THE MINERAL INDUSTRY OF VERMONT

This chapter has been prepared under a Memorandum of Understanding between the U.S. Bureau of Mines, U.S. Department of the Interior, and the Agency of Natural Resources, Division of Geology and Mineral Resources, for collecting information on all nonfuel minerals.

In 1994, for the second consecutive year, Vermont ranked 46th among the 50 States in total nonfuel mineral value,[1] after placing 45th in 13 of the previous 15 years, according to the U.S. Bureau of Mines (USBM). The estimated value for 1994 was $48 million, a 12% decrease compared with that of 1993. This followed a nearly 9% decrease in 1993 from that of 1992. The State accounted for less than 0.5% of the U.S. total value. Decreases in dimension stone value in 1993 and 1994 accounted for most of the State's decreasing mineral value for the 2 years. Compared with that of 1993, the value for crushed stone increased in 1994. Decreases occurred for dimension stone, talc and pyrophyllite, construction sand and gravel, and asbestos.

Based on USBM estimates comparing quantities of minerals produced in the United States during 1994, Vermont remained second of two States still producing asbestos, third in the production of talc and pyrophyllite, and fifth in dimension stone.

According to the Vermont Geological Survey, the Vermont Legislature in 1994 passed a moratorium (until April 1, 1995) on a provision of the State's landmark use and development law, known as Act 250, calling for a review and evaluation of a mine site when a slate quarry is reopened. A legislative committee met late in 1994 to investigate the issue with representatives of the industry, communities in which the industry exists, neighbors of the slate quarries, State agencies, and other interested persons. The committee considered the unique nature of the slate industry and appropriate definitions pertaining to "abandonment" of slate quarries; "substantial change" in quarry-related activities; and the definition of "slate quarries." Final action was not taken by yearend, but because of the progress made thus far, legislation addressing the definitions concerning the grandfathering of slate quarries and manufacturing was anticipated for early 1995. Because of the Act 250 review moratorium, several inactive slate quarries reopened with accompanying structures built at quarry locations to mill extracted material. U.S. Quarried Slate Products, Inc. purchased specialized sawing equipment to embark on the largest slate panel job in the world—the Toyota Art Museum in Japan. OMYA, Inc. received an Act 250 State permit to expand four small marble quarries into a larger crushed product operation, the Hogback Quarry, near its manufacturing plant in Florence. The marble will be finely ground and dried at the plant to produce calcium carbonate, which is used primarily as an extender and filler in the paper, paint, and plastics industries.

In other government news affecting the State minerals industry, The New England Governor's Conference recently completed the *Construction Aggregate Resources of New England, an Analysis of Supply and Demand.* This document, the third phase of a study, integrates information from published demand and resource documents and analyzes the capability of Vermont to help meet the region's sand and gravel needs. Also, in April 1994, the Governor signed into law Act 137, the "Texas Low-Level Radioactive Waste Disposal Compact." The States of Maine, Texas, and Vermont passed the compact, which was then submitted for Federal Congressional approval in 1994. A hearing was held in the U.S. House of

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN VERMONT[1]

Mineral		1992		1993		1994[p]	
		Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Asbestos	metric tons	4,575	$1,686	3,661	$1,531	1,130	$1,130
Gemstones		NA	1	NA	1	—	—
Sand and gravel (construction)	thousand metric tons	3,152	11,291	[e]3,000	[e]10,400	2,500	8,800
Stone:							
Crushed	do.	[e]2,268	[e]12,200	2,520	12,899	[e]2,600	[e]13,900
Dimension	metric tons	[e]113,398	[e]34,639	97,352	27,875	[e]80,300	[e]24,200
Total[2]		XX	59,817	XX	52,706	XX	[3]48,000

[e]Estimated. [p]Preliminary. NA Not available. XX Not applicable.
[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).
[2]Partial total, excludes values that must be concealed to avoid disclosing company proprietary data.
[3]Data do not add to total shown because of independent reounding.

Representatives, but no action was taken prior to the close of the 103d Congress. The consent bill was then resubmitted to the 104th Congress without final action by yearend.

In the talc industry, Luzenac America Inc., owner of all talc operations in Vermont, closed its Johnson mill in Lamoille County in northern Vermont, and site reclamation was underway. The Troy open pit mine, northeast of Johnson, remained idle at yearend, while the owners awaited greater demand for the ore in the marketplace. Regarding talc operations in southern Vermont, the Argonaut Mine in Ludlow was undergoing an accelerated development program to allow for more complete use of the ore body. The Hamm Mine in Windham continued to supply industrial and cosmetic-grade ore. All talc mines in Vermont are open pit mines; the last underground talc mine to operate in the State was the Hammondsville Mine, which closed permanently in 1990 after 40 years of operation. The granite industry continued to quarry and manufacture a high-quality product from quarries primarily located in Barre in Washington County. The Secretary of Veterans Affairs recommended that upright granite monuments again be an option (last offered in 1947) for veterans buried in State and private cemeteries, with the possible later extension to national cemeteries. In an effort to expand the marketability of granitic materials, Rock of Ages Corp. received a permit from local authorities to crush rock at its Bethel quarry in Windsor County.

[1]The term value, referring in this document to that of nonfuel minerals, here addresses the total monetary value as represented by either mine shipments, mineral commodity sales, or marketable production as is applicable to the individual mineral commodities.

TABLE 2

VERMONT: CRUSHED STONE[1] SOLD OR USED BY PRODUCERS IN 1993, BY USE

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch): Riprap and jetty stone[2]	72	$307	$4.26
Coarse aggregate, graded:			
Concrete aggregate, coarse	29	111	3.83
Bituminous aggregate, coarse	164	529	3.23
Fine aggregate (-3/8 inch):			
Stone sand, bituminous mix or seal	136	413	3.04
Coarse and fine aggregates: Graded road base or subbase[3]	239	1,204	5.04
Special:			
Other fillers or extenders	([4])	3	6.61
Other specified uses not listed	131	866	6.61
Unspecified:[5]			
Actual	541	2,884	5.33
Estimated	1,208	6,583	5.45
Total	2,520	[6]12,899	5.12
Total[7 8]	2,778	12,899	4.64

[1]Includes dolomite, granite, limestone, marble, miscellaneous stone, quartzite, and traprock.
[2]Includes filter stone.
[3]Includes unpaved road surfacing and crusher run or fill or waste.
[4]Less than 1/2 unit.
[5]Includes production reported without a breakdown by use and estimates for nonrespondents.
[6]Data do not add to total shown because of independent rounding.
[7]One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.
[8]Total shown in thousand short tons and thousand dollars.

TABLE 3

VERMONT: CRUSHED STONE SOLD OR USED, BY KIND

Kind	1991				1993			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	6	1,218	$6,177	$5.07	7	1,726	9,349	5.41
Dolomite	r1	r3	r8	r2.66	—	—	—	—
Marble	r3	248	1,079	r4.35	2	W	W	6.38
Granite	r6	r433	r3,153	r7.2	6	495	1,507	3.04
Traprock	1	(1)	1	5.23	—	—	—	—
Quartzite	2	W	W	6.60	1	W	W	5.21
Miscellaneous stone	r3	r389	r1,197	r3.07	1	W	W	8.93
Total[3]	XX	r2,291	r11,616	r5.07	XX	2,520	12,899	5.12
Total[4 5]	XX	r2,525	r11,616	r4.60	XX	2,778	12,899	4.64

rRevised. W Withheld to avoid disclosing company proprietary data; included with "Total." XX Not applicable.
[1]Less than 1/2 unit.
[2]Excludes quartzite.
[3]Data may not add to totals shown because of independent rounding.
[4]One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.
[5]Total shown in thousand short tons and thousand dollars.