

**Prepared for:**  
School District No. 85  
Vancouver Island North

# Asbestos Inventory & Condition Assessment

## Port Hardy Secondary School Portable



Prepared by:



**North West**  
Environmental Group Ltd.

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Project No. 33310 HMA1 V1.0  
Date Issued: July 24<sup>th</sup>, 2017

## EXECUTIVE SUMMARY

North West Environmental Group Ltd. (NWest) was retained by School District 85 - Vancouver Island North to conduct an asbestos inventory and condition assessment of the Britco Portable Trailer built in 1995 at Port Hardy Secondary School, located in Port Hardy, B.C. V0N 2P0.

The non-destructive visual assessment was conducted on November 14th, 2016 by Julie Scott-Moncrieff, B.Sc. CIH, Senior Industrial Hygienist. Previous bulk sample(s) collected by NWest in the July 2009 assessment was used for this report.

The purpose of this assessment is to provide information regarding the presence and condition of asbestos-containing materials (ACMs) in the building to facilitate compliance with the requirements outlined in BC Occupational Health and Safety Regulations (BC OH&S R) specifically Section 6.4, Inventory. This inventory assessment supports the building owner/manager's regular monitoring of ACM conditions so that materials in good condition may be safely managed in place until they are removed, and damaged materials can be repaired or otherwise addressed in a timely manner. Regular inspections of ACMs are required to mitigate the potential for occupant exposure and for day to day building maintenance activities involving minor disturbance of materials.

### Hidden Suspect ACMS

Based on the age of the portable (1995), asbestos containing materials are not suspected. Prior to any building material disturbance, renovation or demolition a hazardous materials assessment as per WorkSafeBC 20.112 is required to be completed by a qualified person.

### Potential ACMS can include:

- Internal parts of appliances and white goods
- Tar/building paper
- Buried cement pipes, and bell and spigot piping seals
- Gaskets and packing in pipe flanges, valves or furnaces
- Flooring materials concealed below new flooring, wood subfloors, carpet or ceramic flooring
- Window putties, glazing, mastics or caulks
- Roofing felts, membranes, shingles and caulks
- Ceramic tile levelers, grouts, mortar

**\*Note: Hidden/concealed materials and materials that were not damaged were not assessed. Based on the age of construction, potentially asbestos-containing materials may also be present in building finishes**

### General Recommendations with Reference to Applicable Legislation

- In the event that renovation or demolition activities are scheduled for this facility, conduct a project specific hazardous materials assessment as per BC Occupational Health and Safety Regulation (OH&S Regulation) 20.112.

- Inaccessible and suspected asbestos-containing materials must be treated as asbestos-containing until assessed by a qualified person (BC OH&S Regulation 6.4.2)
- Keep this inventory report at the workplace (BC OH&S Regulation 6.4.3 (b))
- Ensure that this report is kept current by recording any changes to the material condition, adding analytical results and regularly assessing material condition (BC OH&S Regulation 6.4.3 (c))
- All asbestos-containing materials must be identified using labelling or other effective means of communicating asbestos status to those who may disturb the materials (BC OH&S Regulation 6.5)
- Ensure a qualified person conducts a risk assessment of on-site materials and again prior to disturbance of materials (BC OH&S Regulation 6.6)

No Asbestos containing materials were identified within the portable.

**Warning:** in the event any additional suspect materials are encountered during renovation/repair activities, work on those materials should stop immediately and remain undisturbed until testing confirms the presence or absence of asbestos or other hazardous material

### Limitations

Following conditions/materials were not included in this assessment:

- Personal and/or occupant contents were not assessed.
- Attic insulation was not assessed during this assessment.
- Insulation that could be present in the wall cavities was not assessed during this assessment.

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## 1 INTRODUCTION

North West Environmental Group Ltd. (NWest) was retained by School District 85 - Vancouver Island North to conduct an asbestos inventory and condition assessment at the Britco Portable Trailer at Port Hardy Secondary School, located in Port Hardy, B.C. V0N 2P0.

The non-destructive assessment was conducted on November 14th, 2016 by Julie Scott-Moncrieff, B.Sc. CIH, Senior Industrial Hygienist.

The purpose of this assessment is to provide information regarding the presence and condition of asbestos-containing materials (ACMs) in the building to facilitate compliance with the requirements outlined in BC Occupational Health and Safety Regulations (BC OH&S R) specifically Section 6.4, Inventory. This inventory assessment supports the building owner/manager's regular monitoring of ACM conditions so that materials in good condition may be safely managed in place until they are removed, and damaged materials can be repaired or otherwise addressed in a timely manner. Regular inspections of ACMs are required to mitigate the potential for occupant exposure and for day to day building maintenance activities involving minor disturbance of materials.

If renovation or demolition is to be performed, a detailed hazardous material assessment is required as per BC Occupational Health and Safety Regulation (OHSR) 20.112.

## 2 SCOPE OF WORK

The assessment did not include an intrusive investigation to access hidden conditions in wall and ceiling cavities or layers of materials. It is possible that hazardous materials are present in these areas but were not identified. Locations and building materials that have not been assessed should be considered potentially hazardous materials-containing until they can be evaluated by a qualified person.

The following was undertaken as part of this project:

- A non-destructive, room-by-room assessment of all interior building areas, identifying the location, type of material (e.g. vinyl floor tiles, ceiling tiles, etc.) and condition of identified asbestos-containing materials.
- A non-destructive assessment of exterior concrete block to investigate the presence of vermiculite insulation.
- Sampling and analysis of suspected asbestos-containing building materials by an accredited laboratory.
- Identification of all sampling locations and materials on a floor plan.
- Preparation of this inventory and condition report including a summary of remedial recommendations regarding known ACMs was made based on damage and accessibility to occupants and maintenance staff during typical daily activities.

**Warning:** in the event any additional suspect materials are encountered during renovation/repair activities, work on those materials should stop immediately and remain undisturbed until testing confirms the presence or absence of asbestos or other hazardous material

## 2.1 Limitations

1. Ongoing repairs, maintenance, and scheduled renovations may have resulted in some changes to the building after this report was printed.
2. This inventory does not replace the requirement to carry out a project-specific hazardous materials assessment as per WorkSafeBC and British Columbia's Occupational Health and Safety Regulation 20.112.
3. Non-destructive sampling and investigative techniques were not used (i.e. floor core samples were not collected to assess concealed layers of flooring).
4. Wall cavities and ceiling voids were not opened to determine the presence of insulation or other materials. Where possible, existing holes were used to aid in assessment of concealed materials.
5. Materials integral to the building envelope were not sampled (i.e. roofing, window caulking – unless observed damaged, exterior cladding).
6. An assessment of other suspect hazardous materials was not undertaken as it was beyond the scope of this work.
7. While only those buildings or areas known, suspected or reported by the Client to have been constructed prior to 1990 were included in the assessment, this Assessment was conducted at the request of the client.

## 3 BUILDING DESCRIPTION

The Portable located adjacent to the Port Hardy Secondary School is reported to be built in 1995. The building materials are vinyl, board, fibre board, carpet and sheet vinyl. The portable is heated by a furnace.

### 3.1 SITE WORK AND ANALYSIS METHODOLOGY

#### Visual Assessment

The NWest technologist conducted a visual assessment of each room to identify, assess and record the condition, accessibility and friability of suspect ACMs. Representative photographs were taken of each material. Analytical results were extrapolated for rooms and areas with similar finishes to those where samples were collected.

The assessment was non-destructive. Where holes and penetrations were present, they were used to assess buildings for the presence of concealed asbestos-suspect materials.

#### Sample Collection

Samples were collected in general accordance with WorkSafeBC requirements for bulk sampling for asbestos and NWest standard procedures.

Whenever practicable, sampled materials were cut down to the base substrate to ensure that a representative sample was collected. In order to reduce visible damage, samples were collected in discreet locations or from damaged materials. Sample locations were enclosed/encapsulated with caulking or putty.

Samples were submitted with a chain of custody to an accredited laboratory for analysis using EPA 600/R-93/116 method using Polarized Light Microscopy with Dispersion Staining.

## 3.2 Asbestos

### 3.2.1 Hidden Suspect ACMS

Based on the age of the trailer asbestos containing materials are not anticipated. In the event that suspect asbestos-containing materials are encountered that have not been previously identified, engage in the services of a qualified professional to assess them.

Potential ACMS can include:

- Internal parts of appliances and white goods
- Tar/building paper
- Buried cement pipes, and bell and spigot piping seals
- Gaskets and packing in pipe flanges, valves or furnaces
- Flooring materials concealed below new flooring, wood subfloors, carpet or ceramic flooring
- Window putties, glazing, mastics or caulks
- Incandescent light fixtures and backing
- Roofing felts, membranes, shingles and caulks
- Mechanical vibration dampeners, expansion joints and equipment
- Fibreboard Ceiling tiles, glues and adhesives
- Drywall joint compounds
- Ceramic tile levelers, grouts, mortar

**Warning:** in the event any additional suspect materials are encountered during renovation/repair activities, work on those materials should stop immediately and remain undisturbed until testing confirms the presence or absence of asbestos or other hazardous material.

## 3.3 RECOMMENDATIONS AND ACTIONS

- In the event that renovation or demolition activities are scheduled for this facility, conduct a project specific hazardous materials assessment as per BC Occupational Health and Safety Regulation (OH&S Regulation) 20.112.
- Inaccessible and suspected asbestos-containing materials must be treated as asbestos-containing until assessed by a qualified person (BC OH&S Regulation 6.4.2)
- Keep this inventory report at the workplace (BC OH&S Regulation 6.4.3 (b))
- Ensure that this report is kept current by recording any changes to the material condition or adding analytical results (BC OH&S Regulation 6.4.3 (c))
- All asbestos-containing materials must be identified using labelling or other effective means of communicating asbestos status to those who may disturb the materials (BC OH&S Regulation 6.5)
- Ensure a qualified person conducts a risk assessment of on-site materials and again prior to disturbance of materials (BC OH&S Regulation 6.6)

**Warning:** in the event any additional suspect materials are encountered during renovation/repair activities, work on those materials should stop immediately and remain undisturbed until testing confirms the presence or absence of asbestos or other hazardous material.

### 3.4 CLOSURE

North West Environmental Group Ltd. (NWest) conducted this asbestos inventory assessment for the client in accordance with the agreed upon scope of work for the project.

The report may not be relied upon by any other person or entity without the express written consent of NWest. Any use a third party makes of this report, or any reliance on decisions made based on it, is the responsibility of such third parties. NWest accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Some of the information presented in this report was provided through existing documents and interviews. NWest has been required to assume that the information provided is accurate. NWest accepts no responsibility for any deficiency, misstatement, or inaccuracy in this report resulting from the information provided by others. Further, NWest shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the assessment was conducted.

The conclusions presented represent the best judgment of our firm based on current standards and on the site conditions observed during the assessment. The assessment of the current conditions at this site has been based on field observations, sampling and laboratory analytical results. The information presented in this report concerning asbestos within the study area investigated is descriptive of conditions at those locations only. Asbestos containing materials not represented by these analytical results may be present on the subject property.

**North West Environmental Group Ltd.**



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Julie Sullivan, B.Sc., CIH  
Senior Industrial Hygienist  
Qualified person as per OHS Reg 6.1  
*Report Author*

**Appendix A. PHOTO PLATES**

The following photo plates provide a general documentation of the building materials that were sampled and analyzed during the assessment. It is meant to summarize the results of analysis and observations and is not intended to include all hazardous materials, or their locations, observed during the assessment.



Photo: 33310-1  
Location: Classroom  
Description: Sheet Flooring  
Asbestos: No Asbestos Detected



Photo: 33310-2  
Location: Kitchen  
Description: Sheet Flooring  
Asbestos: No Asbestos Detected



Photo: 33310-3  
Location: Washroom  
Description: Sheet Flooring  
Asbestos: No Asbestos Detected



Photo: 33310-4  
Location: Office  
Description: Sheet Flooring may be present  
beneath carpeting  
Asbestos: No Asbestos Detected

**Photo Plate (cont.)**



Photo: 33310-5  
Location: Classroom  
Description: Sheet Flooring  
Asbestos: No Asbestos Detected



Photo: 33310-6  
Location: Furnace Room  
Description: Sheet Flooring  
Asbestos: No Asbestos Detected

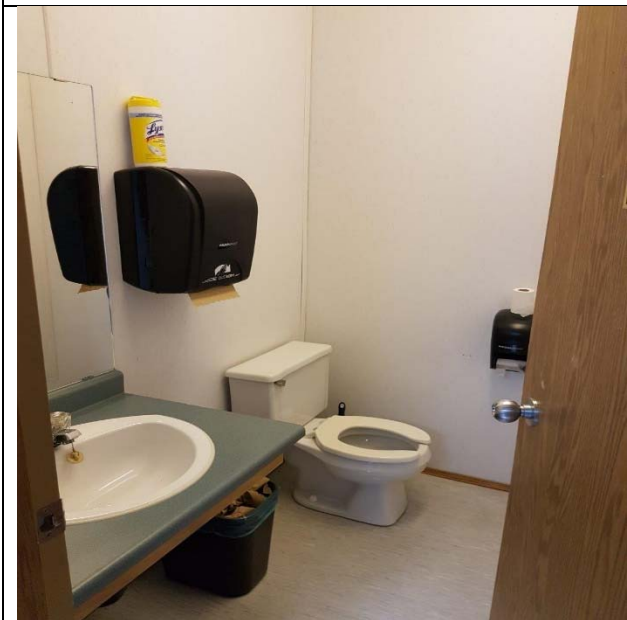


Photo: 33310-7  
Location: Washroom  
Description: Sheet Flooring  
Asbestos: No Asbestos Detected

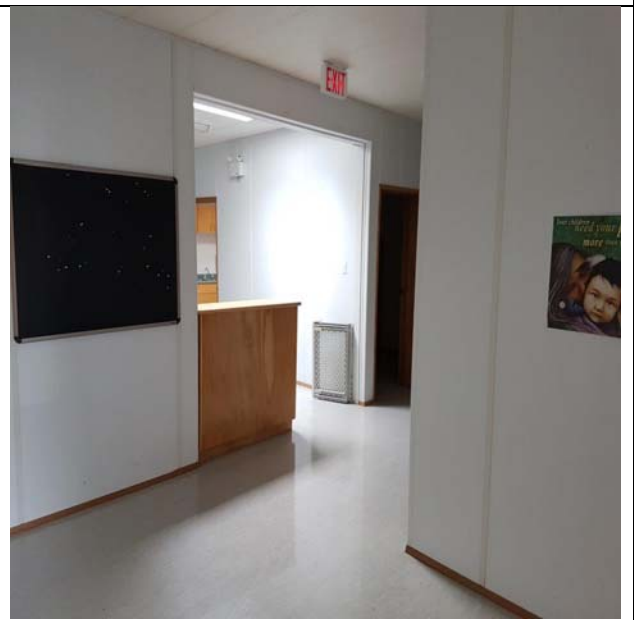


Photo: 33310-8  
Location: Reception  
Description: Sheet Flooring  
Asbestos: No Asbestos Detected

**Appendix B. ANALYSIS**

Table 1: Results of Asbestos Analysis



**North West  
 Environmental Group Ltd.**

**Asbestos Analysis of Bulk Materials using  
 Polarized Light Microscopy**

#3 – 835 Devonshire Road  
 Victoria, B.C. V9A 4T5  
 Tel:250-384-9695  
 Fax:250-384-9865  
 e-mail:northwest@nwest.bc.ca

Client: School District 85 - Vancouver Island North

Client Job or PO #: Thursday, August 27, 2009  
 0

Site: Port Hardy Daycare

**NW Project Number: 10568**

Sample Number	Location	Date Analysed	Analyst	Description	Phase	%	Asbestos	%	Other Materials	%
10568-01	Throughout Building	08/27/09	EM	Sheet Flooring - Glue Only	Yellow Non-Fibrous Heterogeneous	100	None Detected	0	Non-Fibrous	100



## Appendix C. REGULATORY FRAMEWORK

1. **BC Occupational Health and Safety Regulation**, BC Reg. 296/97, including amendments.
2. **Safe Work Practices for Handling Asbestos**, WorkSafeBC, and current edition.
3. **Hazardous Waste Regulation**, BC Ministry of Environment, including amendments.

## Appendix D. **METHODOLOGY**

Sampling and analysis methodologies are detailed below.

### **Asbestos**

An initial walk-through was conducted throughout the structure and observations were made of the wall, ceiling, floor, and other materials including any machinery or equipment to make a preliminary determination if asbestos could be present.

To confirm or discount the presence of asbestos, representative bulk samples were collected. The sample location in the building was identified with a unique sample number. The number of representative bulk samples collected was consistent with recognized industry standards for the age of the building and principles of good occupational hygiene practice. The approximate quantity, location and sample locations of suspect ACMs were recorded.

Bulk samples were submitted for analysis in accordance with PLM: Bulk Asbestos Building Materials EPA 600 R 93 / 116. 1993. Vermiculite samples were submitted for analysis in accordance with the Research Method for Sampling and Analysis of Fibrous Amphibole in Vermiculite Attic Insulation (EPA/600/R-04/004, January 2004, US EPA.)

The asbestos analysis was completed using a stop positive approach when appropriate for site conditions. Stop positive means samples in a homogenous material sample set were analyzed consecutively and when a sample was identified as asbestos-containing, further sample analysis within that sample set was not completed.

Samples containing > 0.5% asbestos were identified as being asbestos containing. Vermiculite insulation was identified as being asbestos-containing if any trace of asbestos was found. Non-insulation

**END OF REPORT**