

CBSA – FRASER POE DEMOLITION OF EXISTING SLAB AND REPAVING

The following changes in the tender documents are effective immediately. This addendum will form part of the contract documents.

A. SPECIFICATIONS

- .1 Section 00 00 10 Table of Contents
DELETE:
02 83 11 Lead Basepaint (Abatement Intermediate Precautions) 7
ADD:
02 81 01 Hazardous Materials 7
APPENDIX D Pre-Demolition Hazardous Materials Assessment 42

- .2 DELETE:
02 83 11 Lead Basepaint (Abatement Intermediate Precautions) 7 pages
ADD:
02 81 01 Hazardous Materials 7 pages

- .3 ADD:
APPENDIX D Pre-Demolition Hazardous Materials Assessment 42 pages

END OF ADDENDUM No. 2

1.0 GENERAL

1.1 REFERENCES

- .1 Refer to the following reports (further referred to herein as the "Assessment Reports"), for information pertaining to hazardous building materials that have been identified and may require disturbance (removal and disposal) during the Work:

- .1 "Pre-Demolition Hazardous Building Materials Assessment, Fraser Port of Entry Traffic Building, KM 36.7, South Klondike Highway, Northern BC", prepared by Stantec Consulting Ltd., dated February 26, 2016 (Stantec 2016 Report).
.2 "Area Specific Designated Substances and Hazardous Materials Survey, Fraser, British Columbia" prepared by WSP Canada Inc., dated March 7, 2018 (WSP 2018 Report).

1.2 DEFINITIONS

- .1 Dangerous Goods: product, substance, or organism that is specifically listed or meets hazard criteria established in Transportation of Dangerous Goods Regulations.
.2 Hazardous Building Material: component of a building or structure that will cause adverse impact to environment or adversely affect health of persons, animals, or plant life when altered, disturbed or removed during maintenance, renovation or demolition.
.3 Hazardous Material: product, substance, or organism that is used for its original purpose; and that is either dangerous goods or a material that may cause adverse impact to environment or adversely affect health of persons, animals, or plant life when released into the environment.
.4 Hazardous Waste: any hazardous material that is no longer used for its original purpose and that is intended for recycling, treatment or disposal.

1.3 REFERENCE STANDARDS

- .1 Canadian Environmental Protection Act, 1999 (CEPA 1999).
.1 Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (SOR/2005-149).
.2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
.1 Material Safety Data Sheets (MSDS).
.3 National Research Council Canada Institute for Research in Construction (NRC-IRC)
.1 National Fire Code of Canada 2015.
.4 Department of Justice Canada
.1 Transportation of Dangerous Goods Act (TDG Act) 1999, (c. 34).
.2 Transportation of Dangerous Goods Regulations (T-19.01-SOR/2003-400).
.5 Government of Canada
.1 The Canada Labour Code, Part II, Canada Occupational Health and Safety Regulations (COHSR)
.2 The Federal PCB Regulations (SOR/2008-273).

- .3 The Federal Halocarbons Regulation (July 2003).
- .6 Public Services and Procurement Canada
 - .1 Asbestos Management Directive (June 5, 2017)
 - .2 Asbestos Management Standard (June 5, 2017)
- .7 WorkSafe BC
 - .1 British Columbia's Occupational Health and Safety Regulation (BC Reg. 296/97), including amendments to date of work)
 - .2 "Safe Work Practices for Handling Asbestos" (2017)
 - .3 "Lead-Containing Paints and Coatings; Preventing Exposure in the Construction Industry" (2011)
 - .4 "Safe Work Practices for Handling Lead" (2017)
- .8 Government of British Columbia
 - .1 British Columbia Hazardous Waste Regulation (BC Reg. 63/88)
- .9 Canadian Construction Association
 - .1 Standard Construction Document CCA 82 "Mould Guidelines for the Canadian Construction Industry" (2004 – further referred to herein as "CCA 82").

1.4 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data for hazardous materials to be used by the Contractor to complete the Work:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets, and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit two copies of WHMIS MSDS to Departmental Representative for each hazardous material required prior to bringing hazardous material on site.
 - .3 Submit hazardous materials management plan to Departmental Representative that identifies hazardous materials, usage, location, personal protective equipment requirements, and disposal arrangements.

1.5 DELIVERY, STORAGE, AND HANDLING

- .1 Co-ordinate storage of hazardous materials with Departmental Representative and abide by internal requirements for labelling and storage of materials and wastes.
- .2 Store and handle hazardous materials and wastes in accordance with applicable federal and provincial laws, regulations, codes, and guidelines.
- .3 Store and handle flammable and combustible materials in accordance with current National Fire Code of Canada 2015 requirements.
- .4 Keep no more than 45 litres of flammable and combustible liquids such as gasoline, kerosene and naphtha for ready use.
 - .1 Store flammable and combustible liquids in approved safety cans bearing the Underwriters' Laboratory of Canada or Factory Mutual seal of approval.
 - .2 Storage of quantities of flammable and combustible liquids exceeding 45 litres for work purposes requires the written approval of the Departmental Representative.
- .5 Transfer of flammable and combustible liquids is prohibited within buildings.

- .6 Do not transfer of flammable and combustible liquids in vicinity of open flames or heat-producing devices.
- .7 Do not use flammable liquids having flash point below 38 degrees C, such as naphtha or gasoline as solvents or cleaning agents.
- .8 Store flammable and combustible waste liquids for disposal in approved containers located in safe, ventilated area. Keep quantities to minimum.
- .9 Observe smoking regulations, smoking is prohibited in areas where hazardous materials are stored, used, or handled.
- .10 Storage requirements for quantities of hazardous materials and wastes in excess of 5 kg for solids, and 5 litres for liquids:
 - .1 Store hazardous materials and wastes in closed and sealed containers.
 - .2 Label containers of hazardous materials and wastes in accordance with WHMIS.
 - .3 Store hazardous materials and wastes in containers compatible with that material or waste.
 - .4 Segregate incompatible materials and wastes.
 - .5 Ensure that different hazardous materials or hazardous wastes are not mixed.
 - .6 Store hazardous materials and wastes in secure storage area with controlled access.
 - .7 Maintain clear egress from storage area.
 - .8 Store hazardous materials and wastes in location that will prevent them from spilling into environment.
 - .9 Have appropriate emergency spill response equipment available near storage area, including personal protective equipment.
 - .10 Maintain inventory of hazardous materials and wastes, including product name, quantity, and date when storage began.
- .11 Ensure personnel have been trained in accordance with Workplace Hazardous Materials Information System (WHMIS) requirements.
- .12 Report spills or accidents immediately to Departmental Representative. Submit a written spill report to Departmental Representative within 24 hours of incident.

1.6 TRANSPORTATION

- .1 Transport hazardous materials and wastes in accordance with federal Transportation of Dangerous Goods Act, Transportation of Dangerous Goods Regulations, and applicable provincial regulations.
- .2 If hazardous waste is generated on site:
 - .1 Co-ordinate transportation and disposal with Departmental Representative.
 - .2 Ensure compliance with applicable federal, provincial and municipal laws and regulations for generators of hazardous waste.
 - .3 Use licensed carrier authorized by provincial authorities to accept subject material.
 - .4 Prior to shipping material obtain written notice from intended hazardous waste treatment or disposal facility that it will accept material and that it is licensed to accept this material.

- .5 Label containers with legible, visible safety marks as prescribed by federal and provincial regulations.
- .6 Ensure that trained personnel handle, offer for transport, or transport dangerous goods.
- .7 Provide photocopy of shipping documents and waste manifests to Departmental Representative.
- .8 Track receipt of completed manifest from consignee after shipping dangerous goods. Provide a photocopy of completed manifest to Departmental Representative.
- .9 Report discharge, emission, or escape of hazardous materials immediately to Departmental Representative and appropriate provincial authority. Take reasonable measures to control release.

1.7 **EXISTING CONDITIONS**

- .1 Reports and information pertaining to hazardous building materials present within the building that may be handled, removed, or otherwise disturbed and disposed of during the Work are included in the Assessment Reports of this specification.
- .2 Notify Departmental Representative of suspected hazardous building material discovered during Work and not apparent from drawings, specifications, or reports pertaining to the Work. Do not disturb such material until such time as instructions are received from Departmental Representative.

Part 2 **Products**

2.0 **MATERIALS**

- .1 Only bring on site quantity of hazardous materials required to perform work.
- .2 Maintain MSDS in proximity to where materials are being used. Communicate this location to personnel who may have contact with hazardous materials.

Part 3 **Execution**

3.0 **HAZARDOUS BUILDING MATERIALS ABATEMENT**

- .1 Abatement shall be conducted to handle, alter, remove and dispose of hazardous building materials as identified in the Assessment Reports in accordance with applicable regulations, guidelines, standards and/or best practices for such work, only to the extent that such identified hazardous building materials will be impacted (handled, altered, damaged, removed) by the Work.
- .2 Contractor is responsible for reviewing plans, specifications and reports such that they understand the locations and amounts of hazardous building materials that will be impacted by the Work of this Contract.
- .3 Where there is a discrepancy between the information in this specification as compared to the information in the Assessment Reports as it pertains to identities, locations and/or quantities of identified hazardous building materials, the information in the Assessment Reports will prevail.

- .1 If discrepancies are present pertaining to identities, locations and/or quantities of identified hazardous building materials, it is the Contractor's responsibility to request information to clarify such discrepancies during the bidding period. No additional costs will be allowed by the Contractor for additional labour or materials required to complete required abatement related to such discrepancies.
- .4 The listing below is a summary of the hazardous building material categories that require consideration, along with the associated removal and disposal regulations, guidelines and/or standards.
 - .1 Asbestos-Containing Materials (ACMs)
 - .1 As per the Assessment Reports, ACMs were not identified that are anticipated to be impacted by work of the Project.
 - .2 Lead and Lead-Containing Paints (LCPs)
 - .1 Refer to the Assessment Reports for identities and locations of identified lead-containing materials (including paints with varying concentrations of lead).
 - .2 Unless otherwise determined by the Contractor, at a minimum, it is anticipated that the following LCPs will require consideration during the Work associated with the existing secondary containment canopy:
 - .1 Red primer on structural steel components of the canopy (3,000 ppm lead) – anticipated to be impacted during preparation/re-painting activities associated with structural steel components to remain.
 - .2 Cream paint on the underside of the steel canopy (1,800 ppm lead) – anticipated to be impacted only to the extent required to allow for removal of steel canopy.
 - .3 Actions that will disturb lead-containing materials (including paints and materials coated with paints) are to be conducted in accordance with the requirements of the 2017 WorkSafe BC publication "Safe Work Practices for Handling Lead", keeping airborne exposure to lead dust to less than COHSR and BC Reg. 296/97 regulated 8-hour Occupational Exposure Limit (OEL) for lead of 0.05 milligram per cubic metre (mg/m³).
 - .1 The actual methods to be used by the Contractor to complete the general Work of this Project may impact how and to what extent various lead-containing items and LCPs will require removal and disposal.
 - .2 The work tasks required and the ways in which lead-containing materials (including LCPs) will be impacted will determine the appropriate respirators, measures and procedures that should be followed to protect workers from lead exposure. This is to be determined by the Contractor through their own Risk Assessment and development of Safe Work Practices that are prepared in relation to the site-specific tasks and materials to be impacted as part of their Work.
 - .1 Contractor is to submit the documented Risk Assessment and site-specific Safe Work Practices pertaining to lead to the Departmental Representative for review, at least 5 days prior to initiation of work.
 - .2 Contractor must not proceed with work that will impact identified LCPs without approval from Departmental Representative.

- .4 Although paints and items coated with paints may be disturbed and/or removed for disposal during the Work, and although localized removal of LCP may be necessary to undertake Work, unless deemed necessary through risk assessment or cost analysis conducted by the Contractor, comprehensive removal of paints from items or surfaces is not expected to be required during the Work.
- .5 Refer to the provisions of the 2017 WorkSafeBC document "Safe Work Practices for Handling Lead" for removal of LCPs from surfaces before any welding and torch-cutting, should the Contractor plan to use such methods to complete the Work.
 - .1 Contractor will be responsible for verification testing of surfaces where LCPs have been removed. Confirmation of acceptable results is to be provided to the Departmental Representative for review before proceeding with any welding or torch-cutting on surfaces where LCPs were present.
- .2 Waste transportation and disposal to be conducted in accordance with BC Reg. 63/88 and the Federal Transportation of Dangerous Goods Regulation.
 - .1 Contractor is responsible for any testing of waste required by regulations or waste disposal facilities to determine suitability (e.g. testing for leachable lead content of waste materials destined for landfill, if required by BC Reg. 63/88 or facility accepting the waste).
- .2 Polychlorinated Biphenyls (PCBs)
 - .1 As per the Assessment Reports, PCB-containing items are not anticipated to be impacted by work of the Project.
- .3 Mould and Animal Waste Contamination
 - .1 As per the Assessment Reports, removal, alteration and/or disposal of mould-impacted materials and/or removal of animal waste contamination is not anticipated to be required during the Work associated with the existing secondary containment canopy.
 - .1 If project requirements change, and actual or potential mould or animal waste contamination is observed in the Project area, notify Departmental Representative. Do not proceed with activities could impact contaminated items until such time as instructions are received from Departmental Representative.
- .4 Mercury
 - .1 As per the Assessment Reports, mercury-containing items are not anticipated to be impacted by work of the Project.
 - .1 If project requirements change, and actual or potential mercury-containing items require impacts (e.g. alteration, disturbance, handling, removal and/or disposal), notify Departmental Representative. Do not proceed with activities could impact actual or potential mercury-containing items until such time as instructions are received from Departmental Representative.
- .5 Ozone-Depleting Substances (ODSs)
 - .1 As per the Assessment Reports, ODS-containing items are not anticipated to be impacted by work of the Project.
- .6 Silica
 - .1 According to the Assessment Reports, silica is expected to be present in the following, which may be impacted by work of the Project:

- .1 Concrete, asphalt, cement and mortar
- .2 When silica-containing materials are to be disturbed and/or removed (e.g., demolition of concrete slabs), ensure dust control measures are employed such that airborne silica dust concentrations do not exceed the exposure limit as stipulated by the COHSR and BC Reg. 296/97. (Cristobalite and Quartz – each 0.025 mg/m³). This would include, but not be limited to, the following:
 - .1 Providing workers with respiratory protection
 - .2 Wetting the surface of the materials, use of water or dust suppressing agents to prevent dust emissions
 - .3 Providing workers with facilities to properly wash prior to exiting the work area.

3.1 DISPOSAL

- .1 Dispose of hazardous waste materials in accordance with applicable federal and provincial acts, regulations, and guidelines.
- .2 Recycle hazardous wastes for which there is approved, cost effective recycling process available.
- .3 Send hazardous wastes to authorized hazardous waste disposal or treatment facilities.
- .4 Burning, diluting, or mixing hazardous wastes for purpose of disposal is prohibited.
- .5 Disposal of hazardous materials in waterways, storm or sanitary sewers, or in municipal solid waste landfills is prohibited.
- .6 Dispose of hazardous wastes in timely fashion in accordance with applicable provincial regulations.
- .7 Minimize generation of hazardous waste to maximum extent practicable. Take necessary precautions to avoid mixing clean and contaminated wastes.
- .8 Identify and evaluate recycling and reclamation options as alternatives to land disposal, such as:
 - .1 Hazardous wastes recycled in manner constituting disposal.
 - .2 Hazardous waste burned for energy recovery.
 - .3 Lead-acid battery recycling.
 - .4 Hazardous wastes with economically recoverable precious metals.

3.2 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 – Cleaning. Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 – Cleaning.

**FRASER PORT OF ENTRY DEMOLITION OF EXISTING SLAB
AND RE-PAVING**

PROJECT NO. R. 106775.001

FRASER, BRITISH COLUMBIA

APPENDIX D

**PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS
ASSESSMENT**

**PRE-DEMOLITION HAZARDOUS
BUILDING MATERIALS
ASSESSMENT**

Fraser Port of Entry Traffic Building

KM 36.7, South Klondike Highway
Northern BC



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February 26, 2016

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Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Public Works and Government Services Canada (PWGSC) on behalf of the Canada Border Services Agency (CBSA) to conduct a pre-demolition hazardous building materials assessment of the Fraser Port of Entry Traffic Building located at KM 36.7 South Klondike Highway, Northern BC.

The purpose of the assessment was to assess for the presence (or absence) and estimated extent of hazardous building materials within the subject building in accordance with the requirements of the *Canada Labour Code, Part II (Canada Labour Code)* and the current version of British Columbia's *Occupational Health and Safety Regulation (BC Reg. 296/97)*, prior to its proposed demolition.

The hazardous building materials considered included asbestos-containing materials (ACMs), lead-containing materials including lead-containing paints (LCPs), polychlorinated biphenyls (PCBs), mercury-containing items, ozone-depleting substances (ODSs), mould-impacted building materials and silica.

Based on Stantec's visual assessment and on the laboratory analyses performed on samples collected, limited hazardous building materials were identified within the subject building.

A summary of our findings and recommendations is presented below. Recommendations pertaining to the handling, removal, transportation and disposal of identified hazardous materials are provided in Section 6 of this report.

It should be noted that this summary is subject to the same restrictions and limitations as presented in Section 4 (Assessment Limitations) and Section 7 (Closure). The information provided is to be read in conjunction with the remainder of this report.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Summary of Findings
ACMs No ACMs were identified during the assessment.
Lead The following LCPs were identified through this assessment: <ul style="list-style-type: none">• Red primer on structural steel components throughout the main building and the exterior canopy• Cream paint on steel canopy on north side of building (exterior)• Yellow paint on corrugated siding (exterior) Lead is also expected to be present in the following materials in the Main Building: <ul style="list-style-type: none">• Lead-acid batteries used in emergency lighting• Older electrical wiring materials and sheathing• Solder used on domestic water lines• Solder used in bell fittings for cast iron pipes• Solder used in electrical equipment• Vent and pipe flashings
Polychlorinated Biphenyls Approximately 26 fluorescent light fixtures throughout were observed to have high-efficiency light tubes. The ballasts within such fixtures are not suspected to contain PCBs. PCBs may be present in plastics, molded rubber parts, applied dried paints, coatings or sealants, caulking, adhesives, paper, sound-deadening materials, insulation, or felt and fabric products such as gaskets.
Mercury Mercury vapour is expected to be present in the light tubes within the approximately 26 fluorescent light fixtures observed. Mercury may also be present in paints and adhesives.
Ozone-Depleting Substances The roof was not accessed as part of this assessment. It was reported by site personnel that the subject building is not serviced by any cooling or refrigeration systems. As such, building-related cooling and refrigeration equipment is not suspected to be present on the roof. The following equipment is suspected to be ODS-containing as the labels were not accessible: <ul style="list-style-type: none">• The fridge/freezer in the kitchen• The soft drink machine beside the east exit• The water cooler in the main office
Mould Suspect mould or moisture-impacted building materials were not observed at the time of the assessment.
Silica Silica is expected to be present in the concrete foundation of the subject building.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Introduction
February 26, 2016

1.0 INTRODUCTION

Stantec Consulting Ltd. (Stantec) was retained by Public Works and Government Services Canada (PWGSC) on behalf of the Canada Border Services Agency (CBSA) to conduct a pre-demolition hazardous building materials assessment of the Fraser Port of Entry Traffic Building located at KM 36.7, South Klondike Highway, Northern BC.

The purpose of the assessment was to assess for the presence (or absence) and estimated extent of hazardous building materials within the subject building in accordance with the requirements of the *Canada Labour Code, Part II (Canada Labour Code)* and the current version of British Columbia's *Occupational Health and Safety Regulation (BC Reg. 296/97)*, prior to its proposed demolition.

The hazardous building materials considered included asbestos-containing materials (ACMs), lead-containing materials including lead-containing paints (LCPs), polychlorinated biphenyls (PCBs), mercury-containing items, ozone-depleting substances (ODSs), mould-impacted building materials and silica.

Site work was completed within the subject building on February 4, 2016.

2.0 BACKGROUND

The Fraser Port of Entry Traffic Building was reportedly constructed in 1978–79. This reported era of construction is consistent with those dates when hazardous building materials were commonly used and/or may be present including, but not limited to ACMs, LCPs, PCBs, mould-impacted materials, mercury, ODSs, and silica.

Stantec understands that demolition of the subject building has been proposed. As a measure of diligence in maintaining compliance with federal and provincial regulations pertaining to the identification of other hazardous materials within the subject building prior to demolition activities, PWGSC commissioned this assessment.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Scope and Methodology
February 26, 2016

3.0 SCOPE AND METHODOLOGY

Mr. Keith Irwin of Stantec conducted a visual assessment within the subject building on February 4, 2016. Site work was conducted in general compliance with the requirements of the *Canada Labour Code*, BC Reg. 296/97 and Stantec's Safe Work Practices (SWPs).

Mechanical systems, structures and finishes of the subject building were visually examined to determine the suspected presence of ACMs, lead including LCPs, PCBs, mould, mercury, ODSs, and silica. Where building materials were suspected but not confirmed to contain asbestos or lead, samples were collected for analysis to confirm or deny the presence of these hazardous materials. Based on analytical results, visually similar materials were referenced to specific analyzed samples to reduce the number of samples collected.

Additional background information and the methodology used for the determination of presence or absence of each specific hazardous material considered in this assessment are outlined in the following sections.

3.1 ASBESTOS

The common use of friable (materials which, when dry, can be easily crumbled or powdered by hand pressure) ACMs in construction generally ceased voluntarily in the mid-1970s but was only banned through legislation by the late 1980s. Friable asbestos was used in many building products, primarily high temperature insulations, spray-applied structural fireproofing, and a material known as vermiculite that was commonly used as block wall insulation and may be contaminated with asbestos fibres. Asbestos was also used in many non-friable manufactured products such as floor tiles, ceiling tiles, Transite™ cement products, and various other construction materials. Some cement products currently used in the construction of buildings may still contain asbestos.

The presence of asbestos in federal workplaces, and pertaining to federally regulated workers is governed by the *Canada Labour Code*. The presence of asbestos in the workplace in British Columbia pertaining to provincially regulated workers is governed by BC Reg. 296/97. As both federally regulated workers and provincially regulated workers (e.g., contractors) are expected to carry out work activities within the subject building, and as the provincial regulations are generally more prescriptive pertaining to asbestos (and generally include the requirements noted in the *Canada Labour Code*), this assessment was conducted to meet the requirements of BC Reg. 296/97.

According to the current version of BC Reg. 296/97, asbestos-containing material (ACM) means any material containing at least 0.5% asbestos, or vermiculite insulation with any asbestos.



PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Scope and Methodology
February 26, 2016

Based on these criteria, multiple samples were collected from each “homogenous application” of an observed suspected ACM (materials suspected to contain asbestos that are uniform in material type, colour, texture application and estimated installation date) and submitted to EMSL Canada Inc. (EMSL) in Mississauga, Ontario for analysis of asbestos content using Polarized Light Microscopy (PLM) with dispersion staining, in accordance with the US Environmental Protection Agency (EPA) 600/R-93/116 Method *Method for the Determination of Asbestos in Bulk Building Materials*. The number of samples to be collected for each homogenous application of a suspected ACM was based on the recommendations provided in the WorkSafeBC publication *Safe Work Practices for Handling Asbestos* (2012), along with the assessor’s experience and understanding of the consistency of that building material’s application.

EMSL’s analytical laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

3.1.1 Sample Results Interpretation

When asbestos is detected in concentrations greater than 0.5 percent in one of the samples within a set that was collected to represent a “homogenous application” of a particular material (or detected in any concentration, in a set of samples collected for applications of vermiculite), the entire sample set and the entire application of that material was then considered to be an ACM.

In addition to the above, a “positive stop” option was used during the laboratory analysis of the building material samples submitted for asbestos analysis. The “positive stop” option is utilized by the laboratory when asbestos is detected at a concentration of greater than 0.5 percent in one of the samples within a set that was collected to represent a “homogenous application” of that material (or in any concentration, for vermiculite). At this point, further analysis of subsequent samples within the set is deemed to be unnecessary (as the entire set will be considered an ACM, per above), and the remainder of the samples within the set are not analyzed.

3.1.2 Potential Asbestos-containing Vermiculite Insulation

As part of the assessment, Stantec assessed the subject building for areas where vermiculite insulation, a potential ACM, would likely be present. This included making note of and assessing attic spaces, floor cavities and masonry or brick walls, which are typical areas where vermiculite is found.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Scope and Methodology
February 26, 2016

3.1.3 Asbestos Sampling Quality Assurance/Quality Control

Sampling activities pertaining to asbestos were conducted in accordance with Stantec's Safe Work Practices (SWPs), which take into account current provincial regulations pertaining to such work (i.e., sampling procedures, required number of samples, and laboratory analytical procedures).

Representative bulk samples were collected of accessible suspect ACMs in sufficient quantities for laboratory analyses. Suspect ACM samples were sealed in polyethylene zip-lock bags labeled with the sample number, suspect material description, and sample location. As part of sampling procedures, sampling tools were cleaned between sample collection events to avoid the potential for cross-contamination of samples.

Sample bags were compiled in order and placed into a single container accompanied with a Chain of Custody form outlining the project information, date, building location, number of samples, and sample description. Samples were submitted to the analytical laboratory in a sealed container via courier.

3.2 LEAD

Lead may be used in its pure metallic form or combined chemically with other elements to form lead compounds. Metallic lead is used to make products such as electric storage batteries, ammunition, lead solder, radiation shields, pipes, and sheaths for electric cables. Metallic lead is sometimes combined with other metals such as copper, tin, and antimony as lead alloys for use in the manufacture of a variety of metal products. Lead is commonly found in buildings in the solder used on copper domestic pipes, in the caulking on bell fittings of cast iron drainage pipes and in electrical equipment.

The presence of lead-containing materials (other than paint) was assessed through visual means.

With respect to paint, the lead content of interior paint was limited to 0.5 percent by weight (equivalent to 5,000 mg/kg or ppm) in 1976 under the Federal *Hazardous Products Act*, which governs the import, export and distribution of hazardous products in Canada. In 2005, the *Hazardous Products Act* had reduced the criteria for surface coatings (including paint) to 600 mg/kg (600 ppm) to define them as "lead-containing". This criterion has since (2010) been reduced to 90 ppm.

However, with respect to potential lead exposures associated with disturbance to surfaces coated with lead-containing products, WorkSafeBC has compiled a manual titled *Lead-Containing Paint and Coatings: Preventing Exposure in the Construction Industry*, (Lead Guideline) which defines a "lead-containing surface coating material" and indicates that "...the improper removal of lead paint containing 600 mg/kg lead results in airborne lead concentrations that exceed half of the exposure limit". As such, Stantec will reference this value (600 ppm) in defining paints as "lead-containing".



PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Scope and Methodology
February 26, 2016

Samples of suspected LCPs were collected from major paint applications, and were collected to substrate, where possible, in sufficient quantity to conduct analyses for total lead content. Samples collected were placed into separate, sealed, and labeled polyethylene bags, and submitted to EMSL for analyses of total lead content using Flame Atomic Absorption Spectrometry AAS (SW 846 3050B*/7000B).

EMSL's analytical laboratory is also accredited by the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Approval Program.

3.3 POLYCHLORINATED BIPHENYLS

PCBs were used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment. In fluorescent fixtures, PCBs were usually found within the small capacitors inside the ballast that controls the lamp. The Federal Chlorobiphenyls Regulation, SOR/91-152, prohibited the use of PCBs in electrical equipment manufactured after July 1, 1980.

The presence of PCB-containing equipment was assessed through visual means.

With respect to fluorescent lamp ballasts, due to the risk of electrical shock associated with dismantling operating fixtures, fluorescent lamp ballasts were not removed to view identification numbers/information.

The total number of fluorescent lamp ballasts that may contain PCBs within the subject building was approximated.

Suspected PCB-containing electrical equipment can be visually inspected and compared to the Environment Canada reference guide entitled *Identification of Lamp Ballasts Containing PCBs, Report EPS 2/CC/2*, dated August 1991 (PCB Guide).

3.4 MERCURY

Mercury is commonly found in buildings as mercury vapour lighting, thermostats/thermometers with mercury-containing glass ampoules, electrical switches and can also be found in minor amounts in fluorescent lamp tubes and vapour bulbs and may be present in stable forms in adhesives. Exposure to mercury in federal workplaces is governed by the *Canada Labour Code*, while provincially it is governed by BC Reg. 296/97.

The presence of mercury and mercury-containing equipment was assessed through visual means.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Scope and Methodology
February 26, 2016

3.5 OZONE-DEPLETING SUBSTANCES

Chlorofluorocarbons (CFCs) and other ODSs are often found in refrigeration units associated with air-conditioning or other refrigeration equipment. In September 1987, 47 countries agreed to the Montreal Protocol on Substances that Deplete the Ozone Layer. ODSs are regulated in BC by the British Columbia *Waste Management Act—Ozone Depleting Substances and Other Halocarbons Regulation* (BC Reg. 387/99 as amended by BC Reg. 109/2002) and the Federal *Halocarbon Regulations*, 2003 (FHR 2003).

The presence of ODSs and equipment containing these materials was assessed through visual means.

3.6 MOULD

Moist building materials may provide suitable conditions for mould growth, and the removal of building materials impacted by mould growth may require workers with specific training and experience using work procedures that have been developed to protect workers and work areas from exposure to elevated concentrations of airborne mould.

The presence of suspect visible mould was assessed through visual means. Material observed with dark-colored staining and/or a textured and discolored appearance is described as “suspect mould”. Mould identified visually is defined as “suspect mould” unless it is confirmed as mould by laboratory analysis.

3.6.1 Mould Reference Guidelines

With respect to mould and/or moisture, the visual assessment procedures utilized and abatement scope of work developed during this project were based on the recommendations provided in the documents listed below:

- Standard Construction Document CCA 82 *Mould Guidelines for the Canadian Construction Industry*, Canadian Construction Association, 2004 (referred to as “CCA 82”).
- *Guidelines on Assessment and Remediation of Fungi in Indoor Environment*, New York City Department of Health, Bureau of Environmental and Occupational Disease Epidemiology, April 2000 (referred to as the “NYC Guidelines”).
- *Fungal Contamination in Public Buildings: Health Effects and Investigation Methods*, Federal-Provincial Committee on Environmental and Occupational Health, 2004 (referred to as the “Health Canada Guide”).
- *Indoor Air Quality in Office Buildings: A Technical Guide*, Report of the Federal-Provincial Advisory Committee on Environmental and Occupational Health, 1995. (referred to as the “IAQ Guide”).
- *Bioaerosols: Assessment and Control*, American Conference of Governmental Industrial Hygienists (ACGIH), 1999 (referred to as the ACGIH Report).

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Assessment Limitations
February 26, 2016

3.7 SILICA

Silica, also referred to as free crystalline silica, is found in concrete, cement, mortar, ceramic wall and floor tiles, stucco finishes and acoustic ceiling tiles. Prolonged exposure to, and inhalation of free crystalline silica, may result in respiratory disease known as silicosis, which is characterized by progressive fibrosis of the inner lung tissue and marked shortness of breath or impaired lung function.

Exposure to silica dust is governed by BC Reg. 296/97. According to both legislative instruments, the time-weighted average exposure limit for airborne silica dust is 0.025 mg/m³.

The presence of silica was assessed through visual means.

4.0 ASSESSMENT LIMITATIONS

In preparation of this report, Stantec used professional judgment based on experience. The work was conducted in accordance with generally accepted professional standards. Stantec relied on information gathered during the site investigation and laboratory analytical reports.

This report reflects the observations made within accessible and accessed areas of the subject building, and the results of analyses performed on the specific material sampled during the assessment. Analytical results reflect the sampled material at the specific sample locations.

This report has been prepared for the exclusive use of the PWGSC and CBSA for the purpose of assessing general conditions in the subject building. Any use that additional parties make of this report, or reliance on, or decisions to be made on it, are the responsibility of such additional parties. Stantec accepts no responsibility for damages, if any, suffered by any additional party as a result of decisions made or actions based on this report.

The limitations of this assessment pertaining to each of the considered hazardous materials are outlined in the following sub-sections.

4.1 ASBESTOS

Due to the limitations of sampling techniques, the asbestos content of some materials within the subject building could neither be confirmed nor denied. Suspected ACMs that were not sampled include, but are not limited to, the following:

- Roofing materials (the roof was not assessed due to the lack of safe access, snow covered)
- Sub-grade materials
- Interior components of mechanical equipment (e.g., inner linings or gaskets in boilers)
- Interior components of heating, ventilation and air conditioning (HVAC) units
- Heat protection materials inside mechanical installations (e.g., gaskets) and light fixtures (e.g., paper backing in sealed incandescent fixtures)



PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Assessment Limitations
February 26, 2016

- Flooring material concealed beneath ceramic tile, brickwork, hardwood flooring, and/or concealed beneath existing sub-floors
- Drywall and/or wall plaster and associated finish materials concealed behind new and/or additional walls or ceilings
- Woven tape inside duct connection joints or inner ducting insulation
- Materials within wall cavities and hard ceiling cavities.

If encountered during renovation, demolition or other activities, any suspected ACMs not identified within this report should be presumed to contain asbestos and handled as such until otherwise proven, through analytical testing.

4.2 LEAD

Assessment for the presence of lead or lead-containing materials was visual in nature, and was conducted pertaining to readily visible surfaces within accessible spaces of the subject building only. The presence of lead or lead-containing materials in inaccessible areas not assessed included, but was not limited to wall cavities and buried materials.

With respect to paint, samples of suspected LCPs were collected within the subject building only from surfaces of major paint applications where visually different paint colours and/or types were identified. Although the surfaces where samples were collected may be covered with more than one coat of paint, the paint samples are described by the surface (visible) colour only.

Attempts were made to represent all layers of paint in the samples collected. As analytical results are referenced to the surface paint colour only, the lead content of all painted surfaces similar to that represented by the surface paint colour will be presumed to be the same, regardless of differing sub surface paints, if any.

4.3 POLYCHLORINATED BIPHENYLS

Conclusions and recommendations regarding the presence of PCBs within the subject building are based on Stantec's limited observations in combination with information provided by staff regarding lighting renovations (where requested by Stantec based on observations) and is presented to provide guidance regarding the likelihood that PCB-containing equipment is or is not present within the subject building. The exact extent and/or number of fluorescent lamp ballasts containing PCBs, if any, within the subject building will not be commented on.

4.4 MERCURY

Visual assessment for the presence of mercury-containing equipment within the subject building was conducted in accessible areas only. Additional mercury or mercury-containing equipment may be present in inaccessible areas including, but not limited to, ceiling spaces, wall cavities or as internal parts of HVAC mechanisms.



PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Results

February 26, 2016

4.5 OZONE-DEPLETING SUBSTANCES

Visual assessment for the presence of ODSs within the subject building was conducted in accessible areas only. Additional ODS-containing equipment may be present in inaccessible areas including, but not limited to, ceiling spaces, wall cavities.

4.6 MOULD

Visual assessment for the presence of suspected visible mould and/or suitable conditions for mould growth (e.g., moist and/or water-stained building materials) was conducted in accessed portions of the subject building only. The assessment was not intrusive in nature and included visual assessment of exposed surfaces and closer inspection of known problem areas.

The conclusions made in this report provide description(s) of the potential source(s) of moisture within the subject building that may have led to suitable conditions for mould growth, only in those cases where potential source(s) of moisture were identified. These conclusions will not necessarily identify all sources of moisture leading to suitable conditions for mould growth within the subject building or within the impacted area(s).

This assessment does not constitute a building envelope/building systems assessment, which would include an intrusive investigation to assess the internal condition, potential moisture sources, and expected remaining service life of the various components and systems comprising the envelope of a building.

4.7 SILICA

Visual assessment for the presence of silica-containing materials within the subject building was conducted in accessible areas only. Additional potential silica-containing materials may be present in inaccessible areas including, but not limited to, ceiling spaces and wall cavities.

5.0 RESULTS

Floor plans showing bulk sample locations and locations of identified hazardous materials (where practical) are provided in Appendix A.

The results of the assessment for each of the considered hazardous materials are provided in the following sub-sections.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Results

February 26, 2016

5.1 ASBESTOS

Stantec collected representative samples of various suspected ACMs that were observed during our assessment. The materials sampled by Stantec included the following:

- Floor tile
- Sheet flooring
- Door frame caulking
- Drywall joint compound
- Window frame caulking
- Window pane caulking
- Ceiling texture coat.

Thirty samples of the above-noted suspected ACMs were collected within the subject building and submitted to EMSL for analysis of asbestos content and nature. A summary of the sample types, locations and analytical results is presented in Appendix B. Copies of the certificates of analysis provided by EMSL for the suspected ACM samples submitted are included in Appendix C.

Based on our observations of building construction (estimated vintage of interior finishes and uniformity of building material use) and on our interpretations of the results of suspected ACM samples collected during this assessment, no ACMs were identified.

5.2 LEAD

Lead is expected to be present in the following materials in the Main Building:

- Lead-acid batteries used in emergency lighting
- Older electrical wiring materials and sheathing
- Solder used on domestic water lines
- Solder used in bell fittings for cast iron pipes
- Solder used in electrical equipment
- Vent and pipe flashings.

With respect to paint, five (5) paint chip samples were obtained, where major applications of suspected LCPs were observed. A summary of the sample types, locations and analytical results is presented Table 5-2, below. A copy of the certificate of analysis provided by EMSL for the suspected LCP samples submitted is attached as Appendix D.



PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT


Results
February 26, 2016

**Table 5-1 Suspected LCP Sample Collection and Analysis Summary
Fraser Port of Entry Traffic Building, KM 36.7, South Klondike Highway,
Northern BC**

Sample No.	Sample Location	Sample Colour	Lab Result (ppm)	Lead Containing (Yes/No)
P-01	Interior walls on south east side of building	Cream	350	No
P-02	Interior walls of Arming Room	Light Blue	490	No
P-03	Steel 'I" beams on north east side of building (exterior)	Red Primer	3,000	Yes
P-04	Steel canopy on north east side of building (exterior)	Cream	1,800	Yes
P-05	Exterior Siding	Yellow	9,100	Yes

Based on our observations and on our interpretations of suspected LCP sample analytical results, the materials presented in Table 5-3, below were identified as LCPs.

**Table 5-2 Summary of Identified LCPs
Fraser Port of Entry Traffic Building, KM 36.7, South Klondike Highway,
Northern BC**



Identified LCP Description	Photo
<p>Red primer on structural steel components throughout the main building and the exterior canopy.</p> <p>This paint was observed to be in good condition (not bubbling, flaking or peeling).</p>	

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Results

February 26, 2016

**Table 5-2 Summary of Identified LCPs
Fraser Port of Entry Traffic Building, KM 36.7, South Klondike Highway,
Northern BC**

Identified LCP Description	Photo
<p>Cream paint on steel canopy on north side of building (exterior). This paint was observed to be in poor condition (bubbling, flaking or peeling).</p>	
<p>Yellow paint on corrugated siding (exterior). This paint was observed to be in good condition (not bubbling, flaking or peeling).</p>	

5.3 POLYCHLORINATED BIPHENYLS

Approximately 26 fluorescent light fixtures throughout were observed to have high-efficiency light tubes. The ballasts within such fixtures are not suspected to contain PCBs.

PCBs may be present in plastics, molded rubber parts, applied dried paints, coatings or sealants, caulking, adhesives, paper, sound-deadening materials, insulation, or felt and fabric products such as gaskets.

5.4 MERCURY

Mercury vapour is expected to be present in the light tubes within the approximately 26 fluorescent light fixtures observed.

Mercury may also be present in paints and adhesives.

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Recommendations
February 26, 2016

5.5 OZONE-DEPLETING SUBSTANCES

The roof was not accessed as part of this assessment. It was reported by site personnel that the subject building is not serviced by any cooling or refrigeration systems. As such, building-related cooling and refrigeration equipment is not suspected to be present on the roof.

The following equipment is suspected to be ODS-containing as the labels were not accessible:

- The fridge/freezer in the kitchen
- The soft drink machine beside the east exit
- The water cooler in the main office.

5.6 MOULD

Suspect mould or moisture-impacted building materials were not observed at the time of the assessment.

5.7 SILICA

Silica is expected to be present in the concrete foundation of the subject building.

6.0 RECOMMENDATIONS

The recommendations pertaining to the requirements for each of the hazardous materials included in this assessment are presented in the sub-sections below.

6.1 ASBESTOS

No ACMs were identified through this assessment. If encountered during demolition activities, any suspected ACMs not accessible during this assessment should be considered as asbestos-containing and handled as such, unless proven otherwise, through analytical testing.

6.2 LEAD

For LCPs and lead-containing materials that are to be disturbed and/or removed during demolition activities, including paint chip debris that is present currently and/or created during the demolition process, ensure compliance with the following:

- The occupational exposure control requirements of the *Canada Labour Code* and BC Reg. 296/97, including the provisions of the Lead Guideline
- The disposal requirements of the British Columbia *Hazardous Waste Regulation* (BC Reg. 63/88)
- The transportation requirements of the Federal *Transportation of Dangerous Goods Regulation*.



PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Recommendations
February 26, 2016

Corrective action or remedial work on paint applications containing any concentration of lead should be undertaken in a manner so as to avoid generating fine particulate matter or dust (i.e., avoid sanding). Airborne lead dust or fumes should not exceed BC Reg. 296/97 8-hour Occupational Exposure Limit (OEL) of 0.05 milligram per cubic metre (mg/m³) during the removal of paints and products containing any concentration of lead. The use of personal protective equipment is recommended to reduce the potential for over-exposure to lead dust.

It should be noted that demolition is unlikely to create waste with undesirable leaching of lead (in excess of applicable criteria) based on the concentrations of lead identified in the paints tested as part of this assessment. However, in the unlikely event that the demolition contractor chooses to dispose of metal materials identified herein that are coated with LCPs via landfill (as opposed to recycling the metal materials), leachate testing of materials coated with identified LCPs may be required to confirm that it is acceptable for local landfill disposal.

6.3 POLYCHLORINATED BIPHENYLS

As no suspect PCB-containing materials or equipment were observed within the subject building during the assessment, no recommendations have been provided.

6.4 MERCURY

Complete removal of mercury-containing equipment is required prior to renovation or demolition activities that may disturb the equipment. When mercury-containing items (e.g., fluorescent light bulbs/tubes, thermostats) are removed, ensure all mercury waste is handled, stored and disposed of in accordance with the requirements of The disposal requirements of the following:

- The disposal requirements of the British Columbia *Hazardous Waste Regulation* (BC Reg. 63/88).
- The transportation requirements of the Federal *Transportation of Dangerous Goods Regulation*.

Precautions should be taken if workers may potentially be exposed to mercury or mercury vapours to ensure that workers exposure levels do not exceed the occupational exposure limit of 0.025 mg/m³ as per the BC Reg. 296/97 This can be achieved by providing respiratory and skin protection applicable to the hazard and task to be completed.

6.5 OZONE-DEPLETING SUBSTANCES

When refrigeration equipment that is suspect to be ODS-containing is decommissioned, it should be emptied and inspected by licensed refrigeration technician (as defined in the Federal *Halocarbon Regulations*).



PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Closure
February 26, 2016

If ODS-containing equipment is identified (e.g., roof-mounted air conditioning units associated with the main building) and is to be removed during demolition activities, ODSs must be handled, recycled, stored, and/or disposed of in accordance with the requirements of the following:

- British Columbia *Waste Management Act—Ozone Depleting Substances and Other Halocarbons Regulation* (BC Reg. 387/99 as amended by BC Reg. 109/2002).
- The transportation requirements of the Federal *Transportation of Dangerous Goods Regulation*.
- The Federal *Halocarbons Regulations*.

6.6 MOULD

As no mould and/or moisture-impacted building materials were observed within the subject building during the assessment, no recommendations have been provided.

6.7 SILICA

When silica-containing materials are to be disturbed and/or removed during demolition activities, ensure dust control measures are employed such that airborne silica dust concentrations do not exceed the exposure limit as stipulated by BC Reg. 296/97 (0.025 mg/m³). This would include, but not be limited to, the following:

- Providing workers with respiratory protection
- Wetting the surface of the materials to prevent dust emissions
- Providing workers with facilities to properly wash prior to exiting the work area
- Providing dust control to mitigate the potential for demolition dust to escape from the work area into public and/or adjacent areas.

7.0 CLOSURE

This report has been prepared by Stantec for the sole benefit of the Public Works and Government Services Canada and the Canada Border Services Agency. Any use that a third party makes of this report, or any reliance on decisions to be made based on it, is the responsibility of such third parties. Stantec accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The conclusions presented represent the best judgment of the assessor based on current environmental, health and safety standards and the site conditions observed on the date cited within this report. This report is based on, and limited by, circumstances and conditions stated herein, and on information available at the time of preparation of the report. Due to the limited nature of the investigation and the limited data available, Stantec cannot warrant against undiscovered environmental liabilities. It is possible that additional, concealed hazardous



PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Closure
February 26, 2016

materials may become evident during renovation and/or demolition activities within the subject building.

If any conditions become apparent that differ significantly from our understanding of conditions as presented in this report, we request that we be notified immediately to reassess the conclusions provided herein.

We trust that the report meets your current requirements. Should you have any questions or concerns regarding the above, please do not hesitate to contact the undersigned.

Respectfully submitted,

STANTEC CONSULTING LTD.

Reviewed by:



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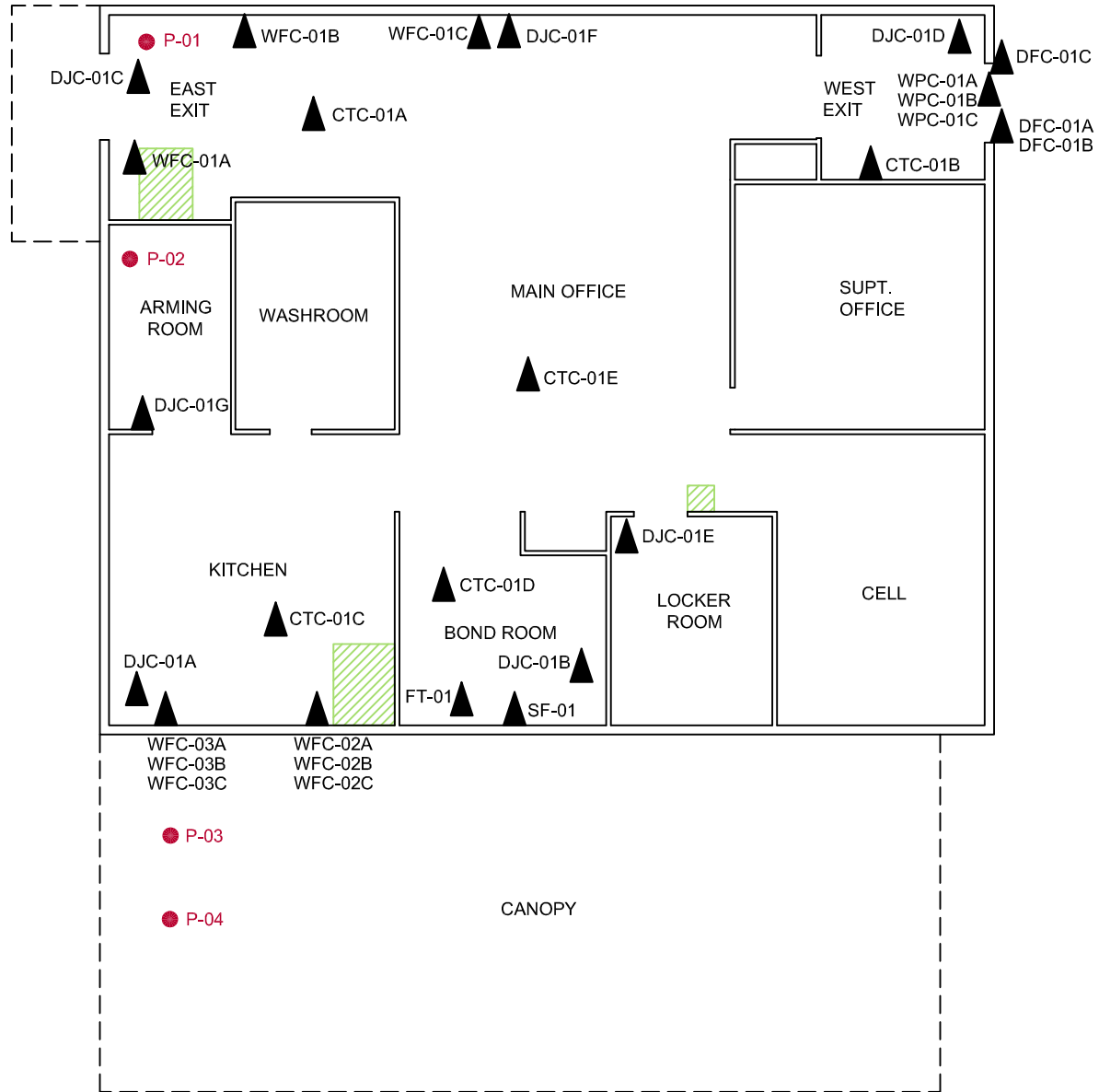
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APPENDIX A FLOOR PLANS



FRASER PORT OF ENTRY TRAFFIC BUILDING

LEGEND

- BULK SAMPLE LOCATION
- PAINT CHIP SAMPLE LOCATION
- SUSPECTED ODS-CONTAINING EQUIPMENT

NOTE: THIS DRAWING ILLUSTRATES SUPPORTING INFORMATION SPECIFIC TO A STANTEC CONSULTING LTD. REPORT AND MUST NOT BE USED FOR OTHER PURPOSES.

<p>FLOOR PLAN SHOWING HAZARDOUS BUILDING MATERIALS AND BULK SAMPLE LOCATIONS</p> <p>CBSA - FRASER PORT BUILDING, KM 36.7 SOUTH KLONDIKE HIGHWAY, NORTHERN, BC</p>	Project No.: 123220503	1	
	Scale: N.T.S.		
Date: 16/02/26			
Dwn. By: CD _{DM} SL2016020311			
App'd By: TW			
Client: PUBLIC WORKS AND GOVERNMENT SERVICES CANADA, PACIFIC REGION			

**APPENDIX B
SUMMARY OF
SUSPECTED ACM BULK SAMPLES**

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Appendix B: Summary of Suspected ACM Bulk Samples
February 2016

Sample Number	Material Description	Sample Location	Result (% type asbestos)
Fraser Port of Entry Building			
FT-01 Tile	Brown floor tile	Strip along north and west side of Bond Room	None Detected
FT-01 Mastic	Mastic for above tile	Strip along north and west side of Bond Room	None Detected
SF-01	Light grey sheet flooring	Bond Room	None Detected
SF-02	Grey sheet flooring	Arming Room	None Detected
DFC-01A	Grey door frame caulking	Exterior door of west exit	None Detected
DFC-01B	Grey door frame caulking	Exterior door of west exit	None Detected
DFC-01C	Grey door frame caulking	Exterior door of west exit	None Detected
DJC-01A	Dry wall joint compound	Interior wall on north east side of building	None Detected
DJC-01B	Dry wall joint compound	North wall of Bond Room	None Detected
DJC-01C	Dry wall joint compound	Interior wall on south east side of building	None Detected
DJC-01D	Dry wall joint compound	Interior wall on south west side of building	None Detected
DJC-01E	Dry wall joint compound	South wall of Locker Room	None Detected
DJC-01F	Dry wall joint compound	Interior wall on south side of building	None Detected
DJC-01G	Dry wall joint compound	North wall of Arming Room	None Detected
WFC-01A	White door frame caulking	Around window frame north of east exit	None Detected
WFC-01B	White door frame caulking	Around window frame south of east exit	None Detected
WFC-01C	White door frame caulking	Around window frame south side of building	None Detected
WFC-02A	Grey window frame caulking	Around window frame north west of kitchen	None Detected
WFC-02B	Grey window frame caulking	Around window frame north west of kitchen	None Detected
WFC-02C	Grey window frame caulking	Around window frame north west of kitchen	None Detected

PRE-DEMOLITION HAZARDOUS BUILDING MATERIALS ASSESSMENT

Appendix B: Summary of Suspected ACM Bulk Samples
February 2016

Sample Number	Material Description	Sample Location	Result (% type asbestos)
WFC-03A	White window frame caulking	Around window frame north east of kitchen	None Detected
WFC-03B	White window frame caulking	Around window frame north east of kitchen	None Detected
WFC-03C	White window frame caulking	Around window frame north east of kitchen	None Detected
WPC-01A	Grey window pane caulking	Between frame and pane at west exit	None Detected
WPC-01B	Grey window pane caulking	Between frame and pane at west exit	None Detected
WPC-01C	Grey window pane caulking	Between frame and pane at west exit	None Detected
CTC-01A	White ceiling texture coat	By east exit	None Detected
CTC-01B	White ceiling texture coat	By west exit	None Detected
CTC-01C	White ceiling texture coat	Kitchen	None Detected
CTC-01D	White ceiling texture coat	Bond room	None Detected
CTC-01E	White ceiling texture coat	Main office	None Detected

**APPENDIX C
CERTIFICATE OF ANALYSIS –
SUSPECTED ACM SAMPLES**



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EMSL Canada Order 691600111
 Customer ID: 55JACQ30L
 Customer PO:
 Project ID:

Attn: Steve Chou
 Stantec Consulting, Ltd.
 500 - 4730 Kingsway
 Burnaby, BC V5H 0C6

Phone: (604) 412-3004
Fax:
Collected: 2/ 4/2016
Received: 2/10/2016
Analyzed: 2/17/2016

Proj: CBSA FRASER PORT BUILDING/ 123220503

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: FT-01-Tile **Lab Sample ID:** 691600111-0001

Sample Description: Strip Along North & West Side of Bond Room/Brown Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: FT-01-Mastic **Lab Sample ID:** 691600111-0001A

Sample Description: Strip Along North & West Side of Bond Room/Brown Floor Tile

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Black	0.0%	100%	None Detected	

Client Sample ID: SF-01 **Lab Sample ID:** 691600111-0002

Sample Description: Bond Room/Light Grey Sheet Flooring - Sheet Flooring

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: SF-02 **Lab Sample ID:** 691600111-0003

Sample Description: Arming Room/Grey Sheet Flooring - Sheet Flooring

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: DFC-01A **Lab Sample ID:** 691600111-0004

Sample Description: Exterior Door of West Exit/Grey Door Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Tan	0.0%	100%	None Detected	

Client Sample ID: DFC-01B **Lab Sample ID:** 691600111-0005

Sample Description: Exterior Door of West Exit/Grey Door Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: DFC-01C **Lab Sample ID:** 691600111-0006

Sample Description: Exterior Door of West Exit/Grey Door Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	



EMSL Canada Inc.

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EMSL Canada Order 691600111
Customer ID: 55JACQ30L
Customer PO:
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: DJC-01A **Lab Sample ID:** 691600111-0007
Sample Description: Interior Wall on North East Side of Bldg/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/16/2016	White	0%	100%	None Detected	

Client Sample ID: DJC-01B **Lab Sample ID:** 691600111-0008
Sample Description: North Wall of Bond Room/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/16/2016	White	0%	100%	None Detected	

Client Sample ID: DJC-01C **Lab Sample ID:** 691600111-0009
Sample Description: Interior Wall on South East Side of Bldg/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/16/2016	White	0%	100%	None Detected	

Client Sample ID: DJC-01D **Lab Sample ID:** 691600111-0010
Sample Description: Interior Wall on South West Side of Bldg/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/16/2016	White	0%	100%	None Detected	

Client Sample ID: DJC-01E **Lab Sample ID:** 691600111-0011
Sample Description: South Wall of Locker Room/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/16/2016	White	0%	100%	None Detected	

Client Sample ID: DJC-01F **Lab Sample ID:** 691600111-0012
Sample Description: Interior Wall on South Side of Bldg/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/17/2016	White	0%	100%	None Detected	

Client Sample ID: DJC-01G **Lab Sample ID:** 691600111-0013
Sample Description: North Wall of Arming Room/Drywall Joint Compound

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/17/2016	White	0%	100%	None Detected	

Client Sample ID: WFC-01A **Lab Sample ID:** 691600111-0014
Sample Description: Around Window Frame North of East Exit/White Door Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	



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EMSL Canada Order 691600111
Customer ID: 55JACQ30L
Customer PO:
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: WFC-01B **Lab Sample ID:** 691600111-0015

Sample Description: Around Window Frame South of East Exit/White Door Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: WFC-01C **Lab Sample ID:** 691600111-0016

Sample Description: Around Window Frame South Side of Bldg/White Door Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: WFC-02A **Lab Sample ID:** 691600111-0017

Sample Description: Around Window Frame North West of Kitchen/Grey Window Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: WFC-02B **Lab Sample ID:** 691600111-0018

Sample Description: Around Window Frame North West of Kitchen/Grey Window Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: WFC-02C **Lab Sample ID:** 691600111-0019

Sample Description: Around Window Frame North West of Kitchen/Grey Window Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: WFC-03A **Lab Sample ID:** 691600111-0020

Sample Description: Around Window Frame North East of Kitchen/White Window Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	White	0.0%	100%	None Detected	

Client Sample ID: WFC-03B **Lab Sample ID:** 691600111-0021

Sample Description: Around Window Frame North East of Kitchen/White Window Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	White	0.0%	100%	None Detected	Sample below method recommended minimum weight; still processed.

Client Sample ID: WFC-03C **Lab Sample ID:** 691600111-0022

Sample Description: Around Window Frame North East of Kitchen/White Window Frame Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	White	0.0%	100%	None Detected	



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Customer ID: 55JACQ30L
Customer PO:
Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Client Sample ID: WPC-01A **Lab Sample ID:** 691600111-0023

Sample Description: Between Frame & Pane at West Exit/Grey Window Pane Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: WPC-01B **Lab Sample ID:** 691600111-0024

Sample Description: Between Frame & Pane at West Exit/Grey Window Pane Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: WPC-01C **Lab Sample ID:** 691600111-0025

Sample Description: Between Frame & Pane at West Exit/Grey Window Pane Caulking

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM Grav. Reduction	2/17/2016	Gray	0.0%	100%	None Detected	

Client Sample ID: CTC-01A **Lab Sample ID:** 691600111-0026

Sample Description: By East Exit/White Ceiling Texture Coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/16/2016	White	0%	100%	None Detected	

Client Sample ID: CTC-01B **Lab Sample ID:** 691600111-0027

Sample Description: By West Exit/White Ceiling Texture Coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/16/2016	White	0%	100%	None Detected	

Client Sample ID: CTC-01C **Lab Sample ID:** 691600111-0028

Sample Description: Kitchen/White Ceiling Texture Coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/16/2016	White	0%	100%	None Detected	

Client Sample ID: CTC-01D **Lab Sample ID:** 691600111-0029

Sample Description: Bond Room/White Ceiling Texture Coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/17/2016	White	0%	100%	None Detected	

Client Sample ID: CTC-01E **Lab Sample ID:** 691600111-0030

Sample Description: Main Office/White Ceiling Texture Coat

TEST	Analyzed Date	Color	Non-Asbestos		Asbestos	Comment
			Fibrous	Non-Fibrous		
PLM	2/17/2016	White	0%	100%	None Detected	



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Customer ID: 55JACQ30L
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Project ID:

Test Report: Asbestos Analysis in Bulk Material for Occupational Health and Safety British Columbia Regulation 188/2011 via EPA 600/R-93/116 Method

Analyst(s):

Alice Feng	PLM (8) PLM Grav. Reduction (8)
Kathleen Cruz	PLM (4) PLM Grav. Reduction (11)

Reviewed and approved by:

Alice Feng, Laboratory Manager
or Other Approved Signatory

None Detected = <0.5%. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. 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 of any agency of the U.S. Government.

Samples analyzed by EMSL Canada Inc. Burnaby, BC

Initial report from: 02/17/2016 15:22:41

**APPENDIX D
CERTIFICATE OF ANALYSIS –
SUSPECTED LCP SAMPLES**

**EMSL Canada Inc.**

2756 Slough Street, Mississauga, ON L4T 1G3

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EMSL Canada Or	551601444
CustomerID:	55JACQ30L
CustomerPO:	123220503
ProjectID:	

Attn: **Keith Irwin**
Stantec Consulting, Ltd.
500 - 4730 Kingsway
Burnaby, BC V5H 0C6

Phone: (604) 412-3004
 Fax:
 Received: 02/11/16 10:22 AM
 Collected: 2/4/2016

Project: **CBSA FRASERPORT BUILDING, 123220503****Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)***

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
P-01 Site: INTERIOR WALLS ON SOUTH EAST SIDE OF BUILDING Desc: CREAM	551601444-0001	2/4/2016	2/16/2016	350 ppm
P-02 Site: INTERIOR WALLS OF ARMING ROOM Desc: LIGHT BLUE	551601444-0002	2/4/2016	2/16/2016	490 ppm
P-03 Site: STEEL "I" BEAMS ON NORTH EAST SIDE OF BUILDING Desc: (EXTERIOR)RED PRIMER	551601444-0003	2/4/2016	2/16/2016	3000 ppm
P-04 Site: STEEL CANOPY ON NORTH EAST SIDE OF BUILDING Desc: (EXTERIOR) CREAM	551601444-0004	2/4/2016	2/16/2016	1800 ppm
P-05 Site: EXTERIOR SIDING Desc: YELLOW	551601444-0005	2/4/2016	2/16/2016	9100 ppm

 Lisa Podzyhun
 or other approved signatory

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, LLC, unless specifically indicated otherwise.

Samples analyzed by EMSL Canada Inc. Mississauga, ON A2LA Accredited Environmental Testing Cert #2845.08

Initial report from 02/18/2016 07:50:26