



**CITY OF SASKATOON – SURVEYOR’S BUILDING
ASBESTOS SURVEY REPORT**



MAY 2013

Prepared For: City of Saskatoon – Infrastructure Services Department
1101 Avenue P North, Saskatoon SK, Canada S7L 7K6
Attn: Brent Anderson

Prepared By: Bersch & Associates Ltd.
Project No. : B67SRE01S

1.0 EXECUTIVE SUMMARY

The asbestos audit of the Surveyor's Building located at 333 Ontario Avenue in Saskatoon, SK, entailed the inspection of all accessible suspect asbestos-containing materials (ACM). Materials inspected included vinyl floor tile, sheet floor covering, drywall mud compound, ceiling tiles, wall tiles and transite board. Bulk sample analysis results indicate the presence of "Chrysotile" asbestos within the building. Please refer to *Appendix I for Bulk Sample Analysis* results.

- Asbestos containing **9-inch by 9-inch vinyl floor tile** has been identified as ACM on the floor plans within Room 114. Please refer to appendix II.
- Asbestos containing **transite board** has been identified as ACM throughout the shop ceiling surface. This material has been identified on the floor plans in appendix II.
- **Any material located within ceilings, wall cavities, pipe chases or other inaccessible areas or areas of limited access shall be considered asbestos-containing until testing of the material can determine the presence or absence of asbestos.**

Included in *Appendix II* of this report is a Floor Plan of the facility identifying the bulk sample locations and *Appendix III* photographs of the bulk material sampled.

2.0 INTRODUCTION

Bersch & Associates Ltd. was retained by the City of Saskatoon to conduct bulk sampling to verify the presence or absence of asbestos content within the Surveyor's Building to satisfy the government registry. Brad Berschinsky of Bersch & Associates Ltd. completed the survey on May 1, 2013. Due to the findings and size of the facilities a full asbestos audit was completed so further investigation would not be required. The purpose of the survey was to identify all accessible Asbestos-Containing Materials (ACM) located throughout the residence and note any concerns relating to the ACM identified. This report gives an account of the inspection and our firm's recommendations on control options to be implemented to bring the facility in compliance with the Province of Saskatchewan Occupational Health and Safety Act and Regulations. A review of this report shall be conducted with all trades that are entering the facilities to perform maintenance or renovation activity. This will ensure they are familiar with the types and locations of asbestos-containing materials present within each facility and prevent any uncontrolled disturbance and/or possible exposure to asbestos.

3.0 METHODOLOGY

The primary documents for guidance and criteria in this survey were the Province of Saskatchewan "Occupational Health and Safety Act and Regulations, 1996", Province of Saskatchewan "Managing Asbestos", and the U.S. Environmental Protection Agency "Guidance for Controlling Asbestos Containing Materials in Buildings". The USEPA document identifies factors associated with the "condition" and the "potential for disturbance or erosion" of asbestos containing materials (ACM). These factors help to determine potential for exposure to ACM and

were used to make a qualitative evaluation of the material. It should be noted that the recommendation of "Management" Asbestos Abatement Action is based upon the premise that renovations are not scheduled in that area that will require disturbing or violating the asbestos containing material. In the event that renovations are scheduled further testing may be necessary.

Seven (7) bulk samples of suspect asbestos-containing materials were collected. Refer to Appendix I for a copy of the Bulk Sample Analysis Report, Appendix II floor plan for the bulk sample locations and Appendix III for the photographs of the bulk material sampled. All bulk samples collected were analyzed by Bersch & Associates Ltd. laboratory in accordance with the current U.S. 40 CFR Part 763, Vol. 52, No.210 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%.

4.0 RECOMMENDATIONS

Throughout the survey of the Surveyor's Building the Asbestos Containing Materials were assessed and given a Priority Rating of One, Two or Three, with Priority One being the items requiring the most immediate attention. As a result, a Priority One rating was assigned to the damaged areas of the Transite Board identified within the building. The asbestos material may be managed. *Consider all rooms, besides the ones mentioned in this report, to have No Accessible Asbestos Containing Materials (ACM).*

A. Room 114

9-inch by 9-inch floor tile was identified as containing asbestos. This material was observed to be in good condition with a low potential for disturbance. The material may be managed.

PRIORITY:	THREE
CONDITION:	GOOD
POTENTIAL FOR DISTURBANCE:	LOW
ACTION:	MANAGE

B. Room 108

Transite liner panel was identified throughout the shop ceiling as containing asbestos. This material was observed to be in good condition with a low potential for disturbance except for three slightly damaged areas. One damaged area in the northwest corner of the shop consists of a fragment hanging from the ceiling that should be removed and the edges of the remaining fracture encapsulated with silicone or encapsulant. Two small damaged areas adjacent the top of the mezzanine stairs should also be encapsulated. Management of the material is recommended.

PRIORITY:	ONE
CONDITION:	MODERATE
POTENTIAL FOR DISTURBANCE:	LOW
ACTION:	REPAIR / MANAGE

5.0 ASBESTOS ABATEMENT DISCUSSION

Asbestos is a known carcinogen and is listed in the Province of Saskatchewan under the Occupational Health and Safety Appendix, Part V as a Hazardous Chemical Substance and any release of asbestos fibres into the atmosphere creates a potential health hazard. Although the mechanism and epidemiology of asbestos carcinogenesis is not yet well defined, accumulating evidence suggests the significance of exposure at even very low fibre concentrations and hence human exposure should be kept to a minimum. It should be noted however that asbestos is a natural mineral and a measurable background concentration can be detected in any location sampled (inside buildings, outside buildings, urban, rural, etc.). The recommendations of the report are therefore intended to keep the potential exposure to an absolute minimum with the knowledge that a zero exposure is not possible.

Asbestos containing materials have been used in a wide variety of applications. Of particular concern, is the group of so called friable products. A friable product is one which can be crumbled or reduced to powder or smaller fragments by hand pressure. Publications from the U.S.E.P.A. as early as 1977 have indicated the potential hazard of asbestos exposure in buildings containing these friable products. The two main uses of friable asbestos products are as spray insulation (thermal, acoustic or fireproofing) on deck and/or beams or as thermal insulation on piping or mechanical equipment. A large amount of non-friable asbestos-containing materials have also been used in building construction such as asbestos cement board and asbestos containing vinyl flooring.

The mere presence of a friable asbestos containing material does not imply that there is an actual presence of elevated airborne fibre. As numerous studies have indicated, elevated asbestos fibre levels are generally found when settled dust or the actual asbestos containing material itself is disturbed by maintenance, renovation, inadvertent contact or vibration. The factors considered in the Environmental Protection Agency (USEPA) exposure assessment (condition of material, water damage, activity, movement, exposed surface area, accessibility, friability and presence in an air stream) often give some indication of the likelihood of fibre release but are not in any way

definitive in determining whether a hazard exists or not. That is, even if the most friable product exists in a building, elevated fibre levels will not likely occur unless there is some disturbance by physical contact, vibration or an air stream.

There are four possible approaches to control exposure to airborne asbestos once a friable material is identified in a building. These methods briefly are as follows:

- A) Removal** - Asbestos material is removed and disposed of by burial and replaced by non-asbestos materials.
- B) Encapsulation** - Asbestos material is coated with a bridging or penetrating sealant.
- C) Enclosure** - Asbestos containing materials are separated from the building environment by barriers such as suspended ceilings or cladding materials.
- D) Deferred Action or Management and Custodial Control** - The Province of Saskatchewan Human Resources, Labor and Employment Branch under the Occupational health and Safety Regulations publish a document outlining "The Management of Asbestos". In the guide for compliance, an action plan is outlined for management of the asbestos materials identified and in summary is:
 - 1. Identification, which has been accomplished by this report.
 - 2. Development of Written Handling Procedures for maintenance personnel or often arrangements are made for a qualified contractor to conduct the necessary removal or spot maintenance prior to the regular staff conducting maintenance.
 - 3. Asbestos Abatement Awareness and Process Training if the regular maintenance personnel are required to conduct asbestos related activities.
 - 4. Inspection on regular basis is conducted to determine the ongoing condition of the material.

For the specifics of this report Repair/Encapsulation and Management of the asbestos containing materials is the recommended planned activity. In the event of renovations or maintenance to areas containing asbestos materials, written procedures must be developed to conduct the activity or prior removal if the situation warrants.

6.0 REFERENCES

- .1 Province of Saskatchewan "The Occupational Health and Safety Act and The Occupational Health and Safety Regulations" Office Consolidation, December 1996.
- .2 Province of Saskatchewan Human Resources, Labor, and Employment "The Management of Asbestos" January, 1991.
- .3 USEPA, U.S. Environmental Protection Agency, "Guidance for Controlling Asbestos-Containing Materials in Buildings". Washington, DC: Office of Toxic Substances, USEPA.
- .4 Midwest Centre for Occupational Health & Safety St. Paul's, Minnesota – Asbestos Inspectors & Management Planners
- .5 McCrone Research Institute Course Hayward California " Asbestos Identification"

APPENDIX I

BULK SAMPLE ANALYSIS REPORT

BERSCH & ASSOCIATES LTD.

May 8, 2013

City of Saskatoon
Infrastructure Services Department
1101 Avenue P North
Saskatoon, SK.
S7L 7K6

ATTENTION: Brent Anderson

SUBJECT: Surveyor's Building – Bulk Material Analysis

Please find attached our laboratory's results for the bulk material samples collected from the Surveyor's Building located at 333 Ontario Avenue, Saskatoon SK. The samples were analyzed in our laboratory for the identification of asbestos.

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.

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. If any questions arise on the results of the attached information please contact our office 306 222 7477. Thank you for this opportunity of service!

Sincerely,

Brad Berschiminsky
Bersch & Associates Ltd.
File: B67BLE01S

Bersch & Associates Ltd.

B67BAE01S

Box 3568

Humboldt, Sask. S0K 2A0

BULK SAMPLE ANALYSIS REPORT**PROJECT NO. B67.13****CLIENT: City of Saskatoon****Infrastructure Services - Facilities Branch****Contact: Brent Anderson****Location: Surveyor Building - 333 Ontario Avenue, Saskatoon SK.**

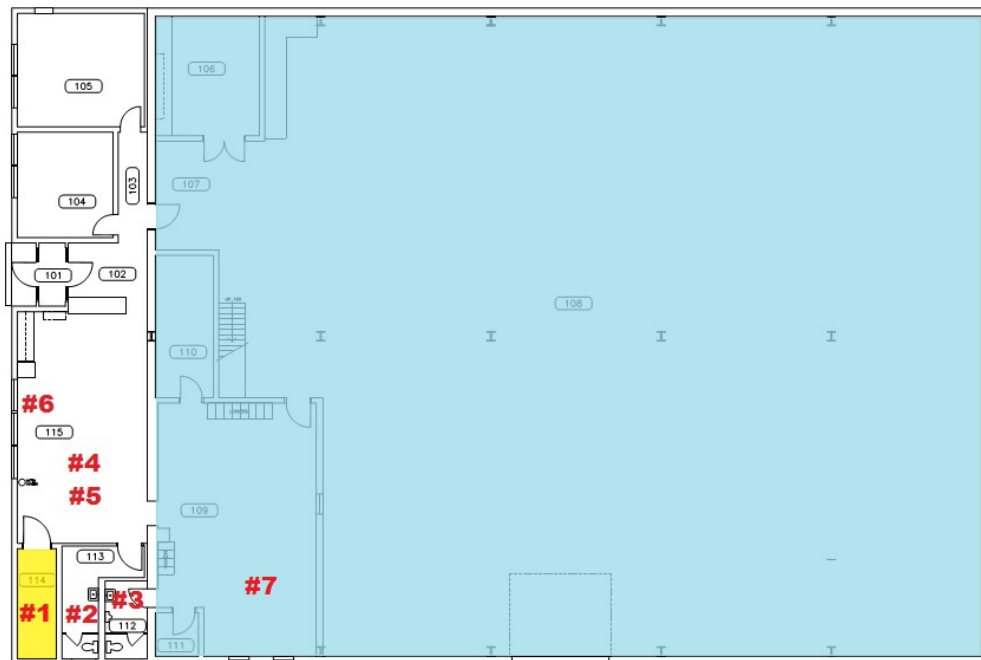
NO.	DATE	SAMPLE INFORMATION	ASBESTOS	%	ANALYST
B1	1-May-13	Room 114 - 9" X 9" grey / white & green / white streak floor tile	Chrysotile	1 to 5	WB
B2	1-May-13	Room 113 - Sheet floor covering beige irregular shape markings	None detected		WB
B3	1-May-13	Room 112 - Sheet floor covering, shade of terracotta	None detected		WB
B4	1-May-13	Room 115 - Drywall mud compound adjacent the ceiling fan	None detected		WB
B5	1-May-13	Room 115 - 16-inch by 16-inch ceiling tile/panels	None detected		WB
B6	1-May-13	Room 115 - 16-inch by 32-inch wall tile/panels	None detected		WB
B7	1-May-13	Room 108 - Transite board on shop area ceiling	Chrysotile	30	WB

APPENDIX II

FLOOR PLANS

Transite Liner Panel

Asbestos Floor Tile



#__ - Sample # Location



City of

Saskatoon

Infrastructure Services

Department

Facilities Branch

309-978-5200

GENERAL NOTES:

1. All dimensions are in millimetres.

2. Drawings are not to be scaled.

3. All drawings to be read in conjunction with the specifications, unless otherwise noted.

4. Verify site conditions and location of all utilities prior to the start of construction.

5. Report all discrepancies to the Consultant.

6. If in doubt, ask.

REV

ISSUED FOR

DATE

DESIGNED BY

DRAWN BY

CHECKED BY

REVIEWED BY

SCALE

1:125

DATE

10/06/2003

SHEET NAME

Survey Floor Base Plan

PROJECT TITLE

849 Surveyor's / Sport Bldg.

PROJECT NO.

SHEET

REV. NO.

APPENDIX III

BULK SAMPLE PHOTOS

BULK SAMPLE PHOTOS

#1) 9" X 9" Floor Tile



#2) Sheet Floor Covering



#3) Sheet Floor Covering



#4) Drywall Mud Compound



#5) Ceiling Tiles



#6) Wall Tiles



#7) Transite board



February 24, 2020

City of Saskatoon
1101 Ave P North
Saskatoon, SK
S7L 7K6

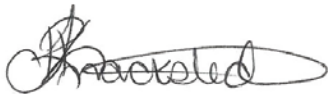
ATTENTION: Hazel Fernandez

SUBJECT: Landscape Construction and Sports Fields Building

Bersch Consulting Ltd. conducted a site visit to the Landscape Construction and Sports Fields Building located at 333 Ontario Avenue, Saskatoon, Saskatchewan. The water damaged area occurred in the front office portion of the building. Previous sampling conducted in the building determined the drywall mud compound within the front office to be non-asbestos. There does not appear to be any leaking water damage to the transite board on ceiling within the shop area currently. There is no concern regarding asbestos and workers within the building. Further sampling within the office may be conducted at a later date to confirm the previous sample results.

If any questions arise on the results of the attached information, please contact our office. Thank you for this opportunity of service.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tyneal Knackstedt', with a stylized flourish at the end.

Tyneal Knackstedt PAg
Bersch Consulting Ltd.
B67SVB24J – LCSB