February 19, 2024

Department of Health and Safety
Memorial University of Newfoundland
208 Elizabeth Avenue
St. John's, NL A1C 5S7

Attention: Wanda Wilcox

Re: Airborne Fibre Monitoring
Memorial University of Newfoundland, St. John's, NL
Pinchin File: 336939

Memorial University of Newfoundland; Department of Health & Safety (MUN) retained Pinchin Ltd. to conduct Airborne Fibre Monitoring in various buildings located on the MUN campus. Sample locations were determined by Pinchin Ltd. in conjunction with the previous locations as identified in the 2023 annual sampling report entitled Airborne Fibre Monitoring Report February 28, 2023. Sampling was conducted in January and February 2024.

1.0 BACKGROUND

The results of the airborne fibre monitoring were evaluated against the applicable occupational exposure limits outlined in the Occupational Health and Safety Regulations under the Occupational Health and Safety Act (O.C. 2012-005), Consolidated Newfoundland and Labrador Regulation 5/12. The Regulation has adopted for use, the American Conference of Governmental Industrial Hygienists (ACGIH). In the act, under the heading Hazardous Substances, in section 42 (7) sub section (c) it states that "An employer shall ensure that (c) exposure of a worker to hazardous substances is as minimal as is reasonably practicable, and where a threshold limit value has been established by the ACGIH, exposure shall not exceed the threshold limit value". The TLV-TWA as published for all forms of asbestos is 0.1 fibres/cc.

2.0 SAMPLE METHODOLOGY

A total of eighty-two (82) airborne fibre samples were collected at fixed locations in various areas throughout the MUN campus.

Sampling for airborne fibres was conducted by collecting a known volume of air through cellulose mixed ester filters, 0.8 micrometers pore size, held open-faced in 3-piece conductive cassettes. The filters were 25 mm in diameter. The sampling equipment used was direct flow high volume air sample pumps and BDX II low volume sampling pumps. The sample pumps were calibrated with a TSI Model 4199 flow meter calibrator.

Pinchin inspectors/technicians are enrolled in the IRSST (Instituit de recherché Robert-Sauve en sante et en securite du travail), a comprehensive quality assurance programme. Each analyst/technician who completed the analysis participated in round robin proficiency testing on a set basis in order to remain certified with IRSST.

Analysis was competed following the NIOSH 7400 method and utilizing "A" set of counting rules.

It should be noted that analysis of PCM air samples using this method, is on a quantitative basis. The "A" set of rules counts all types of fibres collected from the ambient air, which meet the analysis criteria, regardless of the type of fibres counts.

3.0 SUMMARY OF DATA

The attached table listing the locations and results of the airborne fibre sampling.

Should you have any questions or require additional information, please contact either of the undersigned.

Yours truly,

Pinchin Ltd.

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Building	Location	Date	Sample ID	Duration (min)	Flow Rate (L/min)	Volume (L)	Reported Result* (f/cc)
Health Science Centre	Outside H-1620	February 12	01-H-336939-A001	65	15.0	975	<0.04
	Outside H-1838	February 12	02-H-336939-A002	65	15.0	975	<0.04
	Outside H-2945	February 12	03-H-336939-A003	65	15.0	975	<0.04
	Outside H-2830G	February 12	04-H-336939-A004	65	15.0	975	<0.04
	Outside H-3487	February 12	05-H-336939-A005	65	15.0	975	<0.04
	Outside H-4333A	February 12	06-H-336939-A006	65	15.0	975	<0.04
	Outside H-5345	February 12	07-H-336939-A007	65	15.0	975	<0.04
Spencer Hall	Outside SP-1012	January 26	01-SP-336939-A008	65	15.0	975	<0.04
	Outside SP-3003	January 26	02-SP-336939-A009	65	15.0	975	<0.04
Coughlan College	Outside CL-1035	January 26	01-CL-336939-A010	65	15.0	975	<0.04
Business & Administration	Outside BN-1000	January 26	01-BN-336939-A011	65	15.0	975	<0.04
	Outside BN-2016	January 26	02-BN-336939-A012	65	15.0	975	<0.04
	Outside BN-3010	January 26	03-BN-336939-A013	65	15.0	975	<0.04
	Outside BN-4011	January 26	04-BN-336939-A014	65	15.0	975	<0.04
Field Hall	Outside GH-1007	February 2	01-GH-336939-A015	65	15.0	975	<0.04
	Outside GH-2019	February 2	02-GH-336939-A016	65	15.0	975	<0.04
	Outside GH-3020	February 2	03-GH-336939-A017	65	15.0	975	<0.04
	Outside GH-4020	February 2	04-GH-336939-A018	65	15.0	975	<0.04
Queens College	Outside QC-2005	January 31	01-QC-336939-A019	65	15.0	975	<0.04
	Outside QC-1000	January 31	02-QC-336939-A020	65	15.0	975	<0.04
	Outside QC-3002	January 31	03-QC-336939-A021	65	15.0	975	<0.04
	Outside QC-4028	January 31	04-QC-336939-A022	65	15.0	975	<0.04
Ocean Science Centre	Outside OS-1001A	January 30	01-OS-336939-A023	65	15.0	975	<0.04
Ocean Science Centre Annex	Outside AX-4005	January 30	01-AX-336939-A024	65	15.0	975	<0.04
Vivarium	V-1C02	February 13	01-V-336939-A025	65	15.0	975	<0.04
Utilities Annex	UA-2001	January 31	01-UA-336939-A026	65	15.0	975	<0.04
South Campus Boiler Plant	Outside BR-1002E	January 31	01-SB-336939-A027	65	15.0	975	<0.04
Physical Education	Outside PE-1007	January 25	01-PE-336939-A028	65	15.0	975	<0.04
	Outside PE-2006A	January 25	02-PE-336939-A029	65	15.0	975	<0.04
	Outside PE-3012	January 25	03-PE-336939-A030	65	15.0	975	<0.04
Facilities Management	Outside FM-1004	January 31	01-FM-336939-A031	65	15.0	975	<0.04
	Outside FM-2004	January 31	02-FM-336939-A032	65	15.0	975	<0.04

Building	Location	Date	Sample ID	Duration (min)	Flow Rate (L/min)	Volume (L)	Reported Result* (f/cc)
Education	Outside ED-1028A	February 2	01-ED-336939-A033	65	15.0	975	<0.04
	Outside ED-2007	February 2	02-ED-336939-A034	65	15.0	975	<0.04
	Outside ED-3006B	February 2	03-ED-336939-A035	65	15.0	975	<0.04
	Outside ED-4010	February 2	04-ED-336939-A036				
Library	Outside L-1012	January 25	01-L-336939-A037	65	15.0	975	<0.04
Science	Outside SN-1087	January 24	01-SN-336939-A038	65	15.0	975	<0.04
	Outside SN-1035	January 24	02-SN-336939-A039	65	15.0	975	<0.04
	Outside SN-2027	January 24	03-SN-336939-A040	65	15.0	975	<0.04
	Outside SN-2090	January 24	04-SN-336939-A041	65	15.0	975	<0.04
	Outside SN-3058	January 24	05-SN-336939-A042	65	15.0	975	<0.04
	Outside SN-3007	January 24	06-SN-336939-A043	65	15.0	975	<0.04
	Outside SN-4006	January 24	07-SN-336939-A044	65	15.0	975	<0.04
	Outside SN-4053	January 24	08-SN-336939-A045	65	15.0	975	<0.04
Chemistry-Physics	Outside C-1010	January 26	01-C-336939-A046	65	15.0	975	<0.04
	Outside C-2054	January 26	02-C-336939-A047	65	15.0	975	<0.04
	Outside C-3045	January 26	03-C-336939-A048	65	15.0	975	<0.04
	Outside C-4036	January 26	04-C-336939-A049	65	15.0	975	<0.04
Biotechnology	BT-3S01	January 26	01-BT-336939-A050	65	15.0	975	<0.04
	BT-2S01	January 26	02-BT-336939-A051	65	15.0	975	<0.04
Printing Services	Outside PS-1007	January 31	01-PS-336939-A052	65	15.0	975	<0.04
Computer Services	Outside CS-1002	February 6	01-CS-336939-A053	65	15.0	975	<0.04
Global Learning Centre-Corte Real	Outside CA-1002	February 6	01-CA-336939-A054	65	15.0	975	<0.04
Arts & Administration	Outside A-1026	January 25	01-A-336939-A055	65	15.0	975	<0.04
	Outside A-1000	January 25	02-A-336939-A056	65	15.0	975	<0.04
	Outside A-2050	January 25	03-A-336939-A057	65	15.0	975	<0.04
	Outside A-3044	January 25	04-A-336939-A058	65	15.0	975	<0.04
	Outside A-4017	January 25	05-A-336939-A059	65	15.0	975	<0.04
Dining Hall	Outside DH-1002	February 1	01-DH-336939-A060	65	15.0	975	<0.04
	DH-2001	February 1	02-DH-336939-A061	65	15.0	975	<0.04
Engineering	Outside EN-1018	January 26	01-EN-336939-A062	65	15.0	975	<0.04
	Outside EN-2013	January 26	02-EN-336939-A063	65	15.0	975	<0.04
	Outside EN-3075	January 26	03-EN-336939-A064	65	15.0	975	<0.04
	Outside EN-4003	January 26	04-EN-336939-A065	65	15.0	975	<0.04

Building	Location	Date	Sample ID	Duration (min)	Flow Rate (L/min)	Volume (L)	Reported Result* (f/cc)
Mathematics	Outside HH-1013	February 5	01-HH-336939-A066	65	15.0	975	<0.04
	Outside HH-1015 (above ceiling)	February 6	02-HH-336939-A067	180	2.5	450	<0.09
	HH-2021	February 5	03-HH-336939-A068	65	15.0	975	<0.04
	Outside HH-2015 (above ceiling)	February 6	04-HH-336939-A069	180	2.5	450	<0.09
	HH-3051	February 6	05-HH-336939-A070	65	15.0	975	<0.04
	Outside HH-3041 (above ceiling)	February 6	06-HH-336939-A071	180	2.5	450	<0.09
	Outside HH-3022	February 5	07-HH-336939-A072	65	15.0	975	<0.04
	Outside HH-3007	February 5	08-HH-336939-A073	65	15.0	975	<0.04
Earth Science	ER-4C00 Lobby	January 26	01-ER-336939-A074	65	15.0	975	<0.04
Tunnels	Patton College Tunnel (Back B1)	February 15	01-T-336939-A075	225	2	450	<0.09
	Arts-Library Main Tunnel	February 15	02-T-336939-A076	65	15	975	<0.04
	Dining Hall Tunnel	February 15	03-T-336939-A077	225	2	450	<0.09
	Physical Education-Arts Tunnel	February 15	04-T-336939-A078	65	15	975	<0.04
	Library Tunnel	February 15	05-T-336939-A079	65	15	975	<0.04
	Patton College Tunnel (Main between B7 & B8)	February 15	06-T-336939-A080	65	15	975	<0.04
	Science-Math Tunnel	February 15	07-T-336939-A081	225	2	450	<0.09
	Main Tunnel near Bruneau and Patton College (B4)	February 15	08-T-336939-A082	65	15	975	<0.04

* Airborne fibre calculated results less than the detection limit for the volume sampled is reported as less than the detection limit. For example, the detection limit for 428 to 482L of air is 0.09 fibres/cc – a result below this value is reported as <0.09 fibres/cc.