December 1, 2017

CITY OF SASKATOON

Asbestos-Containing Building Materials Assessment Report - Riversdale Pool

Submitted to:

The City of Saskatoon
1101 Avenue P North
Saskatoon, SK S7L 7K6

Report Number: 1667963

Distribution:

One Copy: City of Saskatoon
One Copy: Golder Associates Ltd.

REPORT

Golder Associates

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1.0 INTRODUCTION

Golder Associates Ltd. (Golder) was retained by the City of Saskatoon (the Client) to conduct an asbestos-containing building materials assessment of the Riversdale Pool (the Site) located at 822 Avenue H South in Saskatoon, Saskatchewan. This assessment report details our findings, conclusions and recommendations for the Site. A walkthrough of the Site was conducted on September 30, 2017 and the assessment was conducted on October 11, 2017 by Kody Henderson, OHS Project Manager. Asbestos-containing building materials were identified within the Riversdale Pool during the assessment. Further information is provided in Section 3.0.

2.0 SCOPE OF WORK

In accordance with Tender 16-0844, Golder's scope of work included conducting an asbestos-containing building materials assessment of the Site to evaluate the quantities, locations, and conditions of asbestos-containing building materials.

Following the field work, Golder prepared this assessment report that includes laboratory analysis results, findings of the assessment, conclusions, and recommendations.

2.1 Asbestos-Containing Materials

The assessment involved a non-destructive inspection of the Site to assess the type and extent of suspect ACMs in the facility. The systems that were reviewed as part of the inspections included, but were not limited to:

- *Structural* - systems including: insulation between solid webbed joists, fireproofing, building envelope, and interior/exterior caulking around windows and doors;
- *Mechanical* - systems insulation including: hot water and steam system, condensate system, chilled water system, glycol system, domestic hot and cold water, emergency generator exhaust, boiler units, heat exchangers, and asbestos cement piping; and
- *Architectural* - systems including: texture coats, sheet flooring, vinyl floor tile, acoustical spray-applied materials, condensation control applications, ceiling tile, wall board, drywall joint compound, and asbestos sheet products.

Systematic sampling of suspect ACMs was conducted as part of the assessment. Samples were submitted under chain of custody to International Asbestos Testing Laboratory Inc. (IATL) and analyzed for asbestos type and percentage content using Polarized Light Microscopy (PLM) in accordance with EPA methodologies (EPA 600/R-93/116).

Further information related to the assessment and sample collection methods can be found in the Golder document *Golder Asbestos Assessment General Survey Plan and Protocol* provided to the Client.

3.0 RESULTS AND DISCUSSION

The Riversdale Pool consists of washrooms, change rooms, staff areas, and mechanical rooms and was constructed in 1988. During the assessment, the entire building was treated as one functional space.

- The Laboratory Certificate of Analysis report for the bulk asbestos samples is included in Appendix A.
- Photographs collected during the assessment are provided in Appendix B.
- A room by room spreadsheet outlining the locations, quantities, friability, and condition of identified asbestos-containing materials as well as additional information is provided in Appendix C.
- Floor plans outlining the sample locations and locations of identified asbestos-containing materials is provided in Appendix D.
- Please refer to Sections 4.0 and 6.0 of this report for a summary of the limitations encountered.

3.1 Asbestos-Containing Materials

A total of twenty-four (24) samples of building materials were collected and tested for asbestos content during the assessment of the Riversdale Pool. Six (6) of the samples were found to contain asbestos.

Potential asbestos-containing components may be located within the electrical panels on Site.

3.1.1 List of Identified Asbestos-Containing Materials

A list of the identified asbestos-containing materials is provided below.

- 12”x12” Off-White Floor Tile with Black Streaks;
- Gold Sink Undercoat;
- Grey Window Caulking;
- Black Window Putty;
- Light Grey Firestop; and
- Light Grey Building Caulking.

Further information on the identified asbestos-containing materials listed is provided below.

12”x12” Off-White Floor Tile with Black Streaks

One (1) sample of 12”x12” off-white floor tile with black streaks was collected during the assessment. The sample collected was found to contain 1.3% Chrysotile asbestos. Asbestos-containing 12”x12” off-white floor tile with black streaks (see Photograph 1 in Appendix B) was observed in the following locations:

- Room 127/130 (approximately 550 ft^2);
- Room 128 (approximately 90 ft^2); and
- Room 129 (approximately 190 ft^2).

Gold Sink Undercoat

One (1) sample of gold sink undercoat was collected during the assessment. The sample collected was found to contain 12% Chrysotile asbestos. Asbestos-containing gold sink undercoat (see Photograph 2 in Appendix B) was observed in the following locations:

- Room 112 (approximately 1 sink); and
- Room 117 (approximately 2 sinks).

Grey Window Caulking

One (1) sample of grey window caulking was collected during the assessment. The sample collected was found to contain 15% Chrysotile asbestos. Asbestos-containing grey window caulking (see Photograph 3 in Appendix B) was observed in the following locations:

- Room 112 (approximately 32 linear feet); and
- Room 118 (approximately 48 linear feet).

Black Window Putty

One (1) sample of black window putty was collected during the assessment. The sample collected was found to contain 15% Chrysotile asbestos. Asbestos-containing black window putty (see Photograph 4 in Appendix B) was observed in the following location:

- Room 103 (approximately 5 linear feet).

Light Grey Firestop

One (1) sample of light grey firestop was collected during the assessment. The sample collected was found to contain 2.2% Chrysotile asbestos. Asbestos-containing light grey firestop (see Photograph 5 in Appendix B) was observed in the following location:

- Room 104 (approximately 1 linear foot).

Light Grey Building Caulking

One (1) sample of light grey building caulking was collected during the assessment. The sample collected was found to contain 10% Chrysotile asbestos. Asbestos-containing light grey building caulking (see Photograph 6 in Appendix B) was observed in the following location:

- Exterior (approximately 1 linear foot).

3.1.2 Non Asbestos-Containing Materials

The following materials were sampled during this assessment and were found to not contain asbestos or were observed to be non-suspect materials:

- Drywall joint compound;
- Black floor mastic;
- White building caulking;
- Pipe-fitting insulation;

- Grey building putty;
- Stucco;
- Grey building caulking;
- The attic was observed to be uninsulated with a wood truss structure and fibreglass or uninsulated duct and pipe work; and
- The walls were observed to be constructed of concrete block and drywall with non-asbestos-containing joint compound with ceilings constructed of drywall with non-asbestos-containing joint compound and wood slats and the flooring was observed to be concrete or a non-asbestos-containing concrete coating in select locations.

4.0 EXCLUDED AREAS AND MATERIALS

The following is a list of the areas and/or materials excluded during the assessment.

- The roof and associated components were not assessed by Golder during the assessment as per Tender 16-0844. If the roof and associated components are to be removed or impacted by future renovation or demolition activities, additional investigation and sampling of suspect materials may be required.
- The concrete block walls were not assessed by Golder during the assessment as per Tender 16-0844. If the concrete block walls are to be removed or impacted by future renovation or demolition activities, additional investigation and sampling of suspect materials may be required.
- The electrical panels and associated components were not inspected by Golder during the assessment. If the panels are to be removed or impacted by future renovation or demolition activities, additional investigation and sampling of suspect materials may be required.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the visual assessment and the laboratory analytical results, the following project specific conclusions and recommendations are provided.

5.1 Asbestos-Containing Materials

Asbestos was positively identified within the 12”x12” off-white floor tile with black streaks, the gold sink undercoat, the grey window caulking, the black window putty, the light grey firestop, and the light grey building caulking on Site. Asbestos was not identified in the remaining samples collected and analyzed.

If the building is scheduled for renovations that will impact the identified or potential asbestos-containing materials, it must be removed. If additional suspect asbestos-containing building materials are encountered during renovation activities, additional sampling should be undertaken to evaluate asbestos content.

Removal work should be completed by workers that are adequately trained in the hazards and proper methods of working with asbestos. Throughout the abatement activities, appropriate air monitoring and inspections should be conducted by a competent person to document that contamination is contained and that ACM are disposed of appropriately. Ensure asbestos waste is disposed of in accordance with the requirements of the Government of Saskatchewan.

All quantities listed in the report are approximate and are based on the conditions at the time of the assessment. Prior to abatement work it is recommended that a competent person conduct a review of the site to quantify and obtain all measurements of all building materials detailed in this report for cost estimating purposes.

In anticipation of potential abatement, Golder's recommendations for the asbestos-containing materials identified during the assessment are outlined below.

12"x12" Off-White Floor Tile with Black Streaks

If scheduled for impact, asbestos-containing 12"x12" off-white floor tile with black streaks should be abated following low-risk abatement work procedures as outlined in the *Saskatchewan Asbestos Abatement Manual* (2017). Alternatively, as the 12"x12" off-white floor tile with black streaks was observed in good condition, and with a priority rating of 5 (please see the room by room spreadsheet provided in Appendix C for a description of the priority ratings), it can be managed in place if not scheduled for impact.

Gold Sink Undercoat

If scheduled for impact, asbestos-containing gold sink undercoat should be abated following low-risk abatement work procedures as outlined in the *Saskatchewan Asbestos Abatement Manual* (2017). Alternatively, as the gold sink undercoat was observed in good condition, and with a priority rating of 5 (please see the room by room spreadsheet provided in Appendix C for a description of the priority ratings), it can be managed in place if not scheduled for impact.

Grey Window Caulking

If scheduled for impact, asbestos-containing grey window caulking should be abated following low-risk abatement work procedures as outlined in the *Saskatchewan Asbestos Abatement Manual* (2017). Alternatively, as the grey window caulking was observed in good condition, and with a priority rating of 5 (please see the room by room spreadsheet provided in Appendix C for a description of the priority ratings), it can be managed in place if not scheduled for impact.

Black Window Putty

If scheduled for impact, asbestos-containing black window putty should be abated following low-risk abatement work procedures as outlined in the *Saskatchewan Asbestos Abatement Manual* (2017). Alternatively, as the black window putty was observed in good condition, and with a priority rating of 5 (please see the room by room spreadsheet provided in Appendix C for a description of the priority ratings), it can be managed in place if not scheduled for impact.

Light Grey Firestop

If scheduled for impact, asbestos-containing light grey firestop should be abated following low-risk abatement work procedures as outlined in the *Saskatchewan Asbestos Abatement Manual* (2017). Alternatively, as the light grey firestop was observed in good condition, and with a priority rating of 5 (please see the room by room spreadsheet provided in Appendix C for a description of the priority ratings), it can be managed in place if not scheduled for impact.

Light Grey Building Caulking

If scheduled for impact, asbestos-containing light grey building caulking should be abated following low-risk abatement work procedures as outlined in the *Saskatchewan Asbestos Abatement Manual* (2017). Alternatively, as the light grey building caulking was observed in good condition, and with a priority rating of 5 (please see the room by room spreadsheet provided in Appendix C for a description of the priority ratings), it can be managed in place if not scheduled for impact.

6.0 SURVEY LIMITATIONS

This report is based on data and information collected by Golder during the assessment conducted on October 11, 2017 and is based solely on site conditions encountered at the time of the assessment. Any use of this document or the findings, conclusions or recommendations provided in this report by any person other than the City of Saskatoon is at the sole risk of such user.

The conclusions and recommendations contained in this survey report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report. No assurance is made regarding changes in conditions or practices subsequent to the time of the investigation. It was beyond the scope of this assessment to conduct a risk assessment and the potential health risks that may be associated with asbestos exposure for building occupants.

The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by Tender 16-0844 and the initial site walkthrough with the Client, the time and budgetary constraints imposed by the Client, and availability of access to the property.

Because of the limitations stated above, the findings, observations and conclusions expressed by Golder in this report are not, and must not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

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

Golder's assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the survey report constitutes acceptance of the limits of Golder's liability.

Golder's liability extends only to its client and not to other parties who may obtain this survey report. Issues raised by the report must be reviewed by appropriate legal counsel.

7.0 CLOSURE

We trust the information presented in this report meets your requirements. If you have any questions, please contact Kody Henderson at (780) 483-3499 or email at kody_henderson@golder.com. Thank you for the opportunity to be of service. We look forward to working with you again in the future.

Report Signature Page

GOLDER ASSOCIATES LTD.

Prepared by:

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OHS Project Manager

Reviewed by:

Andrew Grant, B.Sc., P.Eng., EP, CRSP
Associate, OHS Project Director

KH/AG/ba

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APPENDIX A

Laboratory Certificate of Analysis Report

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

REVISED CERTIFICATE OF ANALYSIS

Client: Golder Associates Ltd
16820 107 Ave
Edmonton AB T5P 4C3

Client: GOL572

Report Date: 10/28/2017
Report No.: 550071 - PLM Rev #3, 10/30/2017
Project: Riversdale Pool
Project No.: 1667963

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6369355
Client No.: A-001
Description: Off-White Floor Tile; 1x1
Facility:
Location: Room 127/130

Percent Asbestos:
PC 1.3 *Chrysotile*

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
98.7

Lab No.: 6369355(L2)
Client No.: A-001
Description: Black Mastic
Facility:
Location: Room 127/130

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6369356
Client No.: A-002
Description: White/Brown Sheetrock/Joint Compound
Facility:
Location: Room 127/130; Composite

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
10 Cellulose

Percent Non-Fibrous Material:
90

Lab No.: 6369357
Client No.: A-003
Description: White Caulk
Facility:
Location: Room 128

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6369358
Client No.: A-004
Description: White Joint Compound
Facility:
Location: Room 128

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6369359
Client No.: A-005
Description: Off-White/Brown/Yellow Sheetrock
Facility:
Location: Room 121

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
15 Cellulose
Trace Fibrous Glass

Percent Non-Fibrous Material:
85

Analytical Method -**US EPA 600, R93-116**. Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/18/2017
Date Analyzed: 10/28/2017
Signature:
Analyst: Linda Price

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Client: GOL572

Report Date: 10/28/2017
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Project: Riversdale Pool
Project No.: 1667963

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6369360 **Client No.:** A-006	**Description:** Gold Sink Undercoating **Facility:**	**Location:** Room 112
Percent Asbestos: ***12*** *Chrysotile*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 88
Lab No.: 6369361 **Client No.:** A-007	**Description:** Grey Caulk **Facility:**	**Location:** Room 112
Percent Asbestos: ***15*** *Chrysotile*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 85
Lab No.: 6369362 **Client No.:** A-008	**Description:** Black Putty **Facility:**	**Location:** Room 103
Percent Asbestos: ***15*** *Chrysotile*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 85
Lab No.: 6369363 **Client No.:** A-009	**Description:** White Joint Compound **Facility:**	**Location:** Room 101
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 100
Lab No.: 6369364 **Client No.:** A-010	**Description:** Grey Insulation **Facility:**	**Location:** Room 104
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 50 Mineral Wool	Percent Non-Fibrous Material: 50
Lab No.: 6369365 **Client No.:** A-011	**Description:** Grey Insulation **Facility:**	**Location:** Room 104
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 40 Mineral Wool	Percent Non-Fibrous Material: 60

Analytical Method -**US EPA 600, R93-116**. Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/18/2017
Date Analyzed: 10/28/2017
Signature:
Analyst: Linda Price

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

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Email: customerservice@iatl.com

REVISED CERTIFICATE OF ANALYSIS

Client: Golder Associates Ltd
16820 107 Ave
Edmonton AB T5P 4C3

Client: GOL572

Report Date: 10/28/2017
Report No.: 550071 - PLM Rev #3, 10/30/2017
Project: Riversdale Pool
Project No.: 1667963

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6369366 **Client No.:** A-012	**Description:** Off-White Insulation **Facility:**	**Location:** Room 104
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: 2 Cellulose 38 Mineral Wool	Percent Non-Fibrous Material: 60
Lab No.: 6369367 **Client No.:** A-013	**Description:** White Joint Compound **Facility:**	**Location:** Room 104
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 100
Lab No.: 6369368 **Client No.:** A-014	**Description:** Grey Putty **Facility:**	**Location:** Room 104
Percent Asbestos: ***PC 2.2*** *Chrysotile*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 97.8
Lab No.: 6369369 **Client No.:** A-015	**Description:** White Joint Compound **Facility:**	**Location:** Room 110
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 100
Lab No.: 6369370 **Client No.:** A-016	**Description:** Grey Putty **Facility:**	**Location:** Exterior
Percent Asbestos: *None Detected*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 100
Lab No.: 6369371 **Client No.:** A-017	**Description:** Grey Caulk **Facility:**	**Location:** Exterior
Percent Asbestos: ***10*** *Chrysotile*	Percent Non-Asbestos Fibrous Material: None Detected	Percent Non-Fibrous Material: 90

Analytical Method -**US EPA 600, R93-116**. Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/18/2017
Date Analyzed: 10/28/2017
Signature:
Analyst: Linda Price

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Email: customerservice@iatl.com

REVISED CERTIFICATE OF ANALYSIS

Client: Golder Associates Ltd
16820 107 Ave
Edmonton AB T5P 4C3

Client: GOL572

Report Date: 10/28/2017
Report No.: 550071 - PLM Rev #3, 10/30/2017
Project: Riversdale Pool
Project No.: 1667963

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6369372 **Description:** Grey Caulk **Location:** Exterior
Client No.: A-018 **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6369373 **Description:** Green Cementitious **Location:** Exterior
Client No.: A-019 **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6369374 **Description:** Green Cementitious **Location:** Exterior
Client No.: A-020 **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6369375 **Description:** Green/Grey Cementitious **Location:** Exterior
Client No.: A-021 **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6369376 **Description:** Green/Grey Cementitious **Location:** Exterior
Client No.: A-022 **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6369377 **Description:** Green/Grey Cementitious **Location:** Exterior
Client No.: A-023 **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Analytical Method -**US EPA 600, R93-116**. Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/18/2017
Date Analyzed: 10/28/2017
Signature:
Analyst: Linda Price

Approved By:
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Client: GOL572

Report Date: 10/28/2017
Report No.: 550071 - PLM Rev #3, 10/30/2017
Project: Riversdale Pool
Project No.: 1667963

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6369378
Client No.: A-024

Description: Grey Caulk
Facility:

Location: Exterior; Additional Sample Received

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Analytical Method -**US EPA 600, R93-116**. Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/18/2017
Date Analyzed: 10/28/2017
Signature:
Analyst: Linda Price

Approved By:
Frank E. Ehrenfeld, III
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Client: Golder Associates Ltd
16820 107 Ave
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Client: GOL572

Report Date: 10/28/2017
Report No.: 550071 - PLM
Project: Riversdale Pool
Project No.: 1667963

Appendix to Analytical Report

Customer Contact:
Analysis: US EPA 600, R93-116

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Pete Lesniak
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NY-DOH No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)>

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Client: GOL572

Report Date: 10/28/2017
Report No.: 550071 - PLM
Project: Riversdale Pool
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Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

REVISED CERTIFICATE OF ANALYSIS

Client:	Golder Associates Ltd	Report Date:	10/28/2017
	16820 107 Ave	Report No.:	550071 - PLM
	Edmonton AB T5P 4C3	Project:	Riversdale Pool
		Project No.:	1667963
Client:	GOL572		

Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.

LOQ, Limit of Quantitation estimates for mass and volume analyses.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

APPENDIX B

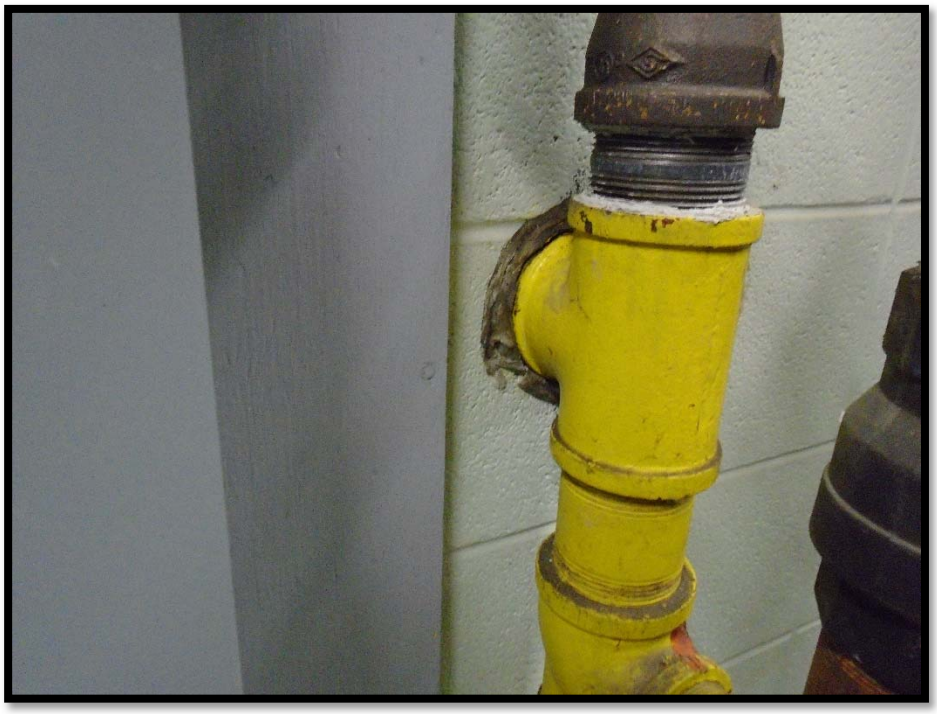
Site Photographs

Photograph 1: Asbestos-Containing 12”x12” Off-White Floor Tile with Black Streaks.

Photograph 2: Asbestos-Containing Gold Sink Undercoat.

Photograph 3: Asbestos-Containing Grey Window Caulking.

Photograph 4: Asbestos-Containing Black Window Putty.



Photograph 5: Asbestos-Containing Light Grey Firestop.

Photograph 6: Asbestos-Containing Light Grey Building Caulking.

APPENDIX C

Riversdale Pool Room by Room Spreadsheet

Appendix C
Riversdale Pool
ACM Inventory

Included/ Excluded	Floor	Room #	Area Description	Elements	Subelements	Material Description	Accessibility	Suspect?	Sampled?	Asbestos Containing Material?	Condition	Field Notes	Sample Type	Sample ID	Sample Date	Asbestos Type	ACM Product	% of asbestos	Friable	Sprayed-on	Maintenance	Inspection	Priority	Potential for Disturbance	Recommended Action	Quantity	Photograph ID	Labelling Type
Included	M	All	All	Doors	Regular Door	Non Suspect Door	High	No	No	No	Good	Non-suspect doors.																
Included	M	All	All	Walls	Caulking	White Building Caulking	High	No	Yes	No	Good	Located in most rooms in the wall corner joints. Sample collected from Room 128.	Bulk	A-003	11-Oct-17													
Included	M	101	Pool Filtration Room	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	101	Pool Filtration Room	Floor	Floor	Concrete	High	No	No	No	Good																	
Included	M	101	Pool Filtration Room	Ceiling	Ceiling	Drywall Joint Compound	High	No	Yes	No	Good		Bulk	A-009	11-Oct-17													
Included	M	101	Pool Filtration Room	Walls	Caulking	Clear Silicone Caulking	High	No	No	No	Good	Not suspected to contain asbestos.																
Included	M	101	Pool Filtration Room	Mechanical	Piping	Fibreglass or PVC Pipe Insulation	High	No	No	No	Good	Not suspected to contain asbestos.																
Included	M	102	Chlorine Room	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	102	Chlorine Room	Floor	Floor	Concrete	High	No	No	No	Good																	
Included	M	102	Chlorine Room	Ceiling	Ceiling	Drywall Joint Compound	High	No	Yes	No	Good			VS A-002, A-004, A-005, A-009, A-013, A-015														
Included	M	102	Chlorine Room	Mechanical	Duct	Fibreglass Insulation or Bare Ducts	High	No	No	No	Good	Not suspected to contain asbestos.																
Included	M	103	Lab	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	103	Lab	Floor	Floor	Concrete	High	No	No	No	Good																	
Included	M	103	Lab	Ceiling	Ceiling	Drywall Joint Compound	High	No	Yes	No	Good			VS A-002, A-004, A-005, A-009, A-013, A-015														
Included	M	103	Lab	Plumbing	Sink	No Undercoat	High	No	No	No	Good	Not suspected to contain asbestos.																
Included	M	103	Lab	Windows	Caulking	Black Window Putty	High	Yes	Yes	Yes	Good		Bulk	A-008	11-Oct-17	Chrysotile	Black Window Putty	15.00%	No	No	No	Annually	5	Moderate	Manage in place.	5 Feet	Photograph 4	Door Jamb
Included	M	104	Mechanical Room	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	104	Mechanical Room	Floor	Floor	Concrete	High	No	No	No	Good																	
Included	M	104	Mechanical Room	Ceiling	Ceiling	Drywall Joint Compound	High	No	Yes	No	Good		Bulk	A-013	11-Oct-17													
Included	M	104	Mechanical Room	Walls	Firestop	Light Grey Firestop	High	Yes	Yes	Yes	Good		Bulk	A-014	11-Oct-17	Chrysotile	Light Grey Firestop	2.20%	No	No	No	Annually	5	Moderate	Manage in place.	1 Foot	Photograph 5	Door Jamb
Included	M	104	Mechanical Room	Mechanical	Duct	Bare Duct Work	High	No	No	No	Good																	
Included	M	104	Mechanical Room	Mechanical	Piping	Pipe-Fitting Insulation	High	No	Yes	No	Good		Bulk	A-010, A-011, A-012	11-Oct-17													
Included	M	104	Mechanical Room	Mechanical	Piping	Fibreglass Pipe-Run Insulation	High	No	No	No	Good																	
Included	M	104	Mechanical Room	Electrical	Electrical	Electrical Panel and Components	High	Yes	No	Potential	Good	Not sampled due to safety concerns.							No	No		Annually		Low	Inspect and sample if scheduled for removal.			
Included	M	105	Storage Room	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	105	Storage Room	Floor	Floor	Concrete	High	No	No	No	Good																	
Included	M	105	Storage Room	Ceiling	Ceiling	Drywall Joint Compound	High	No	Yes	No	Good			VS A-002, A-004, A-005, A-009, A-013, A-015														
Included	M	105	Storage Room	Mechanical	Piping	Fibreglass Pipe-Run Insulation	High	No	No	No	Good																	
Included	M	105	Storage Room	Electrical	Electrical	Electrical Panel and Components	High	Yes	No	Potential	Good	Not sampled due to safety concerns.							No	No		Annually		Low	Inspect and sample if scheduled for removal.			
Included	M	106	Washroom Hallway	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	106	Washroom Hallway	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	106	Washroom Hallway	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	107	Showers	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	107	Showers	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	107	Showers	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	108	Washrooms	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	108	Washrooms	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	108	Washrooms	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	109	Change Room	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	109	Change Room	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	109	Change Room	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	110	Janitor Room	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	110	Janitor Room	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	110	Janitor Room	Ceiling	Ceiling	Drywall Joint Compound	High	No	Yes	No	Good		Bulk	A-015	11-Oct-17													
Included	M	110	Janitor Room	Mechanical	Piping	Uninsulated Piping	High	No	No	No	Good																	
Included	M	111	Washroom Hallway	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	111	Washroom Hallway	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	111	Washroom Hallway	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	112	First Aid	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	112	First Aid	Floor	Floor	Rubber Flooring	High	No	No	No	Good																	
Included	M	112	First Aid	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	112	First Aid	Plumbing	Sink	Gold Sink Undercoat	High	Yes	Yes	Yes	Good		Bulk	A-006	11-Oct-17	Chrysotile	Gold Sink Undercoat	12.00%	No	No	No	Annually	5	Moderate	Manage in place.	1 Sink	Photograph 2	Door Jamb
Included	M	112	First Aid	Windows	Caulking	Grey Window Caulking	High	Yes	Yes	Yes	Good		Bulk	A-007	11-Oct-17	Chrysotile	Grey Window Caulking	15.00%	No	No	No	Annually	5	Moderate	Manage in place.	32 Feet	Photograph 3	Door Jamb
Included	M	113	Washroom	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	113	Washroom	Floor	Floor	Rubber Flooring	High	No	No	No	Good																	
Included	M	113	Washroom	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	114	Washroom	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	114	Washroom	Floor	Floor	Rubber Flooring	High	No	No	No	Good																	
Included	M	114	Washroom	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	115	Lockers	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	115	Lockers	Floor	Floor	Rubber Flooring	High	No	No	No	Good																	
Included	M	115	Lockers	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	115	Lockers	Mechanical	Piping	Uninsulated Piping	High	No	No	No	Good																	
Included	M	116	Manager's Office	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	116	Manager's Office	Floor	Floor	Rubber Flooring	High	No	No	No	Good																	
Included	M	116	Manager's Office	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	117	Staff Area	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	117	Staff Area	Floor	Floor	Rubber Flooring	High	No	No	No	Good																	
Included	M	117	Staff Area	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	117	Staff Area	Plumbing	Sink	Gold Sink Undercoat	High	Yes	Yes	Yes	Good			VS A-006		Chrysotile	Gold Sink Undercoat	12.00%	No	No	No	Annually	5	Moderate	Manage in place.	2 Sinks	Photograph 2	Door Jamb
Included	M	118	Admission	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	118	Admission	Floor	Floor	Rubber Flooring	High	No	No	No	Good																	
Included	M	118	Admission	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	118	Admission	Windows	Caulking	Grey Window Caulking	High	Yes	Yes	Yes	Good			VS A-007		Chrysotile	Grey Window Caulking	18.00%	No	No	No	Annually	5	Moderate	Manage in place.	48 Feet	Photograph 3	Door Jamb
Included	M	118	Admission	Windows	Caulking	Black Rubber Window Caulking	High	No	No	No	Good																	
Included	M	118	Admission	Electrical	Electrical	Electrical Panel and Components	High	Yes	No	Potential	Good	Not sampled due to safety concerns.							No	No		Annually		Low	Inspect and sample if scheduled for removal.			
Included	M	120	Washroom Hallway	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	120	Washroom Hallway	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	120	Washroom Hallway	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	121	Janitor Room	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	121	Janitor Room	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	121	Janitor Room	Ceiling	Ceiling	Drywall Joint Compound	High	No	Yes	No	Good		Bulk	A-005	11-Oct-17													
Included	M	121	Janitor Room	Mechanical	Piping	Fibreglass Pipe Insulation	High	No	No	No	Good																	
Included	M	122	Change Room	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	122	Change Room	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	122	Change Room	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	123	Change Room	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	123	Change Room	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	123	Change Room	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	124	Washroom	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	124	Washroom	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	124	Washroom	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	125	Showers	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	125	Showers	Walls	Walls	Plastic Panels	High	No	No	No	Good																	
Included	M	125	Showers	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	125	Showers	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	126	Washroom Hallway	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	126	Washroom Hallway	Floor	Floor	Concrete Coating	High	No	No	No	Good																	
Included	M	126	Washroom Hallway	Ceiling	Ceiling	Wood Slats	High	No	Yes	No	Good																	
Included	M	127/130	Concession	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	127/130	Concession	Floor	Floor	12"x12" Off-White Floor Tile with Black Streaks	High	Yes	Yes	Yes	Good		Bulk	A-001	11-Oct-17	Chrysotile	Off-White Floor Tile	1.30%	No	No	No	Annually	5	High	Manage in place.	550 ft^2	Photograph 1	Door Jamb

Appendix C
Riversdale Pool
ACM Inventory

Included/ Excluded	Floor	Room #	Area Description	Elements	Subelements	Material Description	Accessibility	Suspect?	Sampled?	Asbestos Containing Material?	Condition	Field Notes	Sample Type	Sample ID	Sample Date	Asbestos Type	ACM Product	% of asbestos	Friable	Sprayed-on	Maintenance	Inspection	Priority	Potential for Disturbance	Recommended Action	Quantity	Photograph ID	Labelling Type
Included	M	127/130	Concession	Ceiling	Ceiling	Drywall Joint Compound	High	No	Yes	No	Good		Bulk	A-002	11-Oct-17													
Included	M	127/130	Concession	Windows	Caulking	Black Rubber Window Caulking	High	No	Yes	No	Good																	
Included	M	127/130	Concession	Windows	Caulking	Silicone Window Caulking	High	No	Yes	No	Good																	
Included	M	128	Washroom	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	128	Washroom	Floor	Floor	12"x12" Off-White Floor Tile with Black Streaks	High	Yes	Yes	Yes	Good			VS A-001		Chrysotile	Off-White Floor Tile	1.30%	No	No	No	Annually	5	High	Manage in place.	90 ft^2	Photograph 1	Door Jamb
Included	M	128	Washroom	Ceiling	Ceiling	Drywall Joint Compound	High	No	Yes	No	Good		Bulk	A-004	11-Oct-17													
Included	M	129	Storage Room	Walls	Walls	Concrete Block	High	No	No	No	Good																	
Included	M	129	Storage Room	Floor	Floor	12"x12" Off-White Floor Tile with Black Streaks	High	Yes	Yes	Yes	Good			VS A-001		Chrysotile	Off-White Floor Tile	1.30%	No	No	No	Annually	5	High	Manage in place.	190 ft^2	Photograph 1	Door Jamb
Included	M	129	Storage Room	Ceiling	Ceiling	Drywall Joint Compound	High	No	Yes	No	Good			VS A-002, A-004, A-005, A-009, A-013, A-015														
Included	A	Attic	Attic	Structure	Trusses	Wood	High	No	No	No	Good																	
Included	A	Attic	Attic	Mechanical	Piping	Fibreglass Pipe Insulation	High	No	No	No	Good																	
Included	A	Attic	Attic	Mechanical	Duct	Bare Duct Work	High	No	No	No	Good																	
Included	A	Attic	Attic	Ceiling	Ceiling	No Insulation	High	No	No	No	Good																	
Included	E	Exterior	Exterior	Walls	Walls	Concrete Block	High	No	Yes	No	Good																	
Included	E	Exterior	Exterior	Overhangs	Overhangs	Stucco	High	No	Yes	No	Good		Bulk	A-019, A-020, A-021, A-022, A-023	11-Oct-17													
Included	E	Exterior	Exterior	Walls	Putty	Grey Putty	High	No	Yes	No	Good		Bulk	A-016	11-Oct-17													
Included	E	Exterior	Exterior	Walls	Caulking	Light Grey Building Caulking	High	Yes	Yes	Yes	Good		Bulk	A-017	11-Oct-17	Chrysotile	Light Grey Building Caulking	10.00%	No	No	No	Annually	5	Moderate	Manage in place.	1 Foot	Photograph 6	Door Jamb
Included	E	Exterior	Exterior	Walls	Caulking	Grey Building Caulking	High	No	Yes	No	Good		Bulk	A-018, A-024	11-Oct-17													
Excluded		Exterior	Roof	Exterior Roof	Exterior Roof							Not assessed due to scope of work.																

APPENDIX D

Floor Plans

Last Edited By: vigosheva Date: 2017-11-29 Time:5:21:11 PM | Printed By: VIgosheva Date: 2017-11-29 Time:5:26:44 PM
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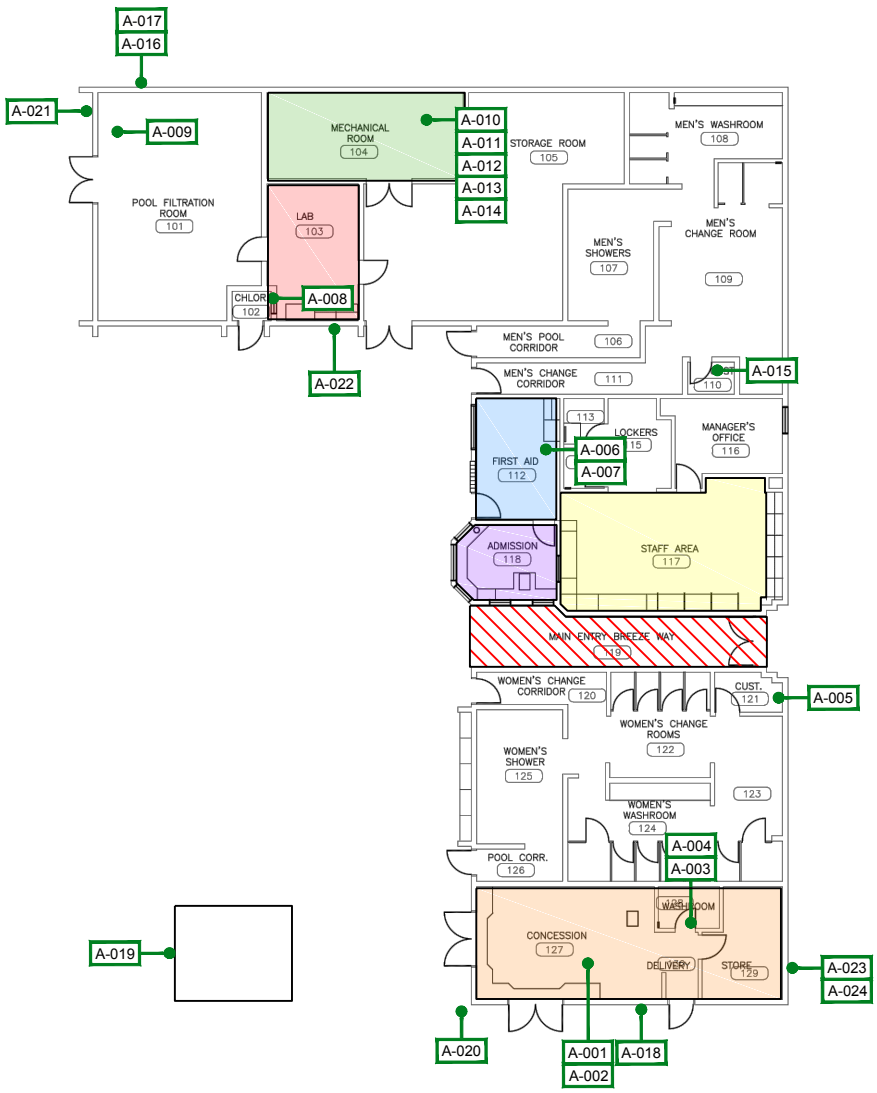

SCHEMATIC ONLY, NOT TO SCALE

LEGEND

#	ASBESTOS SAMPLE LOCATION
	ASBESTOS - CONTAINING BLACK WINDOW PUTTY
	ASBESTOS - CONTAINING FLOOR TILE
	ASBESTOS - CONTAINING GOLD SINK UNDERCOAT
	ASBESTOS - CONTAINING GOLD SINK UNDERCOAT AND GREY WINDOW CAULKING
	ASBESTOS - CONTAINING GREY WINDOW UNDERCOAT
	ASBESTOS - CONTAINING LIGHT GREY FIRESTOP
	NOT ACCESS

NOTE(S)

1. ASBESTOS IS A CARCINOGEN. DO NOT BREATHE ASBESTOS DUST.
2. ASBESTOS-CONTAINING LIGHT GREY BUILDING CAULKING IS LOCATED ALONG THE EXTERIOR OF THE BUILDING.

REFERENCE(S)

PLAN OBTAINED FROM INFRASTRUCTURE SERVICES DEPARTMENT CITY OF SASKATOON. DATED: 12/07/2001

CLIENT
CITY OF SASKATOON

CONSULTANT
Golder Associates

YYYY-MM-DD	2017-11-27
DESIGNED	KH
PREPARED	VI
REVIEWED	KH
APPROVED	AG

PROJECT
ASBESTOS ASSESSMENT
RIVERSDALE POOL
822 AVENUE H SOUTH

TITLE
MAIN FLOOR

PROJECT NO.	CONTROL	REV.	FIGURE
1667963	1000-HM-0001	0	1

As a global, employee-owned organisation with over 50 years of experience, Golder Associates is driven by our purpose to engineer earth's development while preserving earth's integrity. We deliver solutions that help our clients achieve their sustainable development goals by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy.

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Golder Associates

Pre- Renovation Assessment

September 20, 2019

Client:	**City of Saskatoon** **3130 Laurier Drive** **Saskatoon, SK** **S7L 5J7**
Attention:	**Nathan Sommerfeld**
File Number:	**B67PRI11I**

Subject: Pre-Renovation Assessment – Riversdale Pool

Blake Berschiminsky of Bersch Consulting Ltd. conducted a site visit on September 11, 2019, to the Riversdale Pool located at 822 Avenue H South, Saskatoon, Saskatchewan. The purpose of the visit was to investigate and collect bulk samples to determine the presence/absence of asbestos. Five (5) bulk samples were collected and analyzed for the identification of asbestos. Asbestos **was not** detected within any of the samples.

The results for the bulk samples collected were obtained by examination in accordance with the current USEPA 600/R-93/116 Method for the analysis of asbestos in building materials using polarized light microscopy and dispersion staining techniques. The detection limit of this method is listed as less than 1% by volume. This test report relates only to the materials sent for examination and any use or extension of the information by the client of these results is the responsibility of the client. Please reference to ***Appendix I*** for the ***Bulk Sample Analysis Results.***

This test report relates only to the materials sent for examination and any use or extension of the information by the client of these results is the responsibility of the client.

Site Observations and Information

The Riversdale Pool located at 822 Avenue H South, Saskatoon, Saskatchewan was surveyed with the intent of identifying all ACM within the building prior to any renovations.

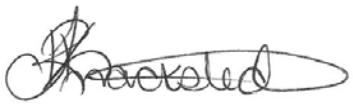
1) All samples collected were identified as non-asbestos.

Based on the site investigation and bulk sample results there are no asbestos concerns regarding the renovation of the Riversdale Pool located at 822 Avenue H South, Saskatoon, Saskatchewan.

Please reference to ***Appendix I*** for the ***Bulk Sample Analysis Results*** and ***Appendix II*** for the ***Site Photos.***

If any questions arise on the results of the attached information, please contact our office at (306) 978-6665. Thank you for this opportunity of service.

Sincerely,



Tyneal Knackstedt
Bersch Consulting Ltd.
B67PRI11I – Riversdale Pool

Appendix I

Bulk Sample Analysis Results

Bulk Sample Analysis Report

September 20, 2019

Project Number: B67.19

Client: City of Saskatoon

Contact: Nathan Sommerfeld

Location: Riversdale Pool – 822 Avenue H South, Saskatoon, SK.

File Number: B67BAI11I

Sample Number	Sample Date	Sample Material	Sample Location and Information	Asbestos	%	Analyst
1	2019/09/11	White Caulking	Waterslide Section Joint	No Asbestos Detected		EMSL/WB
2	2019/09/11	Gasket Material	Waterslide Section Joint	No Asbestos Detected		EMSL/WB
3	2019/09/11	Gray Caulking	Top of Waterslide	No Asbestos Detected		EMSL/WB
4	2019/09/11	Waterslide Material	Waterslide	No Asbestos Detected		EMSL/WB
5	2019/09/11	Stair Coating	Top Platform	No Asbestos Detected		EMSL/WB

Note: The results for the samples submitted were obtained by examination in accordance with the current USEPA 600/R-93/116 Method for the analysis of asbestos in building materials using polarized light microscopy and dispersion staining techniques. The detection limit of this method is listed as less than 1% by volume.

Appendix II

Site Photos

Photo ID

B67PRI11I - 001

Sample Number

B67BAI11I - 1

Description

White Caulking

Waterslide Section Joint

Photo ID

B67PRI11I - 002

Sample Number

B67BAI11I – 2

Description

Gasket Material

Waterslide Section Joint

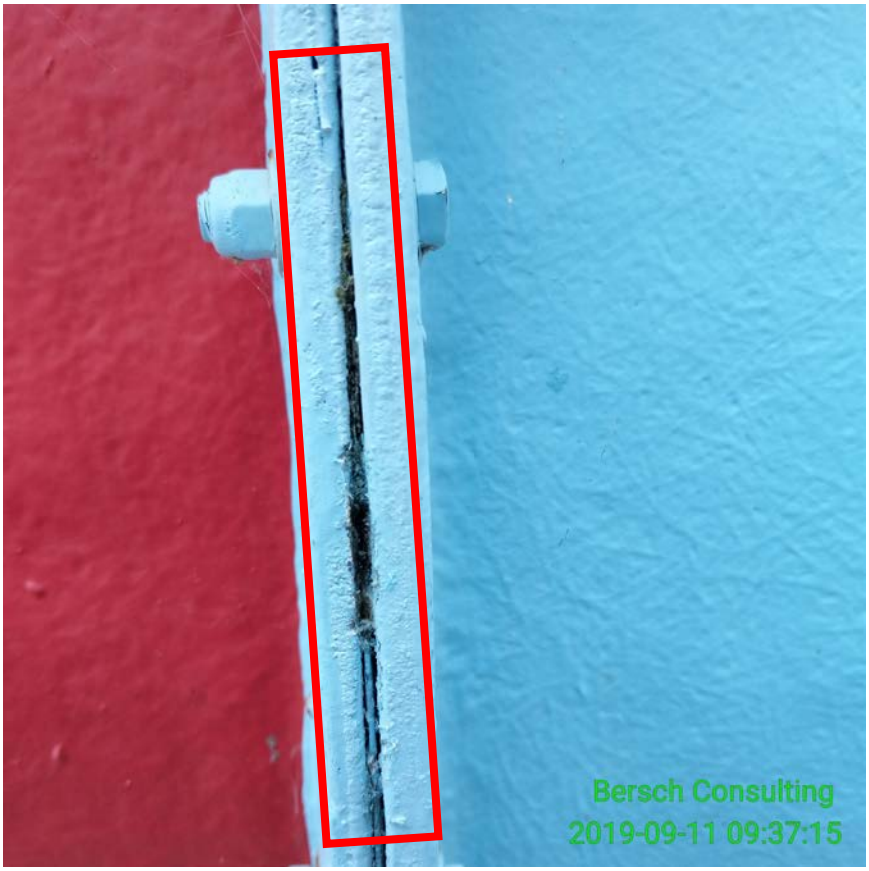


Photo ID

B67PRI11I - 003

Sample Number

B67BAI11I - 3

Description

Gray Caulking

Top of Waterslide

Photo ID

B67PRI11I - 004

Sample Number

B67BAI11I - 4

Description

Waterslide Material

Photo ID

B67PRI11I - 005

Sample Number

B67BAI11I - 5

Description

Stair Coating

Top Platform