIX IV
PHOTOGRAPHS OF LEAD CONTAINING PAINTS

Photograph #2: Sample NL7689-L03 sample location. Green paint on Basement Cellar door. Photo taken on November 16, 2020.



Photograph #3: Sample NL7689-L04 sample location. Grey paint within Boiler Room, Basement. Photo taken on November 16, 2020.

Photograph #4: Sample NL7689-L06 sample location. Grey paint on building foundation. Photo taken on November 16, 2020.

Photograph #5: Sample NL7689-L07 sample location. White paint on original clapboard siding (beneath existing vinyl siding). Photo taken on November 16, 2020.

APPENDIX V
PHOTOGRAPHS OF POTENTIAL ODS EQUIPMENT

Photograph #6: Example of cooler unit potentially containing ODS within the Basement Cellar. Photo taken on November 16, 2020.

Project #: NL7687

HAZARDOUS MATERIALS ASSESSMENT
Building 32
308 Brookfield Road
St. John's, NL

Prepared for:

Mr. Scott Newport
Agriculture and Agri-Food Canada
308 Brookfield Road
St. John's, NL
A1E 0B2

Prepared by:

ALL-TECH
ENVIRONMENTAL SERVICES LIMITED

9 Allston Street, Unit 1, Mount Pearl, NL A1N 0A3
Tel: (709) 754-4146 Fax: (709) 754-4194

EXECUTIVE SUMMARY

ALL-TECH Environmental Services Limited personnel conducted a hazardous materials assessment of Building 32 – 308 Brookfield Road, St. John's, NL on November 16, 2020. The objective of the assessment was to determine the presence of Asbestos, PCB's, Lead, Mercury, and any other potential hazardous materials throughout the building. It was determined that:

- One (1) of the seven (7) suspect asbestos samples collected contained an asbestos concentration *equal to 1%.* (*Newfoundland and Labrador Regulation 111/98, Asbestos Abatement Regulations, 1998 under the Occupational Health and Safety Act).*

- One (1) of the two (2) suspect paint chip samples collected contained a lead concentration greater than the provincial guidelines of 0.06% of lead by weight. *Further leachable lead testing is required to determine disposal procedures should any renovation or demolition of building materials featuring the sampled paints be required.*

- No PCB containing equipment was observed at the time of the assessment.

- No mercury containing thermostats and fluorescent light tubes were observed throughout the building.

- No equipment containing ozone depleting substances were observed at the time of the assessment.

- Dark mould-like staining was observed within the Main Cooler/Storage Area on the Main Floor of the building, at the time of the assessment.

This summary is not to be used alone. The report must be reviewed in its entirety.

Thank you,

Aaron Jones, B.Sc., EP, C. Tech.
Senior Environmental Consultant
ALL-TECH Environmental Services Limited

Table of Contents

LIST OF APPENDICES:

1.0 INTRODUCTION

ALL-TECH Environmental Services Limited (ALL-TECH) was contracted by Mr. Scott Newport of Agriculture and Agri-Foods Canada to complete a Hazardous Materials Assessment of Building 32 – 308 Brookfield Road, St. John's, NL. The purpose of the assessment was to identify the presence of asbestos containing materials, lead based paints, mercury containing products, PCB containing equipment and any other potentially hazardous materials located throughout the building prior to renovation or demolition activities. The assessment was carried out on November 16, 2020. This report covers the specific findings within the property as they were observed at the time of the assessment.

2.0 ASBESTOS ASSESSMENT

Asbestos is a general term which is used to describe a group of fibrous mineral silicates. The six major types of asbestos are; chrysotile (white asbestos), crocidolite (blue), amosite (brown), anthophyllite, tremolite and actinolite. Commercially, asbestos has been used widely in such applications as fireproofing, textiles, friction products, reinforcing materials (i.e. cement pipes, sheets) and insulation (both thermal and acoustic).

Asbestos materials can be found in one of two forms; friable or non-friable. Friable asbestos material refers to material that when dry, can be crumbled, pulverized or reduced to a powder by hand pressure thus releasing fibers into the air. This type of asbestos material is hazardous due to its potential to become airborne if damaged or disturbed. Friable asbestos building products used in the past were sprayed acoustic & fire protection insulations, ceiling/wall finishes, drywall joint compounds, mechanical insulations on pipes, tanks, boilers, vessels, etc. Non-friable building products used in the past were vinyl floor tiles, gaskets, transite panels, and transite shingles. Non-friable materials if handled improperly during removal or renovations, such as cutting transite panels with an electrical tool, can cause high fiber release. Also, non-friable asbestos products can become friable if damaged through years of aging (water damage, general deterioration of materials, etc.).

Asbestos containing materials (ACM) can be properly managed and left in place depending on their location, condition, and friability. Non-friable materials receive less attention than friable materials since the asbestos fibers in the non-friable material are bound or held tightly together, reducing the chance of fibers becoming airborne. This makes the non-friable products safer and easier to manage.

The mere presence of asbestos in building materials is not necessarily a problem; however, inhaling asbestos fibers can cause associated health problems. The hazards of asbestos exposure are directly related to the degree to which fibers are released (become airborne). Intact and undisturbed asbestos do not pose a health risk.

2.1 Scope of Work

Representative suspect asbestos containing materials were sampled from various materials located throughout the building.

The asbestos assessment involved a visual investigation of representative building structures, wall & ceiling finishes, and floors for the presence of asbestos materials. If these materials were suspected to contain asbestos, a bulk sample was collected of the representative material.

It should be noted that asbestos containing materials such as piping straight runs & fittings may exist behind existing gyproc walls, ceilings, columns, shafts, etc. not accessible at the time of the assessment. Additional care should be taken during renovation or demolition to ensure that no asbestos containing materials are disturbed, if present.

2.2 Methodology

A total of seven (7) suspect asbestos bulk samples were collected from the building. The samples were carefully collected and placed into labeled sealable plastic bags and transported to the EMSL Analytical in Ontario, for Polarized Light Microscopy/ Dispersion Staining (PLM/DS) analysis. The EPA test method for bulk analysis (EPA/600/R-93/116) states in paragraph 2.2.2 that *"the detection limit for visual estimation is a function of the quantity of the sample analyzed, the nature of matrix interference, sample preparation, and fiber size and distribution. Asbestos may be detected in concentrations of less than one percent by area if sufficient material is analyzed. Samples may contain fibers too small to be resolved by PLM (< 0.25 µm in diameter) so detection of those fibers by this method may not be possible."*

2.3 Applicable Standards

The province defines asbestos material as "material containing greater than 1% asbestos by dry weight." Materials identified as ACM must be managed, handled and disposed of as per the Newfoundland and Labrador Regulation 111/98*, Asbestos Abatement Regulations, 1998* under the *Occupational Health and Safety Act* (O.C. 98-730)*.*

Also, the Province of Newfoundland and Labrador have set standards for exposure to airborne asbestos fibres to as low as is reasonably achievable (ALARA) but in any case shall not exceed Threshold Limit Values (TLVs) as published by the American Conference of Governmental Industrial Hygienists (ACGIH) and are primarily used for the occupational exposure to employees and workers who from day to day come in contact with asbestos. ACGIH guidelines state the airborne asbestos limit as follows:

- Asbestos (all forms) 0.1 Fibres per cubic centimetre (f/cc) as determined by air sampling following the NIOSH 7400 Asbestos and Other Fibres by Phase Contrast Microscopy.

The *Newfoundland Asbestos Abatement Regulations 111/98* requires that all employers, building owners and principal contractors follow this Regulation when handling or using asbestos in their workplace. This Regulation applies to every workplace covered under the Occupational Health and Safety Legislation where asbestos or materials containing asbestos, is likely to be handled, dealt with, disturbed or removed and includes every project, project owner, contractor, employer and employee engaged in or on the project. An owner/contractor to whom this Regulation applies shall take every reasonable precaution to ensure that every worker who is not an employee of the owner/contractor and who works in the workplace of the owner/contractor is protected and every such worker shall comply with the requirements of this Regulation.

2.4 Survey Findings

Laboratory analysis confirmed that one (1) of the seven (7) bulk samples analyzed from the building contained an asbestos concentration equal to 1%wt. Table 1.0 below illustrates the results of this sampling. Please see **Appendix I - Laboratory Asbestos Results** and **Appendix III – Photographs of ACM** for further details.

Table 1.0
Summary of Suspect Asbestos Containing Materials
Building 32
308 Brookfield Road
St. John's, NL

Sample No.	Sample Description	Location	Asbestos Results	Photograph
NL7687-A01	Insulation Panel (Ceiling)	Main Cooler, Main Floor	None Detected	---
NL7687-A02	Tar Paper Backing (Behind Walls – Throughout)	Main Floor	None Detected	---
NL7687-A03	Attic Insulation Material	Attic	None Detected	---
NL7687-A04	**Insulation Panel Adhesive (Cream Colour)**	**Storage Cooler, Main Floor**	**1% Chrysotile**	**Photograph #1**
NL7687-A05	Insulation Panel (Ceiling)	Storage Cooler, Main Floor	None Detected	---
NL7687-A06	Gasket Material (Around Chute)	Storage Cooler, Main Floor	None Detected	---

Sample No.	Sample Description	Location	Asbestos Results	Photograph
NL7687-A07	Roofing Material	Building Exterior	None Detected	---

Friable Mechanical and Pipe Material

Pipe elbow parging material was not observed throughout the building.

Ductwork insulation was not observed throughout the building.

It should be noted that asbestos containing materials such as piping straight runs & fittings may exist behind walls, ceilings, columns, shafts, etc. not accessible at the time of the assessment. *Extra caution should be exercised during demolition and renovation activities.*

Friable Acoustic Texture Coats and Plaster Finishes

Drywall Joint Compound was not observed throughout the building.

Suspect asbestos containing friable stucco texture material was not observed in the building.

Friable Acoustic and Thermal Products

Suspect friable acoustic/thermal products were observed throughout the building during the assessment. A total of six (6) suspect asbestos-containing acoustic/thermal product samples were collected and analyzed for asbestos content using the PLM detection method. Analysis of the materials determined that one (1) of the six (6) samples analyzed did contain asbestos (See samples NL7687-A01, NL7687-A02, NL7687-A03, NL7687-A04, NL7687-A05, and NL7687-A06 in Appendix I-Laboratory Asbestos Results).

Friable Ceiling Tiles

Ceiling tiles were not observed throughout the building.

Vinyl Sheet/Linoleum Flooring

Vinyl sheet flooring was not observed throughout the building.

Non-Friable Vinyl Floor Tile

Vinyl/adhesive floor tiles were not observed throughout the building during the assessment.

*It should be noted that asbestos-containing vinyl floor tiles may be located under new 12”x12” vinyl floor tile or other flooring products throughout the building. Special caution should be given when working on/around all flooring materials.

Roofing and Exterior Finishing Materials

Roofing material was observed on the building. A total of one (1) suspect asbestos-containing roofing material sample was collected and analyzed for asbestos content using the PLM detection method. Analysis of the material determined that the sample analyzed did not contain asbestos (See sample NL7687-A07 in Appendix I-Laboratory Asbestos Results).

Caulking material was not observed throughout the building.

Non-Friable Transite Sheeting

Transite sheeting suspect to contain asbestos was not observed on the building during the assessment.

Electrical Wiring/ Lighting

Electrical wiring suspected to contain asbestos was not observed in the building during the assessment.

Other

Attic insulation was observed throughout the building. A total of one (1) suspect asbestos-containing attic insulation sample was collected and analyzed for asbestos content using the PLM detection method. Analysis of the material determined that the sample analyzed did not contain asbestos (See samples NL7687-A03 in Appendix I-Laboratory Asbestos Results).

2.5 Recommendations

This assessment identified that one (1) of the seven (7) samples analyzed contained a concentration of asbestos equal to or greater than 1% by dry weight. Because the owner is required by Regulation to implement and maintain specific health and safety measures, the following recommendations have been provided:

- Destructive testing was not conducted; therefore, it should be noted that asbestos containing pipe insulation may be located behind fixed wall cavities, ceiling plenums and crawl spaces that were inaccessible at the time of assessment. During renovation or demolition, precautionary measures must be taken to avoid disturbing any potential ACM in these areas if discovered.

- Ensure the asbestos removal contractor follows all federal and provincial regulations in accordance to the Newfoundland and Labrador Regulation 111/98.

- Provide asbestos air monitoring and inspection (where applicable) during the removal of asbestos to ensure that all government guidelines and regulations are followed throughout the removal process.

3.0 PCB ASSESSMENT

Polychlorinated biphenyls (PCBs) are synthetic chemical compounds of chlorine, carbon and hydrogen. They were developed in 1881 and first manufactured for commercial use in the 1920's. PCBs were used extensively in industry as cooling/insulating fluid in transformers and capacitors, such as those found in ballasts of fluorescent lighting.

For this report, PCB containing materials are defined as any product containing PCB concentrations greater than 50 ppm apart from the few instances where current Federal or Provincial regulations specify lower permissible concentrations. The exceptions stated under the Canadian Environmental Protection Act, 1999, Chlorobiphenyls Regulation (SOR/91-152) Section 5 are as follows:

CONCENTRATIONS OR QUANTITIES THAT MAY BE RELEASED

> ***5.*** *(1) The concentration of chlorobiphenyls in any liquid that may be released into the environment, in the course of a commercial, manufacturing or processing activity in any geographical area of Canada, other than any water or place to which subsection 36(3) of the Fisheries Act applies, shall not exceed the concentration specified in subsection (2) in respect of that activity.*
>
> *(2) For the purpose of subsection (1), the concentration that may be released*
>
> *(a) Is 50 parts per million by weight of the liquid in respect of a commercial, manufacturing or processing activity other than*
>
> *(i) An application to a road surface, or*
>
> *(ii) An activity described in section 6; and*
>
> *(b) Is 5 parts per million by weight of the liquid in respect of an application to a road surface.*

The Federal government has specific responsibilities for the management of PCBs in accordance with the mandate prescribed in the Canadian Environmental Protection Act, including storage, handling and disposal requirements. However, the province of Newfoundland and Labrador has no landfills which are authorized to accept Hazardous Waste whereby those materials considered to be hazardous are defined by the CEPA Act, 1999 Schedule I Toxic Substances List. Therefore, when decommissioning any equipment or disposing of any materials containing PCB's it is mandatory that the CCME guidelines

for the Management of Wastes Containing Polychlorinated Biphenyls, 1989 be adhered to and that waste materials be shipped in accordance with the PCB Waste Export Regulations, 1996.

3.1 Scope of Work

Representative suspect light fixtures were visually assessed to identify ballasts containing PCB's throughout the building. It should be noted that the assessment did not include the sampling/testing or analysis of suspect PCB containing materials.

3.2 Methodology

Select light fixtures that may contain PCB ballasts were visually assessed throughout the building.

3.3 Applicable Standards

In 1977 and 1980 the Canadian government passed regulations that prohibited the importation of PCBs and banned their use in all products manufactured or imported into Canada. Under the Environmental Contaminants Act, the Chlorobiphenyl Regulations No. 1, states that, "PCBs cannot be used as a constituent of electrical capacitors, electrical transformers and associated electrical equipment manufactured in or imported into Canada after July 1, 1980". Ballasts dating 1980 or earlier are therefore considered to contain 50 ppm of PCBs or more, and those dated after 1980 are assumed to be PCB-free. It should be noted that although this method entails some level of error for a short period around the time of the adoption of the federal legislation (say from 1977 to 1981); it is a widely accepted method for quickly and reliably identifying those electrical components that are most likely to contain PCBs.

3.4 Survey Findings

10% of all light fixtures throughout the building were visually assessed. Potential PCB containing light fixtures were not observed at the time of the assessment.

3.5 Recommendations

Proper handling and disposal procedures should be taken when discarding PCB containing products. Be sure that all materials are inspected prior to disposal for PCB content. Further inspection should always be conducted on any potential PCB containing products before disposal. Proper PCB disposal procedures must be in place if any PCB containing products are identified.

4.0 LEAD ASSESSMENT

Lead is a naturally occurring metal that is present throughout the environment in rocks, soil, water, and air. It has been used as a pigment in many paints for centuries, in some applications it is still used today. From the occupational health standpoint, intact dry lead paint or particles pose little hazard, but a serious hazard can be created when lead coatings or materials are disturbed. Construction workers who weld, cut or blast structural steel coated with lead-based paint or demolish lead painted surfaces are at significant risk of lead poisoning. Paint is considered to be lead containing if it has a lead content greater than or equal to 600 mg/kg, 600 ppm, or 0.06 percent.

4.1 Scope of Work

Representative paint samples were collected and underwent laboratory analysis to identify lead content in the paint throughout the building.

Paint samples found to contain lead at a concentration less than 0.06 % are non-lead containing. Those with a concentration of greater than 0.06 % are considered lead containing.

4.2 Methodology

A total of two (2) suspect lead containing paint chip samples were taken throughout the building. The lead paint samples were collected and placed in sample containers then forwarded to EMSL Analytical in Ontario, Canada for analysis.

4.3 Applicable Standards

The Treasury Board of Canada's *Handbook of Occupational Safety and Health* has several sections which apply to lead. Volume 12, Chapter 3, TB STD 3-2, Dangerous Substances Safety Standards has regulations for the control of airborne contaminants which also apply to lead. The standards indicate that airborne contaminants *"do not exceed the threshold limit value recommended by the American Conference of Governmental Industrial Hygienists in its pamphlet "Threshold Limit Values for Chemical Substances and Physical Agents, 1998."* At this point in time, the ACGIH have set the TLV levels for airborne concentrations of airborne lead at 0.05 mg/m^3. The Newfoundland and Labrador Occupational Health and Safety Regulations (RSNL1990 CHAPTER O-3) Section 25, 11A states:

"The employer shall ensure that

> *(a) atmosphere contamination of the workplace by chemical substances is kept as low as is reasonably practicable and in the case of the substances for which a threshold limit value is currently established by the ACGIH that threshold value shall not be exceeded"*

These limits represent conditions under which it is believed that nearly all workers can be

repeatedly exposed day after day, without adverse health effects.

Newfoundland & Labrador guidelines have a set limit of 600mg/kg lead by weight (0.06% wt) of paint to be classified as Lead Based Paint.

4.4 Survey Findings

Laboratory analysis confirmed that one (1) of the two (2) suspect lead paint samples collected contained a concentration of lead greater than 600 mg/kg (0.06%). See Table 2.0 below for a summary of lead results. Please see **Appendix II - Laboratory Lead Results** and **Appendix IV – Photographs of Lead Containing Paints** for further details.

Table 2.0
Summary of Suspect Lead Containing Materials
Building 32
308 Brookfield Road
St. John's, NL

Sample No.	Sample Description	Location	Lead Content (%wt)	Photograph
NL7687-L01	White Paint	Main Floor	0.078	---
NL7687-L02	**Grey Paint**	**Foundation**	**0.200**	**Photograph #2**

4.5 Recommendations

Laboratory analysis confirmed that one (1) of the two (2) suspect lead paint samples collected contained a concentration of lead greater than 600 mg/kg (0.06%). Due to the confirmed lead content, prior to any demolition, renovation or disposal, the following recommendations are to be implemented:

- Due to the confirmed presence of lead containing paint, all lead containing material in the structure must be removed prior to demolition/renovations in areas where lead paint is present.
    - An external contractor is recommended.
    - The lead containing paint to be removed is located on various locations within the building.
        i. Areas where paint is to be removed are to be enclosed, be provided with HEPA negative air filtration, and have worker decontamination chambers present, where applicable.

ii. All workers inside the enclosure are required to wear tight fitting respirators equipped with HEPA filters while removing the material.

iii. All material is to be disposed of as lead contaminated waste unless further <u>lead leachate testing</u> proves that the leachable lead level is below the provincial guidelines of 5 mg/L.

5.0 MERCURY ASSESSMENT

Mercury is a naturally occurring metal that is present throughout the environment. It is predominantly used in switches in older electrical equipment and thermostats. From the occupational health standpoint, intact mercury containing equipment does not pose a hazard. However, a hazard can be created when mercury is released from such equipment. Mercury containing equipment may include fluorescent light tubes, mercury-vapour lamps, thermostats, thermometers, and mercury switches.

Lamps containing mercury can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if the outer envelope of the lamp is broken or punctured and the arc tubes continue to operate.

5.1 Scope of Work

Various types of controls and/or equipment that would typically contain mercury were visually assessed throughout the building, including heating thermostats.

5.2 Methodology

No sampling or testing was completed during the assessment. Suspect light fixtures, mercury lamps, and mercury filled control sensors, were visually examined, and noted during the walk through.

5.3 Applicable Standards

The Canadian Environmental Protection Act, 1999 Schedule I Toxic Substances classifies mercury as a hazardous waste and has set the requirements for proper handling and disposal. All mercury-containing devices are targeted by this act.

5.4 Survey Findings

During the assessment, mercury containing thermostats and fluorescent light tubes were not observed throughout the building.

5.5 Recommendations

Proper handling and disposal procedures should be taken when discarding mercury containing products. Be sure that all materials are inspected prior to disposal for mercury content. Further inspection should always be conducted on any potential mercury containing products before disposal. Proper mercury disposal procedures must be in place if any mercury containing products are identified.

6.0 Sources of Ozone Depleting Substances (ODS's)

Certain chemicals such as chlorofluorocarbon (CFC), hydrochlorofluorocarbon (HCFC), and Halon are considered Ozone Depleting Substances (ODSs) because they are capable of destroying ozone in the atmosphere. Commonly ODSs have been used in refrigeration, air conditioner, heat pumps, cooling systems and fire extinguishing systems for years. In 1994, the federal government filed the Ozone-Depleting Substances (ODS) Regulation to amend controls on production and consumption of chlorofluorocarbons (CFC's), halons, carbon tetrachloride and methyl chloroform. CFC's have been used in refrigeration, air conditioners, heat pumps, cooling systems and fire extinguishing systems for years. Regulations set forth are intended to prevent CFC gases from escaping into the environment. CFC's are primarily used as a cooling and heating agent inside mechanical units.

6.1 Scope of Work and Methodology

The current assessment does not include the sampling / testing or analysis of ODSs contained in equipment and systems throughout the building, however, does include the documentation of sources of ODSs observed at the time of the assessment.

6.2 Applicable Standards

Suspect units were visually checked for identification or markings that would indicate the presence of ozone depleting substances, including CFCs.

6.3 Applicable Standards

Ozone Depleting Substance Regulations, 2003 under the Environmental Protection Act (O.C. 2003-222).

6.4 Survey Findings

No equipment with potential ODS was observed on site at the time of the assessment.

6.5 Recommendations

Any units that may potentially contain ODS should be inspected on a regular basis to ensure that the unit remains sealed and in good condition. Prior to disposal, all units

containing ODS must be drained by a certified technician and disposed of in accordance with applicable regulatory guidelines

7.0 MOULD ASSESSMENT

Mould is a particular type of fungus. Fungi are a distinct and unique group of organisms that are classified into a kingdom identified as decomposers. Unlike animals, fungi have no organs for food uptake or absorption. Therefore, they must secrete chemicals called enzymes into the environment to degrade their complex food source into a soluble form. Moulds are ubiquitous to the environment. Indoor and outdoor environments naturally harbor a great variety of microscopic organisms such as mould. Prolonged exposure to excessive moisture enables microbes to flourish. If conditions are such that moisture is limited, then these microbes have a stable relationship with the built environment. However, when moisture accumulates more rapidly than the natural drying process, the ecology changes and favors the rapid amplification of mould.

There are several documented cases of health problems associated with exposure to indoor moulds. The most common symptoms from exposure to mould in indoor environments are runny nose, eye irritation, cough, congestion, and aggravation of asthma if the person is asthmatic. People with suppressed immune systems may be susceptible to serious fungal infections as a result of exposure to indoor moulds. People with suppressed immune systems, who can be adversely affected by mould and other host microorganisms, are normally patients in health care facilities.

Mould growth requires damp, moist conditions to survive. Moisture inside buildings can readily accumulate from water leaks, and flooding. Condensation build up on windows, exterior walls, uninsulated pipes and humidification/dehumidification systems are another source of moisture inside buildings. Persistent incidents of these problems or a one-time occurrence (i.e., flooding, condensation, major water leaks) can lead to the establishment of a mould amplifier inside the building.

7.1 Scope of Work

All areas of the building were visually assessed for precursors of mould growth such as water damage or dark mould-like staining present on porous building materials.

7.2 Methodology

No sampling or testing was completed during the assessment. Suspect porous building materials were visually examined and noted during the walk through.

7.3 Applicable Standards

Currently, Federal/Provincial regulations for airborne mould concentrations in indoor environments do not exist, however, there are numerous guidelines published regarding acceptable airborne mould concentrations. For the purposes of the assessment, mould-like growth (determined by technician interpretation on site) was recorded in order to make appropriate recommendations for remediation

7.4 Survey Findings

During the assessment, dark mould-like staining was observed in the Main Cooler/Storage Area on the Main Floor of the Building (Please see Photograph #3 in Appendix V – Photographs of Dark Mould-Like Staining for more detail).

7.5 Recommendations

The first step to remediate any mould affected area is to stop the source of water infiltration/accumulation in that area. Once corrected, the inhabiting mould species no longer has a source of water/nutrients and future mould growth becomes much more limited. The following recommendations must be in place to remediate the affected area:

- All sources of water infiltration should be remedied prior to any reinstatement of new building materials or cleaning of existing materials.
- All areas where remediation is to take place are to have a sealed enclosure erected to contain any potential mould spore release during abatement.
    - Once the area is sealed, negative air unit(s) equipped with HEPA filtration should be placed inside the workspace to clean the air of unwanted spores and provide negative pressure.
        - The areas outside of the abatement enclosure should be cleaned with a HEPA vacuum and antimicrobial solution, where applicable, to remove any settled spores from prior disturbance of mould affected items.
    - Following enclosure setup, abatement of the affected areas can commence utilizing proper mould remediation hygiene procedures for workers.
    - All porous building materials depicting water damage or dark mould-like staining should be removed and discarded.

- All carpet within the Master Bedroom area must be removed and discarded.
- All non-porous surfaces in the affected areas such as wall studs and floors must be scrubbed and treated with an antimicrobial solution to remove any settled spores.

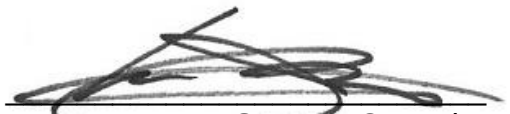
- Allow a settling period of 12- 24 hours with air purification after the abatement is complete.
- Once an area is clean and dry, a visual inspection should be carried out followed by microbial air sampling to confirm whether mould spore concentrations have returned to an acceptable level prior to reinstating any building materials.
- Consistent levels of relative humidity, temperature, and ventilation should also be maintained in the affected area to prevent future condensation and mould growth.

8.0 DISCLAIMER

This report was prepared by ALL-TECH Environmental Services Limited for the sole benefit of our client Mr. Scott Newport with Agriculture and Agri-Foods Canada. The information in the report is based on information provided or obtained by ALL-TECH. The report is based on ALL-TECH's best judgment with the information provided at the time of the assessment. Any use and/or conclusions used by any third party, is the responsibility of that third party. ALL-TECH accepts no liability and/or damages occurred by any third party that uses information obtained in this report.

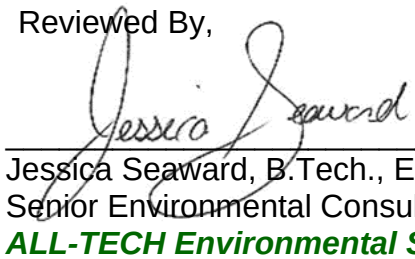
If you have any questions regarding this report, please feel free to contact me at your convenience (709) 754-4146 or via email at ajones@toalltech.com.

Thank You,



Aaron Jones, B.Sc., EP, C. Tech.
Senior Environmental Consultant
ALL-TECH Environmental Services Ltd.

Reviewed By,



Jessica Seaward, B.Tech., Env., P.Tech.
Senior Environmental Consultant
ALL-TECH Environmental Services Ltd.

APPENDIX I
LABORATORY ASBESTOS RESULTS

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 552014995
Customer ID: 55ATES44D
Customer PO: NL7687-308
Project ID:

Attn: Aaron Jones
All-Tech Environmental Services Limited
9 Allston Street
Unit 1
Mount Pearl, NL A1N 0A3

Phone: (709) 754-4146
Fax:
Collected: 11/16/2020
Received: 11/18/2020
Analyzed: 11/23/2020

Proj: NL7687-308 Brookfield Road, Building #32

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Client Sample ID: NL7687-A01 ***Lab Sample ID:*** **552014995-0001**

Sample Description: Insulation Panel (Ceiling), Main Cooler, Main Floor

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Brown	15.0%	85.0%	None Detected	

Client Sample ID: NL7687-A02 ***Lab Sample ID:*** **552014995-0002**

Sample Description: Tar Paper Backing (Behind Walls-Throughout), Main Floor

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Black	0.0%	100.0%	None Detected	

Client Sample ID: NL7687-A03 ***Lab Sample ID:*** **552014995-0003**

Sample Description: Attic Insulation Material

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Pink	90.0%	10.0%	None Detected	

Client Sample ID: NL7687-A04 ***Lab Sample ID:*** **552014995-0004**

Sample Description: Insulation Panel Adhesive (Cream Colour), Storage Cooler, Main Floor

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Beige	0.0%	99.0%	**1% Chrysotile**	

Client Sample ID: NL7687-A05 ***Lab Sample ID:*** **552014995-0005**

Sample Description: Insulation Panel (Ceiling), Storage Cooler, Main Floor

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Beige	0.0%	100.0%	None Detected	

Client Sample ID: NL7687-A06 ***Lab Sample ID:*** **552014995-0006**

Sample Description: Gasket Material (Around Chute), Storage Cooler, Main Floor

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Brown	75.0%	25.0%	None Detected	

Client Sample ID: NL7687-A07 ***Lab Sample ID:*** **552014995-0007**

Sample Description: Roofing Material, Building Exterior

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	11/23/2020	Brown/Black	0.0%	100.0%	None Detected	

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

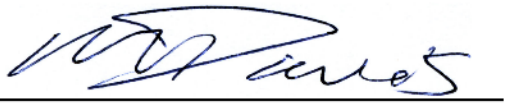
EMSL Canada Order 552014995
Customer ID: 55ATES44D
Customer PO: NL7687-308
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Analyst(s):

Tiffany Pilon PLM (7)

Reviewed and approved by:



Matthew Davis or other approved signatory
or Other Approved Signatory

Samples analyzed by EPA 600/R-93/116 consistent with NLR 111/98. The estimated limit of detection for non-detect samples is <0.1%. Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL`s liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the US Government.

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

Initial report from: 11/23/202009:53:05

APPENDIX II
LABORATORY LEAD RESULTS

EMSL Canada Inc.
2756 Slough Street, Mississauga, ON L4T 1G3
Phone/Fax: (289) 997-4602 / (289) 997-4607
http://www.EMSL.com torontolab@emsl.com

EMSL Canada Or	552014989
CustomerID:	55ATES44D
CustomerPO:	NL7687-308
ProjectID:	

Attn: **Aaron Jones**
All-Tech Environmental Services Limited
9 Allston Street
Unit 1
Mount Pearl, NL A1N 0A3

Phone: (709) 754-4146
Fax:
Received: 11/18/2020 11:58 AM
Collected: 11/16/2020

Project: **NL7687-308 Brookfield Road, Building #32**

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

Client SampleDescription	*Collected*	*Analyzed*	*Weight*	*RDL*	*Lead Concentration*
NL7687-L01	11/16/2020	11/19/2020	0.2498 g	0.0080 % wt	0.078 % wt
552014989-0001	Site: White Paint, Main Floor				
NL7687-L02	11/16/2020	11/19/2020	0.2477 g	0.0081 % wt	0.20 % wt
552014989-0002	Site: Grey Paint, Foundation				

Rowena Fanto, Lead Supervisor
or other approved signatory

Initial report from 11/24/2020 08:43:30

APPENDIX III
PHOTOGRAPHS OF ACM

Photograph #1: Sample NL7687-A04 sample location. Cream coloured insulation panel adhesive. Photo taken on November 16, 2020.

APPENDIX IV
PHOTOGRAPHS OF LEAD CONTAINING PAINTS

Photograph #2: Sample NL7687-L02 sample location. Grey foundation paint. Photo taken on November 16, 2020.

APPENDIX V
PHOTOGRAPHS OF DARK MOULD-LIKE STAINING

Photograph #3: Dark mould-like staining observed on the insulation panels within the Main Cooler/Storage Area on the Main Floor of the Building.
Photo taken on November 16, 2020.

Section 7 from Asbestos Survey of Building 11 completed by Wood

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APPENDICES

7.0 BUILDING 11 – ISOLATION BUILDING

Building 11 is a two-storey office building with functional space for a laboratory area, offices, a washroom, and a cold storage room. Based on information available on the Directory of Federal Real Property (DFRP) website and from AAFC building inspection reports and building inventory records, the site building was constructed in 1958 and the floor area of the building is approximately 200 m^2. The building inspection report indicated that renovations to the property were completed in 1999, 2012, and 2014 and included the replacement of windows, doors and roof shingles. According to the building inventory report earlier renovations were conducted in 1958 (extension), 1975 (reconstruction and installation of laboratory), and 1984 (vinyl siding installation). For fully detailed building inspection reports and building inventory reports see Appendix F7. The surfaces around the building are a mix of asphalt and grass.

For the purpose of the ACMs Survey, Building 11 was divided into rooms consisting of a lab area (Room 1), a lab offset (Room 2), offices (Rooms 3 and 12), a vestibule/attic (Room 4), an open office area (Room 5), an open area (Room 6), a janitor closet (Room 7), a corridor (Room 8), an electrical room (Room 9), a boardroom (Room 10), a washroom (Room 11), a cold storage room (Room 13), and the building exterior. Room numbers and descriptions are outlined in Table 7-1 and a description of Building 11 is outlined in Table 7-2. The site building description is based on observations made by Wood during the 2018 ACMs Survey site visit, the building inspection reports, and the building inventory records (refer to Appendix F7).

Table 7-1: Building 11 Room Numbers

Assigned Room No.	Floor No.	Room Description
1	2	Lab Area
2	2	Lab Offset
3	2	Office
4	2	Vestibule/Attic
5	2	Open Office
6	1	Open Area
7	1	Janitor Closet
8	1	Corridor
9	1	Electrical Room
10	1	Boardroom
11	1	Washroom
12	1	Office
13	1	Cold Storage
Exterior	--	Exterior

Table 7-2: Site Building Description

Building Name	Isolation Building (No. 11)	Photo No. (Appendix B7)
Date of Construction	1958	--
Date of Renovations	1999, 2012, 2014	--
No. Stories	2	7-1 to 7-3
Attic	Yes	7-11 to 7-14
Basement	No	7-1 to 7-3
Type of Structure	Wood Frame	7-12 to 7-14 and 7-20
Type of Foundation	Concrete	7-1 to 7-3
Exterior	White Vinyl Siding	7-1 to 7-3

Table 7-2: Site Building Description

Building Name	Isolation Building (No. 11)	Photo No. (Appendix B7)
Window/Door Frames	Metal	7-1, 7-2, 7-18, 7-22 and 7-26
	Wood	7-10 and 7-33
Exterior Doors	Metal	7-1, 7-2 and 7-26
Roofing Materials	Shingles	7-3
Interior Walls Finishes	Drywall	7-4 to 7-10, 7-15 to 7-18, and 7-25 to 7-30
	Rubber Baseboard	7-7, 7-15 to 7-18, and 7-25 to 7-27
	Concrete	7-19 and 7-20
	Plywood	7-23 and 7-24
	Silver Coated Tar Over Cork	7-31, 7-32 and 7-34
Ceiling Finishes	Drywall	7-4 to 7-6, 7-10 to 7-12, 7-15, 7-18, 7-21 and 7-23
	Pinhole Fleck Acoustic Ceiling Tile (ACT)	7-25, 7-28 and 7-30
	Silver Coated Tar Over Cork	7-31
Floor Finishes	Concrete	7-19, 7-20 and 7-32
	Grey Vinyl Sheet Flooring (VSF)	7-15, 7-21, 7-27 and 7-29
	Grey Rubber	7-17, 7-18 and 7-22
	Plywood	7-11 and 7-12
	Blue VSF	7-6 to 7-8
Interior Doors	Wood	7-9, 7-10, 7-25 and 7-33
	Metal	7-18 and 7-22
Interior Lighting	Fluorescent	7-4, 7-5, 7-6 and 7-28
	Incandescent	7-12 and 7-31
	Emergency	7-6
Exterior Lighting	High Intensity Discharge (HID) or Incandescent	7-1 and 7-2
Heating	Electric Baseboard Heaters	7-9 and 7-18
	Electric Ceiling Heater	7-22
	Electric Heat Pump	7-8

7.1 Asbestos-Containing Materials (ACMs)

During the ACMs Survey, a total of 15 building material samples (B-11 AS-1 to B-11 AS-15), plus one (1) blind field duplicate sample (B-11 DUP1 a duplicate of B-11 AS-3), were collected from the site building and analyzed for asbestos content (refer to Photos 7-35 to 7-49, Appendix B2). It is important to note that some building material samples (e.g., rubber baseboard, floor tile, drywall joint compound (DJC), pipe insulation, stair tread, wall insulation and wall paneling) were split into layers and analyzed separately for asbestos content. Sample descriptions and analytical results are summarized in Table C7-1, Appendix C7. Sample locations and analytical results are illustrated on Figures 7.1 and 7.2, Appendix A7.

The findings documented in this section are based on observations made by Wood personnel at the time of the 2018 site visit and laboratory analyses of samples collected from the site building. Copies of room-by-room inspection sheets for the site building are provided in Appendix E7.

7.1.1 Friable Materials

7.1.1.1 Spray-Applied Fireproofing, Insulation and Texture Finishes

During the site visit, orange and yellow spray-applied foam insulation was observed around electrical panels in Room 9 (refer to Photo No. 7-24, Appendix B7). Due to the hazards involved with collecting samples around electrical equipment no samples of these materials were collected. Yellow spray applied foam insulation was also observed around an exterior door in Room 5 (refer to Photo No. 7-43, Appendix B7). No samples of this material were collected in order to preserve the insulation potential around the door. These spray-applied materials are not likely to contain asbestos.

7.1.1.2 Building System Insulation

During the ACM survey, one sample of pink fibreglass wall insulation with brown paper and tar backing (B-11 AS-6) and one sample of blown-in fibreglass ceiling insulation (B-11 AS-7) were collected from Room 4. It should be noted that sample B-11 AS-6 was split into layers (B-11 AS-6-Wrap and B-11 AS-6-Insulation) prior to analysis. Asbestos was not detected in the insulation samples collected from Room 4.

One sample of cork wall/ceiling insulation (B-11 AS-10) was collected from Room 13 (cold room). Sample B-11 AS-10 was also split into layers (B-11 AS-10-Insulation and B-11 AS-10-Tar) prior to analysis. Chrysotile asbestos (14.8%) was detected in sample B-11 AS-10-Tar at a concentration above the NL Asbestos Abatement Regulations (111/98) (i.e., >1%). Asbestos was not detected in sample B-11 AS-10-Insulation.

Table 7-3 presents a summary of building system insulation sample analytical results and a description of these materials. Samples containing asbestos are bolded and shaded in the table.

Table 7-3: Asbestos Analytical Results - Building Systems Insulation

Sample ID	Room No.	Description	Photo No. (Appendix B7)	Asbestos Type / Content
B-11 AS-6-Wrap	4	Pink fibreglass with tar and brown paper backing	7-40	Not detected
B-11 AS-6-Insulation	4	Pink fibreglass with tar and brown paper backing	7-40	Not detected
B-11 AS-7	4	Pink fibreglass	7-41	Not detected
B-11 AS-10-Insulation	13	Silver coating over tar over cork insulation	7-44	Not detected
B-11 AS-10-Tar	**13**	**Silver coating over tar over cork insulation**	**7-44**	**14.8% Chrysotile**

Tar was observed on the walls and ceiling in Room 13 (approximately 52 m^2). The cork insulation containing the tar was observed to vary in condition from poor to fair (refer to Photo No. 7-34, Appendix B7).

7.1.1.3 Thermal System Insulation

Straight Run Pipe Insulation

During the ACMs Survey, one (1) sample of pipe insulation (B-11 AS-5) was collected from straight run piping (estimated 50 mm in diameter) and analyzed for asbestos content. It should be noted that sample B-11 AS-5 was split into layers (B-11 AS-5-Wrap and B-11 AS-5 Insulation) prior to analysis. Asbestos was not detected in the straight run pipe insulation samples.

Table 7-4 presents a summary of straight run pipe insulation sample analytical results and a description of these materials.

Table 7-4: Asbestos Analytical Results – Straight Run Pipe Insulation

Sample ID	Approx. Diameter (mm)	Room No.	Description	Photo No. (Appendix B7)	Asbestos Type / Content
B-11 AS-5-Wrap	50	3	White wrap with foil mesh backing over yellow fibreglass	7-39	Not detected
B-11 AS-5-Insulation	50	3	White wrap with foil mesh backing over yellow fibreglass	7-39	Not detected

7.1.2 Non-Friable and Potentially Friable Materials

7.1.2.1 Ceiling Tile

During the ACMs Survey, one (1) sample of ceiling tile (B-11 AS-13) was collected from Room 11 and analyzed for asbestos content. Asbestos was not detected in the ceiling tile sample.

Table 7-5 presents a summary of ceiling tile sample analytical results and a description of these materials.

Table 7-5: Asbestos Analytical Results – Ceiling Tile

Sample ID	Room No.	Description	Photo No. (Appendix B7)	Asbestos Type / Content
B-11 AS-13	11	Acoustic ceiling tile – pin hole fleck pattern	7-47	Not detected

7.1.2.2 Drywall Joint Compound

During the ACMs Survey, three (3) samples of drywall joint compound (DJC) (B-11 AS-4, B-11 AS-9, and B-11 AS-14) were collected from walls and ceilings throughout the site building. It should be noted that sample B-11 AS-4 was split into layers (B-11 AS-4-Joint Compound and B-11 AS-4-Tape) prior to analysis. Chrysotile asbestos (4%) was detected in DJC sample B-11 AS-4-Joint Compound at a concentration above the NL Asbestos Abatement Regulations (111/98) (i.e., >1%).

Table 7-6 presents a summary of DJC sample analytical results and a description of these materials. Samples containing asbestos are bolded and shaded in the table.

Table 7-6: Asbestos Analytical Results – Drywall Joint Compound

Sample ID	Room No.	Description	Photo No. (Appendix B7)	Asbestos Type / Content	Material Containing Asbestos	Condition
B-11 AS-4-Joint Compound	**1**	**DJC painted white from exterior wall**	**7-38**	**4% Chrysotile**	**Joint compound**	**Good**
B-11 AS-4-Tape	1	DJC painted white from exterior wall	7-38	Not detected	NA	Good
B-11 AS-9	5	DJC painted yellow from exterior wall	7-43	Not detected	NA	Fair
B-11 AS-14	7	DJC painted white from interior ceiling	7-48	Not detected	NA	Poor

Notes:
NA denotes not applicable
DJC denotes drywall joint compound

Drywall was observed on the walls and ceilings in Rooms 1 to 9 and on the walls in Rooms 10 to 12 (approximately 550 m^2) (refer to Photo No. 7-4, 7-8, 7-10, 7-12, 7-15, 7-18, 7-20, 7-21, 7-23, 7-25, 7-27, and 7-30, Appendix B7). Drywall was observed to vary in condition from poor to fair throughout the site building. Examples of drywall in poor condition were observed in Rooms 4 and 7.

It is important to note that most buildings undergo renovations on a frequent basis, including the removal and replacement of plaster finishes, drywall partitions and installation of new partitions. As a result, distinguishing and delineating asbestos-containing drywall compound from non-asbestos drywall compound is often very difficult, particularly when good documentation of repairs, construction and historical testing is not available. This may also be applicable to other finishes such as plasters. It should be noted that it is common for the asbestos content in troweled on materials, such as drywall compounds within older buildings, to vary in concentration depending on the methods used to mix and place these materials. Due to this variability in asbestos content, in areas where asbestos containing drywall joint compound exists, these areas may contain asbestos and must be subject to control measures. Construction and renovation records may assist in further evaluating the extent of ACMs joint compound. It should be assumed that all drywall joint compounds contain chrysotile asbestos unless further sampling proves otherwise.

7.1.2.3 Flooring Products and Adhesives

During the ACMs Survey, two (2) samples of flooring products (B-11 AS-2 and B-11 AS-8) were collected from Rooms 1 and 5, respectively. It should be noted that samples B-11 AS-2 and B-11 AS-8 were split into layers (B-11 AS-2-Floor Tile, B-11 AS-2-Adhesive, B-11 AS-8-Stair

Tread, and B-11 AS-8-Adhesive) prior to analysis. Asbestos was not detected in the flooring samples.

Table 7-7 presents a summary of flooring sample analytical results and a description of these materials.

Table 7-7: Asbestos Analytical Results – Flooring Products

Sample ID	Room No.	Description	Photo No. (Appendix B7)	Asbestos Type / Content	Material Containing Asbestos
B-11 AS-2-Floor Tile	1	Blue VSF with adhesive	7-36	Not detected	NA
B-11 AS-2-Adhesive	1	Blue VSF with adhesive	7-36	Not detected	NA
B-11 AS-8-Stair Tread	5	Grey rubber stair tread with beige mastic	7-42	Not detected	NA
B-11 AS-8-Adhesive	5	Grey rubber stair tread with beige mastic	7-42	Not detected	NA

Notes:
NA denotes not applicable

7.1.2.4 Caulking/Sealant

During the ACMs Survey, one (1) sample of caulking (B-11 AS-11) was collected from an exterior door. Asbestos was not detected in the caulking sample. Table 7-8 presents a summary of caulking sample analytical results and a description of these materials.

Table 7-8: Asbestos Analytical Results – Caulking

Sample ID	Room No.	Detailed Material Description	Photo No. (Appendix B7)	Analytical Result	Material Containing Asbestos
B-11 AS-11	Exterior	Grey caulking around door	7-45	Not detected	NA

Notes
NA denotes not applicable

7.1.2.5 Roofing Products

Due to height restrictions no roofing product samples were collected for asbestos analysis during the site visit. Any roofing products should be assumed to contain asbestos unless proven otherwise through sampling.

7.1.2.6 Mortar, Grout and Other Cementitious Materials

During the ACMs Survey, one (1) sample of concrete (B-11 AS-12) was collected from the site building and analyzed for asbestos content. Asbestos was not detected in the concrete sample.

Table 7-9 presents a summary of concrete sample analytical results and a description of these materials.

Table 7-9: Asbestos Analytical Results – Concrete

Sample ID	Room No.	Detailed Material Description	Photo No. (Appendix B7)	Analytical Result
B-11 AS-12	Exterior	Concrete foundation	7-46	Not detected

7.1.2.7 Other ACMs

During the ACMs Survey one (1) sample of rubber baseboard with mastic (B-11 AS-1) was collected in Room 1, one (1) sample of yellow sink coating (B-11 AS-3) and one (1) blind field duplicate (B-11 DUP1, a duplicate of B-11 AS-3) were collected from the underside of a sink in Room 1, and one (1) sample of a textured plastic cover panel (B-11 AS-15) was collected from a wall in Room 7. It should be noted that B-11 AS-1 and B-11 AS-15 were split into layers (B-11 AS-1-Cove Base, B-11 AS-1-Adhesive, B-11 AS-15-Panelling, and B-11 AS-15-Foam) prior to analysis. Asbestos was not detected in the rubber baseboard with mastic, sink coating, and textured plastic cover panel samples.

Table 7-10 presents a summary of rubber baseboard with mastic, sink coating, and textured plastic cover panel sample analytical results and a description of these materials.

Table 7-10: Asbestos Analytical Results – Other ACMs

Sample ID	Room No.	Detailed Material Description	Photo No. (Appendix B2)	Analytical Result	Condition
B-11 AS-1 - Cove Base	1	Blue rubber baseboard with adhesive	7-35	Not detected	Good
B-11 AS-1- Adhesive	1	Blue rubber baseboard with adhesive	7-35	Not detected	Good
B-11 AS-3	1	Yellow coating from underside of sink	7-37	Not detected	Fair
B-11 DUP1	1	Yellow coating from underside of sink	7-37	Not detected	Fair
B-11 AS-15- Panelling	7	Textured plastic, thin, white panel	7-49	Not detected	Fair
B-11 AS-15- Foam	7	Textured plastic, thin, white panel	7-49	Not detected	Fair

7.1.2.8 Other Potential ACMs

Other potential ACMs were observed during the ACMs Survey and were not sampled due to the nature of the materials and/or hazards associated with sampling these materials. These materials include, but may not limited to, the following:

- Interior core of fire-rated doors. Note: metal labels indicating a fire-rating were observed on the hinge side of the interior steel doors in Rooms 7 and 9 and the interior wooden doors in Rooms 1, 3, 6, 11, and 12.
- Gaskets and sealant/caulking on piping, hot water tank, laboratory equipment, and potentially other internal mechanical/electrical components.

- Caulking/sealant around interior and exterior electrical lines.
- Gaskets/wiring inside electrical panels.
- Electrical and mechanical components and insulators such as wiring.
- Interior lining of fume hood/vent.
- Roofing materials, including shingles, tar, sealant and caulking.
- Caulking/sealant around window panes.
- Interior components of electrical heaters.

Other possible hidden and inaccessible ACMs have the potential to be present at the site but were not identified during the ACMs Survey. These possible ACMs could include packing associated with cast iron pipe joints, hidden fire rated structures or building materials, vapour barriers, concrete lining the interior of hot water boiler tanks and underground infrastructure or piping (e.g., water and sewer lines, waste oil tank).

7.2 Conclusions and Recommendations

Based on observations made and information gathered during the 2018 ACMs Survey, the following conclusions and recommendations are made with respect to the potential and actual presence of ACMs at the site building:

- Building materials containing greater than 1% asbestos by dry weight, which are considered to be ACMs, are present in the form of drywall joint compound in Room 1 and tar coating in the insulation in Room 13 (cold room).

It is important to note that most buildings undergo renovations on a frequent basis, including the removal and replacement of plaster finishes, drywall partitions and installation of new partitions. As a result, distinguishing and delineating asbestos-containing drywall compound from non-asbestos drywall compound is often very difficult, particularly when good documentation of repairs, construction and historical testing is not available. This may also be applicable to other finishes such as plasters. It should be noted that it is common for the asbestos content in troweled on materials, such as drywall compounds within older buildings, to vary in concentration depending on the methods used to mix and place these materials. Due to this variability in asbestos content, in areas where asbestos containing drywall joint compound exists, these areas may contain asbestos and must be subject to control measures. Construction and renovation records may assist in further evaluating the extent of ACMs joint compound. It should be assumed that all drywall joint compounds contain chrysotile asbestos unless further sampling proves otherwise.

Other potential ACMs were observed during the ACMs Survey and were not sampled due to the nature of the materials and/or hazards associated with sampling these materials. These materials include, but may not limited to, the following:

- Interior core of fire-rated doors.
- Gaskets and sealant/caulking on piping, hot water tank, laboratory equipment, and potentially other internal mechanical/electrical components.
- Caulking/sealant around interior and exterior electrical lines.

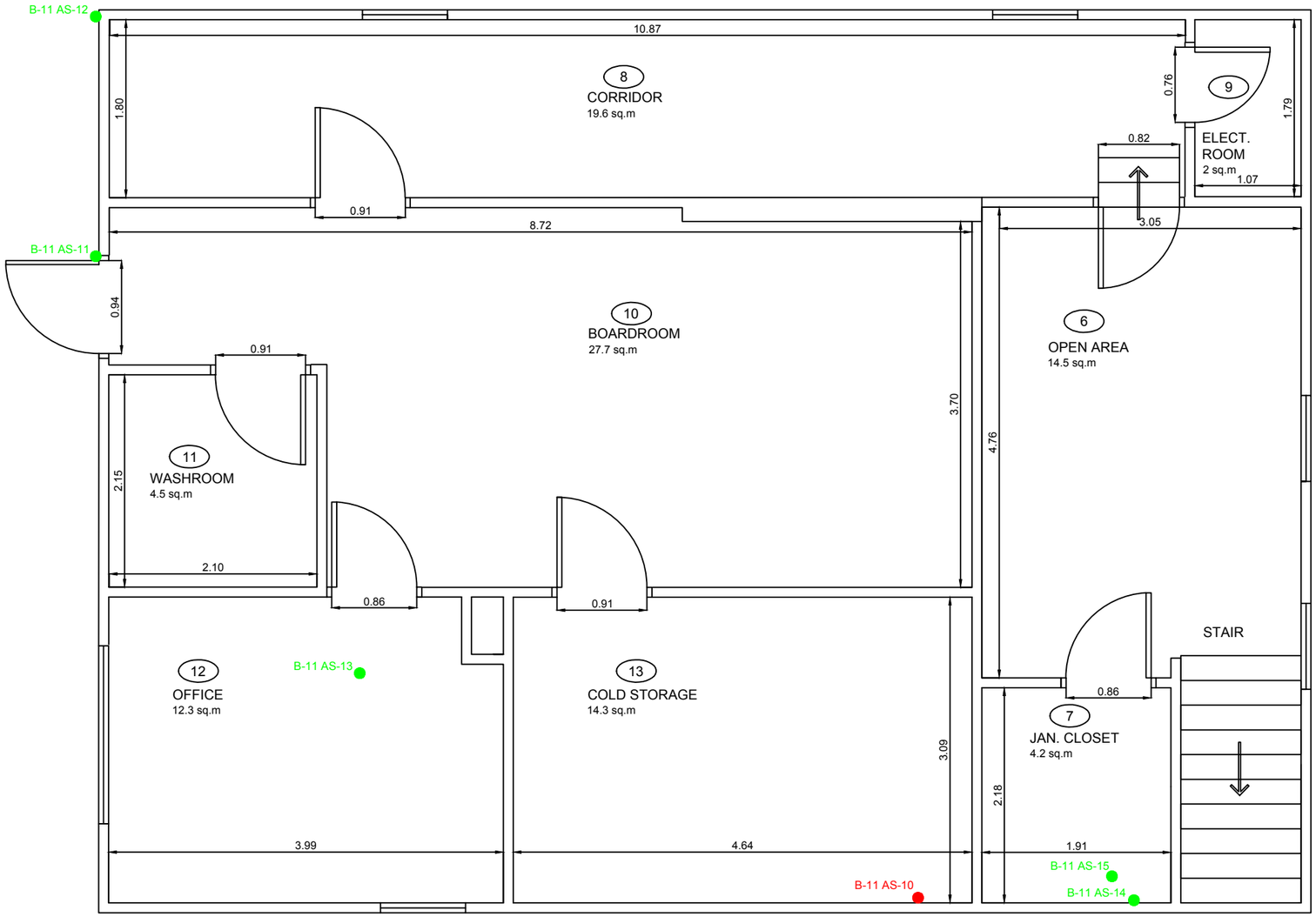
- Gaskets/wiring inside electrical panels.
- Electrical and mechanical components and insulators such as wiring.
- Interior lining of fume hood/vent.
- Roofing materials, including shingles, tar, sealant and caulking.
- Caulking/sealant around window panes.
- Interior components of electrical heaters.

Other possible hidden and inaccessible ACMs have the potential to be present at the site but were not identified during the ACMs Survey. These possible ACMs could include packing associated with cast iron pipe joints, hidden fire rated structures or building materials, vapour barriers, concrete lining the interior of hot water boiler tanks and underground infrastructure or piping (e.g., water and sewer lines, waste oil tank).

- If other potential ACMs that were not sampled as part of this assessment are encountered in the future, these materials should be treated as ACMs or samples should be collected and tested to verify asbestos content. This should be done as soon as these materials are encountered and before these materials are disturbed. This includes materials that are currently concealed by walls and ceiling systems.
- In accordance with the NL Asbestos Abatement Regulations (Reg. 111/98), which provide the legislative requirements for safe handling of ACMs in workplaces in the Province of NL, the following is recommended:
    - Safe work procedures shall be established.
    - Since the site building was constructed during the period when asbestos was readily used in construction it must have a written assessment and management plan (where applicable) for potential ACMs.
    - Prior to disturbance (e.g., demolition, renovation or removal), all ACMs must be safely removed from the site building and disposed of in accordance with appropriate environmental guidelines by an asbestos abatement contractor registered with the Department of Labour, Occupational Health and Safety Branch.
- ACMs in fair to good condition should be inspected on an annual basis. ACMs in poor condition should be removed from the site building and transported off-site for proper disposal in accordance with the NL Asbestos Abatement Regulations (Reg. 111/98).
- ACMs cannot be disposed of at a Construction & Demolition site; however, these materials can be disposed of at a Regional Solid Waste Landfill, provided permission is obtained from the facility.

APPENDIX A7

FIGURES



LEGEND:

- ASBESTOS SAMPLE LOCATION - ASBESTOS NOT DETECTED
- ASBESTOS SAMPLE LOCATION - RESULTS < 1% FOR ASBESTOS
- ASBESTOS SAMPLE LOCATION - RESULTS > 1% FOR ASBESTOS

SCALE

0m 1m 2m

NOTES:

1. ALL DIMENSIONS ARE IN METERS.
2. DO NOT SCALE FROM FIGURE.
3. THIS FIGURE IS INTENDED TO SHOW RELATIVE LOCATIONS AND CONFIGURATION OF THE STUDY AREA IN SUPPORT OF THIS REPORT.
4. ALL LOCATIONS, DIMENSIONS, AND ORIENTATIONS ARE APPROXIMATE.
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Client:

Public Services and Procurement Canada
Services publics et Approvisionnement Canada

Wood
Environment & Infrastructure Solutions
133 Crosbie Road
St. John's, NL A1B 4A5
709-722-7023

Drawn by: T. Rideout

Approved by: L. Wiseman

Scale: As Shown

Project:
Asbestos Containing Materials Survey
Agriculture and Agri-Food Canada
St. John's Research and Development Centre
308 Brookfield Road, St. John's, NL (DFRP No. 00342)

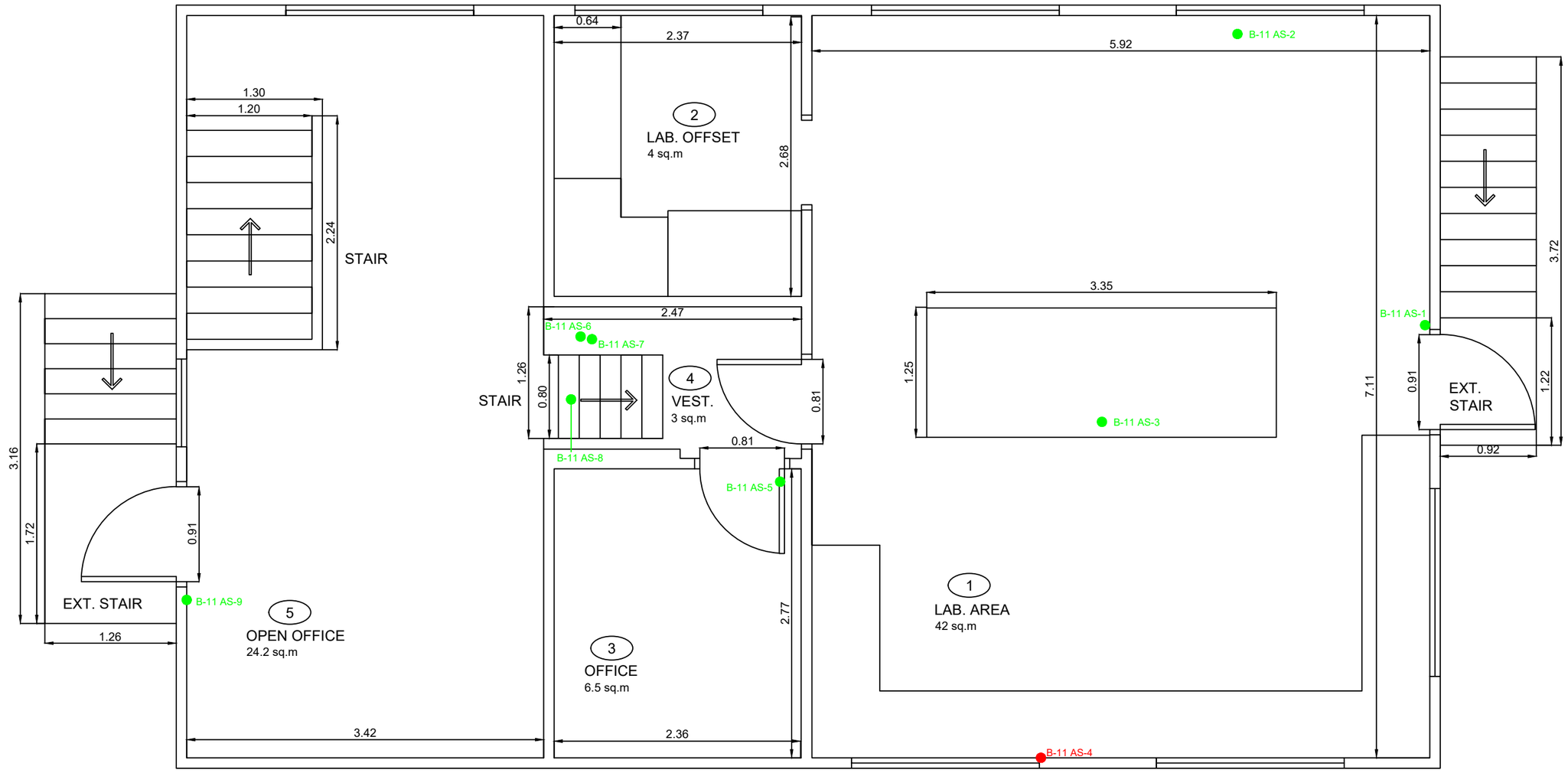
Title:
Sample Location Plan - Building #11 - Level 1

Date: December 2020

Project No. TE20076022

Rev. No. 0

Figure No. 7.1



SCALE

0m 1m 2m

LEGEND:

- ASBESTOS SAMPLE LOCATION - ASBESTOS NOT DETECTED
- ASBESTOS SAMPLE LOCATION - RESULTS < 1% FOR ASBESTOS
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Wood
Environment & Infrastructure Solutions
133 Crosbie Road
St. John's, NL A1B 4A5
709-722-7023

wood.

Drawn by: T. Rideout

Approved by: L. Wiseman

Scale: As Shown

Project:
Asbestos Containing Materials Survey
Agriculture and Agri-Food Canada
St. John's Research and Development Centre
308 Brookfield Road, St. John's, NL (DFRP No. 00342)

Title:
Sample Location Plan - Building #11 - Level 2

Date: December 2020

Project No. TE20076022

Rev. No. 0

Figure No. 7.2

APPENDIX B7

PHOTOGRAPHIC RECORD

Photo 7-1: View of Building 11 facing north-west

Photo 7-2: View of Building 11 facing south-west

Photo 7-3: View of Building 11 facing east

Photo 7-4: View of Room 1 (Lab Area)

Photo 7-5: View of Room 1 (Lab Area)

Photo 7-6: View of Room 1 (Lab Area)

Photo 7-7: View of Room 2 (Lab Offset)

Photo 7-8: View of Room 2 (Lab Offset)

Photo 7-9: View of Room 3 (Office)

Photo 7-10: View of Room 3 (Office)

Photo 7-11: View of Room 4 (Attic)

Photo 7-12: View of Room 4 (Attic)

Photo 7-13: View of insulation above Room 4

Photo 7-14: View of insulation above Room 4

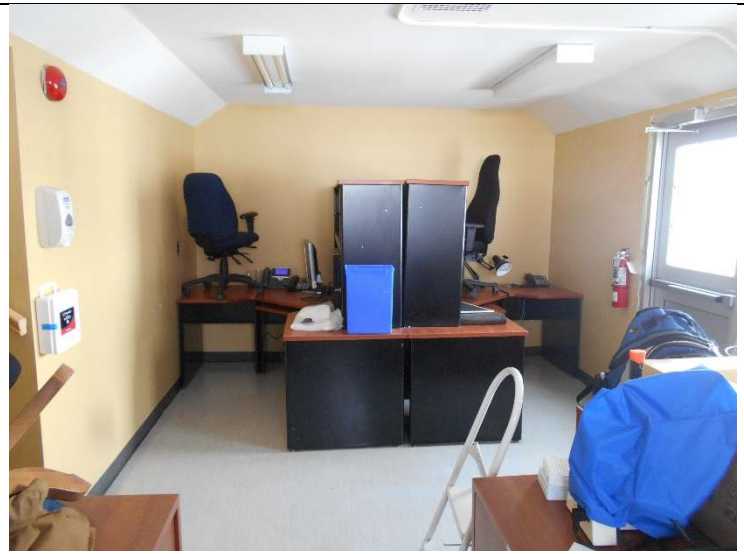

Photo 7-15: View of Room 5 (Open Office)

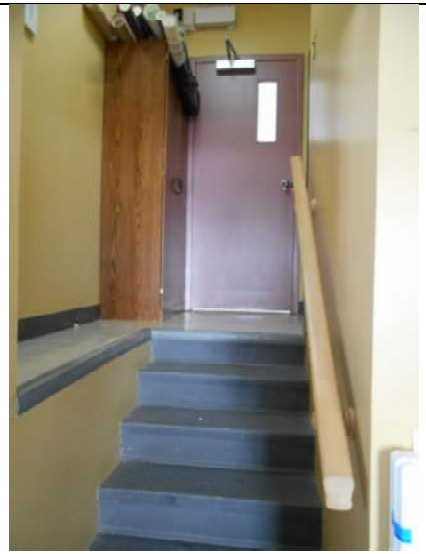

Photo 7-16: View of stairwell in Room 6 (Open Area)

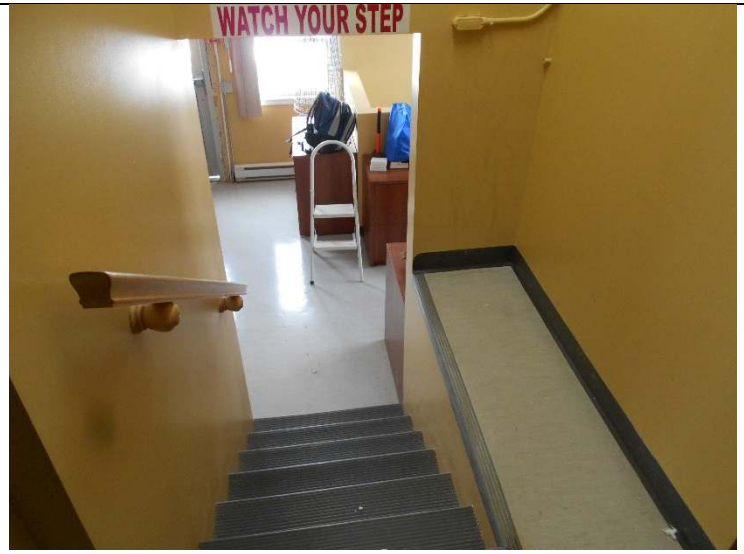

Photo 7-17: View of stairwell in Room 6 (Open Area)

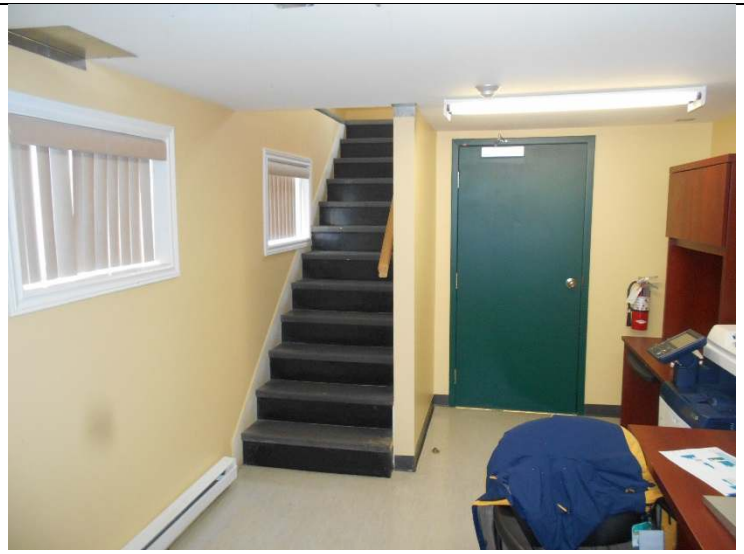
Photo 7-18: View of Room 6 (Open Area)

Photo 7-19: View of Room 7 (Janitor Closet)

Photo 7-20: View of Room 7 (Janitor Closet)

Photo 7-21: View of Room 8 (Corridor)

Photo 7-22: View of Room 8 (Corridor)

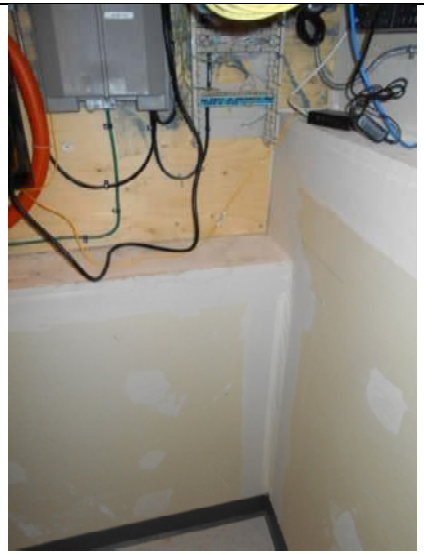

Photo 7-23: View of Room 9 (Electrical Room)

Photo 7-24: View of Room 9 (Electrical Room)

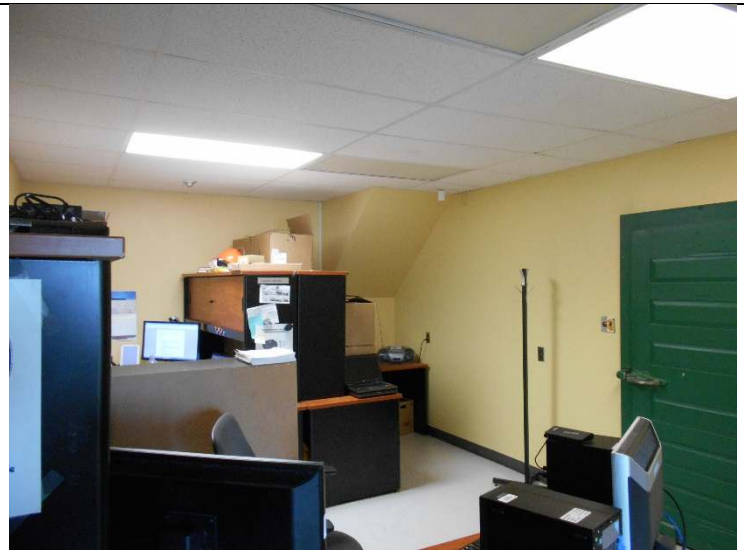

Photo 7-25: View of Room 10 (Boardroom)

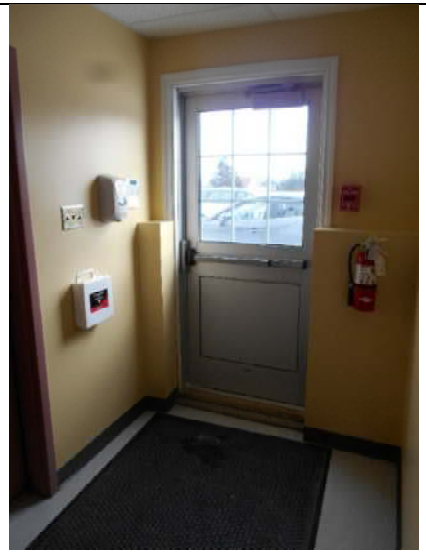

Photo 7-26: View of Room 10 (Boardroom)

Photo 7-27: View of Room 11 (Washroom)

Photo 7-28: View of Room 11 (Washroom)

Photo 7-29: View of Room 12 (Office)

Photo 7-30: View of Room 12 (Office)

Photo 7-31: View of Room 13 (Cold Storage)

Photo 7-32: View of Room 13 (Cold Storage)

Photo 7-33: View of door to Room 13

Photo 7-34: view of damaged wall in Room 13

Photo 7-35: View of bulk material sample B-11 AS-1

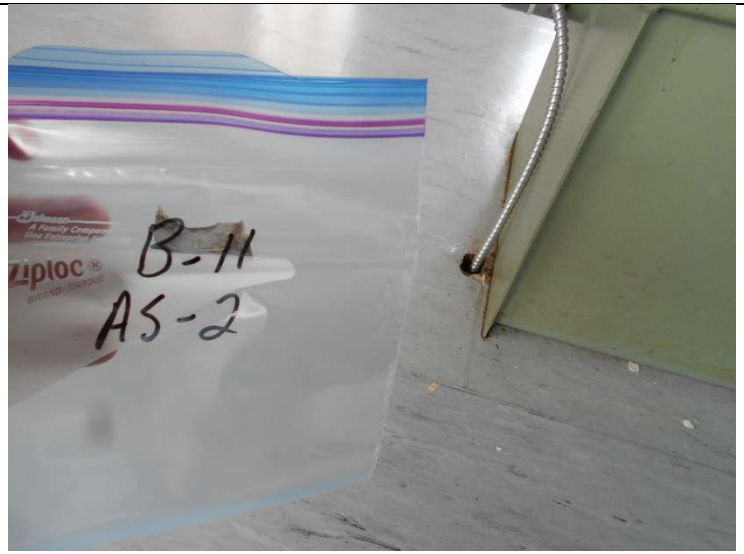

Photo 7-36: View of bulk material sample B-11 AS-2

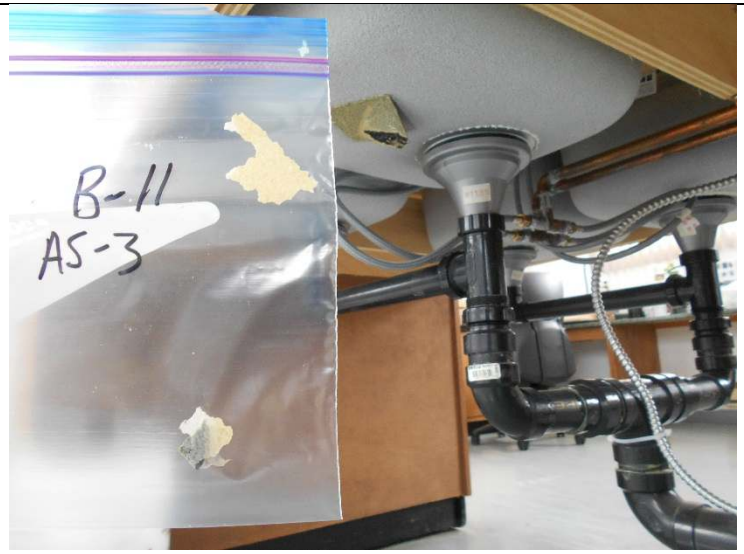

Photo 7-37: View of bulk material sample B-11 AS-3

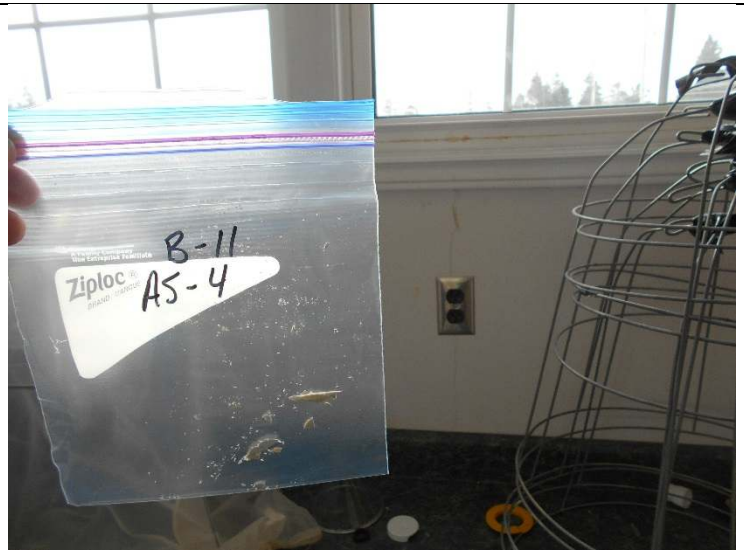

Photo 7-38: View of bulk material sample B-11 AS-4

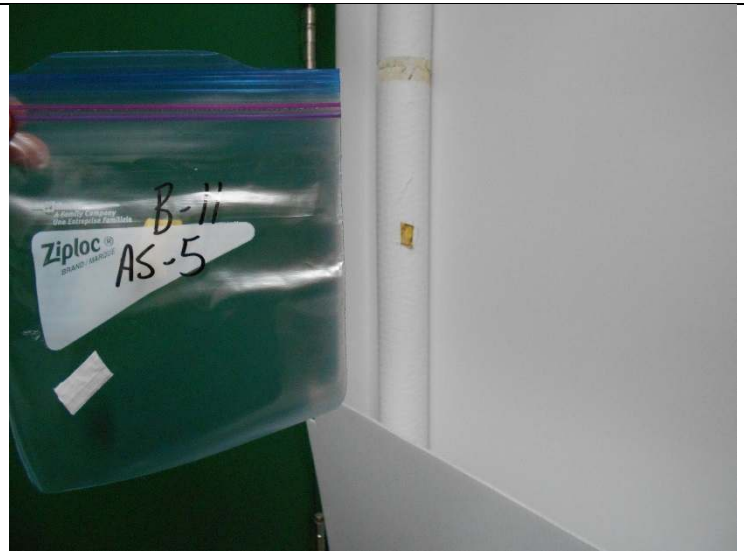

Photo 7-39: View of bulk material sample B-11 AS-5

Photo 7-40: View of bulk material sample B-11 AS-6

Photo 7-41: View of bulk material sample B-11 AS-7

Photo 7-42: View of bulk material sample B-11 AS-8

Photo 7-43: View of bulk material sample B-11 AS-9

Photo 7-44: View of bulk material sample B-11 AS-10

Photo 7-45: View of bulk material sample B-11 AS-11

Photo 7-46: View of bulk material sample B-11 AS-12

Photo 7-47: View of bulk material sample B-11 AS-13

Photo 7-48: View of bulk material sample B-11 AS-14

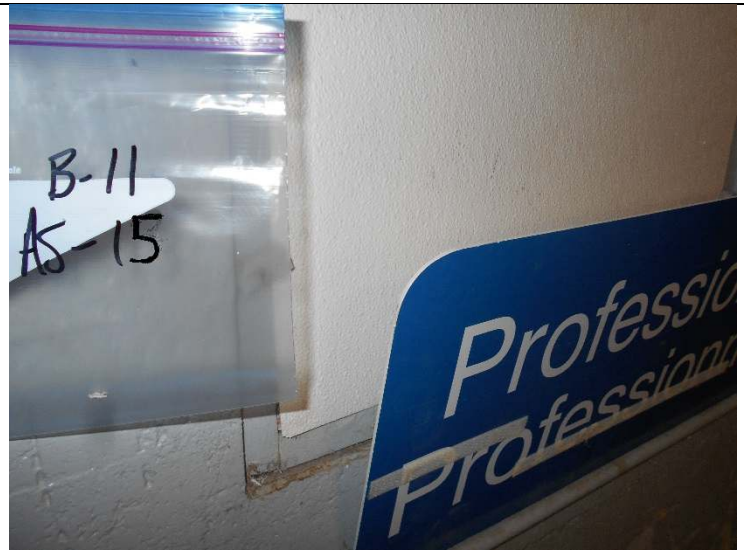

Photo 7-49: View of bulk material sample B-11 AS-15

APPENDIX C7

SAMPLE AND ANALYTICAL SUMMARY TABLES

Table C7-1: Bulk Sample Descriptions and Asbestos Analytical Results (AAFC - Building 11)

Sample ID	Material (Layer) Analyzed	Detailed Material Description	Sample Location	Room	Analytical Result
B-11 AS-1-Cove Base[1]	Rubber Baseboard	Blue rubber baseboard	Wall	Room 1	ND
B-11 AS-1-Adhesive[1]	Mastic	Blue rubber baseboard	Wall	Room 1	ND
B-11 AS-2-Floor Tile[1]	VSF	Blue VSF	Floor	Room 1	ND
B-11 AS-2-Adhesive[1]	Mastic	Blue VSF	Floor	Room 1	ND
B-11 AS-3	Coating	Yellow coating under sink	Sink	Room 1	ND
B-11 DUP1	Coating	Yellow coating under sink	Sink	Room 1	ND
B-11 AS-4-Joint Compound[1]	DJC	DJC painted white	Wall	Room 1	4% Chrysotile
B-11 AS-4-Tape[1]	Tape	DJC painted white	Wall	Room 1	ND
B-11 AS-5-Wrap[1]	Wrap	White wrap with foil mesh backing over yellow fibreglass	Straight run 2" pipe insulation	Room 3	ND
B-11 AS-5-Insulation[1]	Insulation				ND
B-11 AS-6-Wrap[1]	Wrap	Brown paper with black backing over pink fibreglass	Wall	Room 4	ND
B-11 AS-6-Insulation[1]	Insulation				ND
B-11 AS-7	Insulation	Blow in pink fibreglass insulation	Ceiling	Room 4	ND
B-11 AS-8-Stair Tread[1]	Rubber tread	Grey rubber stair tread with beige mastic	Floor	Room 5	ND
B-11 AS-8-Adhesive[1]	Mastic	Grey rubber stair tread with beige mastic	Floor	Room 5	ND
B-11 AS-9	DJC	DJC painted yellow	Wall	Room 5	ND
B-11 AS-10-Insulation[1]	Insulation	Silver coating over tar over cork insulation	Wall	Room 13	ND
B-11 AS-10-Tar[1]	Tar	Silver coating over tar over cork insulation	Wall	Room 13	14.8% Chrysotile
B-11 AS-11	Caulking	Grey caulking around door	Door	Exterior	ND
B-11 AS-12	Concrete	Concrete	Foundation	Exterior	ND
B-11 AS-13	ACT	2'x4' pinhole fleck ACT	Ceiling	Room 12	ND
B-11 AS-14	DJC	DJC painted white	Ceiling	Room 7	ND
B-11 AS-15-Paneling[1]	Cover panel	Cover panel	Wall	Room 7	ND
B-11 AS-15-Foam[1]	Foam	Cover panel	Wall	Room 7	ND

Notes:

[1] Sample split into two layers for asbestos analysis

B-11 DUP1 is a blind field duplicate of B-11 AS-3

DJC: Drywall Joint Compound

VSF: Vinyl Sheet Flooring

VFT: Vinyl Floor Tile

ACT: Acoustic ceiling tile

ND: Non-detect (≤1% asbestos)

ACM: Asbestos-containing material

Shaded value >1% asbestos (dry weight) is considered to be an ACM as outlined in the NL Asbestos Abatement Regulations (Reg. 111/98)

APPENDIX D7

LABORATORY CERTIFICATES OF ANALYSIS

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: 289-997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 551802603
Customer ID: 55MEEN26
Customer PO: TF18076778
Project ID:

Attn: Lori Wiseman
AMEC Foster Wheeler E & I
PO Box 13216
133 Crosbie Road
Saint John's, NL A1B 4A5

Proj: TF18076778

Phone: (709) 722-7023
Fax: (709) 722-7353
Collected:
Received: 3/07/2018
Analyzed: 3/13/2018

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Client Sample ID: B-11 AS-1-Cove Base **Lab Sample ID:** **551802603-0001**
Sample Description: Baseboard

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/13/2018	Gray	0.0%	100%	None Detected	

Client Sample ID: B-11 AS-1-Adhesive **Lab Sample ID:** **551802603-0001A**
Sample Description: Baseboard

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Tan/White	<1%	100%	None Detected	

Client Sample ID: B-11 AS-2-Floor Tile **Lab Sample ID:** **551802603-0002**
Sample Description: Vinyl Sheet Flooring With Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/13/2018	Gray	0.0%	100%	None Detected	

Client Sample ID: B-11 AS-2-Adhesive **Lab Sample ID:** **551802603-0002A**
Sample Description: Vinyl Sheet Flooring With Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Yellow	0%	100%	None Detected	

Client Sample ID: B-11 AS-3 **Lab Sample ID:** **551802603-0003**
Sample Description: Undersink Coating

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/13/2018	Gray/Black	0.0%	100%	None Detected	

Client Sample ID: B-11 AS-4-Joint Compound **Lab Sample ID:** **551802603-0004**
Sample Description: DJC

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Brown	0%	96%	**4% Chrysotile**	

Client Sample ID: B-11 AS-4-Tape **Lab Sample ID:** **551802603-0004A**
Sample Description: DJC

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	White	95%	5%	None Detected	

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: 289-997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 551802603
Customer ID: 55MEEN26
Customer PO: TF18076778
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Client Sample ID: B-11 AS-5-Wrap **Lab Sample ID:** **551802603-0005**
Sample Description: Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Tan/Silver	50%	50%	None Detected	

Client Sample ID: B-11 AS-5-Insulation **Lab Sample ID:** **551802603-0005A**
Sample Description: Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Yellow	95%	5%	None Detected	

Client Sample ID: B-11 AS-6-Wrap **Lab Sample ID:** **551802603-0006**
Sample Description: Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Tan/Black	90%	10%	None Detected	

Client Sample ID: B-11 AS-6-Insulation **Lab Sample ID:** **551802603-0006A**
Sample Description: Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Pink	95%	5%	None Detected	

Client Sample ID: B-11 AS-7 **Lab Sample ID:** **551802603-0007**
Sample Description: Blow In Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	White	95%	5%	None Detected	

Client Sample ID: B-11 AS-8-Stair Tread **Lab Sample ID:** **551802603-0008**
Sample Description: Stair Tread and Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/13/2018	Gray	0.0%	100%	None Detected	

Client Sample ID: B-11 AS-8-Adhesive **Lab Sample ID:** **551802603-0008A**
Sample Description: Stair Tread and Mastic

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Tan	<1%	100%	None Detected	

Client Sample ID: B-11 AS-9 **Lab Sample ID:** **551802603-0009**
Sample Description: DJC

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/13/2018	Gray/Beige	0.0%	100%	None Detected	

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: 289-997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 551802603
Customer ID: 55MEEN26
Customer PO: TF18076778
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Client Sample ID: B-11 AS-10-Insulation ***Lab Sample ID:*** **551802603-0010**
Sample Description: Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Brown	0%	100%	None Detected	

Client Sample ID: B-11 AS-10-Tar ***Lab Sample ID:*** **551802603-0010A**
Sample Description: Insulation

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/13/2018	Black	0.0%	85.2%	**14.8% Chrysotile**	

Client Sample ID: B-11 AS-11 ***Lab Sample ID:*** **551802603-0011**
Sample Description: Caulking

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/13/2018	Gray	0.0%	100%	None Detected	

Client Sample ID: B-11 AS-12 ***Lab Sample ID:*** **551802603-0012**
Sample Description: Concrete

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Gray	0%	100%	None Detected	

Client Sample ID: B-11 AS-13 ***Lab Sample ID:*** **551802603-0013**
Sample Description: Acoustic Ceiling Tile

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Gray	60%	40%	None Detected	

Client Sample ID: B-11 AS-14 ***Lab Sample ID:*** **551802603-0014**
Sample Description: DJC

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Gray	0%	100%	None Detected	

Client Sample ID: B-11 AS-15-Paneling ***Lab Sample ID:*** **551802603-0015**
Sample Description: Cover Panel

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	White	45%	55%	None Detected	

Client Sample ID: B-11 AS-15-Foam ***Lab Sample ID:*** **551802603-0015A**
Sample Description: Cover Panel

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	White	0%	100%	None Detected	

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2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: 289-997-4602 / (289) 997-4607
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EMSL Canada Order 551802603
Customer ID: 55MEEN26
Customer PO: TF18076778
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Client Sample ID: B-11 AS-DUP1 ***Lab Sample ID:*** **551802603-0016**

Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/13/2018	Gray/Beige	0.0%	100%	None Detected	

Analyst(s):

Jamey Cooper PLM (16)
PLM Grav. Reduction (8)

Reviewed and approved by:

Matthew Davis or other approved signatory
or Other Approved Signatory

Samples analyzed by EPA 600/R-93/116 consistent with NLR 111/98. The estimated limit of detection for non-detect samples is <0.1%. Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL`s liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the US Government.

Samples analyzed by EMSL Analytical, Inc. Ann Arbor, MI NVLAP Lab Code 101048-4

Initial report from: 03/14/201811:45:24

APPENDIX E7

ROOM-BY-ROOM INSPECTION SHEETS

Feb 15/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	Ext		Exterior	

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	Concrete	Fair		
Walls	White vinyl siding	Fair		
Ceiling	red shingle	Good		
Paint	Floor grey Wall Ceiling Doors Windows Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)	grey caulking around doors / windows			AS11
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums steel fire stairs on one side, wood stairs on other side			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	1	2	Lab. Area	20'x 23'6" x 9'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	blue VSF w grey & white flecks			AS2
Walls	drywall blue rubber baseboard			AS1 AS4
Ceiling	drywall			
Paint	Floor – Wall white Ceiling white Doors purple, no paint Windows Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)	white caulk around ext. door (new)			
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): 1 metal NFR 1 wood (purple) FR Windows: 6 x vinyl wood frame HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums laminate/wood table with sinks AS3			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	2	2	Lab offset	9'x7'6"x9'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	SAME AS ROOM 1			
Walls				
Ceiling				
Paint	Floor Wall Ceiling Doors Windows Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)				
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): — Windows: 1 vinyl window wood frame HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums Chem sink temp control chamber fume hood laminate counter top			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	3	2	Office	9'x8'x9'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	grey VSF	Fair		
Walls	drywall			
Ceiling	drywall			
Paint	Floor — Wall grey Ceiling grey Doors green Windows Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)	2" pipe - 17' SR			
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): 1 wood (green) FR Windows: n/a HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	4	2	Vestibule	23' x 11' x 41

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	Plywood	Fair		
Walls	drywall	Poor		
Ceiling	drywall	Poor		
Paint	Floor Wall Ceiling Doors Windows Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)	b/w in FG insulation in attic Pink FG in walls			AS7 AS6
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Colour Shape Wall/Floor Mounted Dial Casing		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	5	2	Open Office	≥3' x 11' x 8'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	grey VSF rubber tread on stairs (grey)	Fair		
Walls	drywall grey rubber baseboard			
Ceiling	drywall			
Paint	Floor — Wall yellow Ceiling white Doors — Windows white Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)	Spray on yellow foam around door			
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): 1 metal N FR Windows: 2 x vinyl, wood ~~baseboard~~ Frame HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	6	1	Open Area	15'6" x 9'6" x 7'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	grey rubber tread on stairs Same as room 5	Fair		
Walls				
Ceiling				
Paint	Floor Wall Ceiling Doors green Windows white Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)				
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): 1 wood (green) FR Windows: 2 vinyl/wood frame HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 20/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	7	1	San. Closet	

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	Concrete	Poor		
Walls	concrete Plywood behind electrical drywall for int wall drywall under stairs			
Ceiling	drywall			AS14
Paint	Floor grey Wall grey Ceiling white Doors green Windows Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)				
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): metal w metal frame FR Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums hot water tank	Small plastic panel on wall, same material as greenhouse walls AS15		

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	8	1	corridor	25' x 6' x 10'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	Same as room 5			
Walls				
Ceiling				
Paint	Floor Wall Ceiling Doors green Windows white Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)				
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs **(saudering, pipes batteries, exit/ emerg lighting,)**				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): 1 wood NFR Windows: 2 vinyl, wood frame HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 2014

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	9	1	Electrical Room	

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	Grey ~~VSF~~ VFT with grey streaks	Fair		
Walls	drywall, plywood behind electrical grey rubber baseboard			
Ceiling	drywall			
Paint	Floor — Wall — Ceiling — Doors green Windows Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)	Orange spray foam around electrical Yellow spray foam around electrical			
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Colour Shape Wall/Floor Mounted Dial Casing		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): metal w metal FR Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	10	1	boardroom	21' 12'6" x 8'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	grey VSF	Good		
Walls	drywall grey rubber baseboard	Good		
Ceiling	2'x4' pinhole fleck ACT	Good		
Paint	Floor — Wall yellow Ceiling — Doors — Windows — Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)				
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs **(saudering, pipes batteries, exit/ emerg lighting,)**				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): 1 metal MFR Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	11	1	bathroom	7'x6'x8'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	SAME AS ROOM 10			
Walls				
Ceiling				
Paint	Floor Wall Ceiling Doors purple Windows Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)				
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs **(saudering, pipes batteries, exit/ emerg lighting,)**				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): 1 wood FR Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	12	1	office	12'x9'6"x8'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	grey VSF	Fair		
Walls	dry wall grey rubber baseboard			
Ceiling	2'x4' pinhole fleck ACT			AS13
Paint	Floor — Wall white Ceiling — Doors purple Windows white Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)				
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): wood FR Windows: 2 x vinyl, wood frame HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums heat detector			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
11	13	1	Cold storage	14' x 10' x 8'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	Concrete	Fair		
Walls	Silver coated tar over cork(?) over concrete			
Ceiling	SAME			
Paint	Floor – Wall silver Ceiling silver Doors green Windows – Other	Fair Fair		
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)	Possibly cork on walls and ceiling			
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Colour Shape Wall/Floor Mounted Dial Casing		Total #: # Checked:	Mercury Switch:
LCMs **(saudering, pipes batteries, exit/ emerg lighting,)**				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): heavy wood freezer style NFR Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

APPENDIX F7
BUILDING INSPECTION REPORTS / BUILDING INVENTORY RECORDS

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

AAFC BUILDING INSPECTION REPORT

ESTABLISHMENT	LOCATION	DFRP NO.	STRUCTURE NO.	BUILDING NAME AND NO.	DATE COMPLETED
AAFC - St. John's Research and Development Center Year Built: 1958	St. John's, NL	:00	11	Building 11 - Isolation - offices/ laboratory	2017-10-10

MAJOR RENOVATIONS AND PROJECTS

DESCRIPTION	YEAR COMPLETED	COST
Renovations (inside/windows)	1999	$22,000.00
New Doors	2012	$2,400.00
replaced shingles	2014	$6,600.00

BUILDING INSPECTION EVALUATION

3 Average

Evaluation Scale		Building	Building element
5	Excellent	New buildings less than 5 years old that have undergone major renovation/retrofit within the last 5 years that account for 50%+ of the building construction cost.	Building element less than 5 years old or has undergone major renovation/retrofit within the last 5 years.
4	Good	Buildings that have undergone major renovation/retrofit within the last 5 - 15 years that account for 50%+ of the building construction costs.	Building element that has undergone major renovation/retrofit within the last 5 - 15 years.
3	Average	Building kept in average condition by replacement of components as they wear out. Operating properly for intended purpose.	Building element kept in average condition by repair/retrofit of components. Operating properly for intended purpose.
2	Poor	Buildings where capital replacement is not sufficient to keep pace with deterioration and current technology; very minimal betterments; Life safety systems have been maintained.	Building element where repair/retrofit is not sufficient to keep pace with deterioration and/or current technology or does not meet code.
1	Critical	Buildings with significant or advanced deterioration, urgently requires major renovation, retrofit or replacement.	Building element with significant or advance deterioration urgently requires retrofit or replacement. Failure is approaching/imminent.

BUILDING INSPECTION CHECKLIST

Leave element blank if N/A. Add element if needed. Evaluate from 1 to 5 (critical to excellent)

BUILDING ENVELOPE

	evaluation 1-5		evaluation 1-5		evaluation 1-5	Envelope evaluation average	3.8
roof	5	windows	3				
foundation	3	doors	5				
walls	3	overhead doors					
cladding	3	door hardware	5				
caulking	3	louvers					

BUILDING SYSTEMS

	evaluation 1-5		evaluation 1-5		evaluation 1-5	Systems evaluation average	3.3
boiler(s)		electrical entrance	3	controls	5		
chiller(s)		MCC(s)					
air-handlers & fans	3	distribution panels	3				
pumps		lighting	3				
piping systems	3	lighting controls	3				

LIFE SAFETY SYSTEMS

	evaluation 1-5		evaluation 1-5		evaluation 1-5	Systems evaluation average	3.0
generator(s)		fire alarm devices	3				
fire pump(s)		emergency lighting	3				
sprinkler system		security system(s)					
standpipe system							
fire alarm panel(s)	3						

BUILDING INTERIOR

	evaluation 1-5		evaluation 1-5		evaluation 1-5	Interior evaluation average	3.0
floors	3	windows	3				
ceilings	3	plumbing fixtures	3				
walls	3						
door & hardware	3						
fixed furnishings	3						

Comments
Building meets operational requirements

Regional Engineer's name: Jamie Coffin — Oct. 30/17 (Date) — Signature

Facility Manager's name: Scott Newport — Oct 24/17 (Date) — Signature

Integrated Services Manager's name: Cherri Dooley — Oct 24/2017 (Date) — Signature

Canada

Agriculture Canada

BUILDING INVENTORY RECORD

FICHE D'INVENTAIRE DES BÂTIMENTS

Record No./ Nº de la fiche

Record Revised / Date de révision de la fiche: 1989-08-01

Year Built - Année de la construction: 1958

1. Branch-Section / Direction générale-Section	Location / Emplacement	Establishment / Établissement	Building location / Site du bâtiment	Building Name / Nom du bâtiment	Codes: Class / Classe	Codes: Type / Genre	Building No / Nº du bâtiment
RESEARCH	ST. JOHN'S	RESEARCH STATION	Main estab. (V) ✓ Centre principal; Satellite (Name / Nom)	Headerhouse	06	01	11

2. Descriptions

Number of floors / Nombre d'étages	Dimensions, including wings / Dimensions, ailes y compris	Square Meters / Mètres carrés	Height / Hauteur
Basement 1st floor	A (24' x 41') - 984 sq. ft. A (24' x 41') + B (6' x 18') + C (6' x 13') = 1170 sq. ft.	91.4 108.7	Base to 1st - 7' 1st to eave - 8' 1st to peak - 13' B 1st to eave - 8' 1st to peak - 13' C 1st to eave - 11' 1st to peak - 15'

3. Construction - Type and Materials / Genre de construction et matériaux

	Total	SQ.M² / M² CA.
		200.1

Foundation / Fondations	Framing / Charpente	Walls, exterior / Murs, extérieurs	Walls, interior / Murs, intérieurs	Floors / Planchers	Roofs / Toits
Poured Concrete	2" x 4" wood Studding	Vinyl siding	Gyproc - Painted	Basement - Concrete 1st 3" matched lumber	Gable - Shingles

6. Costs - Coûts

Year / Année	Improvements / Améliorations	$ Cost / Coût	$ Total
1958		6970	6970
1958	extension	3693	10,663
1975	reConstructed (lab installed)	8500	19,163
1984	Vinyl siding	3200	22,363
May 1999	Renovations - windows	22,000	44,363

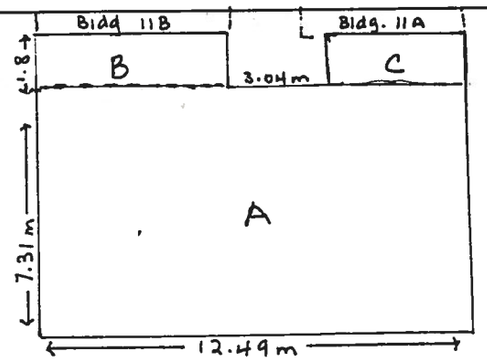
4A. Utilities - Type / Genre de services

Plumbing / Plomberie	Heating & Air Conditioning / Chauffage et climatisation	Electricity and Other Electricité et autres services
1/2" copper pipe 3/4" Galv. pipe 2-Sinks 1 Toilet 1-40 gal. H.W. Tank	1-1000 watt heat panels 1-refrigerated Cool room heated by steam from Bldg. 25 converted to hot water radiation.	200 amp 240 V Single phase 60000 watts b.b. rad.

4B. Energy Data / Données énerg.

Heated / Chauffé	☒
Not heated / Non chauffé	☐
Heritage Designation / Désignation patrimoniale	
Non-Heritage / Non-patrimoniale	☐
Recognized / Reconnu	☐
Classified / Classifié	☐

5. Sketch - Ground Floor Exterior / Schéma de l'extérieur du rez-de-chaussée



Scale / Échelle: cm = m, 1 = 2

7. Disposal Action / Disposition

Date declared surplus to C.A.D.C. / Date de déclaration de non-utilisé à C.D.B.C.	
Land not included / Terrain exclu ☐	Land included / Terrain inclus ☐
Date sold by C.A.D.C. or / Date de vente par C.D.B.C. ou	Date authorized for demolition (5E) / Date de l'autorisation de démolition
Date Branch notified / Date d'avis à la direction	Date deleted from inventory record / Date de radiation de l'inventaire

Remarks / Observations

8. Remarks / Observations

Section 17 from Asbestos Survey of Building 32 completed by Wood

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APPENDICES

17.0 BUILDING 32 – CELLAR

Building 32 is a one-storey commercial building with functional space for equipment storage and cold storage for produce/perishable goods. Based on information available on the Directory of Federal Real Property (DFRP) website and from AAFC building inspection reports and building inventory records, the site building was constructed in 1968 and the floor area of the building is approximately 424 m^2. According to the building inspection report, renovations were conducted between 2014 and 2016 that included the installation of a new exterior garage and man doors, metal siding and shingles. The building inventory report indicated that previous renovations were completed in 1972, at which time an extension and basement were added to the building, in 1973, when the cooling equipment was installed, and in 1984, when vinyl siding was installed that has since been removed. For fully detailed building inspection reports and building inventory reports see Appendix F17. The surfaces around the site building are a mix of asphalt and grass.

For the purpose of the ACMs Survey, Building 32 was divided into rooms consisting of the main room (Room 1), the cool room (Room 2), and the basement (Room 3). Room numbers and descriptions are outlined in Table 17-1 and a description of Building 32 is outlined in Table 17-2. The site building description is based on observations made by Wood during the 2018 ACMs Survey site visit, the building inspection reports, and the building inventory records (refer to Appendix F17).

Table 17-1: Building 32 Room Numbers

Assigned Room No.	Floor No.	Room Description
1	1	Main Room
2	1	Cool Room
3	B	Basement
Exterior	--	--

Table 17-2: Site Building Description

Building Name	Cellar (No. 32)	Photo No. (Appendix B17)
Date of Construction	1968	--
Date of Renovations	2014, 2016	--
No. Stories	1	17-1 to 17-5
Attic	Yes	17-13
Basement	Yes	17-2 and 17-17 to 17-22
Type of Structure	Wood Frame	17-6, 17-13 and 17-20
Type of Foundation	Concrete	17-1 to 17-5 and 17-16 to 17-20
Exterior	Sheet Metal	17-1 to 17-5
Window/Door Frames	Metal	17-1, 17-2, 17-6, 17-11 and 17-12
	Wood	17-10 and 17-18
Exterior Doors	Metal	17-1 and 17-2
Roofing Materials	Shingles	17-1, 17-3 and 17-5
Interior Walls Finishes	Concrete	17-19 to 17-22
	Plywood	17-7, 17-14 to 17-16, 17-21 and 17-22
	Particle Board	17-6, 17-11 and 17-12
Ceiling Finishes	Foam Panels with Paper/ Foil Covering	17-11, 17-12, 17-14, 17-15 and 17-19 to 17-22
Floor Finishes	Concrete	17-6 to 17-9, 17-17 and 17-18
	Plywood	17-14 and 17-15

Table 17-2: Site Building Description

Building Name	Cellar (No. 32)	Photo No. (Appendix B17)
Interior Doors	Metal	17-6, 17-11 and 17-12
	Wood	17-10 and 17-18
Interior Lighting	Incandescent	17-6, 17-11, 17-16 and 17-19
Exterior Lighting	High Intensity Discharge (HID) or Light Emitting Diode (LED)	17-1
Heating	Ceiling Heater	17-7

17.1 Asbestos-Containing Materials (ACMs)

During the ACMs Survey, a total of five (5) building material samples (AS-1 to AS-5) plus one blind field duplicate (B-32 DUP1, a duplicate of B-32 AS-2) were collected from the site building and analyzed for asbestos content (refer to Photos 17-23 to 17-27, Appendix B17). It is important to note that some building material samples (e.g., ceiling panel tape and adhesive) were split into layers and analyzed separately for asbestos content. Sample descriptions and analytical results are summarized in Table C17-1, Appendix C17. Sample locations and analytical results are illustrated on Figure 17.1, Appendix A17.

The findings documented in this section are based on observations made by Wood personnel at the time of the 2018 site visit and laboratory analyses of samples collected from the site building. Copies of room-by-room inspection sheets for the site building are provided in Appendix E17.

17.1.1 Friable Materials

17.1.1.1 Spray-Applied Fireproofing, Insulation and Texture Finishes

Yellow spray applied foam insulation was observed around an exterior door in Room 1 (refer to Photo No. 17-8, Appendix B17). No samples of this material were collected in order to preserve the insulation potential around the door. This spray-applied material is not likely to contain asbestos.

17.1.1.2 Building System Insulation

There was no building system insulation observed during the site visit; therefore, no samples of these materials were collected for analysis. It should be noted that due to the non-intrusive nature of this asbestos survey, only exposed insulation would be sampled and the lack of observed building insulation does not negate the existence of insulation in wall or ceiling cavities.

17.1.1.3 Thermal System Insulation

There was no thermal system insulation observed during the site visit; therefore, no samples of these materials were collected for analysis.

17.1.2 Non-Friable and Potentially Friable Materials

17.1.2.1 Ceiling Tile

During the ACMs Survey, one (1) sample (B-32 AS-3) of ceiling panel was collected from Room 2 and analyzed for asbestos content. Two samples of ceiling panel tape and adhesive (B-32 AS-1 and B-32 AS-4) were collected from Rooms 1 and 3, respectively. It should be noted that samples B-32 AS-1 and B-32 AS-3 were split into layers (B-32 AS-1-Adhesive A/Tape, B-32 AS-1-Adhesive B, B-32 AS-3-Wrap and B-32 AS-3-Foam) prior to asbestos analysis. Chrysotile asbestos (2.8%) was detected in ceiling panel adhesive sample B-32 AS-4 at a concentration above the NL Asbestos Abatement Regulations (111/98) (i.e., >1%). Asbestos was not detected in the other ceiling panel and ceiling panel tape and adhesive samples.

Table 17-3 presents a summary of ceiling panel, ceiling panel tape, and ceiling panel adhesive sample analytical results and a description of these materials. Samples containing asbestos are bolded and shaded in the table.

Table 17-3: Asbestos Analytical Results – Ceiling Tile

Sample ID	Room No.	Description	Photo No. (Appendix B17)	Analytical Result
B-32 AS-1-Adhesive A/ Tape	1	Ceiling panel tape with black adhesive	17-23	Not detected
B-32 AS-1-Adhesive B	1	Ceiling panel tape with black adhesive	17-23	Not detected
B-32 AS-3-Wrap	2	Foil over brown paper from ceiling panel	17-25	Not detected
B-32 AS-3-Foam	2	Foam from ceiling panel	17-25	Not detected
B-32 AS-4	**3**	**Beige adhesive from ceiling panel**	**17-26**	**2.8% Chrysotile**

17.1.2.2 Drywall Joint Compound

There was no drywall or drywall joint compound (DJC) observed on the wall or ceiling surfaces during the site visit; therefore, no samples of these materials were collected for analysis.

17.1.2.3 Flooring Products and Adhesives

Flooring for Building 32 consisted of concrete and plywood. One sample of concrete was collected for asbestos analysis and is discussed in further detail in section 17.1.2.6.

17.1.2.4 Caulking/Sealant

No caulking or sealant samples were collected from the site building during the site visit. Any caulking or sealant should be assumed to contain asbestos unless proven otherwise through sampling.

17.1.2.5 Roofing Products

Due to height restrictions no roofing product samples were collected for asbestos analysis during the site visit. Any roofing products should be assumed to contain asbestos unless proven otherwise through sampling.

17.1.2.6 Mortar, Grout and Other Cementitious Materials

During the ACMs Survey, one (1) sample of concrete (B-32 AS-5) was collected from the site building and analyzed for asbestos content. Asbestos was not detected in the concrete sample.

Table 17-4 presents a summary of concrete sample analytical results and a description of these materials.

Table 17-4 Asbestos Analytical Results – Concrete

Sample ID	Room No.	Detailed Material Description	Photo No. (Appendix B17)	Analytical Result
B-32 AS-5	Exterior	Concrete foundation	17-27	Not detected

17.1.2.7 Other ACMs

During the ACMs Survey one (1) sample (B-32 AS-2) plus one blind field duplicate (B-32 DUP1) of tar paper with foil backing were collected from a wall in Room 1. Asbestos was not detected in the tar paper and foil samples. Refer to Table 17-5 for a summary of the tar paper and foil sample analytical results and a description of the material.

Table 17-5: Asbestos Analytical Results – Other ACMs

Sample ID	Room No.	Detailed Material Description	Photo No. (Appendix B2)	Analytical Result	Condition
B-32 AS-2	1	Tar paper with foil backing on ceiling from former interior wall	17-24	Not detected	Fair
B-32 DUP1	1	Tar paper with foil backing on ceiling from former interior wall	17-24	Not detected	Fair

17.1.2.8 Other Potential ACMs

Other potential ACMs were observed during the ACMs Survey and were not sampled due to the nature of the materials and/or hazards associated with sampling these materials. These materials include, but may not limited to, the following:

- Interior core of fire-rated doors. Note: a metal label indicating a fire-rating was observed on the hinge side of the exterior metal door in Room 1 (refer to Photos 17-1 and 17-8, Appendix B17). A number of metal doors in Room 1 were locked and could not be checked for fire-rating tags.
- Internal components and insulation inside cooling system.

- Gaskets and sealant/caulking on piping and ducts.
- Caulking/sealant around interior and exterior electrical lines.
- Gaskets/wiring inside electrical panels.
- Electrical and mechanical components and insulators such as wiring.
- Roofing materials, including shingles, tar, sealant and caulking.
- Caulking/sealant around window/door frames.
- Interior components of electrical heaters.

Other possible hidden and inaccessible ACMs have the potential to be present at the site but were not identified during the ACMs Survey. These possible ACMs could include packing associated with cast iron pipe joints, hidden fire rated structures or building materials, vapour barriers, concrete lining the interior of hot water boiler tanks and underground infrastructure or piping (e.g., water and sewer lines, waste oil tank).

17.2 Conclusions and Recommendations

Based on observations made and information gathered during the 2018 ACMs Survey, the following conclusions and recommendations are made with respect to the potential and actual presence of ACMs at the site building:

- Building materials containing greater than 1% asbestos by dry weight, which are considered to be ACMs, are present in the form of ceiling panel adhesive (beige).

Other potential ACMs were observed during the ACMs Survey and were not sampled due to the nature of the materials and/or hazards associated with sampling these materials. These materials include, but may not limited to, the following:

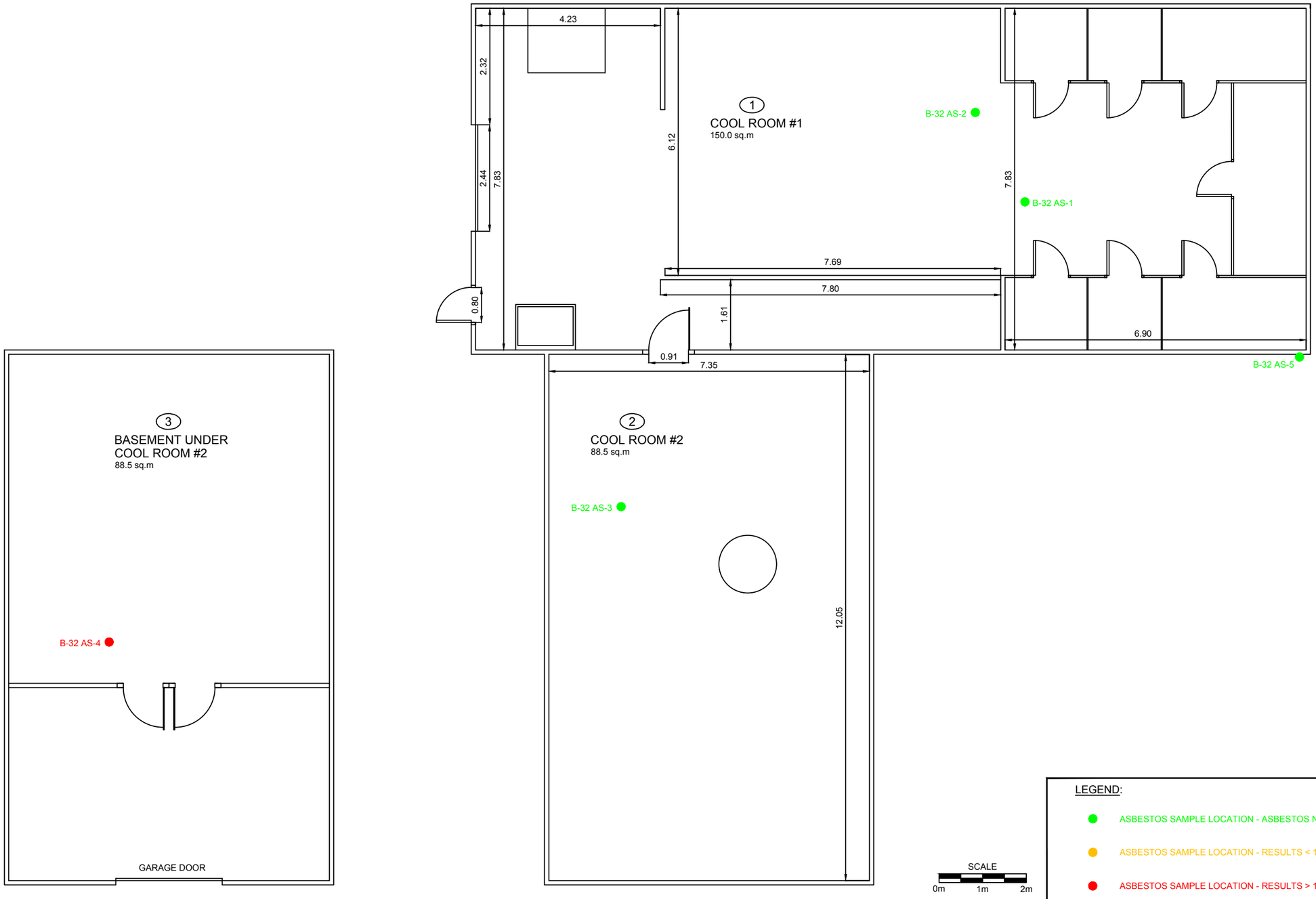
- Interior core of fire-rated doors.
- Internal components and insulation inside cooling system.
- Gaskets and sealant/caulking on piping and ducts.
- Caulking/sealant around interior and exterior electrical lines.
- Gaskets/wiring inside electrical panels.
- Electrical and mechanical components and insulators such as wiring.
- Roofing materials, including shingles, tar, sealant and caulking.
- Caulking/sealant around window/door frames.
- Interior components of electrical heaters.

Other possible hidden and inaccessible ACMs have the potential to be present at the site but were not identified during the ACMs Survey. These possible ACMs could include packing associated with cast iron pipe joints, hidden fire rated structures or building materials, vapour barriers, concrete lining the interior of hot water boiler tanks and underground infrastructure or piping (e.g., water and sewer lines, waste oil tank).

- If other potential ACMs that were not sampled as part of this assessment are encountered in the future, these materials should be treated as ACMs or samples should be collected and tested to verify asbestos content. This should be done as soon as these materials are encountered and before these materials are disturbed. This includes materials that are currently concealed by walls and ceiling systems.
- In accordance with the NL Asbestos Abatement Regulations (Reg. 111/98), which provide the legislative requirements for safe handling of ACMs in workplaces in the Province of NL, the following is recommended:
    - Safe work procedures shall be established.
    - Since the site building was constructed during the period when asbestos was readily used in construction it must have a written assessment and management plan (where applicable) for potential ACMs.
    - Prior to disturbance (e.g., demolition, renovation or removal), all ACMs must be safely removed from the site building and disposed of in accordance with appropriate environmental guidelines by an asbestos abatement contractor registered with the Department of Labour, Occupational Health and Safety Branch.
- ACMs in fair to good condition should be inspected on an annual basis. ACMs in poor condition should be removed from the site building and transported off-site for proper disposal in accordance with the NL Asbestos Abatement Regulations (Reg. 111/98).
- ACMs cannot be disposed of at a Construction & Demolition site; however, these materials can be disposed of at a Regional Solid Waste Landfill, provided permission is obtained from the facility.

APPENDIX A17

FIGURES



SCALE
0m 1m 2m

LEGEND:

- ASBESTOS SAMPLE LOCATION - ASBESTOS NOT DETECTED
- ASBESTOS SAMPLE LOCATION - RESULTS < 1% FOR ASBESTOS
- ASBESTOS SAMPLE LOCATION - RESULTS > 1% FOR ASBESTOS

NOTES:

1. ALL DIMENSIONS ARE IN METERS.
2. DO NOT SCALE FROM FIGURE.
3. THIS FIGURE IS INTENDED TO SHOW RELATIVE LOCATIONS AND CONFIGURATION OF THE STUDY AREA IN SUPPORT OF THIS REPORT.
4. ALL LOCATIONS, DIMENSIONS, AND ORIENTATIONS ARE APPROXIMATE.
5. THIS FIGURE SHOULD NOT BE USED FOR PURPOSES OTHER THAN THOSE OUTLINED ABOVE.
6. THIS FIGURE CONTAINS INTELLECTUAL PROPERTY OF PUBLIC SERVICES AND PROCUREMENT CANADA AND MAY NOT BE REPRODUCED OR COPIED WITHOUT THEIR WRITTEN CONSENT.

Client:
Public Services and Procurement Canada
Services publics et Approvisionnement Canada

Wood
Environment & Infrastructure Solutions
133 Crosbie Road
St. John's, NL A1B 4A5
709-722-7023

wood.

Drawn by: T. Rideout
Approved by: L. Wiseman
Scale: As Shown

Project:
Asbestos Containing Materials Survey
Agriculture and Agri-Food Canada
St. John's Research and Development Centre
308 Brookfield Road, St. John's, NL (DFRP No. 00342)

Title:
Sample Location Plan - Building #32

Date: December 2020
Project No. TE20076022
Rev. No. 0
Figure No. 17.1

APPENDIX B17

PHOTOGRAPHIC RECORD

Photo 17-1: View of Building 32 facing east

Photo 17-2: View of Building 32 facing north

Photo 17-3: View of building 32 facing north

Photo 17-4: View of building 32 facing west

Photo 17-5: View of building 32 facing southeast

Photo 17-6: View of Room 1 (Cool Room)

Photo 17-7: View of Room 1 (Cool Room)

Photo 17-8: View of Room 1 (Cool Room)

Photo 17-9: View of Room 1 (Cool Room)

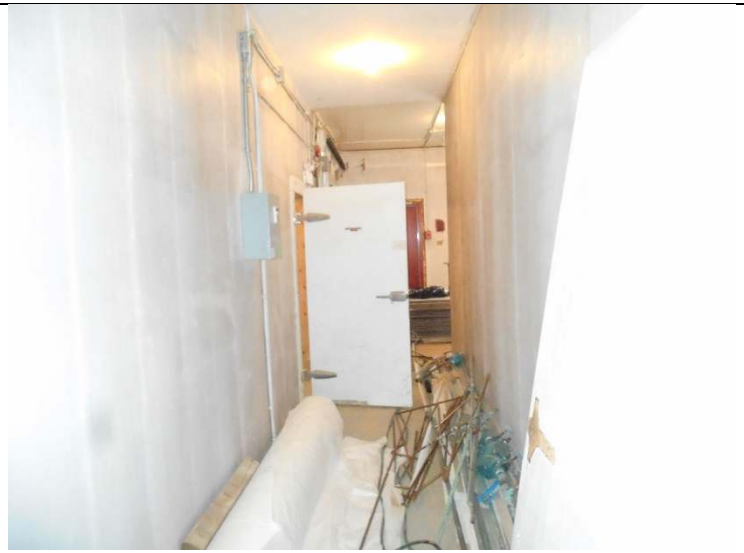


Photo 17-10: View of Room 1 (Cool Room)

Photo 17-11: View of Room 1 (Cool Room)

Photo 17-12: View of ceiling in Room 1

Photo 17-13: View above ceiling in Room 1

Photo 17-14: View of Room 2 (Cool Room)

Photo 17-15: View of Room 2 (Cool Room)

Photo 17-16: View of Room 3 (Basement)

Photo 17-17: View of Room 3 (Basement)

Photo 17-18: View of Room 3 (Basement)

Photo 17-19: View of Room 3 (Basement)

Photo 17-20: View of Room 3 (Basement)

Photo 17-21: View of Room 3 (Basement)

Photo 17-22: View of Room 3 (Basement)

Photo 17-23: View of bulk material sample B-32 AS-1

Photo 17-24: View of bulk material sample B-32 AS-2

Photo 17-25: View of bulk material sample B-32 AS-3

Photo 17-26: View of bulk material sample B-32 AS-4

Photo 17-27: View of bulk material sample B-32 AS-5

APPENDIX C17

SAMPLE AND ANALYTICAL SUMMARY TABLES

Table C-17-1: Bulk Sample Descriptions and Asbestos Analytical Results (AAFC - Building 32)

Sample ID	Material (Layer) Analyzed	Detailed Material Description	Sample Location	Room	Analytical Result
B-32 AS-1-Adhesive A/Tape[1]	Adhesive and tape	Panel tape with black adhesive	Ceiling	Room 1	ND
B-32 AS-1-Adhesive B[1]	Adehsive	Panel tape with black adhesive	Ceiling	Room 1	ND
B-32 AS-2	Tar paper and foil	Tar paper with foil backing	Ceiling (Former Wall)	Room 1	ND
B-32 DUP1	Tar paper and foil	Tar paper with foil backing	Ceiling (Former Wall)	Room 1	ND
B-32 AS-3-Wrap[1]	Wrap	Foil over brown paper over foam	Ceiling	Room 2	ND
B-32 AS-3-Foam[1]	Foam	Foil over brown paper over foam	Ceiling	Room 2	ND
B-32 AS-4	Adhesive	Beige adhesive from ceiling panel	Ceiling	Room 3	2.8% Chrysotile
B-32 AS-5	Concrete	Concrete painted grey	Foundation	Exterior	ND

Notes:

[1] Sample split into two layers for asbestos analysis

B-32 DUP1 is a blind field duplicte of B-32 AS-2

DJC: Drywall Joint Compound

VSF: Vinyl Sheet Flooring

VFT: Vinyl Floor Tile

ND: Non-detect (≤1% asbestos)

ACM: Asbestos-containing material

Shaded value >1% asbestos (dry weight) is considered to be an ACM as outlined in the NL Asbestos Abatement Regulations (Reg. 111/98)

APPENDIX D17

LABORATORY CERTIFICATES OF ANALYSIS

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: 289-997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 551802608
Customer ID: 55MEEN26
Customer PO: TF18076778
Project ID:

Attn: Lori Wiseman
AMEC Foster Wheeler E & I
PO Box 13216
133 Crosbie Road
Saint John's, NL A1B 4A5

Proj: TF18076778

Phone: (709) 722-7023
Fax: (709) 722-7353
Collected:
Received: 3/07/2018
Analyzed: 3/14/2018

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Client Sample ID: B-32 AS-1-Adhesive A/Tape ***Lab Sample ID:*** **551802608-0001**
Sample Description: Tape With Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/14/2018	Tan	<0.25%	100%	None Detected	

Client Sample ID: B-32 AS-1-Adhesive B ***Lab Sample ID:*** **551802608-0001A**
Sample Description: Tape With Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/14/2018	Black	0.0%	100%	None Detected	

Client Sample ID: B-32 AS-2 ***Lab Sample ID:*** **551802608-0002**
Sample Description: Tar Paper With Foil

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/14/2018	Black/Silver	<0.25%	100%	None Detected	

Client Sample ID: B-32 AS-3-Wrap ***Lab Sample ID:*** **551802608-0003**
Sample Description: Foil Over Paper

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Brown/Silver	70%	30%	None Detected	

Client Sample ID: B-32 AS-3-Foam ***Lab Sample ID:*** **551802608-0003A**
Sample Description: Foil Over Paper

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Yellow	0%	100%	None Detected	

Client Sample ID: B-32 AS-4 ***Lab Sample ID:*** **551802608-0004**
Sample Description: Adhesive

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/14/2018	Gray/Tan	1.0%	96.2%	**2.8% Chrysotile**	

Client Sample ID: B-32 AS-5 ***Lab Sample ID:*** **551802608-0005**
Sample Description: Concrete

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Fibrous	Asbestos	Comment
PLM	3/09/2018	Gray/Tan/Various	0%	100%	None Detected	

EMSL Canada Inc.

2756 Slough Street Mississauga, ON L4T 1G3
Phone/Fax: 289-997-4602 / (289) 997-4607
http://www.EMSL.com / torontolab@emsl.com

EMSL Canada Order 551802608
Customer ID: 55MEEN26
Customer PO: TF18076778
Project ID:

Summary Test Report for Asbestos Analysis via EPA 600/R-93/116

Client Sample ID: B-32 DUP1 ***Lab Sample ID:*** **551802608-0006**

Sample Description:

TEST	Analyzed Date	Color	Non-Asbestos Fibrous	Non-Asbestos Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	3/14/2018	Black/Silver	0.0%	100%	None Detected	

Analyst(s):

Eric Budai PLM Grav. Reduction (5)
Ryan Shannon PLM (3)

Reviewed and approved by:

Matthew Davis or other approved signatory
or Other Approved Signatory

Samples analyzed by EPA 600/R-93/116 consistent with NLR 111/98. The estimated limit of detection for non-detect samples is <0.1%. Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL`s liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the US Government.

Samples analyzed by EMSL Analytical, Inc. Ann Arbor, MI NVLAP Lab Code 101048-4

Initial report from: 03/14/201811:44:40

APPENDIX E17

ROOM-BY-ROOM INSPECTION SHEETS

Feb. 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
32	1	1	Pool room	48' x 26' x 10'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	concrete	fair		
Walls	plywood, top 2' like ceiling material tar paper where former walls existed - particle board walls around storage lockers	fair		
Ceiling	2" foam panels w paper covering	Poor		
Paint	Floor grey Wall white Ceiling white Doors Windows Other	Poor poor poor		
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)	yellow spray foam around exterior door			
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): 1 metal (red) FR, 7 metal (grey) potential FR, 1 metal garage Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

listed: FDF BMI-NO-3507 - grey doors

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
32	2	1	Storage room	40'x24'x10'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	Plywood	Poor		
Walls	Plywood, top 2' like ceiling material	fair		
Ceiling	2" foam panel w metalic foil over plywood	Good		
Paint	Floor Grey Wall Ceiling — Doors — Windows — Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)	gasket on door			
Piping / Electrical / Mechanical Equipment	cooling fans			
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): metalic freezer style door Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 13/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
32	3	B (2)	Storage Room	40' x 24' x 10'

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	concrete	fair		
Walls	concrete plywood divider	fair		
Ceiling	2" foam panels w paper wrap	poor		AS 4
Paint	Floor — Wall — Ceiling — Doors — Windows — Other —			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)	extruded polystyrene on plywood wall			
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs (saudering, pipes batteries, exit/ emerg lighting,)				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): 1 wood, 1 metal garage door Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

Feb 15/18

Building	Room #	Floor #	Room Description	Dimensions (L x W x H)
32	Ext		Exterior	

	Description	Condition (good, fair, poor)	Quantity (SF, LF, total)	Samples Collected (or visual reference)
Floor	Concrete	Good		AS 5
Walls	sheet metal			
Ceiling	red shingle			
Paint	Floor grey Wall Ceiling Doors Windows Other			
Insulation (Piping/Mechanical/ Wall/Ceiling/Other)				
Piping / Electrical / Mechanical Equipment				
Lighting (Fluorescent) (10% to be checked)	Ballast Manufacturer: Serial #:	Leaking / Other	Total #: # Checked:	Suspect PCBs:
Lighting (Incandescent, HID, etc.)				
Thermostats	Manufacturer Dial Colour Casing Shape Wall/Floor Mounted		Total #: # Checked:	Mercury Switch:
LCMs **(saudering, pipes batteries, exit/ emerg lighting,)**				
Mould / Water Staining	Materials and area impacted	ODS	e.g., refrigerators, coolers, drinking fountains, fire extinguishers	
Other	Doors (Type and tags): Windows: HVAC (e.g., electric baseboard heater, window-mounted A/C unit)			
Other	e.g. UFFI, CO, VOCs, furnace, ASTs, USTs, drums			

Legend: PS (paint sample); VPS (visual reference to PS); AS (asbestos sample); VAS (visual reference to AS); FS (fungal sample); LCM (lead-containing material); ACM (asbestos-containing material); DJC (drywall joint compound); VFT (vinyl floor tile – specify 1 x 1', 9 x 9"); ACT (acoustic ceiling tile – specify pattern e.g. speckled); LF (linear feet); SF (square feet).

Notes/Comments:

APPENDIX F17
BUILDING INSPECTION REPORTS / BUILDING INVENTORY RECORDS

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

AAFC BUILDING INSPECTION REPORT

ESTABLISHMENT	LOCATION	DFRP NO.	STRUCTURE NO.	BUILDING NAME AND NO.	DATE COMPLETED
AAFC - St. John's Research and Development Center Year Built: 1968	St. John's, NL	:00	32	Building 32 - Cellar	2017-10-10

MAJOR RENOVATIONS AND PROJECTS

DESCRIPTION	YEAR COMPLETED	COST
Construction	1968	$20,072.00
new metal siding	2016	$10,868.00
new garage door, new man door	2016	$3,200.00
new shingles	2014	$13,100.00

BUILDING INSPECTION EVALUATION

3 Average ✓

Evaluation Scale		Building	Building element
5	Excellent	New buildings less than 5 years old that have undergone major renovation/retrofit within the last 5 years that account for 50%+ of the building construction cost.	Building element less than 5 years old or has undergone major renovation/retrofit within the last 5 years.
4	Good	Buildings that have undergone major renovation/retrofit within the last 5 - 15 years that account for 50%+ of the building construction costs.	Building element that has undergone major renovation/retrofit within the last 5 - 15 years.
3	Average	Building kept in average condition by replacement of components as they wear out. Operating properly for intended purpose.	Building element kept in average condition by repair/retrofit of components. Operating properly for intended purpose.
2	Poor	Buildings where capital replacement is not sufficient to keep pace with deterioration and current technology; very minimal betterments; Life safety systems have been maintained.	Building element where repair/retrofit is not sufficient to keep pace with deterioration and/or current technology or does not meet code.
1	Critical	Buildings with significant or advanced deterioration, urgently requires major renovation, retrofit or replacement.	Building element with significant or advance deterioration urgently requires retrofit or replacement. Failure is approaching/imminent.

BUILDING INSPECTION CHECKLIST

Leave element blank if N/A. Add element if needed. Evaluate from 1 to 5 (critical to excellent)

BUILDING ENVELOPE

	evaluation 1-5		evaluation 1-5		evaluation 1-5	Envelope evaluation average	4.8
roof	5	windows					
foundation	3	doors	5				
walls	5	overhead doors	5				
cladding	5	door hardware	5				
caulking	5	louvers	5				

BUILDING SYSTEMS

	evaluation 1-5		evaluation 1-5		evaluation 1-5	Systems evaluation average	2.8
boiler(s)		electrical entrance	3	controls			
chiller(s)		MCC(s)					
air-handlers & fans	2	distribution panels	3				
pumps		lighting	3				
piping systems		lighting controls	3				

LIFE SAFETY SYSTEMS

	evaluation 1-5		evaluation 1-5		evaluation 1-5	Systems evaluation average	3.0
generator(s)		fire alarm devices	3				
fire pump(s)		emergency lighting	3				
sprinkler system		security system(s)					
standpipe system							
fire alarm panel(s)	3						

BUILDING INTERIOR

	evaluation 1-5		evaluation 1-5		evaluation 1-5	Interior evaluation average	3.0
floors	3	windows	3				
ceilings	3	plumbing fixtures					
walls	3						
door & hardware	3						
fixed furnishings	3						

Comments
Building meets operational requirements

Regional Engineer's name: Jamie Coffin — Date: Oct. 30/17 — Signature

Facility Manager's name: Scott Newport — Date: Oct 24/17 — Signature

Integrated Services Manager's name: Cherri Dooley — Date: Oct 24/17 — Signature

Agriculture Canada

BUILDING INVENTORY RECORD

FICHE D'INVENTAIRE DES BÂTIMENTS

Record No./ Nº de la fiche

Record Revised / Date de révision de la fiche
1989-08-03

Year Built - Année de la construction
1968

1. Branch-Section / Direction générale-Section	Location / Emplacement	Establishment / Établissement	Building location / Site du bâtiment	Building Name / Nom du bâtiment	Codes Class / Classe	Codes Type / Genre	Building No / Nº du bâtiment
RESEARCH	ST. JOHN'S	RESEARCH STATION	Main estab. (V) ✓ Centre principal; Satellite (Name / Nom)	Cellar/vegetable storage	02	03	32

2. Descriptions

Number of floors / Nombre d'étages	Dimensions, including wings / Dimensions, ailes y compris	Square Meters / Mètres carrés	Height / Hauteur
Basement	B (25'x40') - 1000 sq. ft.	92.9	Base to 1st 10'
1st floor	A (26'x60') + B (25'x40')	237.8	1st to eave - 10' Eave to peak - 5½'
	Total	SQ.M² 330.7	M² CA.

3. Construction - Type and Materials / Genre de construction et matériaux

Foundation / Fondations	Framing / Charpente	Walls, exterior / Murs, extérieurs	Walls, interior / Murs, intérieurs	Floors / Planchers	Roofs / Toits
Poured concrete	2"x4" wood studding	Vinyl siding	2" Polyurethane Insulation	Poured concrete and plywood	Gable - asphalt shingles

6. Costs - Coûts

Year / Année	Improvements / Améliorations	$ Cost / Coût	$ Total
1968		20,072	20,072
1972	extension & basement	8,964	29,036
1973	Cooling equipment	6,440	33,476
1984	Vinyl siding	4,450	37,926

4A. Utilities - Type / Genre de services

Plumbing / Plomberie	Heating & Air Conditioning / Chauffage et climatisation	Electricity and Other / Electricité et autres services
-	2 - Refrigerated rooms Bohn cooling units Hussman compressor Copeland compressor Ventilation Controlled room Electric duct heater air circulating fan. Modutrol damper motor - Honeywell.	120-208 V 100 amp 3 phase + Fire alarm

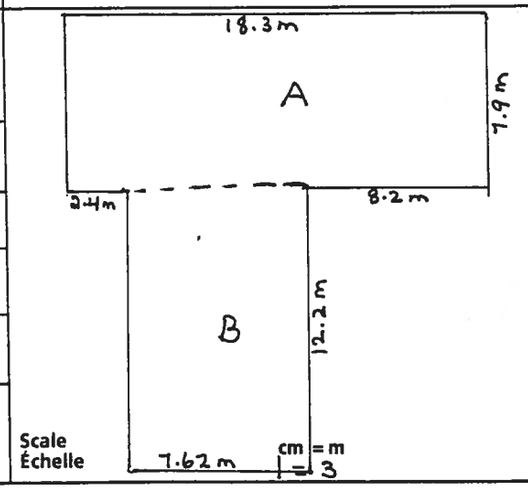
4B. Energy Data / Données énerg.

- Heated / Chauffé ✓
- Not heated / Non chauffé ☐

Heritage Designation / Désignation patrimoniale

- Non-Heritage / Non-patrimoniale ✓
- Recognized / Reconnu ☐
- Classified / Classifié ☐

5. Sketch - Ground Floor Exterior / Schéma de l'extérieur du rez-de-chaussée



7. Disposal Action / Disposition

Date declared surplus to C.A.D.C. / Date de déclaration de non-utilisé à C.D.B.C.

Land not included / Terrain exclu ☐ Land included / Terrain inclus ☐

Date sold by C.A.D.C. or / Date de vente par C.D.B.C. ou	Date authorized for demolition (5E) / Date de l'autorisation de démolition
Date Branch notified / Date d'avis à la direction	Date deleted from inventory record / Date de radiation de l'inventaire

Remarks / Observations

8. Remarks / Observations