



Designated Substance Report Washrooms 034, 044, 134, 212, 312, and 234 Renovations East Block, Parliament Hill Ottawa, Ontario

2019-12-16

**Environment, Health and Safety
Real Property Services
Public Services and Procurement Canada**

**Prepared for: Cory Trudeau
Property and Facilities Officer
Parliamentary Precinct Branch
PSPC**

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Custodial Health and Safety Unit
Environment, Health and Safety
Technical Services
Real Property Services**

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Custodial Health and Safety Unit
Environment, Health and Safety
Technical Services
Real Property Services**



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1- Introduction

The Custodial Health and Safety Unit (CHSU) of Public Services and Procurement Canada (PSPC) was retained by Cory Trudeau, Property and Facilities Officer at PSPC's Parliamentary Precinct Branch (PPB) to complete a site-specific Designated Substance Report (DSR) for renovations in several washrooms in the East Block of Parliament Hill, Ottawa, Ontario.

The DSR scope of work included the assessment of all project area for the presence of the 11 Designated Substances as identified in Ontario Regulation O.Reg. 490/09 - Designated Substances under the Ontario *Occupational Health and Safety Act*.

Designated Substances, as identified in the Ontario Regulation Ontario 490/09 "Designated Substances", as amended, under the Ontario *Occupational Health and Safety Act* are:

- Acrylonitrile;
- Arsenic;
- Asbestos (both friable and non-friable);
- Benzene;
- Coke Oven Emissions;
- Ethylene Oxide;
- Isocyanates;
- Lead;
- Mercury;
- Silica; and
- Vinyl Chloride.

2- Regulatory Requirements

According *Canada Labour Code* under Part II, Section 124 every employer shall ensure that the health and safety at work of every person employed by the employer is protected. Furthermore, Section 125(1) (z.14) of the *Canada Labour Code* stipulates that the employer, to the extent that the employer controls the activity, will take all reasonable care to ensure that all persons granted access to the work place, other than the employer's employees, are informed of every known or foreseeable health and safety hazard to which they are likely to be exposed in the work place.

A DSR is required to meet the requirements of Section 30 of the *Ontario Occupational Health and Safety Act, Revised Statutes of Ontario, 1990, Chapter 0.1*. By having a DSR completed, the Project Manager will be able to inform his or her employees, contractors, and tenants of any designated substances that may be present and possibly disturbed throughout the duration of the project. The *Ontario Occupational Health and Safety Act* also requires the DSR in order to identify designated substances that may be present within the project area.

3- Project Description

The scope of the project that is the subject of this DSR is to renovate washrooms 034, 044, 134, 212, 312, and 234 in the East Block of Parliament Hill. Renovations will include the demolition and reinstatement of floor, wall and ceiling finishes and plumbing fixtures.

4- Investigation Scope of Work

The on-site survey for this report was conducted by CHSU on April 4, May 16, August 8th, and September 4th, 2019. All 6 washrooms were inspected.

5- Methodology

During the site visits, 16 bulk samples of suspected asbestos-containing materials and 2 samples of paint were collected from the project areas and submitted for analysis to Paracel Laboratories Ltd., a laboratory accredited

through the Canadian Association for Laboratory Accreditation (CALA) and the National Voluntary Laboratory Accreditation Program (NVLAP).

The asbestos analysis was completed using Polarized Light Microscopy (PLM) in accordance with U.S. EPA Method 600/R-93/116.

The lead paint analysis was completed using Inductively Coupled Plasma – Optical Emission Spectrometry (ICP-OES) in accordance with Method MOE E3470.

Other building materials were visually identified during the site visit; but samples were not collected. Results and recommendations are based on the following report:

- *Designated Substances Survey, Rev C. The East Block Building, 111 Wellington Street, Parliament Hill, Ottawa, Ontario*, prepared by DST Consulting Engineers and dated March 10, 2017.

6- Findings

6-1 Asbestos

Laboratory analysis results of materials suspected to contain asbestos are presented below in Table 1.

Table 1: Results of asbestos samples analyzed by Polarized Light Microscopy (PLM)

Sample ID	Material	Location	Asbestos type and content
EB-234-01A	Adhesive behind ceramic tile sheets on walls	Room 234	n/d
EB-034-01B		Room 034	n/d
EB-044-01C		Room 044	n/d
EB-312-01D		Room 312	n/d
EB-044-02A, B	Grout behind ceramic tile trim at base of wall	Room 044	n/d
EB-134-02C		Room 134	n/d
EB-312-03A to C	Floor tile grout	Room 312	n/d
EB212-01A-01C	Plaster – Grey base layer and white finish layer	Room 212	n/d
EB-MW-T-A-C (Cement)	Cement from inner walls	Room 212	n/d
EB-MW-T-A-C (Tar)	Tar layer on cement from inner walls	Room 212	15% Chrysotile

Bold items indicate asbestos containing material.

n/d = none detected

A non-friable tar layer found layered on cement in the inner walls of room 212 was found to be asbestos containing.

All washrooms had similar ceramic tile sheets on drywall walls, ceramic tile trim at the base of walls, and ceramic tile floors. Due to the difficulty of sampling, samples could only be collected in the locations noted above, but the materials were all visually similar. As demonstrated in Table 1 above, the ceramic tile adhesive and grout in the washrooms were confirmed not to contain asbestos. Grey base layer and white finish layer plaster was also sampled and found to be non-asbestos containing.

Based on the DST report referenced above, extensive sampling has found no asbestos in the smooth wall plaster throughout the East Block, with the exception of the following locations:

- smooth plaster in the south-east mezzanine tower contains 0.5-3% Chrysotile asbestos;
- smooth wall plaster in southeast tower mezzanine mechanical area contains 0.5-3% Chrysotile asbestos; and
- smooth wall and ceiling column plaster in the Basement Transformer Room contains 1% Chrysotile asbestos.

DST also sampled and analysed 26 drywall joint compound samples throughout the building, none of which were found to contain asbestos. As a result, asbestos is assumed not to be present in the washroom wall and ceiling finishes.

Access hatches were opened and inspected to determine if there were any concealed asbestos-containing materials present in the washrooms. All pipes observed were either bare or insulated with fibreglass (Photo 3).

Drainpipes were observed inside the walls, and suspected to contain either non-friable asbestos-containing joint packings or lead in the bell and spigot joints.

6-2 Lead

The paint on the ceiling of washroom 034 (sample EB-LP-02) and wall of room 312 (sample EB-312-LP-01) were sampled and found to contain <20 ppm lead. These paints are not considered lead-containing paint as per the *Canada Consumer Product Safety Act's Surface Coating Materials Regulations*. Other wall and ceiling paints on the current finishes were visually similar and assumed to not be lead-based.

The ceiling in washroom 044 was recently installed. As a result, it is assumed the paint on this ceiling does not contain lead.

Old peeling paint was observed on the masonry walls behind drywall in room 044. This paint was inaccessible for sampling, and is assumed to be lead-containing.

Based on the DST report referenced above, all other paints in East Block must be considered as lead-containing unless proven otherwise by additional sampling.

Pipes observed in the work area are assumed to have lead-containing solder on joints. Drainpipes were observed inside the walls, and suspected to contain either lead or non-friable asbestos-containing joint packings in the bell and spigot joints.

6-3 Mercury

Mercury is present within fluorescent light tubes in the project area.

6-4 Silica

Silica is present in building materials such as plaster, drywall, ceramic tile, masonry walls, concrete block, concrete floor slabs, and other building materials containing concrete.

6-5 Designated Substances and Hazardous Materials Not Identified

The following designated substances were neither observed nor suspected in the project areas:

- Acrylonitrile;
- Arsenic;
- Benzene;
- Coke Oven Emissions;
- Ethylene Oxide;
- Isocyanates; and
- Vinyl Chloride.

7- Conclusions and Recommendations

7-1 Asbestos

A non-friable tar layer found layered on cement in the inner walls of room 212 was found to be asbestos containing. If this material is to be disturbed using non-powered handheld tools while being kept adequately wet, low risk (type 1) asbestos abatement precautions must be used at a minimum. If this material is to be disturbed using handheld power tools that are attached to a working HEPA filter, moderate risk (type 2) asbestos abatement precautions must be used at a minimum. If the material is to be disturbed using power tools not equipped with a working HEPA filter, high risk (type 3) asbestos abatement precautions must be used at a minimum.

The bell and spigot joints of the drainpipes in the work areas may contain non-friable asbestos-containing joint packings.

The disturbance of asbestos-containing materials on construction and demolition projects is governed by the Canada Occupational Health and Safety Regulations, PSPC Asbestos Management Directive, and in the province of Ontario by O.Reg. 278/05. These regulations and standard classify all asbestos disturbance as Low Risk (Type 1), Moderate Risk (Type 2), or High Risk (Type 3), each of which has defined precautionary measures. All asbestos materials are subject to specific handling and disposal precautions. In the event of conflict between requirements, the more stringent procedures apply.

7-2 Lead

The old paint behind the current wall and ceiling finishes is assumed to contain lead.

The bell and spigot joints of the drainpipes in the work areas may contain lead-containing joint packings. Other pipes observed in the work area are assumed to have lead-containing solder on joints.

We recommend that work disturbing materials confirmed or suspected to contain lead follow the procedures outlined in the document entitled *Guideline: Lead on Construction Projects*, published by the Ontario Ministry of Labour. This document classifies the disturbance of materials containing lead as Type 1, Type 2a/2b or Type 3a/3b work, and assigns different levels of respiratory protection and work procedures for each classification.

Waste containing lead must be disposed of according to the *Ontario General –Waste Management Regulation, O.Reg 347/90*.

7-3 Mercury

There are no regulations that specifically govern the disturbance of mercury on construction projects. If fluorescent light tubes/bulbs must be removed, they should be removed intact without breakage and appropriately stored to reduce the risk of breakage. This prevents worker exposure to mercury.

The TWAEEL for mercury is prescribed by *O.Reg. 490/09 Designated Substances*, as amended. Work procedures and personal protective equipment must be used to ensure that workers are not exposed to airborne mercury levels that exceed this TWAEEL.

Liquid mercury is classified as a hazardous waste under O.Reg. 347/90, as amended. The transport of the waste to a disposal site is controlled by O.Reg. 347/90 and by the federal TDGA. It is now common practice to recycle fluorescent light tubes and other items containing mercury, recovering the component materials, and avoiding the generation of hazardous waste.

7-4 Silica

Silica is present in building materials such as plaster, drywall, ceramic tile, masonry walls, concrete block, concrete floor slabs, and other building materials containing concrete.

The Occupational Health and Safety Branch of the Ontario Ministry of Labour have published the document entitled "*Guideline: Silica on Construction Projects*". This document classifies the disturbance of materials containing silica as Type 1, Type 2 or Type 3 work, and assigns different levels of respiratory protection and

work procedures for each classification. These procedures should be followed when performing work involving the disturbance of silica-containing materials.

8- Limitation of report

The visual inspection was limited to readily accessible areas. Should any additional designated substances or hazardous materials be encountered in the course of any demolition or renovation work, work shall be stopped, precautionary measures taken, and the Departmental Representative notified immediately. Do not proceed until written instructions have been received.

This final report titled:

**Designated Substance Report
Washrooms 034, 044, 134, 212, and 234 Renovations
East Block, Parliament Hill
Ottawa, Ontario**

2019-05-21

has been prepared and reviewed by CHSU

Signature/Date:

Report author



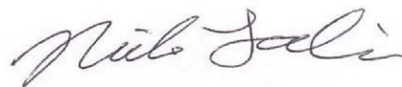
Robert Galdins / 2019-05-21

Primary reviewer



*Olivier Brazeau / 2019-05-22,
2019-12-17*

Secondary reviewer
Updated report 2019-12-16



Nick Tobin / 2019-12-16

Custodial Health and Safety Unit
Environment, Health and Safety
Technical Services
Real Property Services

Appendix A Photos



Photo 1: Men's washroom 034.



Photo 2: Women's washroom 044.



Photo 3: Typical ceiling space above washroom 044, with pipes insulated with fibreglass and bare pipes and ducts.

Appendix B
Laboratory Certificates of Analysis



Certificate of Analysis

PWGSC (Riverside)

2720 Riverside Drive

Ottawa, ON K1A 0S5

Attn: Robert Galdins

Client PO: 700419274

Project: HAZ19-01

Custody:

Report Date: 11-Apr-2019

Order Date: 5-Apr-2019

Order #: 1914571

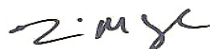
This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
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1914571-01	EB-LP-01
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1914571-02	EB-LP-02
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Approved By:



Tim McCooey
Senior Advisor

Any use of these results implies your agreement that our total liability in connection with this work, however arising shall be limited to the amount paid by you for this work, and that our employees or agents shall not under circumstances be liable to you in connection with this work

Certificate of Analysis
Client: PWGSC (Riverside)
Client PO: 700419274

Report Date: 11-Apr-2019
Order Date: 5-Apr-2019
Project Description: HAZ19-01

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-OES	based on MOE E3470, ICP-OES	10-Apr-19	10-Apr-19

Sample Data Revisions

None

Work Order Revisions/Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

Certificate of Analysis
Client: **PWGSC (Riverside)**
Client PO: 700419274

Report Date: 11-Apr-2019
Order Date: 5-Apr-2019
Project Description: **HAZ19-01**

Sample Results

Lead				Matrix: Paint
				Sample Date: 04-Apr-19
Paracel ID	Client ID	Units	MDL	Result
1914571-01	EB-LP-01	ug/g	20	<20
1914571-02	EB-LP-02	ug/g	20	<20

Laboratory Internal QA/QC

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Matrix Blank									
Lead	ND	20	ug/g						
Matrix Duplicate									
Lead	ND	20	ug/g	ND			0.0	30	
Matrix Spike									
Lead	231		ug/L	ND	92.5	70-130			



Certificate of Analysis

PWGSC (Riverside)

2720 Riverside Drive

Ottawa, ON K1A 0S5

Attn: Robert Galdins

Client PO: 700419274

Project: HAZ19-21

Custody:

Report Date: 21-May-2019

Order Date: 17-May-2019

Order #: 1920826

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID Client ID

1920826-01 EB-312-LP-01

Approved By:



Mark Foto, M.Sc.
Lab Supervisor

Any use of these results implies your agreement that our total liability in connection with this work, however arising shall be limited to the amount paid by you for this work, and that our employees or agents shall not under circumstances be liable to you in connection with this work

Certificate of Analysis
Client: PWGSC (Riverside)
Client PO: 700419274

Report Date: 21-May-2019
Order Date: 17-May-2019
Project Description: HAZ19-21

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-OES	based on MOE E3470, ICP-OES	21-May-19	21-May-19

Sample Data Revisions

None

Work Order Revisions/Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

Certificate of Analysis
Client: PWGSC (Riverside)
Client PO: 700419274

Report Date: 21-May-2019
Order Date: 17-May-2019
Project Description: HAZ19-21

Sample Results

Lead				Matrix: Paint
				Sample Date: 16-May-19
Paracel ID	Client ID	Units	MDL	Result
1920826-01	EB-312-LP-01	ug/g	20	<20

Laboratory Internal QA/QC

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Matrix Blank									
Lead	ND	20	ug/g						
Matrix Duplicate									
Lead	ND	20	ug/g	ND			0.0	30	
Matrix Spike									
Lead	218		ug/L	ND	87.2	70-130			



Client Name: PSPC	Project Reference: HA219-21	Turnaround Time: <input checked="" type="checkbox"/> 1 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Regular Date Required: _____
Contact Name: Robert Galdins	Quote #	
Address: 2720 Riverside Drive, Ottawa, Ontario K1A 0S5	PO # 700419274	
Telephone: 613-736-3132 (cell 343-542-8725)	Email Address: robert.galdins@psgc-pwgsc.gc.ca	

Criteria: ☐ O. Reg. 153/04 (As Amended) Table ☐ RSC Filing ☐ O. Reg. 558/00 ☐ PWQO ☐ CCME ☐ SUB (Storm) ☐ SUB (Sanitary) Municipality: _____ ☐ Other: _____

Matrix Type: S (Soil/Sed) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

Required Analyses

Paracel Order Number: 1920826		Matrix	Air Volume	# of Containers	Sample Taken		Lead in paint													
Sample ID/Location Name					Date	Time														
1	EB-312-LP-01	Paint			16/05/2019		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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10							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Method of Delivery:																				

Method of Delivery:

Paracel

Comments:

Relinquished By (Sign): <i>R. Galdins</i>	Received by Driver/Depot: <i>J. LEWIS</i>	Received at Lab: <i>June 17, 2019 15:20</i>	Verified By: <i>Robt. Galdins</i>
Relinquished By (Print): Robert Galdins	Date/Time: 17/05/19 14:44	Date/Time: May 17, 2019 15:20	Date/Time: 05-17-19 17:25
Date/Time: 17/05/2019	Temperature: _____ °C	Temperature: _____ °C	pH Verified By: _____

Certificate of Analysis

PWGSC (Riverside)

2720 Riverside Drive
Ottawa, ON K1A 0S5
Attn: Robert Galdins

Client PO: 700419274

Project: HAZ19-21

Custody:

Report Date: 21-May-2019

Order Date: 17-May-2019

Order #: 1920827

This Certificate of Analysis contains analytical data applicable to the following samples as submitted :

Paracel ID	Client ID
1920827-01	EB-234-01A
1920827-02	EB-034-01B
1920827-03	EB-044-01C
1920827-04	EB-312-01D
1920827-05	EB-044-02A
1920827-06	EB-044-02B
1920827-07	EB-044-02C
1920827-08	EB-312-03A
1920827-09	EB-312-03B
1920827-10	EB-312-03C

Approved By:



Heather S.H. McGregor, BSc

Laboratory Director - Microbiology

Certificate of Analysis
Client: **PWGSC (Riverside)**
Client PO: **700419274**

Report Date: 21-May-2019
Order Date: 17-May-2019
Project Description: **HAZ19-21**

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1920827-01	16-May-19	Yellow	Ceramic Wall Tile Adhesive	No	Client ID: EB-234-01A	
					Non-Fibers	100
1920827-02	16-May-19	Yellow	Ceramic Wall Tile Adhesive	No	Client ID: EB-034-01B	
					Non-Fibers	100
1920827-03	16-May-19	Yellow	Ceramic Wall Tile Adhesive	No	Client ID: EB-044-01C	
					Non-Fibers	100
1920827-04	16-May-19	Yellow	Ceramic Wall Tile Adhesive	No	Client ID: EB-312-01D	
					Non-Fibers	100
1920827-05	16-May-19	Grey	Cement Grout	No	Client ID: EB-044-02A	
					Non-Fibers	100
1920827-06	16-May-19	Grey	Cement Grout	No	Client ID: EB-044-02B	
					Non-Fibers	100
1920827-07	16-May-19	Grey	Cement Grout	No	Client ID: EB-044-02C	
					Non-Fibers	100
1920827-08	16-May-19	Brown	Floor Tile Grout	No	Client ID: EB-312-03A	
					Cellulose	1
					Non-Fibers	99
1920827-09	16-May-19	Brown	Floor Tile Grout	No	Client ID: EB-312-03B	
					Cellulose	1
					Non-Fibers	99
1920827-10	16-May-19	Brown	Floor Tile Grout	No	Client ID: EB-312-03C	
					Cellulose	1
					Non-Fibers	99

Certificate of Analysis
Client: PWGSC (Riverside)
Client PO: 700419274

Report Date: 21-May-2019
Order Date: 17-May-2019
Project Description: HAZ19-21

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code	*	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	: - Ottawa West Lal	200812-0		21-May-19

* Reference to the NVLAP term does not permit the user of this report to claim product certification , approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Qualifier Notes

Login Qualifiers :

LG-CNT003 Container(s) - Bottle and COC sample ID don't match -
Applies to samples: 07

Work Order Revisions | Comments

None



Client Name: PSPC	Project Reference: HAZ19-21	Turnaround Time: <input type="checkbox"/> Immediate <input checked="" type="checkbox"/> 1 Day <input type="checkbox"/> 4 Hour <input type="checkbox"/> 2 Day <input type="checkbox"/> 8 Hour <input type="checkbox"/> 3 Day <input type="checkbox"/> Regular
Contact Name: Robert Galdins	Quote #:	
Address: 2720 Riverside Drive, Ottawa, Ontario K1A 0S5	PO #: 700419274	
Telephone: 613-736-3132 (cell: 343-542-8725)	Email Address: robert.galdins@tpsgc-pwgsc.gc.ca	
Date Required:		

ASBESTOS & MOLD ANALYSIS

Matrix: ☐ Air ☒ Bulk ☐ Tape Lift ☐ Swab ☐ Other Regulatory Guideline: ☒ ON ☐ QC ☐ AB ☐ SK ☐ Other:
 Analysis: ☐ Microscopic Mold ☐ Culturable Mold ☐ Bacteria GRAM ☐ PCM Asbestos ☒ PLM Asbestos ☐ Chatfield Asbestos ☐ TEM Asbestos

Parcel Order Number: 1920827		Asbestos - Bulk					
Sample ID		Sampling Date	Air Volume (L)	Analysis Required	Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	EB-234-01A	16/05/2019			Ceramic wall tile adhesive	<input type="checkbox"/>	<input type="checkbox"/>
2	EB-034-01B	16/05/2019			Ceramic wall tile adhesive	<input type="checkbox"/>	<input type="checkbox"/>
3	EB-044-01C	16/05/2019			Ceramic wall tile adhesive	<input type="checkbox"/>	<input type="checkbox"/>
4	EB-312-01D	16/05/2019			Ceramic wall tile adhesive	<input type="checkbox"/>	<input type="checkbox"/>
5	EB-044-02A	16/05/2019			Grey cement grout (don't analyze ceramic tile)	<input type="checkbox"/>	<input type="checkbox"/>
6	EB-044-02B	16/05/2019			Grey cement grout (don't analyze ceramic tile)	<input type="checkbox"/>	<input type="checkbox"/>
7	EB-044-02C	16/05/2019			Grey cement grout (don't analyze ceramic tile)	<input type="checkbox"/>	<input type="checkbox"/>
8	EB-312-03A to C	16/05/2019			Floor tile grout	<input type="checkbox"/>	<input type="checkbox"/>
9						<input type="checkbox"/>	<input type="checkbox"/>
10						<input type="checkbox"/>	<input type="checkbox"/>
11						<input type="checkbox"/>	<input type="checkbox"/>
12						<input type="checkbox"/>	<input type="checkbox"/>

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (at additional cost) per EPA 600/R-93/116

Comments:				Method of Delivery: Parcel	
Relinquished By (Sign): <i>R. Galdins</i>	Received at Depot: <i>A. Fause</i>	Received at Lab: <i>M. [Signature]</i>	Verified By: <i>[Signature]</i>		
Relinquished By (Print): Robert Galdins	Date/Time: 17/05/19 1:44 PM	Date/Time: May 17/19 3:40 PM	Date/Time: 05/22/19 5:28 PM		

Certificate of Analysis

PWGSC (Riverside)

2720 Riverside Drive
Ottawa, ON K1A 0S5
Attn: Robert Galdins

Client PO: 700419274
Project: HAZ19-44
Custody:

Report Date: 14-Aug-2019
Order Date: 8-Aug-2019

Order #: 1932327

This Certificate of Analysis contains analytical data applicable to the following samples as submitted :

Paracel ID	Client ID
1932327-01	EB212-01A
1932327-02	EB212-01B
1932327-03	EB212-01C
1932327-04	EB212-01A
1932327-05.1	EB212-01B
1932327-05.2	EB212-01B
1932327-06	EB212-01C

Approved By:



Harling Caro
Senior Analyst

Certificate of Analysis
Client: PWGSC (Riverside)
Client PO: 700419274

Report Date: 14-Aug-2019
 Order Date: 8-Aug-2019
Project Description: HAZ19-44

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1932327-01	08-Aug-19	White	Plaster	No	Client ID: EB212-01A	
					Cellulose	1
					Non-Fibers	99
1932327-02	08-Aug-19	White	Plaster	No	Client ID: EB212-01B	
					Non-Fibers	100
1932327-03	08-Aug-19	White	Plaster	No	Client ID: EB212-01C	
					Non-Fibers	100
1932327-04	08-Aug-19	Grey	Plaster	No	Client ID: EB212-01A	
					Non-Fibers	98
					Other fibers	2
1932327-05.1	08-Aug-19	Light Grey	Plaster	No	Client ID: EB212-01B	
					Non-Fibers	100
1932327-05.2	08-Aug-19	Dark Grey	Plaster	No	Client ID: EB212-01B	
					Non-Fibers	100
1932327-06	08-Aug-19	Light Grey	Plaster	No	Client ID: EB212-01C	
					Non-Fibers	100

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code	* Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	2 - Ottawa West Lab	200812-0	14-Aug-19

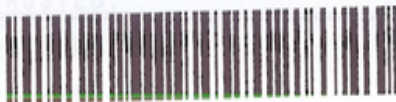
* Reference to the NVLAP term does not permit the user of this report to claim product certification , approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Ottawa West Lab: 25 Northside Rd, Unit C Nepean, Ontario K2H 8S1

Work Order Revisions | Comments

None

Parcel ID: 1932327



Office
1 St. Laurent Blvd.
Ottawa K1G 4J8
749-1947
info@paracellabs.com

Chain of Custody
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Page 1 of 1

Client Name: PSPC	Project Reference: HAZ19-44	Turnaround Time: <input type="checkbox"/> Immediate <input type="checkbox"/> 1 Day <input type="checkbox"/> 4 Hour <input type="checkbox"/> 2 Day <input type="checkbox"/> 8 Hour <input type="checkbox"/> 3 Day <input checked="" type="checkbox"/> Regular
Contact Name: Robert Galdins	Quote #:	
Address: 2720 Riverside Drive, Ottawa, Ontario K1A 0S5	PO #: 700419274	
Telephone: 613-736-3132 (cell: 343-542-8725)	Email Address: robert.galdins@tpsgc-pwgsc.gc.ca	
		Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐ Air ☒ Bulk ☐ Tape Lift ☐ Swab ☐ Other **Regulatory Guideline:** ☒ ON ☐ QC ☐ AB ☐ SK ☐ Other:

Analysis: ☐ Microscopic Mold ☐ Culturable Mold ☐ Bacteria GRAM ☐ PCM Asbestos ☒ PLM Asbestos ☐ Chatfield Asbestos ☐ TEM Asbestos

Parcel Order Number:		Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk		
Sample ID					Identify Distinct Building Materials to Be Analyzed	Combine Identified Materials?	Positive
					* see below	**see below	Stop?
1	EB212-01A to C	7/08/2019			Plaster, white and grey layers	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2						<input type="checkbox"/>	<input type="checkbox"/>
3						<input type="checkbox"/>	<input type="checkbox"/>
4						<input type="checkbox"/>	<input type="checkbox"/>
5						<input type="checkbox"/>	<input type="checkbox"/>
6						<input type="checkbox"/>	<input type="checkbox"/>
7						<input type="checkbox"/>	<input type="checkbox"/>
8						<input type="checkbox"/>	<input type="checkbox"/>
9						<input type="checkbox"/>	<input type="checkbox"/>
10						<input type="checkbox"/>	<input type="checkbox"/>
11						<input type="checkbox"/>	<input type="checkbox"/>
12						<input type="checkbox"/>	<input type="checkbox"/>

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (at additional cost) per EPA 600/R-93/116

Comments:				Method of Delivery: Parcel	
Relinquished By (Sign): <i>Robert Galdins</i>	Received at Depot: <i>A. DEWISTE</i>	Received at Lab: <i>Am</i>	Verified By: <i>Am</i>		
Relinquished By (Print): Robert Galdins	Date/Time: 08/08/19 11:03 AM	Date/Time: Aug 8/19 14:36	Date/Time: Aug 8/19 14:56		

Certificate of Analysis

PWGSC (Riverside)

2720 Riverside, A-425-B
Ottawa, ON K1A 0S5
Attn: Nick Tobin

Client PO: 700419274
Project: HAZ19-54 EB
Custody:

Report Date: 12-Sep-2019
Order Date: 6-Sep-2019

Order #: 1936438

This Certificate of Analysis contains analytical data applicable to the following samples as submitted :

Paracel ID	Client ID
1936438-01.1	EB-MW-T-A
1936438-01.2	EB-MW-T-A
1936438-02.1	EB-MW-T-B
1936438-02.2	EB-MW-T-B
1936438-03.1	EB-MW-T-C
1936438-03.2	EB-MW-T-C

Approved By:



Harling Caro
Senior Analyst

Certificate of Analysis
Client: PWGSC (Riverside)
Client PO: 700419274

Report Date: 12-Sep-2019
 Order Date: 6-Sep-2019
Project Description: HAZ19-54 EB

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1936438-01.1	04-Sep-19	Grey	Cement	No	Client ID: EB-MW-T-A	
					Non-Fibers	100
1936438-01.2	04-Sep-19	Black	Tar	Yes	Client ID: EB-MW-T-A	
					Chrysotile	15
					Non-Fibers	85
1936438-02.1	04-Sep-19	Grey	Cement	No	Client ID: EB-MW-T-B	
					Non-Fibers	100
1936438-02.2	04-Sep-19	Black	Tar	Yes	Client ID: EB-MW-T-B	
					Chrysotile	15
					Non-Fibers	85
1936438-03.1	04-Sep-19	Grey	Cement	No	Client ID: EB-MW-T-C	
					Non-Fibers	100
1936438-03.2	04-Sep-19	Black	Tar	Yes	Client ID: EB-MW-T-C	
					Chrysotile	15
					Non-Fibers	85

**** Analytes in bold indicate asbestos mineral content.**

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code	*	Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	2 - Ottawa West Lab	200812-0		12-Sep-19

* Reference to the NVLAP term does not permit the user of this report to claim product certification , approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Ottawa West Lab: 25 Northside Rd, Unit C Nepean, Ontario K2H 8S1

Work Order Revisions | Comments

None



TRUSTED
RESPONS
RELIABL

Parcel ID: 1936438



Chain of Custody
(Lab Use Only)

Page 1 of 1

Client Name: PSC	Project Reference: HAZ19-54 EB	Turnaround Time: <input type="checkbox"/> Immediate <input type="checkbox"/> 1 Day <input type="checkbox"/> 4 Hour <input type="checkbox"/> 2 Day <input type="checkbox"/> 8 Hour <input type="checkbox"/> 3 Day <input checked="" type="checkbox"/> Regular	
Contact Name: Nick Tobin	Quote #:		Date Required:
Address: 2720 Riverside Drive, Ottawa, Ontario K1A 0S5	PO #: 700419274		
Telephone: 613 296 9272	Email Address: Nick.Tobin@tpsgc-pwgsc.gc.ca robert.galdins@tpsgc-pwgsc.gc.ca		

ASBESTOS & MOLD ANALYSIS

Matrix: ☐ Air ☒ Bulk ☐ Tape Lift ☐ Swab ☐ Other **Regulatory Guideline:** ☒ ON ☐ QC ☐ AB ☐ SK ☐ Other:
Analysis: ☐ Microscopic Mold ☐ Culturable Mold ☐ Bacteria GRAM ☐ PCM Asbestos ☒ PLM Asbestos ☐ Chatfield Asbestos ☐ TEM Asbestos

Parcel Order Number: 1936438				Asbestos - Bulk		
Sample ID				Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	EB - MW - T - A - C	05/09/19	PLM		<input type="checkbox"/>	<input type="checkbox"/>
2					<input type="checkbox"/>	<input type="checkbox"/>
3					<input type="checkbox"/>	<input type="checkbox"/>
4					<input type="checkbox"/>	<input type="checkbox"/>
5					<input type="checkbox"/>	<input type="checkbox"/>
6					<input type="checkbox"/>	<input type="checkbox"/>
7					<input type="checkbox"/>	<input type="checkbox"/>
8					<input type="checkbox"/>	<input type="checkbox"/>
9					<input type="checkbox"/>	<input type="checkbox"/>
10					<input type="checkbox"/>	<input type="checkbox"/>
11					<input type="checkbox"/>	<input type="checkbox"/>
12					<input type="checkbox"/>	<input type="checkbox"/>

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (at additional cost) per EPA 600/R-93/116

Comments:		Method of Delivery: Swift	
Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Nick Tobin	Date/Time: 05/09/2019	Date/Time: Sept 16 11:13:16	Date/Time: 09/16/19 2:18 pm

Certificate of Analysis

PWGSC (Riverside)

2720 Riverside Drive
Ottawa, ON K1A 0S5
Attn: Robert Galdins

Client PO: 700419274

Project: HAZ19-44

Custody:

Report Date: 14-Aug-2019

Order Date: 8-Aug-2019

Order #: 1932327

This Certificate of Analysis contains analytical data applicable to the following samples as submitted :

Paracel ID	Client ID
1932327-01	EB212-01A
1932327-02	EB212-01B
1932327-03	EB212-01C
1932327-04	EB212-01A
1932327-05.1	EB212-01B
1932327-05.2	EB212-01B
1932327-06	EB212-01C

Approved By:



Harling Caro

Senior Analyst

Certificate of Analysis
Client: PWGSC (Riverside)
Client PO: 700419274

Report Date: 14-Aug-2019
 Order Date: 8-Aug-2019
Project Description: HAZ19-44

Asbestos, PLM Visual Estimation **MDL - 0.5%**

Parcel ID	Sample Date	Colour	Description	Asbestos Detected	Material Identification	% Content
1932327-01	08-Aug-19	White	Plaster	No	Client ID: EB212-01A	
					Cellulose	1
					Non-Fibers	99
1932327-02	08-Aug-19	White	Plaster	No	Client ID: EB212-01B	
					Non-Fibers	100
1932327-03	08-Aug-19	White	Plaster	No	Client ID: EB212-01C	
					Non-Fibers	100
1932327-04	08-Aug-19	Grey	Plaster	No	Client ID: EB212-01A	
					Non-Fibers	98
					Other fibers	2
1932327-05.1	08-Aug-19	Light Grey	Plaster	No	Client ID: EB212-01B	
					Non-Fibers	100
1932327-05.2	08-Aug-19	Dark Grey	Plaster	No	Client ID: EB212-01B	
					Non-Fibers	100
1932327-06	08-Aug-19	Light Grey	Plaster	No	Client ID: EB212-01C	
					Non-Fibers	100

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	NVLAP Lab Code	* Analysis Date
Asbestos, PLM Visual Estimation	by EPA 600/R-93/116	2 - Ottawa West Lab	200812-0	14-Aug-19

* Reference to the NVLAP term does not permit the user of this report to claim product certification , approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Ottawa West Lab: 25 Northside Rd, Unit C Nepean, Ontario K2H 8S1

Work Order Revisions | Comments

None

Parcel ID: 1932327



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1 St. Laurent Blvd.
Ottawa K1G 4J8
749-1947
info@paracellabs.com

Chain of Custody
(Lab Use Only)

Page 1 of 1

Client Name: PSPC	Project Reference: HAZ19-44	Turnaround Time: <input type="checkbox"/> Immediate <input type="checkbox"/> 1 Day <input type="checkbox"/> 4 Hour <input type="checkbox"/> 2 Day <input type="checkbox"/> 8 Hour <input type="checkbox"/> 3 Day <input checked="" type="checkbox"/> Regular
Contact Name: Robert Galdins	Quote #:	
Address: 2720 Riverside Drive, Ottawa, Ontario K1A 0S5	PO #: 700419274	
Telephone: 613-736-3132 (cell: 343-542-8725)	Email Address: robert.galdins@tpsgc-pwgsc.gc.ca	
		Date Required:

ASBESTOS & MOLD ANALYSIS

Matrix: ☐ Air ☒ Bulk ☐ Tape Lift ☐ Swab ☐ Other **Regulatory Guideline:** ☒ ON ☐ QC ☐ AB ☐ SK ☐ Other:

Analysis: ☐ Microscopic Mold ☐ Culturable Mold ☐ Bacteria GRAM ☐ PCM Asbestos ☒ PLM Asbestos ☐ Chatfield Asbestos ☐ TEM Asbestos

Parcel Order Number: <div>1932327</div>		Sampling Date	Air Volume (L)	Analysis Required	Asbestos - Bulk		
					Identify Distinct Building Materials to Be Analyzed * see below	Combine Identified Materials? **see below	Positive Stop?
1	EB212-01A to C	7/08/2019			Plaster, white and grey layers	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2						<input type="checkbox"/>	<input type="checkbox"/>
3						<input type="checkbox"/>	<input type="checkbox"/>
4						<input type="checkbox"/>	<input type="checkbox"/>
5						<input type="checkbox"/>	<input type="checkbox"/>
6						<input type="checkbox"/>	<input type="checkbox"/>
7						<input type="checkbox"/>	<input type="checkbox"/>
8						<input type="checkbox"/>	<input type="checkbox"/>
9						<input type="checkbox"/>	<input type="checkbox"/>
10						<input type="checkbox"/>	<input type="checkbox"/>
11						<input type="checkbox"/>	<input type="checkbox"/>
12						<input type="checkbox"/>	<input type="checkbox"/>

* If left blank, Paracel will analyze all materials identified during analysis ** If left blank, Paracel will analyze all materials as individual samples (at additional cost) per EPA 600/R-93/116

Comments:				Method of Delivery: Parcel	
Relinquished By (Sign): <i>Robert Galdins</i>	Received at Depot: <i>A. DEWISTE</i>	Received at Lab: <i>Am</i>	Verified By: <i>Am</i>		
Relinquished By (Print): Robert Galdins	Date/Time: 08/08/19 11:03 AM	Date/Time: Aug 8/19 14:36	Date/Time: Aug 8/19 14:56		