

Table 3: Analytical Results of Bulk Samples of Vermiculite Attic Insulation from Vermont Houses

House ID	Location	House Description	Attic Description	Sample Location	Sample ID	Bulk Analysis			
						PLM ¹ Results (wt.%)	PLM Fiber type Observed	TEM ² Results (wt.%)	TEM Fiber Type Observed
Phase 1 - Occupied Houses									
1	Burlington	100 year old brick house with 3 levels of living space, plus attic	Attic is approximately 1000 square feet, and is floored, except at edges, where vermiculite can be seen under the floorboards; attic is accessed via pull-out steps.	SW corner of Attic	107238	<1	tremolite	ND	ND
				SE corner of Attic	107239	<1	tremolite	ND	ND
				NE corner of Attic	107240	<1	tremolite	ND	ND
				Center of Attic	107241	<1	tremolite	ND	ND
				NW corner of Attic	107242	<1	tremolite	ND	ND
2	St. Albans	140 year old frame house with 2 finished levels, plus basement and attic. The house has about 2,700 square feet of living space vermiculite may be in walls	Attic used for storage - items are located on top of plywood and other loose boards; vermiculite under fiberglass in most of attic; attic access panel can be reached by using step-ladder.	Center of Attic (duplicate of 107241)	107243	<1	tremolite	ND	ND
				NE corner of Attic	107244	<1	tremolite	ND	ND
				By east wall of Southern Attic Section	107245	<1	tremolite	ND	ND
				By west wall of Southern Attic Section	107246	<1	tremolite	ND	ND
				SE corner of Attic	107247	<1	tremolite	ND	ND
3	Burlington	50 year old ranch style frame house, 1 living level, plus basement and attic	Attic above garage is floored, and used for storage; attic above living space is not used for storage, and only floored in center (about 4 feet wide); vermiculite visible between joists; attic access via stationary stairway from garage.	Center of East Wall of Attic	107248	<1	tremolite	ND	ND
				SW corner of Attic	107249	2	tremolite	<0.1	actinolite/tremolite
				SE corner of Attic	107250	<1	tremolite	0.11	actinolite/tremolite
				Center of Attic	107251	2	tremolite	0.17	actinolite/tremolite
				NW corner of Attic	107252	<1	tremolite	<0.1	actinolite/tremolite
4	Burlington	100 year old frame house, 2 levels of living space below attic	Attic used for storage - items are stored on top of randomly located floor boards that cover about half of the attic; vermiculite and cellulose insulation between floor joists appears to be thoroughly mixed together; attic access via stationary stairway.	NE corner of Attic	107253	<1	tremolite	ND	ND
				By west wall of Attic	107254	<1	tremolite	ND	ND
				NE section of Attic	107255	<1	tremolite	ND	ND
				SE corner of Attic	107256	2	tremolite	1.54	actinolite/tremolite
				NE corner of Attic	107257	<1	tremolite	0.95	actinolite/tremolite
5	Burlington	100 year old frame house, 2 levels of living space plus basement and attic, many renovations have been completed, or are planned	Vermiculite visible between joists in front half of unfinished attic; this half is not floored, however, it is not used for storage; items are stored in rear half of attic, which does not contain vermiculite; each half of attic has it's own ceiling access panel that can be reached by using a step-ladder.	SW corner of Attic	107258	<1	tremolite	ND	ND
				NW corner of Attic	107259	<1	tremolite	ND	ND
				Center of Attic	107260	2	tremolite	ND	ND
				Center of Attic (duplicate of 107260)	107261	<1	tremolite	ND	ND
				Phase 2 - Unoccupied House					
6	Bethel	Approximately 100 year old frame house, 2 levels of living space plus basement and attic, many renovations have been completed. House is slated for demolition as part of road upgrade project.	Vermiculite visible between joists in unfinished attic; attic is: not floored; is approximately 850 cubic feet; and has a ceiling access panel that can be reached by using a step-ladder in the second floor hall. Other insulation (rock wool) was located below the vermiculite.	Middle of Attic, SW of Access Panel	68195	ND	ND	<0.1	chrysotile
				NW Attic	107494	ND	ND	<0.1	ND
				SW Attic, 2 feet from Chimney	107495	ND	ND	<0.1	ND
				SW Attic, near front of House	107496	ND	ND	<0.1	chrysotile
				SE Attic, 7 feet from Access Panel	107497	ND	ND	<0.1	ND

Notes:

- 1 Polarized Light Microscopy; Detection limit is 1%
- 2 Transmission Electron Microscopy; Detection limit is 0.1%
- ND=none detected