CRUSHED STONE

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Stone is one of the most accessible natural resources of the Earth and one of the fundamental building blocks of our society. It has been used from the earliest times of our civilization for a variety of uses that have increased in number and complexity with time and technological progress. Today, in its crushed form, stone is a major basic raw material for construction, agriculture, and other industries that use complex chemical and metallurgical processes. Despite the relatively low unit value of its basic products, the crushed stone industry is a major contributor to and an indicator of the economic well-being of the Nation. Crushed stone and construction sand and gravel combined are defined as construction aggregates. The construction sand and gravel industry is reviewed in a companion publication, and both mineral commodities should be included in any review of the national, State, or local aggregates industry.

A total 1.52 billion metric tons (Gt) of crushed stone was produced for consumption in the United States in 2002, a 70-million-metric-ton (Mt) or 4.6% decrease compared with the total production in 2001. This tonnage represents the fourth highest production level ever recorded in the United States and the first annual decline since 1991. The value of the total crushed stone produced in the United States in 2002 was $8.7 billion, a 2% decrease compared with the 2001 total (table 1).

About 71% of crushed stone production continued to be limestone and dolomite, followed, in descending order of tonnage, by granite, traprock, sandstone and quartzite, miscellaneous stone, marble, calcareous marl, slate, volcanic cinder and scoria, and shell (table 2).

Foreign trade of crushed stone continued to remain small. Exports decreased significantly to 2.6 Mt or by about 50% compared with the revised total of 5.1 Mt in 2001, while the value increased to $54 million or by 1.7%, compared with the revised total of $53.1 million in 2001 (table 26).

Imports of crushed stone, including calcium carbonate, increased by 5.9% to 14.3 Mt, and the value increased by 5% to $125 million (table 27). Domestic apparent consumption of crushed stone, which is defined as production for consumption (sold or used) plus imports minus exports, was 1.53 Gt (tables 1, 26, 27).

Production

Domestic production data for crushed stone are derived by the U.S. Geological Survey (USGS) from voluntary surveys of U.S. producers. In 2002, a total of 1,263 companies produced or sold crushed stone from 3,238 operations that included 3,306 quarries and 193 sales/distribution sites. Of the 3,238 active operations, 2,337 operations reported their production or sales to the USGS, and their total production was 1.23 Gt or 80.7% of the U.S. total. Of the 2,337 reporting operations with 2,350 quarries, 882 operations with 830 quarries and 90 sales yards owned by 117 companies did not report a breakdown by end use. Their production was 531 Mt or 34.9% of the U.S. total and is included in table 13 under "Unspecified, reported" uses.

Production of nonrespondents was estimated using employment data and/or adjusted production reports from prior years. The estimated output of 901 operations with 956 quarries owned by 625 companies was 290 Mt or 19.3% of the U.S. total and is included in table 13 under "Unspecified, estimated" uses.

A total of 193 sales yards were active in 2002 in 30 States, an increase from the previous year in the number of active sales yards as well as the number of States they operated in. The total output sold through the sales/distribution sites was 41 Mt. Information regarding the number of active operations, active quarries, type of processing plants, and number of sales yards by State is provided in table 25.

Crushed stone was produced in every State except Delaware. The 10 leading producing States, in descending order of tonnage, were Texas, Pennsylvania, Florida, Illinois, Missouri, Ohio, Georgia, California, North Carolina, and Virginia. Their combined production was about 793 Mt or 52% of the national total.

The 83 underground mines that are included in the total number of active operations produced 60 Mt of crushed stone in 2002. Active underground mines were located in 17 States. The five leading States, in descending order of tonnage, were Illinois, Kentucky, Iowa, Nebraska, and Pennsylvania. Their production was 15.1 Mt or 25.1% of the total U.S. crushed stone produced underground.

A total of 918 quarries were either idle or presumed to have been idle in 2002 because no employment information was available to estimate their production. Since the 2001 survey, 169 operations were closed. Most of the idle or closed operations were small, temporary quarries, some of which were operated by State or local governments. Operations in U.S. territories are not included in the above count.

Of the total 1.52 Gt of crushed stone produced for consumption in the United States in 2002, 1.1 Gt or 70.7% was limestone and dolomite; 228 Mt or 15% was granite; and 112 Mt or 7.4% was traprock. The remaining 104 Mt or 6.9% was shared, in descending order of quantity, by sandstone and quartzite (3.5%), miscellaneous stone (2%), marble (0.7%), calcareous marl (0.3%), slate (0.2%), volcanic cinder and scoria (0.1%), and shell (0.1%) (table 2).

A comparison of the four geographic regions of the United States indicates that in 2002 the production for consumption of crushed stone declined in the three largest regions—the South (-6.9%), the Midwest (-4.4%), and the Northeast (-1.3%)—but increased in the West (1.6%), compared with 2001. In 2002, the South continued to lead the Nation in the production of crushed stone with 705 Mt or 46.3% of the total, followed by the Midwest with 437 Mt or 28.7%, and the Northeast with 218 Mt or 14.3%. About 75% of the total U.S. crushed stone output was produced in the South and Midwest regions (table 3).

A comparison of the nine geographic divisions of the United States indicates that in 2002, the production for consumption of crushed stone declined in eight divisions, compared with the 2001. The largest decreases were in the East South Central (-10.1%), South Atlantic (-6.4%), and West South Central (-5.4%) divisions, all of which are part of the South. Of the nine geographic divisions, the South Atlantic led the Nation in the production of crushed stone with 358 Mt or 23.5% of the U.S. total, followed by the East North Central with 281 Mt or 18.5%, and the West South Central with 195 Mt or 12.8%. The correlation between the U.S. Census Bureau geographic regions and the nine divisions is shown in table 3.

The leading U.S. producing companies, in descending order of tonnage, were Vulcan Materials Co.; Martin Marietta Aggregates; Hanson Building Materials America; Oldcastle, Inc./Materials Group; Lafarge North America Inc.; Rinker Materials Corp.; CEMEX, Inc.; Florida Rock Industries, Inc.; Rogers Group, Inc.; and Ashland, Inc./APAC, Inc. The combined production of the top 10 companies was 653.2 Mt or 43% of the national total. There was no change in the ranking of the first five producing companies compared with the previous year.

A review of production by size of operation at the national level indicates that 826 Mt or 54.3% of the crushed stone total was produced in 2002 by 458 operations reporting more than 1 million metric tons per year (Mt/yr); 362 Mt or 23.8% was produced by 560 operations reporting between 500,000 and 999,999 metric tons per year (t/yr); and 296 Mt or 19.5% was produced by 1,216 operations reporting between 100,000 and 500,000 t/yr. The production by size of operation information also indicates that 78.2% of total crushed stone produced in the U.S. comes from operations that produced more than 500,000 t/yr (table 7a). By regions, in 2002, the South had 1,134 active operations, followed by the Midwest with 1,058 active operations, and the West with 623 active operations (table 7b).

The declining trend in the consolidation of the U.S. aggregates industry that started in 2000 continued in 2002 as well, in part owing to the uncertainty of the timing of an economic rebound and the level of construction spending by the Federal, State, and private sectors (AggMan, 2002). Most of the companies that made recent acquisitions have needed time to reorganize their new structures to improve efficiency in a slower economy, and this has also contributed to the reduction in the number of mergers and acquisitions.

Most of the acquisitions that took place in 2002 were made by major or medium-size producers of aggregates, most of which are publicly owned companies. These companies continue to expand or consolidate their base of operations in some areas of the country by acquiring operations or smaller companies that own significant amounts of reserves. For the second consecutive year, a new approach in the regional consolidation process was taken by some companies that announced their intention to swap some assets with some of their competitors. Stricter environmental and permitting regulations make it more difficult to start a new operation than to acquire an existing one. Therefore, a significant amount of available reserves owned by a small- to medium-size company constitutes an incentive for acquisition. Some of the acquired companies continue to operate as semi-independent organizations but with the benefit of financial and marketing support provided by the new owner.

In January, Rogers Group of Nashville, TN, announced that it had acquired from Blackwell Moore Inc. the assets of BMI Crown Quarry in Bloomington, IN (Rock Products, 2002d).

In April, Luck Stone Corporation of Richmond, VA, and Martin Marietta Materials of Raleigh, NC, announced a swap of some of their crushed stone operations. Martin Marietta sold Luck Stone its Culpeper and Spotsylvania operations in northern Virginia, while Luck Stone sold Martin Marietta its operation in Burlington, NC (Rock Products, 2002b).

In May, U.S. Aggregates, Inc. of San Mateo, CA, announced that it received Bankruptcy Court approval to sell the company's assets to Oldcastle, Inc./Materials Group of Washington, DC. The transaction included 12 crushed stone operations in Alabama, Arizona, Mississippi, Tennessee, and Utah, and 46 sand and gravel operations in Arizona, California, Idaho, Nevada, Tennessee, and Utah. U.S. Aggregates' assets included significant amounts of aggregates reserves. U.S. Aggregates filed for reorganization under Chapter 11 of the U.S. Bankruptcy Code on March 11, 2002 (Rock Products, 2002a).

In June, Oldcastle of Washington, DC, and Martin Marietta Aggregates of Raleigh, NC, announced their intention to swap certain assets as part of a strategy to focus on core regions. As part of this exchange, Martin Marietta Aggregates acquired four quarries in Alabama, which had been recently purchased by Oldcastle from U.S. Aggregates. Three of these sites are located south of Birmingham, AL, and serve southern Alabama, southern Mississippi, and the Florida Panhandle. The fourth site serves Tuscaloosa, AL, and other parts of Alabama and Mississippi. These four quarries had reserves in excess of 100 Mt. Oldcastle acquired from Martin Marietta six quarries located near Columbus, OH. The transactions benefitted both parties by allowing Martin Marietta to further expand its presence in the Southeast, and Oldcastle to create a larger market for its Shelly Company's Ohio operations (AggMan, 2002).

Luck Stone announced that it had acquired the assets of Bull Run Stone Company in Loudoun County, VA, which included one quarry and a significant amount of stone reserves. This June acquisition expanded Luck Stone's presence in the northern Virginia market and brought Luck Stone's total number of operations in the State to 19 (Pit&Quarry, 2002a).

Also in June, Martin Marietta Aggregates announced that it purchased a quarry operation from Smyth Mine LLP of Uvalde, TX. The quarry produced asphaltic limestone, a naturally occurring limestone impregnated with asphaltic oil, an excellent material for a variety of road resurfacing and repair applications. Mineral reserves exceeded 50 Mt (Pit&Quarry, 2002b).

In July, Rinker Materials of West Palm Beach, FL, announced that it reached an agreement to acquire Kiewit Materials Co., of Omaha, NE, a private company with 44 aggregates operations including 8 quarries mostly in Arizona as well as in California,

Nebraska, New Mexico, Utah, and Wyoming. Kiewit's aggregates reserves were estimated to be 800 Mt (Rock Products, 2002c).

Limestone.—The 2002 output of crushed limestone, including some dolomite, decreased by 4.1% to 978 Mt valued at $5.23 billion compared with the revised 2001 totals (table 2). About 945 Mt of limestone was produced by 713 companies at 1,897 operations with 1,859 quarries and 38 sales yards in 48 States. In addition, 36 companies with 47 operations and 47 quarries reported producing limestone and dolomite from the same quarries. Their production of about 33 Mt of limestone and dolomite combined is included with the limestone listed in table 2. The limestone totals listed in this chapter, therefore, include an undetermined amount of dolomite in addition to the dolomite reported separately.

The leading producing States, in descending order of tonnage, were Texas, Florida, Missouri, Ohio, and Pennsylvania; the total production of these five States was 395.2 Mt or 40.4% of the total U.S. output (table 8). The leading producers of limestone, in descending order of tonnage, were Vulcan, Martin Marietta Aggregates, Hanson, Lafarge, and Rinker Materials. Their combined total production was 293.2 Mt or 30% of the U.S. total.

Dolomite.—Production of dolomite decreased by 1.1% to 97.4 Mt valued at $549 million compared with the revised 2001 totals (table 2). Crushed dolomite was reportedly produced by 91 companies at 166 operations with 191 quarries in 28 States. An additional undetermined amount of dolomite is included in the total crushed limestone, as explained above.

The leading producing States, in descending order of tonnage, were Illinois, New York, Pennsylvania, Ohio, and Indiana; the total production of these five States was 63 Mt or 64.7% of the total U.S. output (table 8). The leading producers, in descending order of tonnage, were Oldcastle; S.E. Johnson Companies, Inc.; General Dynamics Corp.; Hanson, and Oglebay Norton Co. Their combined total production was 42.8 Mt or 44% of the U.S. total.

Marble.—Production of crushed marble increased by 4% to 10.4 Mt valued at $64.5 million compared with the revised totals for 2001 (table 2). Crushed marble was produced by 15 companies with 23 operations and 26 quarries in 14 States (table 2). The leading producers of crushed marble, in descending order of tonnage, were Imerys Marble, Inc.; Florida Rock; Pluess Staufer, Inc.; Boxley Co.; and Vulcan. Their combined total production represented 84% of the U.S. total.

Calcareous Marl.—Output of marl increased by 5.2% to 4.5 Mt valued at $20.2 million compared with the revised 2001 totals (table 2). Marl was produced by six companies with six quarries in three States (table 2). The leading producers, in descending order of tonnage, were Holcim (U.S.), Inc.; Lafarge; and Giant Group Ltd.

Shell.—Shell is derived mainly from fossil reefs or oyster shell banks. The output of crushed shell decreased by 32.2% to 963,000 metric tons (t) valued at $5.6 million compared with the revised 2001 totals (table 2). Crushed shell was produced by eight companies with eight operations in seven States. The leading producers, in descending order of tonnage, were Caloosa Shell Corp.; Langenfelder & Sons, Inc.; and Highlands Co.

Granite.—The output of crushed granite decreased by 7.4% to 228 Mt valued at $1.52 billion compared with the revised 2001 totals (table 2). Crushed granite was produced by 125 companies at 361 operations with 348 quarries in 35 States. The leading States, in descending order of tonnage, were Georgia, North Carolina, Virginia, South Carolina, and California, and the total production of these five States was 164 Mt or about 72% of the U.S. output (table 9). The leading producers, in descending order of tonnage, were Vulcan, Martin Marietta Aggregates, Hanson, Florida Rock, and Lafarge. Their combined total production was 145.4 Mt or 64% of the U.S. total.

Traprock.—Production of crushed traprock decreased by 9.2% to 112 Mt valued at $752 million compared with the 2001 totals (table 2). Traprock was produced by 222 companies at 324 operations with 405 quarries in 24 States. The leading producing States, in descending order of tonnage, were Oregon, Virginia, New Jersey, California, and Washington; these five States produced 61.2 Mt or 54.7% of U.S. output (table 9). Leading producers, in descending order of tonnage, were Oldcastle, Vulcan, Luck Stone, Eucon Co., and Stavola, Inc. Their combined total production was 41.2 Mt or 37% of the U.S. total.

Sandstone and Quartzite.—The output of crushed sandstone increased by 2.6% to 39.7 Mt valued at $249.7 million, while the output of quartzite decreased by 7% to 13.2 Mt valued at $76.8 million compared with the revised 2001 totals (table 2). Crushed sandstone was produced by 110 companies at 147 operations with 144 quarries in 24 States, and crushed quartzite was produced by 35 companies at 38 operations with 41 quarries in 21 States.

The leading producing States, in descending order of combined tonnage of sandstone and quartzite, were Pennsylvania, Arkansas, California, South Dakota, and Oklahoma; their combined production was 31.7 Mt or 60% of the U.S. output (table 9). The leading producers of sandstone and quartzite, in descending order of tonnage, were Martin Marietta Aggregates, Ashland, Lafarge; New Enterprise, Inc.; and Pine Bluff S&G Co. Their combined total production was 18.6 Mt or 35% of the U.S. total.

Slate.—The output of crushed slate increased slightly to 3.8 Mt valued at $24.3 million compared with the revised 2001 totals (table 2). Crushed slate was produced by 12 companies at 13 quarries in 11 States. Most of the crushed slate was produced in North Carolina. The leading producers, in descending order of tonnage, were Martin Marietta Aggregates, Solite Corp., and NAPA Development Corp., Inc. Their combined total production was 2.8 Mt or 75% of the U.S. total.

Volcanic Cinder and Scoria.—Production of volcanic cinder and scoria decreased by 10.2% to 1.9 Mt valued at $14.1 million compared with the revised 2001 total (table 2). Volcanic cinder and scoria were produced by 20 companies from 35 operations with 41 quarries in 14 States. The leading producing States, in descending order of tonnage, were New Mexico, California and Arizona (table 11). The leading producers, in descending order of tonnage, were Martin Marietta Aggregates, Rinker Materials, and Pacific Building Products. Their combined production accounted for 47% of the U.S. total.

Miscellaneous Stone.—Output of other kinds of crushed stone decreased by 4.2% to 29.9 Mt valued at $182 million compared with the revised 2001 totals (table 2). Miscellaneous stone was produced by 107 companies at 173 operations with 178 quarries in 32 States. The leading producing States, in descending order of tonnage, were Pennsylvania, California; Oregon, Texas, and Virginia; their combined production was 16.7 Mt or 49.7% of the total U.S. output. Leading producers, in descending order of tonnage, were

Albert Frei & Sons, Inc.; U.S. Silica Co.; MDU Resource Group; Aggregates Industries, Inc.; and the U.S. Department of the Interior's Bureau of Land Management. Their combined total production was 10.2 Mt or 34% of the U.S. total.

Consumption

Crushed stone production reported to the USGS is actually material that was either sold or used by producers. Stockpiled production is not included in the reported quantities. The "sold or used" tonnage, therefore, represents the amount of production released for domestic consumption or export in a given year. Because some of the crushed stone producers did not report a breakdown by end use, their total production is included in the "Unspecified, reported" use. The estimated production of nonrespondents is included in the "Unspecified, estimated" use.

In 2002, U.S. consumption of crushed stone was 1.52 Gt, a 4.6% decrease compared with the revised consumption of 2001. This total is slightly different from the "apparent consumption" of crushed stone that is defined as U.S. production plus imports minus exports. Of the 1.52 Gt of crushed stone consumed, 531 Mt or 34.9% of the total was "Unspecified, reported," and 290 Mt or 19.1% of the total was "Unspecified, estimated."

Of the remaining 699 Mt, reported by uses by producers, about 82.7% was used as construction aggregates, mostly for highway and road construction and maintenance; 13.9%, for chemical and metallurgical uses, including cement and lime manufacture; 1.7%, for agricultural uses; and 1.7%, for special and miscellaneous uses and products (table 13). "Unspecified" uses are not included in the calculation of the above percentages. It is recommended that in any use-pattern study or marketing analysis, the quantities included in "Unspecified" uses be prorated and added to the reported uses by applying the above percentages calculated for the reported quantities. Using this procedure, the analyst makes the assumption that the breakdown by uses of the "Unspecified" uses is similar to the reported uses.

Limestone.—Of the 978 Mt of crushed limestone consumed, 306 Mt or 31.3% of the total was in "Unspecified, reported" uses, and 210 Mt or 21.5% of the total was in "Unspecified, estimated" uses. Of the remaining 462 Mt of crushed limestone, reported by uses by the producers, 76.3% was used as construction aggregates; 19.6% was used for chemical and metallurgical applications including cement and lime manufacturing; 2.4%, for agricultural uses; and 2.3% for special and miscellaneous uses and products (table 14).

Dolomite.—Of the 97.4 Mt of crushed dolomite consumed, 49.3 Mt or 50.6% of the total was in "Unspecified, reported" uses, and 13 Mt or 13.42% of the total was in "Unspecified, estimated" uses. Of the remaining 35.1 Mt of crushed dolomite reported by uses by the producers, 90.2% was used as construction aggregates; 6.8%, for chemical and metallurgical applications; and 2.6%, for agricultural uses. An additional undefined amount of dolomite consumed in a variety of uses, mostly construction aggregates, is reported with the limestone (table 14).

Additional detailed production information for total combined limestone and dolomite by State and major uses is provided in table 15.

Marble.—Of the 10.4 Mt of crushed marble consumed, 2.1 Mt or 20% of the total was reported as "Unspecified, reported," and 5.7 Mt or 54.4% was in "Unspecified, estimated." Of the remaining 2.7 Mt of crushed marble reported by uses by the producers, 80.7% was used as construction aggregates, and 19.2% for whiting and whiting substitutes and as fillers and extenders (table 16).

Calcareous Marl.—Of the 4.5 Mt of crushed calcareous marl consumed, 2.7 Mt or 59.7% was used for cement manufacturing.

Shell.—Of the 963,000 t of crushed shell consumed, 317,000 t or 32.9% was reported as "Unspecified, estimated" uses. Most of the remaining 646,000 t was used as construction aggregates.

Granite.—Of the 228 Mt of crushed granite consumed, 83.7 Mt or 36.7% was in "Unspecified, reported" uses, and 20 Mt or 8.8% was in "Unspecified, estimated" uses. Most of the remaining 124.3 Mt was used as construction aggregates (table 17).

Traprock.—Of the 112 Mt of crushed traprock consumed, 43.3 Mt or 38.7% was in "Unspecified, reported" uses, and 27 Mt or 24% was in "Unspecified, estimated" uses. Most of the remaining 42 Mt was used as construction aggregates (table 17).

Sandstone and Quartzite.—Of the 39.7 Mt of crushed sandstone consumed, 18.1 Mt or 45.5% was in "Unspecified, reported" uses, and 11 Mt or 27.6%, in "Unspecified, estimated." Of the remaining 10.7 Mt of crushed sandstone, reported by uses by the producers, 10.4 Mt or 97.8% was used as construction aggregates (table 18).

Of the 13.2 Mt of crushed quartzite consumed in the United States, 7.77 Mt or 58.9% of the total was in "Unspecified, reported" uses, and 1.5 Mt or 11.3% of the total was in "Unspecified, estimated." Of the remaining 4 Mt of crushed quartzite reported by uses by the producers, 3.7 Mt or 92.4% was used as construction aggregates (table 18).

Volcanic Cinder and Scoria.—Of the 1.9 Mt of volcanic cinder and scoria consumed, 828,000 t or 43.4% of the total was in "Unspecified, reported," and 300,000 t or 15.7% of the total was in "Unspecified, estimated." Of the remaining 780,000 t of crushed volcanic cinder and scoria, 600,000 t or 77% was used as construction aggregates (table 19).

Miscellaneous Stone.—Of the 33.6 Mt of miscellaneous crushed stone consumed which includes crushed slate, 17.7 Mt or 52.5% of the total was in "Unspecified, reported," and 8.4 Mt or 25% of the total was in "Unspecified, estimated." Of the remaining 7.6 Mt reported by uses by the producers, 6.9 Mt or 91.2% was used as construction aggregates.

Additional information regarding production and consumption of crushed stone by type of rock and major uses in each State and the State districts may be found in the USGS Minerals Yearbook volume II, Area Reports: Domestic.

Recycling

As the recycling of most waste materials increases, aggregates producers are recycling more cement concrete and asphalt concrete materials recovered from construction projects to produce concrete aggregates and asphalt aggregates. The recycling of cement concrete is usually done at quarries and increasingly at sales yards or distribution sites, whereas asphalt concrete recycling takes place mostly at the construction sites. The annual survey of crushed stone producers now collects information on recycling of cement and asphalt concretes produced by the crushed stone producers only. These amounts represent a small percentage of the total recycled cement and asphalt concretes because the recycling of these materials is done mostly by the construction or demolition companies, and those companies are not surveyed by the USGS.

Asphalt Concrete.—A total of 1 Mt of asphalt concrete valued at $6.1 million was recycled in 2002 by 49 companies in 19 States. The volume of recycled asphalt concrete decreased by 14.5% compared with the revised total in 2001 (tables 20, 21). The leading recycling regions, in descending order of tonnage, were the Northeast, West, and Midwest. The leading recycling States, in descending order of tonnage, were California, Pennsylvania, and Wisconsin.

The leading recycling companies, in descending order of tonnage produced, were SuperLite Block, Inc./Oldcastle Materials; Eastern Industries, Inc.; and Dutra Materials.

Cement Concrete.—A total of 2.5 Mt of cement concrete valued at $15.9 million was recycled by 39 companies in 17 States. This tonnage represents a 15.3% decrease compared with that of 2001 (tables 22, 23). The leading recycling regions, in descending order of tonnage, were the Midwest, West, and South. The leading recycling States, in descending order of tonnage, were Illinois, California, Virginia, and Oregon.

The leading companies, in descending order of tonnage produced, were Vulcan, Pacific Cascade Resources, and Dutra.

Prices

Prices in this chapter are the average annual free on board (f.o.b.) plant prices, usually at the first point of sale or captive use, as reported by the crushed stone producing companies. This value does not include transportation from the plant or yard to the consumer. It does, however, include all costs of mining, processing, in-plant transportation, overhead costs, and profit. The average unit price of crushed stone increased by 2.5% to $5.71 per metric ton compared with the revised unit price of 2001. The average unit prices, by kind of stone, increased by between 0.3% for traprock and 14.4% for calcareous marl and decreased by 1.4% for crushed slate (table 2).

Additional information regarding prices of crushed stone by type of rock and uses in the U.S. and each State and the State districts may be found throughout the tables included in this chapter as well as in the USGS Minerals Yearbook, volume II Area Reports: Domestic.

Transportation

For 854 Mt or 56.2% of the 1.52 Gt of crushed stone produced for consumption in 2002, no means of transportation was reported by the producers. Of the remaining 666 Mt of crushed stone, 519 Mt or about 78% was reported as being transported by truck from the processing plant or quarry to the first point of sale or use; 42 Mt or 6.3%, by rail; and 35 Mt or 5.2%, by waterway. About 7.4% of the specified production was reported as not having been transported and, therefore, is assumed to have been used onsite.

Shipment by truck remains the most widely used method of transportation for crushed stone, but the significant increase in the number of sales/distribution yards in the last couple of years and the increase in the volume of crushed stone going through these sites have a positive impact on the industry as well as the communities it serves. Distribution sites located near metropolitan areas significantly reduce the distance most trucks have to travel to pick up and deliver crushed stone. Therefore the transportation costs are reduced, as well as the impact of heavy traffic on the environment. Sales yards serve both to distribute products and as recycling sites. This provides efficiency for the industry while helping to protect the environment.

Information regarding means of transportation used by the producers to ship crushed stone from the production site to the consumer in each geographic region is provided in table 24.

Foreign Trade

The widespread distribution of domestic deposits of stone suitable for mining as crushed stone and the high cost of transportation limit foreign trade to mostly local transactions across international boundaries. Shipments of crushed stone by water, especially from Canada, Mexico, and the Caribbean, continue to increase. U.S. imports and exports are small, representing less than 1% of domestic consumption.

Exports.—Exports of crushed stone decreased by 50.1% to 2.6 Mt compared with the revised total of 5.1 Mt of 2001, while the value increased by 1.7% to $54 million. About 69.5% of the exported crushed stone was limestone for cement manufacturing valued at an average unit value of $10.73 per ton, and 22.8% of the exported crushed stone was limestone used as construction aggregates valued at an average unit value of $8.23 per ton. Canada continues to be the major destination with 97.7% of the total exports of crushed stone (table 26).

Imports.—Imports of crushed stone, including calcium carbonate fines, increased by 5.9% to 14.3 Mt compared with those in 2001, and the value increased by 5% to $125 million. About 81.2% of the imported crushed stone was limestone used as construction aggregates, as flux, and for cement manufacturing. Imports of natural calcium carbonate increased in 2002 to 939 t from 305 t in 2001, but the value decreased by 10.9% to $312,000 (table 27).

Imported crushed stone was used mostly as construction aggregates or for cement manufacturing. This trend is expected to continue, and the volume of imports is expected to increase but will continue to remain very small compared with total domestic output.

Outlook

The demand for crushed stone in 2003 is expected to remain at the 2002 level of 1.5 Gt or show a small decrease. Gradual increases in demand for construction aggregates are anticipated after 2003 based on the expected volume of work on the infrastructure that will be financed by the new Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003, the new Flight 100—Century of Aviation Reauthorization Act, and the expanding U.S. economy in general. The long-term projected increases will be influenced by the construction activity in the public and private construction sectors as well as by the new construction work related to security measures being implemented around the Nation. Crushed stone f.o.b. prices are not expected to increase significantly, but the delivered prices of crushed stone are expected to increase, especially in and near metropolitan areas, mainly because more aggregates are transported from more distant sources.

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TABLE 1
SALIENT CRUSHED STONE STATISTICS[1]

(Thousand metric tons and thousand dollars)

	1998	1999	2000	2001	2002
Sold or used by producers:[2]					
Quantity	1,510,000	1,530,000	1,550,000	1,590,000 r	1,520,000
Value	8,130,000	8,180,000	8,290,000	8,870,000 r	8,690,000
Exports, value	41,500	30,800	29,700	35,600	54,000
Imports,[3] value	116,000	106,000	105,000	110,000	125,000

rRevised.
[1]Data are rounded to no more than three significant digits.
[2]Does not include American Samoa, Guam, Puerto Rico, and the U.S. Virgin Islands.
[3]Excludes precipitated calcium carbonate.

TABLE 2

CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY KIND[1, 2]

Kind	2001				2002			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone[3]	1,957 r	1,020,000 r	$5,280,000 r	$5.19	1,906	978,000	$5,230,000	$5.35
Dolomite	187 r	98,500 r	551,000 r	5.59 r	191	97,400	549,000	5.64
Marble	27 r	10,000 r	60,500 r	6.03 r	26	10,400	64,500	6.19
Calcareous marl	6 r	4,310 r	16,800 r	3.90 r	6	4,530	20,200	4.46
Shell	11 r	1,420	7,360	5.19	8	963	5,640	5.86
Granite	347 r	247,000 r	1,580,000 r	6.40 r	348	228,000	1,520,000	6.65
Traprock	410 r	124,000 r	826,000 r	6.67 r	405	112,000	752,000	6.69
Sandstone and quartzite[4]	185 r	52,900 r	321,000 r	6.07 r	185	52,900	326,000	6.17
Slate	13 r	3,640 r	23,800 r	6.52 r	13	3,780	24,300	6.43
Volcanic cinder and scoria	38	2,130 r	14,700 r	6.90 r	41	1,910	14,100	7.39
Miscellaneous stone	192 r	31,200 r	184,000 r	5.90 r	178	29,900	182,000	6.10
Total	XX	1,590,000 r	8,870,000 r	5.57	XX	1,520,000	8,690,000	5.71

rRevised. XX Not applicable.

[1]Data are rounded to no more than three significant digits, except unit values and number of quarries; may not add to totals shown.

[2]Does not include American Samoa, Guam, Puerto Rico, and the U.S. Virgin Islands.

[3]Includes limestone-dolomite reported with no distinction between the two kinds of stone.

[4]Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

TABLE 3

CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY REGION[1, 2]

(Thousand metric tons and thousand dollars)

Region/division	2001		2002	
	Quantity	Value	Quantity	Value
Northeast:				
New England	40,400 r	285,000 r	38,900	273,000
Middle Atlantic	180,000 r	1,100,000	179,000	1,100,000
Midwest:				
East North Central	295,000	1,390,000	281,000	1,350,000
West North Central	162,000	839,000 r	156,000	828,000
South:				
South Atlantic	382,000	2,310,000	358,000	2,280,000
East South Central	169,000 r	995,000 r	152,000	922,000
West South Central	206,000 r	1,000,000 r	195,000	962,000
West:				
Mountain	55,200 r	297,000 r	53,400	300,000
Pacific	104,000 r	652,000 r	109,000	676,000
Total	1,590,000 r	8,870,000 r	1,520,000	8,690,000

rRevised.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Does not include American Samoa, Puerto Rico, and the U.S. Virgin Islands.

TABLE 4

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1, 2]

State	2001 Quantity (thousand metric tons)	2001 Value (thousands)	2001 Unit value	2002 Quantity (thousand metric tons)	2002 Value (thousands)	2002 Unit value
Alabama	49,400	$308,000	$6.24	43,400	$262,000	$6.04
Alaska[3]	1,450 r, 4	8,000 r, 4	5.50 r	1,280 4	6,960 4	5.42
Arizona	8,320	49,600	5.97	8,450	51,800	6.14
Arkansas	33,700	169,000	5.02	30,800	159,000	5.16
California	61,600	396,000	6.44	67,400	423,000	6.28
Colorado	13,800 r	88,300 r	6.38	15,000	96,000	6.42
Connecticut	9,870	83,200	8.43	10,200	85,300	8.40
Florida	95,100	515,000	5.42	97,700	573,000	5.87
Georgia	76,900 r, 5	465,000 r, 5	6.04	69,100 5	454,000 5	6.57
Hawaii	6,640 r	64,300 r	9.69	6,380	65,100	10.20
Idaho	5,250	22,500	4.28	3,420	15,800	4.62
Illinois	80,700 6	459,000 6	5.69	75,200 6	431,000 6	5.73
Indiana	58,200	278,000	4.77	55,500	268,000	4.83
Iowa	35,600	189,000	5.30	35,900	194,000	5.41
Kansas	22,800	110,000	4.85	21,700	107,000	4.96
Kentucky	58,700 r	324,000 r	5.52 r	50,600	302,000	5.97
Louisiana[7]	W 6, 8, 9	W 6, 8, 9	10.48	W 6, 8, 9	W 6, 8, 9	11.06
Maine	4,210	24,200	5.75	4,010	23,400	5.85
Maryland	22,800 5, 10, 11	136,000 5, 10, 11	5.97	22,300 5, 10, 11	141,000 5, 10, 11	6.31
Massachusetts	14,500	121,000	8.34	13,800	107,000	7.80
Michigan	43,200 9, 12	160,000 9, 12	3.71	41,100 9, 12	170,000 9, 12	4.14
Minnesota	9,730	57,000	5.85	9,960	57,600	5.78
Mississippi[7]	1,920 r	18,800 r	9.79 r	2,620	27,900	10.64
Missouri	81,700 r	410,000 r	5.01	74,100	380,000	5.14
Montana	3,070	12,400	4.06	2,370	10,000	4.23
Nebraska	6,360	45,800	7.19	7,220	53,200	7.36
Nevada	7,720 r	37,600 r	4.87 r	8,010	41,900	5.23
New Hampshire	4,960 r, 6	21,800 r, 6	4.39 r	4,730 6	24,100 6	5.09
New Jersey	26,400	184,000	6.95	20,500	127,000	6.21
New Mexico	4,230	26,100	6.17	3,680	23,300	6.35
New York	53,700	353,000	6.57	56,500	391,000	6.92
North Carolina	69,300	485,000	7.00	62,900	451,000	7.18
North Dakota	W 8, 9, 13	W 8, 9, 13	4.71	W 8, 9, 13, 14	W 8, 9, 13, 14	5.29
Ohio	75,900	339,000	4.46	72,600	329,000	4.53
Oklahoma	41,600	179,000	4.30	45,000	196,000	4.34
Oregon	20,500 r	99,500 r	4.85 r	19,800	101,000	5.10
Pennsylvania	100,000 r	560,000 r	5.60	102,000	580,000	5.68
Rhode Island	1,930	11,100	5.76	1,780	11,400	6.41
South Carolina	26,700	161,000	6.03	25,700	165,000	6.43
South Dakota	5,730 r	26,700 r	4.65	6,780	33,600	4.96
Tennessee	58,600	344,000	5.88	54,900	330,000	6.00
Texas	126,000 r	606,000 r	4.83 r	113,000	543,000	4.81
Utah	8,430	40,500	4.81	7,640	38,100	4.99
Vermont	4,950	24,300	4.92	4,360	21,300	4.88
Virginia	69,100	446,000	6.46	58,900	395,000	6.70
Washington	14,100	84,300	6.00	13,700	79,900	5.82
West Virginia	15,300	65,700	4.29	14,400	63,400	4.40
Wisconsin	36,600	$150,000	$4.10	36,200	$151,000	$4.17
Wyoming	4,370	20,400	4.68	4,890	23,300	4.77
Other	11,700 r	85,400 r	7.28 r	12,800	101,000	7.84
Total	1,590,000 r	8,870,000 r	5.57	1,520,000	8,690,000	5.71

See footnotes at end of table.

TABLE 4--Continued

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1, 2]

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[r]Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]To avoid disclosing company proprietary data, certain State totals do not include all kinds of stone produced within the State; the portion not shown has been included with "Other."

[3]Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information.

[4]Excludes limestone-dolomite.

[5]Excludes marble.

[6]Excludes sandstone.

[7]A significant amount of sold or used material was shipped in from other States.

[8]Excludes limestone.

[9]Excludes miscellaneous stone.

[10]Excludes shell.

[11]Excludes traprock.

[12]Excludes calcareous marl.

[13]Excludes volcanic cinder and scoria.

[14]Excludes granite.

TABLE 5

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY QUARTER AND DIVISION[1, 2]

Region/division	Quantity 1st quarter (thousand metric tons)	Percentage change[4]	Quantity 2nd quarter (thousand metric tons)	Percentage change[4]	Quantity 3rd quarter (thousand metric tons)	Percentage change[4]	Quantity 4th quarter (thousand metric tons)	Percentage change[4]	Total[3] (thousand metric tons)	Value[3] (thousands)
Northeast:										
New England	3,500	1.7	12,100	1.6	14,500	7.2	10,500	(2.4)	40,700	$290,000
Middle Atlantic	23,100	1.4	52,100	(3.0)	58,900	1.9	41,100	(12.3)	175,000	1,100,000
Midwest:										
East North Central	35,600	(4.3)	81,900	(0.5)	94,700	(0.3)	75,300	(6.0)	287,000	1,370,000
West North Central	26,500	1.5	44,400	0.8	49,400	(0.6)	39,700	(6.8)	160,000	845,000
South:										
South Atlantic	78,100	1.5	102,000	(0.3)	97,500	(4.5)	84,400	(10.2)	362,000	2,260,000
East South Central	32,200	1.7	46,200	(0.9)	48,900	1.5	41,200	(6.2)	168,000	1,050,000
West South Central	47,300	11.8	53,100	(7.4)	52,600	(6.7)	44,000	(10.8)	197,000	976,000
West:										
Mountain	11,100	19.9	18,600	21.2	18,700	7.5	14,800	6.8	63,100	345,000
Pacific[5]	20,500	3.8	26,800	2.6	27,700	3.9	26,100	9.0	101,000	623,000
Total[3]	278,000	3.2	437,000	(0.6)	463,000	(0.8)	377,000	(7.0)	1,570,000 [6]	8,990,000 [6]

[1]As published in the "Crushed Stone and Sand and Gravel in the Fourth Quarter of 2002" Mineral Industry Surveys.

[2]Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

[3]Data may not add to totals shown because of independent rounding and differences between projected totals by States and region

[4]All percentage changes are calculated by using unrounded totals. Percentage changes are based on the corresponding quarter of the previous year. Negative percentages (decreases) are in parentheses.

[5]Does not include Alaska and Hawaii.

[6]Includes Alaska, Hawaii, and "Other" which are detailed in table 6.

TABLE 6

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY QUARTER AND STATE [1, 2]

State	Quantity 1st quarter (thousand metric tons)	Percentage change[3]	Quantity 2nd quarter (thousand metric tons)	Percentage change[3]	Quantity 3rd quarter (thousand metric tons)	Percentage change[3]	Quantity 4th quarter (thousand metric tons)	Percentage change[3]	Total[4] (thousand metric tons)	Value[4] (thousands)
Alabama	11,600	15.6	14,700	12.9	15,500	9.9	13,100	5.7	54,700	$348,000
Alaska[5, 6]	--	--	--	--	--	--	--	--	1,500	8,400
Arizona[7]	--	--	--	--	--	--	--	--	9,280	56,500
Arkansas	6,600	9.9	8,900	(2.4)	9,400	(5.6)	7,300	(15.3)	32,200	165,000
California	13,500	5.0	17,200	4.0	16,700	(1.3)	16,300	6.5	63,700	421,000
Colorado	2,800	21.7	5,200	30.3	5,100	19.6	4,100	21.2	17,200	111,000
Connecticut	700	(4.9)	3,000	(0.3)	3,900	19.1	3,000	3.9	10,600	90,900
Delaware[5]	--	--	--	--	--	--	--	--	--	--
Florida[6]	25,900	18.5	27,100	10.7	26,300	9.9	25,600	3.1	105,000	600,000
Georgia[6]	16,700	(2.6)	20,000	(3.4)	18,900	(8.5)	16,400	(12.3)	72,100	445,000
Hawaii[5]	--	--	--	--	--	--	--	--	7,000	69,200
Idaho[6]	900	(11.6)	1,900	130.1	800	(57.3)	900	(39.3)	4,600	20,100
Illinois[6]	9,700	(10.7)	22,100	2.4	25,100	(1.9)	20,700	(8.8)	77,600	450,000
Indiana	8,400	(5.3)	15,700	(0.7)	18,700	(0.7)	14,200	(3.3)	57,000	277,000
Iowa	4,700	11.5	11,200	7.9	11,100	0.8	9,900	(0.9)	36,900	200,000
Kansas	4,500	1.3	5,800	1.1	5,700	(10.1)	5,500	(12.0)	21,500	107,000
Kentucky	10,600	(3.8)	14,100	(16.4)	16,200	(3.9)	14,200	(8.3)	55,100	309,000
Louisiana[6, 7]	--	--	--	--	--	--	--	--	--	--
Maine	600	6.7	1,200	(4.6)	1,500	2.1	900	(2.4)	4,190	24,600
Maryland[6]	4,400	21.0	6,400	3.8	6,500	(4.4)	5,200	(16.7)	22,500	137,000
Massachusetts	1,500	7.3	4,500	12.4	5,000	(2.3)	3,700	(5.7)	14,800	125,000
Michigan[6]	3,100	0.9	11,800	(11.8)	13,900	(1.0)	12,300	(3.1)	41,100	155,000
Minnesota	300	(35.7)	3,000	6.8	4,000	(1.1)	2,400	1.1	9,730	58,100
Mississippi[6, 7]	--	--	--	--	--	--	--	--	5,530	58,100
Missouri	15,700	3.7	19,800	(6.6)	24,900	2.1	19,200	(9.7)	79,600	407,000
Montana[7]	--	--	--	--	--	--	--	--	3,190	13,300
Nebraska	1,100	2.0	1,900	(5.5)	1,700	(2.7)	1,500	(3.5)	6,170	45,200
Nevada	2,100	21.0	2,500	40.7	2,500	0.3	2,100	(5.8)	9,190	46,100
New Hampshire[6]	300	(2.2)	1,600	21.3	1,700	17.3	1,200	0.7	4,760	20,900
New Jersey	2,500	(26.7)	4,300	(42.1)	7,000	(11.3)	3,500	(54.0)	17,300	123,000
New Mexico	1,200	31.0	1,600	50.5	1,600	33.9	1,000	(12.9)	5,300	33,300
New York	6,300	38.4	17,700	5.4	21,100	13.3	14,800	7.4	59,900	405,000
North Carolina	12,500	(8.3)	19,300	(1.9)	17,600	(6.8)	14,400	(15.8)	63,800	456,000
North Dakota[5, 6]	--	--	--	--	--	--	--	--	--	--
Ohio	10,000	3.8	22,600	6.1	25,300	3.3	19,100	(6.6)	77,000	350,000
Oklahoma[6]	9,600	41.7	10,300	(13.2)	10,700	(13.8)	8,600	(18.6)	39,200	172,000
Oregon	3,800	(1.0)	6,000	14.0	7,400	12.4	5,600	11.0	22,900	112,000
Pennsylvania	14,400	(3.9)	30,200	2.3	30,600	(1.9)	22,700	(10.5)	97,800	567,000
Rhode Island[7]	--	--	--	--	--	--	--	--	1,310	7,740
South Carolina	5,700	(2.2)	7,200	0.9	6,700	(6.6)	5,500	(16.6)	25,100	154,000
South Dakota	600	(31.8)	1,900	25.8	2,100	3.1	1,300	(7.7)	5,920	28,100
Tennessee	9,900	(5.3)	16,400	1.4	16,300	(1.7)	13,400	(12.6)	56,000	336,000
Texas	31,200	6.2	33,900	(7.1)	33,200	(2.7)	27,800	(7.6)	126,000	639,000

See footnotes at end of table.

TABLE 6 -- Continued

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY QUARTER AND STATE [1, 2]

State	Quantity 1st quarter (thousand metric tons)	Percentage change[3]	Quantity 2nd quarter (thousand metric tons)	Percentage change[3]	Quantity 3rd quarter (thousand metric tons)	Percentage change[3]	Quantity 4th quarter (thousand metric tons)	Percentage change[3]	Total[4] (thousand metric tons)	Value[4] (thousands)
Utah	1,200	(8.1)	2,100	(16.5)	2,900	0.6	2,200	30.8	8,450	41,500
Vermont[7]	--	--	--	--	--	--	--	--	4,150	20,800
Virginia	11,800	(9.7)	17,500	(12.5)	16,800	(12.4)	13,900	(17.9)	60,000	396,000
Washington	3,200	4.2	3,400	(25.1)	3,700	28.9	4,500	22.7	14,800	90,400
West Virginia[6]	2,200	2.8	4,400	9.1	5,000	(7.4)	4,500	21.2	16,100	70,600
Wisconsin	4,200	(19.9)	8,600	(13.4)	11,400	(8.8)	8,100	(10.2)	32,200	135,000
Wyoming	800	116.0	1,500	3.6	1,600	18.0	900	(19.6)	4,880	23,300
Other	XX	XX	XX	XX	XX	XX	XX	XX	5,800	56,300
Total	XX	XX	XX	XX	XX	XX	XX	XX	1,570,000	8,990,000

XX Not applicable. --No estimate made due to small sample size.

[1]As published in the "Crushed Stone and Sand and Gravel in the Fourth Quarter of 2002" Mineral Industry Surveys.

[2]Quarterly totals shown are estimates based on a sample survey. Estimated quantities for prior quarters have been recalculated.

[3]All percentage changes are calculated by using unrounded totals. Percentage changes are based on the corresponding quarter of the previous year. Negative percentages (decreases) are in parentheses.

[4]Data may not add to totals shown because of independent rounding and differences between projected totals by States and regions.

[5]State not included in quarterly survey.

[6]To avoid disclosing proprietary data, certain State totals do not include all types of stone produced within the State; the portion not shown has been included with "Other."

[7]Owing to the low number of companies, no production estimates by quarter were generated.

TABLE 7A
CRUSHED STONE SOLD OR USED IN THE UNITED STATES IN 2002,
BY SIZE OF OPERATION[1]

Size range (metric tons)	U.S. total			
	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total
Less than 25,000	399	12.3	3,440	0.2
25,000 to 49,999	240	7.4	7,990	0.5
50,000 to 99,999	365	11.3	24,800	1.6
100,000 to 199,999	440	13.6	58,200	3.8
200,000 to 299,999	316	9.8	70,700	4.7
300,000 to 399,999	236	7.3	74,900	4.9
400,000 to 499,999	224	6.9	92,000	6.1
500,000 to 599,999	143	4.4	70,800	4.7
600,000 to 699,999	145	4.5	85,400	5.6
700,000 to 799,999	109	3.4	74,000	4.9
800,000 to 899,999	86	2.7	66,100	4.3
900,000 to 999,999	77	2.4	66,000	4.3
1,000,000 to 1,499,999	227	7.0	250,000	16.4
1,500,000 to 1,999,999	108	3.3	169,000	11.1
2,000,000 to 2,499,999	47	1.5	95,400	6.3
2,500,000 to 4,999,999	59	1.8	191,000	12.6
5,000,000 and more	17	0.5	121,000	8.0
Total	3,238	100.0	1,520,000	100.0

[1]Data are rounded to no more than three significant digits except "number of operations;" may not add to totals shown.

TABLE 7B

CRUSHED STONE SOLD OR USED IN THE UNITED STATES IN 2002, BY REGION AND SIZE OF OPERATION[1]

Size range (metric tons)	Northeast				Midwest			
	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total
Less than 25,000	28	6.6	238	0.1	123	11.6	1,270	0.3
25,000 to 49,999	21	5.0	696	0.3	111	10.5	3,700	0.8
50,000 to 99,999	36	8.5	2,580	1.2	133	12.6	9,050	2.1
100,000 to 199,999	52	12.3	7,140	3.3	170	16.1	22,600	5.2
200,000 to 299,999	40	9.5	8,830	4.1	103	9.7	23,200	5.3
300,000 to 399,999	43	10.2	14,100	6.5	71	6.7	22,500	5.2
400,000 to 499,999	42	9.9	17,300	7.9	67	6.3	27,600	6.3
500,000 to 599,999	24	5.7	11,800	5.4	39	3.7	19,200	4.4
600,000 to 699,999	23	5.4	13,400	6.1	38	3.6	22,400	5.1
700,000 to 799,999	23	5.4	15,600	7.2	34	3.2	23,200	5.3
800,000 to 899,999	10	2.4	7,600	3.5	22	2.1	16,800	3.8
900,000 to 999,999	14	3.3	12,100	5.6	21	2.0	18,000	4.1
1,000,000 to 1,499,999	36	8.5	39,800	18.3	63	6.0	69,300	15.9
1,500,000 to 1,999,999	17	4.0	26,800	12.3	30	2.8	47,500	10.9
2,000,000 to 2,499,999	9	2.1	18,200	8.3	12	1.1	24,000	5.5
2,500,000 to 4,999,999	3	0.7	9,860	4.5	16	1.5	52,200	12.0
5,000,000 and more	2	0.5	11,900	5.5	5	0.5	33,900	7.8
Total	423	100.0	218,000	100.0	1,058	100.0	437,000	100.0

Size range (metric tons)	South				West			
	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total	Number of operations	Percentage of total	Quantity (thousand metric tons)	Percentage of total
Less than 25,000	67	5.9	539	0.1	181	29.1	1,390	0.9
25,000 to 49,999	46	4.1	1,500	0.2	62	10.0	2,100	1.3
50,000 to 99,999	101	8.9	6,820	1.0	95	15.2	6,370	3.9
100,000 to 199,999	130	11.5	17,400	2.5	88	14.1	11,000	6.8
200,000 to 299,999	123	10.8	27,700	3.9	50	8.0	11,000	6.8
300,000 to 399,999	95	8.4	29,900	4.3	27	4.3	8,420	5.2
400,000 to 499,999	88	7.8	36,000	5.1	27	4.3	11,000	6.8
500,000 to 599,999	68	6.0	33,800	4.8	12	1.9	5,900	3.6
600,000 to 699,999	68	6.0	40,100	5.7	16	2.6	9,530	5.9
700,000 to 799,999	45	4.0	30,400	4.3	7	1.1	4,720	2.9
800,000 to 899,999	44	3.9	34,000	4.8	10	1.6	7,700	4.8
900,000 to 999,999	32	2.8	27,300	3.9	10	1.6	8,650	5.3
1,000,000 to 1,499,999	109	9.6	120,000	17.1	19	3.0	20,400	12.6
1,500,000 to 1,999,999	55	4.9	84,800	12.0	6	1.0	9,790	6.0
2,000,000 to 2,499,999	22	1.9	44,700	6.4	4	0.6	8,480	5.2
2,500,000 to 4,999,999	33	2.9	107,000	15.3	7	1.1	21,600	13.3
5,000,000 and more	8	0.7	60,900	8.6	2	0.3	14,000	8.6
Total	1,134	100.0	704,000	100.0	623	100.0	162,000	100.0

[1]Data are rounded to no more than three significant digits except "number of operations;" may not add to totals shown.

TABLE 8
CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS
IN THE UNITED STATES IN 2002, BY STATE[1]

(Thousand metric tons and thousand dollars)

State	Limestone		Dolomite	
	Quantity	Value	Quantity	Value
Alabama	35,000	209,000	W	W
Alaska	W [2]	W [2]	--	--
Arizona	4,590	22,900	--	--
Arkansas	8,060	42,200	W	W
California	35,400	176,000	316	2,460
Colorado	4,620	30,900	W	W
Connecticut	W [2]	W [2]	W	W
Florida	95,900 [2]	561,000 [2]	1,200	8,540
Georgia	9,480	63,100	--	--
Hawaii	172	1,590	--	--
Idaho	W	W	--	--
Illinois	58,400 [2]	335,000 [2]	16,700	96,300
Indiana	46,500 [2]	226,000 [2]	9,040	41,700
Iowa	35,900 [2]	194,000 [2]	--	--
Kansas	20,800	104,000	--	--
Kentucky	49,600 [2]	297,000 [2]	W	W
Louisiana[3]	W	W	--	--
Maine	1,390	7,550	--	--
Maryland	16,900 [2]	101,000 [2]	--	--
Massachusetts	977 [2]	13,400 [2]	W	W
Michigan	32,900	138,000	8,200	32,200
Minnesota	4,550	21,800	W	W
Mississippi[3]	2,620	27,900	--	--
Missouri	68,600 [2]	348,000 [2]	3,940	20,200
Montana	1,400	6,270	--	--
Nebraska	7,220	53,200	--	--
Nevada	3,760	16,600	W	W
New Jersey	W	W	--	--
New Mexico	2,340	10,500	--	--
New York	29,100 [2]	174,000 [2]	13,600	101,000
North Carolina	W	W	W	W
North Dakota	W	W	--	--
Ohio	61,700 [2]	275,000 [2]	10,600	52,600
Oklahoma	35,500 [2]	151,000 [2]	W	W
Oregon	W	W	--	--
Pennsylvania	61,300 [2]	359,000 [2]	13,000	68,400
Rhode Island	W	W	--	--
South Carolina	W	W	--	--
South Dakota	W	W	--	--
Tennessee	51,500 [2]	309,000 [2]	W	W
Texas	108,000 [2]	518,000 [2]	W	W
Utah	4,510 [2]	24,800 [2]	W	W
Vermont	1,680 [2]	7,160 [2]	W	W
Virginia	16,000 [2]	92,000 [2]	1,320	7,470
Washington	1,920 [2]	11,200 [2]	W	W
West Virginia	12,200	51,600	--	--
Wisconsin	28,800 [2]	120,000 [2]	2,660	11,300
Wyoming	1,810 [2]	8,070 [2]	--	--
Other	16,800	120,000	16,800	106,000
Total	978,000	5,230,000	97,400	549,000

W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes limestone-dolomite reported with no distinction between the two kinds of stone.

[3]A significant amount of sold or used material was shipped in from other States.

TABLE 9
CRUSHED GRANITE, TRAPROCK, AND SANDSTONE AND QUARTZITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY STATE[1]

(Thousand metric tons and thousand dollars)

State	Granite		Traprock		Sandstone and quartzite[2]	
	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	W	W	--	--	2,150	13,200
Alaska[3]	W	W	W	W	--	--
Arizona	2,550	20,700	W	W	W	W
Arkansas	9,400	51,500	--	--	10,300	49,600
California	12,800	94,800	10,400	76,200	3,890	38,900
Colorado	3,970	26,800	W	W	W	W
Connecticut	316	2,480	W	W	--	--
Georgia	59,300	389,000	--	--	W	W
Hawaii	--	--	5,600	57,800	--	--
Idaho	160	793	2,140	9,140	W	W
Illinois	--	--	--	--	W	W
Kansas	--	--	--	--	W	W
Louisiana[4]	--	--	--	--	W	W
Maine	1,360	8,350	W	W	W	W
Maryland	3,390	26,000	W	W	W	W
Massachusetts	W	W	6,970	54,200	--	--
Michigan	--	--	--	--	W	W
Minnesota	W	W	--	--	W	W
Missouri	W	W	W	W	--	--
Montana	W	W	W	W	W	W
Nevada	W	W	84	388	--	--
New Hampshire	1,820	8,510	2,910	15,600	W	W
New Jersey	7,970	50,600	11,800	67,300	--	--
New Mexico	W	W	--	--	--	--
New York	W	W	W	W	1,670	14,400
North Carolina	48,400	349,000	4,930	36,200	W	W
North Dakota	W	W	--	--	--	--
Ohio	--	--	--	--	W	W
Oklahoma	W	W	--	--	3,300	19,900
Oregon	W	W	16,500	84,600	--	--
Pennsylvania	4,450	25,300	5,150	25,600	10,800	60,500
Rhode Island	1,370	9,150	W	W	--	--
South Carolina	18,900	128,000	--	--	--	--
South Dakota	W	W	--	--	3,450	19,300
Tennessee	W	W	--	--	W	W
Texas	W	W	W	W	875	5,020
Utah	--	--	--	--	752	3,540
Vermont	W	W	--	--	W	W
Virginia	24,600	177,000	13,600	96,800	W	W
Washington	W	W	8,990	53,300	296	1,840
West Virginia	--	--	--	--	2,230	11,800
Wisconsin	W	W	W	W	W	W
Wyoming	W	W	--	--	W	W
Other	27,600	151,000	23,400	175,000	13,200	88,400
Total	228,000	1,520,000	112,000	752,000	52,900	326,000

W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

[3]Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information.

[4]A significant amount of sold or used material was shipped in from other States.

TABLE 10
CRUSHED CALCAREOUS MARL AND MARBLE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY STATE[1]

(Thousand metric tons and thousand dollars)

State	Calcareous marl		Marble	
	Quantity	Value	Quantity	Value
Alabama	--	--	W	W
Arizona	--	--	W	W
California	--	--	W	W
Georgia	--	--	W	W
Maryland	--	--	W	W
Michigan	W	W	--	--
New York	--	--	W	W
Pennsylvania	--	--	403	3,270
South Carolina	3,690	16,900	W	W
Texas	W	W	W	W
Vermont	--	--	W	W
Virginia	--	--	W	W
Washington	--	--	W	W
Wyoming	--	--	W	W
Other	843	3,340	10,000	61,200
Total	4,530	20,200	10,400	64,500

W Withheld to avoid disclosing company proprietary data, included in "Other." -- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 11
CRUSHED VOLCANIC CINDER AND SCORIA AND CRUSHED MISCELLANEOUS STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY STATE[1]

(Thousand metric tons and thousand dollars)

State	Volcanic cinder and scoria		Miscellaneous stone[2]	
	Quantity	Value	Quantity	Value
Alabama	--	--	W	W
Alaska[3]	--	--	1,050	5,750
Arizona	117	620	955	6,300
Arkansas	--	--	1,140	5,280
California	192	1,690	4,360	33,100
Colorado	W	W	W	W
Connecticut	--	--	W	W
Hawaii	W	W	W	W
Idaho	--	--	W	W
Indiana	--	--	W	W
Louisiana[4]	--	--	W	W
Maine	--	--	W	W
Maryland	--	--	W	W
Massachusetts	--	--	W	W
Michigan	--	--	W	W
Montana	82	338	44	158
Nevada	W	W	1,350	10,700
New Jersey	--	--	W	W
New Mexico	280	3,080	W	W
New York	--	--	366	2,150
North Carolina	W	W	W	W
North Dakota	W	W	126	546
Oklahoma	--	--	W	W
Oregon	19	87	2,070	9,590
Pennsylvania	--	--	6,900	38,000
South Dakota	--	--	W	W
Texas	W	W	1,850	7,370
Utah	W	W	283	2,270
Vermont	--	--	W	W
Virginia	--	--	1,550	10,000
Washington	W	W	697	3,030
Wisconsin	--	--	W	W
Wyoming	W	W	92	481
Other	1,220	8,280	10,800	71,800
Total	1,910	14,100	33,600	207,000

W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes slate.

[3]Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information.

[4]A significant amount of sold or used material was shipped in from other States.

TABLE 12
KIND OF CRUSHED STONE PRODUCED AND/OR DISTRIBUTED IN THE UNITED STATES IN 2002, BY STATE

State	Lime-stone	Dolo-mite	Marble	Calcareous marl	Shell	Granite	Trap-rock	Sand-stone	Quartzite	Slate	Volcanic cinder and scoria	Miscella-neous
Alabama	X	X	X			X		X		X		X
Alaska[1]	X				X	X	X					X
Arkansas	X		X			X	X	X			X	X
Arizona	X	X				X		X	X	X		X
Arkansas	X	X			X	X		X	X	X		X
California	X	X	X		X	X	X	X	X	X	X	X
Colorado	X	X				X	X	X	X		X	X
Connecticut	X	X				X	X					X
Florida	X	X			X							
Georgia	X		X			X			X			
Hawaii	X						X				X	X
Idaho	X				X	X	X		X			X
Illinois	X	X						X				
Indiana	X	X								X		
Iowa	X											
Kansas	X							X	X			
Kentucky	X	X										
Louisiana	X							X				X
Maine	X					X	X		X	X		X
Maryland	X		X		X	X	X	X				X
Massachusetts	X	X				X	X					X
Michigan	X	X		X				X				X
Minnesota	X	X				X			X			
Mississippi	X											
Missouri	X	X				X	X		X			
Montana	X					X	X	X	X		X	X
Nebraska	X											
Nevada	X	X				X	X				X	X
New Hampshire						X	X	X				
New Jersey	X					X	X					X
New Mexico	X					X					X	X
New York	X	X	X			X	X	X		X		X
North Carolina	X	X				X	X		X	X	X	X
North Dakota	X					X					X	X
Ohio	X	X						X				
Oklahoma	X	X				X		X	X			X
Oregon	X					X	X				X	X
Pennsylvania	X	X	X			X	X	X	X	X		X
Rhode Island	X					X	X					
South Carolina	X		X	X		X						
South Dakota	X					X			X			X
Tennessee	X	X				X		X				
Texas	X	X	X	X	X	X	X	X	X		X	X
Utah	X	X						X	X		X	X
Vermont	X	X	X			X			X	X		
Virginia	X	X	X			X	X	X	X	X		X
Washington	X	X	X			X	X	X			X	X
West Virginia	X							X				
Wisconsin	X	X				X	X	X	X			X
Wyoming	X		X			X			X		X	X

[1]Data derived, in part, from Alaska Division of Geological and Geophysical Surveys information.

TABLE 13

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY USE[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1 1/2 inch):			
Macadam	2,830	$17,800	$6.29
Riprap and jetty stone	14,700	105,000	7.18
Filter stone	4,560	30,800	6.76
Other coarse aggregate	16,400	112,000	6.83
Coarse aggregate, graded:			
Concrete aggregate, coarse	65,300	475,000	7.27
Bituminous aggregate, coarse	46,200	338,000	7.32
Bituminous surface-treatment aggregate	12,700	96,400	7.62
Railroad ballast	7,280	45,800	6.30
Other graded coarse aggregate	90,900	604,000	6.64
Fine aggregate (-3/8 inch):			
Stone sand, concrete	13,200	90,500	6.87
Stone sand, bituminous mix or seal	10,900	72,200	6.65
Screening, undesignated	17,700	99,700	5.63
Other fine aggregate	31,400	205,000	6.51
Coarse and fine aggregates:			
Graded road base or subbase	111,000	618,000	5.54
Unpaved road surfacing	14,600	84,000	5.77
Terrazzo and exposed aggregate	1,370	12,600	9.20
Crusher run or fill or waste	26,400	139,000	5.27
Roofing granules	1,770	18,300	10.36
Other coarse and fine aggregates	76,600	419,000	5.48
Other construction materials[2]	9,590	62,900	6.55
Agricultural:			
Agricultural limestone	10,500	62,800	5.98
Poultry grit and mineral food	963	10,300	10.73
Other agricultural uses	383	3,800	9.93
Chemical and metallurgical:			
Cement manufacture	70,500	315,000	4.47
Lime manufacture	20,200	106,000	5.24
Dead-burned dolomite manufacture	W	W	5.43
Flux stone	2,380	12,300	5.16
Chemical stone	313	2,700	8.64
Glass manufacture	W	W	7.31
Sulfur oxide removal	2,990	20,100	6.72
Special:			
Mine dusting or acid water treatment	168	1,850	10.98
Asphalt fillers or extenders	730	5,430	7.44
Whiting or whiting substitute	135	1,940	14.35
Other fillers or extenders	2,130	25,900	12.17
Other miscellaneous uses:			
Abrasives	W	W	3.00
Flour (slate)	W	W	50.63
Refractory stone	W	W	4.41
Sugar refining	W	W	5.51
Other specified uses not listed	7,700	41,200	5.35
Unspecified:[3]			
Reported	531,000	2,930,000	5.52
Estimated	290,000	1,500,000	5.10
Total	1,520,000	8,690,000	5.71

W Withheld to avoid disclosing company proprietary data; included in "Total."

[1]Data are rounded to no more than three significant digits; except unit values; may not add to totals shown.

[2]Includes building products, drain fields, and pipe bedding.

[3]Reported and estimated production without a breakdown by end use.

TABLE 14

CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Limestone[2]		Dolomite	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1 1/2 inch):				
Macadam	2,350	14,700	140	1,040
Riprap and jetty stone	9,880	59,500	296	2,720
Filter stone	3,120	18,900	73	522
Other coarse aggregate	11,300	78,900	667	3,870
Coarse aggregate, graded:				
Concrete aggregate, coarse	34,600	229,000	3,400	20,700
Bituminous aggregate, coarse	26,200	180,000	3,960	23,800
Bituminous surface-treatment aggregate	5,800	41,900	1,090	5,610
Railroad ballast	1,690	8,880	544	3,680
Other graded coarse aggregate	65,700	423,000	1,930	15,800
Fine aggregate (-3/8 inch):				
Stone sand, concrete	6,740	42,600	415	2,110
Stone sand, bituminous mix or seal	3,890	23,900	868	5,800
Screening, undesignated	10,900	57,900	639	3,270
Other fine aggregate	22,500	150,000	954	6,910
Coarse and fine aggregates:				
Graded road base or subbase	64,600	326,000	5,700	27,600
Unpaved road surfacing	10,600	60,300	807	4,090
Terrazzo and exposed aggregate	168	1,280	--	--
Crusher run or fill or waste	17,400	84,500	1,150	7,240
Roofing granules	214	1,720	--	--
Other coarse and fine aggregates	49,200	275,000	8,500	43,400
Other construction materials[3]	5,880	37,900	488	2,700
Agricultural:				
Agricultural limestone	9,660	57,300	848	5,560
Poultry grit and mineral food	932	9,980	--	--
Other agricultural uses	271	2,980	67	316
Chemical and metallurgical:				
Cement manufacture	67,100	299,000	95	341
Lime manufacture	18,700	99,600	1,480	6,160
Dead-burned dolomite manufacture	W	W	W	W
Flux stone	1,440	7,940	811	3,630
Chemical stone	313	2,700	--	--
Glass manufacture	W	W	--	--
Sulfur oxide removal	2,990	20,100	--	--
Special:				
Mine dusting or acid water treatment	168	1,850	--	--
Asphalt fillers or extenders	730	5,430	W	W
Whiting or whiting substitute	126	1,830	W	W
Other fillers or extenders	1,550	21,200	15	171
Other miscellaneous uses:				
Refractory stone	1,070	4,730	--	--
Sugar Refining	W	W	--	--
Other specified uses not listed	6,930	34,800	123	639
Unspecified:[4]				
Reported	306,000	1,550,000	49,300	282,000
Estimated	210,000	1,000,000	13,000	69,000
Total	978,000	5,230,000	97,400	549,000

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes a minor amount of limestone-dolomite reported without a distinction between the two.

[3]Includes building products, drain fields, and pipe bedding.

[4]Reported and estimated production without a breakdown by end use.

TABLE 15

CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN 2002, BY STATE AND USE[1]

(Thousand metric tons and thousand dollars)

State	Concrete aggregate		Bituminous aggregate		Roadstone and coverings		Riprap and railroad ballast		Other construction uses	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	2,190	12,500	7,020	45,100	W	W	62	402	5,280	36,400
Alaska	--	--	--	--	--	--	--	--	--	--
Arizona	--	--	--	--	--	--	--	--	W	W
Arkansas	583	3,830	693	5,100	1,740	9,110	174	1,020	1,030	5,030
California	918	4,590	1,050	4,480	405	2,320	W	W	457	3,220
Colorado	--	--	W	W	39	252	W	W	W	W
Connecticut	1	18	17	278	2	28	--	--	3	24
Florida	12,000	92,600	16,600	127,000	10,400	58,100	W	W	14,700	75,500
Georgia	2,030	16,300	1,410	10,400	1,190	7,490	W	W	551	3,390
Hawaii	W	W	W	W	W	W	--	--	W	W
Idaho	--	--	--	--	--	--	--	--	W	W
Illinois	8,590	59,000	4,540	34,100	12,800	65,900	W	W	2,870	15,700
Indiana	2,980	13,900	6,460	34,000	5,330	25,000	609	3,380	5,530	25,600
Iowa	1,390	10,300	722	4,890	5,570	34,100	W	W	2,510	13,500
Kansas	312	1,580	988	4,500	1,190	5,430	W	W	1,000	5,440
Kentucky	3,410	23,100	10,700	70,500	4,810	30,600	124	649	6,410	35,800
Louisiana[4]	W	W	W	W	W	W	--	--	W	W
Maine	64	280	--	--	--	--	27	156	--	--
Maryland	1,050	7,570	2,010	14,300	1,360	10,400	W	W	2,060	14,300
Massachusetts	--	--	--	--	--	--	--	--	284	3,330
Michigan	5,150	27,900	543	2,870	1,810	9,200	31	329	2,030	9,310
Minnesota	W	W	974	9,350	206	1,190	42	569	2,110	10,700
Mississippi[4]	W	W	W	W	W	W	--	--	W	W
Missouri	4,130	22,200	4,630	30,900	6,770	34,100	2,850	14,300	3,740	18,700
Montana	W	W	--	--	--	--	W	W	--	--
Nebraska	W	W	W	W	487	4,580	205	2,330	444	3,000
Nevada	W	W	W	W	W	W	W	W	W	W
New Jersey	--	--	--	--	--	--	--	--	--	--
New Mexico	--	--	W	W	92	501	W	W	101	666
New York	2,750	22,300	3,680	30,000	2,870	16,900	222	1,760	5,980	38,100
North Carolina	W	W	W	W	W	W	W	W	W	W
North Dakota	--	--	W	W	W	W	W	W	--	--
Ohio	3,110	14,900	4,670	23,500	5,620	24,700	2,250	11,100	11,300	47,800
Oklahoma	2,420	11,700	7,440	28,000	W	W	1,690	8,860	6,170	23,600
Oregon	--	--	--	--	--	--	--	--	--	--
Pennsylvania	3,430	21,700	11,700	71,900	7,660	42,800	630	4,950	6,660	39,000
Rhode Island	--	--	--	--	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--	--	--	--	--
South Dakota	--	--	--	--	--	--	--	--	--	--
Tennessee	3,080	22,500	11,300	77,400	8,990	50,500	715	4,550	4,950	30,600
Texas	5,390	36,100	8,880	61,600	6,850	30,500	W	W	4,630	27,200
Utah	--	--	W	W	W	W	W	W	W	W
Vermont	W	W	W	W	W	W	W	W	W	W
Virginia	897	5,660	1,070	7,020	1,200	7,260	W	W	2,200	11,100
Washington	--	--	W	W	W	W	--	--	W	W
West Virginia	243	1,140	348	1,810	373	1,810	50	346	326	2,000
Wisconsin	1,080	6,460	410	2,240	6,140	27,600	85	513	1,740	7,790
Wyoming	--	--	--	--	--	--	--	--	--	--
Total	67,200	438,000	108,000	701,000	93,900	500,000	9,770	55,200	95,100	507,000
Total withheld	1,530	13,500	2,330	24,100	2,340	15,900	141,000	19,600	2,690	27,200
Grand total	68,700	452,000	110,000	725,000	96,200	516,000	151,000	74,800	97,800	534,000

See footnotes at end of table.

TABLE 15--Continued

CRUSHED LIMESTONE AND DOLOMITE SOLD OR USED BY PRODUCERS IN 2002, BY STATE AND USE[1]

(Thousand metric tons and thousand dollars)

State	Cement manufacture		Agricultural uses		Lime manufacture		Other uses		Total	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Alabama	2,190	8,180	W	W	--	--	19,400	114,000	(2) [3]	(2) [3]
Alaska	--	--	--	--	--	--	W	W	(2)	(2)
Arizona	W	W	W	W	W	W	W	W	4,590	22,900
Arkansas	--	--	193	1,730	W	W	5,230	25,200	(2)	(2)
California	8,650	44,600	W	W	--	--	24,100	116,000	35,700	178,000
Colorado	W	W	W	W	--	--	3,470	21,900	(2)	(2)
Connecticut	--	--	31	599	--	--	W	W	(2) [3]	(2) [3]
Florida	W	W	227	1,690	--	--	41,400	206,000	97,100 [3]	569,000 [3]
Georgia	--	--	W	W	--	--	4,260	25,200	9,480	63,100
Hawaii	--	--	W	W	--	--	W	W	172	1,590
Idaho	--	--	W	W	--	--	W	W	(2)	(2)
Illinois	2,310	17,200	1,250	5,880	W	W	41,800	225,000	75,200 [3]	431,000 [3]
Indiana	4,540	19,900	1,340	6,270	--	--	28,700	140,000	55,500 [3]	268,000 [3]
Iowa	1,210	4,650	2,040	11,300	W	W	22,000	112,000	35,900 [3]	194,000 [3]
Kansas	W	W	35	239	--	--	15,200	76,700	20,800	104,000
Kentucky	--	--	467	2,090	W	W	20,900	106,000	(2) [3]	(2) [3]
Louisiana[4]	--	--	--	--	--	--	W	W	(2)	(2)
Maine	W	W	--	--	W	W	657	3,840	1,390	7,550
Maryland	--	--	W	W	--	--	10,100	52,100	16,900 [3]	101,000 [3]
Massachusetts	--	--	W	W	W	W	343	6,920	(2) [3]	(2) [3]
Michigan	6,210	19,300	W	W	W	W	21,500	83,900	41,100	170,000
Minnesota	--	--	136	820	--	--	4,330	20,600	(2)	(2)
Mississippi[4]	--	--	W	W	--	--	1,780	13,500	2,620	27,900
Missouri	4,390	18,100	696	3,330	1,650	6,540	43,600	220,000	72,500 [3]	368,000 [3]
Montana	--	--	W	W	W	W	942	3,380	1,400	6,270
Nebraska	W	W	273	3,240	--	--	3,830	24,500	7,220	53,200
Nevada	W	W	W	W	W	W	W	W	(2)	(2)
New Jersey	--	--	--	--	--	--	W	W	(2)	(2)
New Mexico	W	W	--	--	--	--	1,130	5,040	2,340	10,500
New York	W	W	653	4,650	--	--	23,500	151,000	42,700 [3]	276,000 [3]
North Carolina	--	--	--	--	--	--	W	W	(2)	(2)
North Dakota	--	--	--	--	--	--	W	W	(2)	(2)
Ohio	W	W	588	2,580	W	W	40,900	188,000	72,200 [3]	327,000 [3]
Oklahoma	W	W	W	W	W	W	14,100	63,800	(2) [3]	(2) [3]
Oregon	W	W	--	--	--	--	W	W	(2)	(2)
Pennsylvania	7,280	37,200	549	5,670	2,150	8,170	34,200	196,000	74,300 [3]	427,000 [3]
Rhode Island	--	--	--	--	--	--	W	W	(2)	(2)
South Carolina	--	--	--	--	--	--	W	W	(2)	(2)
South Dakota	W	W	--	--	--	--	W	W	(2)	(2)
Tennessee	W	W	157	1,180	W	W	23,800	135,000	(2) [3]	(2) [3]
Texas	4,380	17,700	W	W	2,270	8,750	74,900	331,000	(2) [3]	(2) [3]
Utah	W	W	W	W	W	W	3,230	12,800	(2) [3]	(2) [3]
Vermont	--	--	--	--	--	--	1,620	6,630	(2) [3]	(2) [3]
Virginia	W	W	561	4,270	--	--	9,580	57,600	17,300 [3]	99,500 [3]
Washington	W	W	W	W	--	--	2,330	13,200	(2) [3]	(2) [3]
West Virginia	W	W	W	W	W	W	9,480	39,200	12,200	51,600
Wisconsin	--	--	175	1,020	--	--	21,800	85,800	31,500 [3]	131,000 [3]
Wyoming	W	W	--	--	--	--	W	W	1,810 [3]	8,070 [3]
Total	41,100	187,000	9,370	56,600	6,080	23,500	574,000	2,880,000	XX	XX
Total withheld	26,100	112,000	2,400	19,500	14,200	82,900	16,100	112,000	XX	XX
Grand total	67,200	299,000	11,800	76,100	20,300	106,000	590,000	2,990,000	1,070,000	5,780,000

W Withheld to avoid disclosing company proprietary data; included in "Total" and "Total withheld." XX Not applicable. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Withheld to avoid disclosing company proprietary data; included in "Grand total."

[3]Includes limestone-dolomite reported with no distinction between the two kinds of stone.

[4]A significant amount of sold or used material was shipped in from other States.

TABLE 16

CRUSHED MARBLE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1 1/2 inch):		
Macadam	26	196
Riprap and jetty stone	W	W
Filter stone	4	36
Coarse aggregate, graded:		
Concrete aggregate, coarse	W	W
Bituminous aggregate, coarse	W	W
Bituminous surface-treatment aggregate	9	74
Other graded coarse aggregate	143	1,090
Fine aggregate (-3/8 inch):		
Stone sand, concrete	W	W
Stone sand, bituminous mix or seal	W	W
Screening, undesignated	2	15
Other fine aggregate	207	1,840
Coarse and fine aggregates:		
Graded road base or subbase	752	6,220
Terrazzo and exposed aggregate	W	W
Crusher run (select material or fill)	396	2,760
Other coarse and fine aggregates	29	156
Other construction materials	16	115
Agricultural, other agricultural uses	1	3
Special, other fillers or extenders	513	4,200
Unspecified:[2]		
Reported	2,080	11,600
Estimated	5,700	31,000
Total	10,400	64,500

W Withheld to avoid disclosing company proprietary data; included in "Total."

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Reported and estimated production without a breakdown by end use.

TABLE 17

CRUSHED GRANITE AND TRAPROCK SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Granite		Traprock	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1 1/2 inch):				
Macadam	W	W	W	W
Riprap and jetty stone	2,080	18,800	701	6,730
Filter stone	509	4,710	650	4,780
Other coarse aggregate	2,820	19,000	697	4,080
Coarse aggregate, graded:				
Concrete aggregate, coarse	21,100	178,000	5,130	39,200
Bituminous aggregate, coarse	11,500	101,000	2,440	15,900
Bituminous surface-treatment aggregate	2,770	25,700	2,410	19,200
Railroad ballast	3,240	21,600	1,340	7,320
Other graded coarse aggregate	19,700	136,000	1,940	17,600
Fine aggregate (-3/8 inch):				
Stone sand, concrete	5,210	39,800	W	W
Stone sand, bituminous mix or seal	3,510	22,600	1,480	10,700
Screening, undesignated	4,190	26,500	1,580	9,750
Other fine aggregate	5,720	30,000	785	5,950
Coarse and fine aggregates:				
Graded road base or subbase	25,200	162,000	10,800	68,700
Unpaved road surfacing	834	5,830	1,720	10,600
Terrazzo and exposed aggregate	W	W	W	W
Crusher run or fill or waste	4,140	25,300	2,260	14,300
Roofing granules	W	W	--	--
Other coarse and fine aggregates	8,670	48,100	7,060	32,600
Other construction materials[2]	1,500	10,600	265	1,810
Agricultural, other agricultural uses	29	290	--	--
Other miscellaneous uses and specified uses not listed	14	71	94	792
Unspecified:[3]				
Reported	83,700	511,000	43,300	306,000
Estimated	20,000	110,000	27,000	170,000
Total	228,000	1,520,000	112,000	752,000

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes drain fields.

[3]Reported and estimated production without a breakdown by end use.

TABLE 18

CRUSHED SANDSTONE AND QUARTZITE[1] SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY USE[2]

(Thousand metric tons and thousand dollars)

Use	Sandstone		Quartzite	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1 1/2 inch):				
Riprap and jetty stone	405	4,730	55	463
Filter stone	121	1,470	W	W
Other coarse aggregate	480	3,450	121	733
Coarse aggregate, graded:				
Concrete aggregate, coarse	192	1,350	236	1,720
Bituminous aggregate, coarse	1,020	9,290	327	2,880
Bituminous surface-treatment aggregate	295	1,440	210	2,100
Railroad ballast	55	277	86	585
Other graded coarse aggregate	1,200	9,100	261	1,720
Fine aggregate (-3/8 inch):				
Stone sand, concrete	97	709	W	W
Stone sand, bituminous mix or seal	646	6,320	388	2,490
Screening, undesignated	252	1,580	W	W
Other fine aggregate	651	5,870	417	2,710
Coarse and fine aggregates:				
Graded road base or subbase	1,990	12,900	705	4,120
Unpaved road surfacing	229	1,470	10	71
Terrazzo and exposed aggregate	--	--	W	W
Crusher run or fill or waste	668	2,850	121	644
Roofing granules	--	--	W	W
Other coarse and fine aggregates	1,670	10,700	472	2,650
Other construction materials[3]	444	4,590	225	1,140
Agricultural, poultry grit and mineral food	--	--	W	W
Chemical and metallurgical:				
Cement manufacture	W	W	64	336
Flux stone	W	W	W	W
Glass manufacture	W	W	--	--
Special, other fillers or extenders	3	28	W	W
Other miscellaneous uses:				
Abrasives	1	3	--	--
Other uses not listed	29	517	75	897
Unspecified:[4]				
Reported	18,100	114,000	7,770	43,100
Estimated	11,000	56,000	1,500	7,100
Total	39,700	250,000	13,200	76,800

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

[1]Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

[2]Data are rounded to no more than three significant digits; may not add to totals shown.

[3]Includes building products.

[4]Reported and estimated production without a breakdown by end use.

TABLE 19
CRUSHED VOLCANIC CINDER AND SCORIA AND CRUSHED MISCELLANEOUS STONE
SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	/olcanic cinder and scori		Miscellaneous stone[2]	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1 1/2 inch):				
Riprap and jetty stone	--	--	1,240	12,200
Filter stone	--	--	64	317
Other coarse aggregate	1	10	237	1,660
Coarse aggregate, graded:				
Concrete aggregate, coarse	W	W	397	2,240
Bituminous aggregate, coarse	--	--	321	1,780
Bituminous surface-treatment aggregate	--	--	68	450
Railroad ballast	--	--	W	W
Other graded coarse aggregate	--	--	53	362
Fine aggregate (-3/8 inch):				
Stone sand, concrete	--	--	86	564
Stone sand, bituminous mix or seal	--	--	W	W
Screening, undesignated	W	W	97	399
Other fine aggregate	--	--	160	1,210
Coarse and fine aggregates:				
Graded road base or subbase	W	W	1,100	5,930
Unpaved road surfacing	52	228	284	1,420
Terrazzo and exposed aggregate	W	W	W	W
Crusher run or fill or waste	--	--	305	1,630
Roofing granules	--	--	W	W
Other coarse and fine aggregates	283	2,210	708	5,100
Other construction materials	38	310	734	3,700
Agricultural, other agricultural uses	2	9	--	--
Chemical and metallurgical, cement manufacture	--	--	391	1,940
Other miscellaneous uses:				
Flour (slate)	--	--	W	W
Other specified uses not listed	178	1,160	251	2,310
Unspecified:[3]				
Reported	828	7,020	17,700	102,000
Estimated	300	1,300	8,400	53,000
Total	1,910	14,100	33,600	207,000

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

[2]Includes slate

[3]Reported and estimated production without a breakdown by end use.

TABLE 20

RECYCLED ASPHALT SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY REGION[1]

Region/division	2001			2002		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Northeast:						
New England	170	$1,070	$6.29	139	$763	$5.49
Middle Atlantic	170 r	899 r	5.29 r	290	1,770	6.11
Midwest:						
East North Central	118	785	6.65	157	501	3.19
West North Central	112	508	4.54	49	230	4.69
South:						
South Atlantic	--	--	--	26	176	6.77
East South Central	7	26	3.71	10	108	10.80
West South Central	84	349	4.15	75	813	10.84
West:						
Mountain	32	131	4.09	--	--	--
Pacific	545	3,490	6.41	310	1,700	5.47
Total	1,240 r	7,260 r	5.86	1,060	6,060	5.74

rRevised. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 21

RECYCLED ASPHALT SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1]

State	2001			2002		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Arizona	18	$71	$3.94	--	--	--
California	499	3,320	6.65	297	$1,640	$5.53
Connecticut	28	124	4.43	29	129	4.45
Hawaii	5	19	3.80	--	--	--
Idaho	9	43	4.78	--	--	--
Illinois	31	191	6.16	--	--	--
Indiana	49	508	10.37	2	12	6.00
Iowa	9	29	3.22	10	37	3.70
Kansas	3	26	8.67	3	29	9.67
Kentucky	--	--	--	10	108	10.80
Louisiana	--	--	--	16	167	10.44
Maine	136	896	6.59	63	209	3.32
Maryland	--	--	--	26	176	6.77
Massachusetts	4	43	10.75	40	392	9.80
Minnesota	73	259	3.55	34	158	4.65
New Hampshire	1	3	3.00	7	33	4.71
New Jersey	54	268	4.96	25	(2)	(2)
New Mexico	5	17	3.40	--	--	--
New York	9	32	3.56	38	314	8.26
North Dakota	13	114	8.77	1	6	6.00
Ohio	3	10	3.33	--	--	--
Oklahoma	77	253	3.29	--	--	--
Oregon	18	63	3.50	12	54	4.50
Pennsylvania	108 r	600 r	5.56 r	228	1,460	6.39
South Dakota	14	80	5.71	--	--	--
Tennessee	7	26	3.71	--	--	--
Texas	7	96	13.71	59	647	10.97
Washington	24	88	3.67	--	--	--
Wisconsin	36	76	2.11	155	486	3.14
Total	1,240 r	7,260 r	5.86	1,060	6,060	5.74

rRevised. -- Zero.

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]Less than 1/2 unit.

TABLE 22

RECYCLED CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY REGION[1]

Region/division	2001			2002		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Northeast:						
New England	141 r	$1,130 r	$8.01 r	46	$355	$7.72
Middle Atlantic	138	660	4.78	28	141	5.04
Midwest:						
East North Central	1,320	7,950	6.02	1,440	7,950	5.53
West North Central	112	540	4.82	34	154	4.53
South:						
South Atlantic	693	4,670	6.73	375	2,590	6.91
East South Central	84	499	5.94	36	240	6.67
West South Central	5	150	30.00	--	--	--
West:						
Mountain	12	46	3.83	--	--	--
Pacific	496	3,090	6.22	585	4,420	7.56
Total	3,000 r	18,700 r	6.24 r	2,540	15,900	6.24

rRevised. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 23

RECYCLED CONCRETE SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE[1]

State	2001			2002		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Alabama	54	$449	$8.31	36	$230	$6.39
California	432	2,710	6.27	426	3,210	7.54
Connecticut	27	211	7.81	41	338	8.24
Florida	171	1,260	7.39	79	640	8.10
Georgia	194	776	4.00	106	475	4.48
Hawaii	17	184	10.82	17	287	16.88
Idaho	2	9	4.50	--	--	--
Illinois	1,290	7,870	6.08	1,400	7,830	5.61
Maine	7	47	6.71	--	--	--
Massachusetts	84	758	9.02	4	17	4.25
Minnesota	83	340	4.10	34	152	4.47
Mississippi[2]	30	50	1.67	1	10	10.00
New Hampshire	23	113	4.91	--	--	--
New Jersey	10	43	4.30	17	82	4.82
New Mexico	10	37	3.70	--	--	--
New York	94	433	4.61	1	4	4.00
North Carolina	12	153	12.75	6	42	7.00
North Dakota	12	106	8.83	--	--	--
Oregon	1	4	4.00	143	926	6.48
Pennsylvania	35	184	5.26	9	55	6.11
South Dakota	17	93	5.47	--	--	--
Texas	5	150	30.00	--	--	--
Virginia	316	2,480	7.83	184	1,430	7.79
Washington	47	189	4.02	--	--	--
Wisconsin	26	75	2.88	43	126	2.93
Total	3,000 r	18,700 r	6.24 r	2,540	15,900	6.24

rRevised. -- Zero.

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

[2]A significant amount of sold or used material was shipped in from other States.

TABLE 24

CRUSHED STONE SOLD OR USED BY PRODUCERS IN THE UNITED STATES IN 2002, BY REGION AND METHOD OF TRANSPORTATION[1]

(Thousand metric tons)

Region/division	Truck	Rail	Water	Other	Not transported	Not specified	Total
Northeast:							
New England	3,290	20	--	88	3,620	31,900	38,900
Middle Atlantic	63,800	2,280	--	4,240	6,030	103,000	179,000
Midwest:							
East North Central	87,900	7,790	21,800	1,260	12,400	149,000	281,000
West North Central	41,300	531	6,970	1,630	6,760	98,600	156,000
South:							
South Atlantic	179,000	17,700	2,030	1,420	2,050	155,000	358,000
East South Central	62,800	1,800	968	1,360	10,100	74,500	152,000
West South Central	43,800	9,090	1,430	2,530	4,740	133,000	195,000
West:							
Mountain	12,600	870	--	2,770	990	36,200	53,400
Pacific	24,500	1,610	1,520	6,290	2,710	72,000	109,000
Total	519,000	41,700	34,700	21,600	49,400	854,000	1,520,000

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 25
CRUSHED AND BROKEN STONE OPERATIONS IN THE UNITED STATES IN 2002, BY STATE

State	Active operations	Active quarries	Dredging operations	Processing plants				Sales yards
				Stationary	Portable	Stationary and portable	None or unspecified	
Alabama	79	68	--	57	9	1	1	11
Alaska[1]	14	14	--	--	10	3	1	--
Arizona	40	40	--	13	22	2	2	1
Arkansas	58	57	--	31	13	6	6	2
California	135	137	1	69	43	12	7	3
Colorado	34	41	--	17	10	6	1	--
Connecticut	22	21	--	17	3	1	--	1
Florida	95	84	2	33	31	10	4	15
Georgia	83	79	--	76	2	--	1	4
Hawaii	23	24	--	10	10	2	--	1
Idaho	35	55	--	5	21	3	5	1
Illinois	137	130	--	76	43	9	--	9
Indiana	93	87	--	68	6	12	--	7
Iowa	194	209	--	26	157	2	3	6
Kansas	89	102	--	21	56	3	7	2
Kentucky	94	91	--	74	7	8	2	3
Louisiana	18	--	1	--	--	--	--	17
Maine	17	14	--	7	7	--	--	4
Maryland	30	29	1	21	3	2	1	2
Massachusetts	35	33	--	21	5	6	1	2
Michigan	32	32	--	18	7	1	5	1
Minnesota	40	51	--	5	29	1	5	--
Mississippi	16	3	--	1	1	1	--	13
Missouri	185	192	--	98	72	11	4	--
Montana	17	21	--	7	9	--	1	--
Nebraska	11	11	--	8	2	1	--	--
Nevada	17	21	--	13	4	--	--	--
New Hampshire	15	15	--	13	2	--	--	--
New Jersey	25	24	--	15	2	7	--	1
New Mexico	31	37	--	11	17	2	1	--
New York	94	94	--	74	9	8	3	--
North Carolina	109	103	--	91	9	1	2	6
North Dakota	8	9	--	--	4	--	4	--
Ohio	114	110	1	82	14	11	1	5
Oklahoma	55	56	--	43	4	7	1	--
Oregon	139	183	2	30	94	3	11	--
Pennsylvania	193	195	1	150	15	15	11	1
Rhode Island	7	8	--	6	--	1	--	--
South Carolina	40	32	--	27	--	3	2	8
South Dakota	11	19	--	11	--	--	--	--
Tennessee	125	119	--	108	8	2	1	6
Texas	171	150	--	88	40	8	4	31
Utah	29	30	--	13	15	1	--	--
Vermont	15	15	--	7	4	2	2	--
Virginia	114	102	--	87	2	6	5	14
Washington	96	144	--	29	38	9	20	--
West Virginia	47	39	--	29	4	3	1	10
Wisconsin	144	157	--	26	108	3	6	6
Wyoming	13	19	--	5	8	--	--	--
Total	3,238	3,306	9	1,737	979	195	132	193

[1]Data derived, in part, from Alaska Division of Geological and Geophysical Surveys.

TABLE 26
U.S. EXPORTS OF CRUSHED STONE IN 2002, BY DESTINATION[1]

(Metric tons unless otherwise specified)

Destination	Limestone	Limestone for cement manufacturing	Other	Chalk, crude	Granules, chippings	Total
North America:						
Antigua and Barbuda	--	--	--	--	167	167
Bahamas, The	78	152	488	--	84	802
Barbados	--	18	--	--	2	20
Belize	--	--	--	--	20	20
Bermuda	--	23	--	--	--	23
British Virgin Islands	--	--	15	--	--	15
Canada	578,000	1,770,000	41,800	2,180	111,000	2,500,000
Cayman Islands	--	21	--	--	1	22
Costa Rica	22	--	22	13	59	116
Dominican Republic	34	--	30	--	17	81
El Salvador	--	--	7	--	--	7
Guatemala	--	16	--	20	--	36
Honduras	--	--	21	--	--	21
Jamaica	--	64	20	--	8	92
Mexico	111	2,670	193	4	1,380	4,360
Netherlands Antilles	--	6	--	--	--	6
Trinidad and Tobago	--	42	--	--	146	188
Total	579,000	1,770,000	42,600	2,220	113,000	2,500,000
South America:						
Argentina	--	113	--	--	594	707
Brazil	--	--	--	18	18	36
Chile	1	16	--	826	1	844
Colombia	288	92	--	1	1	382
Ecuador	--	--	20	--	--	20
Venezuela	--	3	132	--	530	665
Total	289	224	152	845	1,140	2,650
Europe:						
Belgium	2,280	2,280	59	--	8	4,620
Denmark	--	--	8	--	1	9
Finland	--	--	--	--	1	1
France	11	52	19	--	2	84
Germany	432	1,500	1,030	--	37	3,000
Greece	--	--	1	--	--	1
Iceland	--	--	--	--	81	81
Ireland	--	--	5	--	--	5
Italy	175	175	1	--	56	407
Netherlands	--	--	1,400	--	--	1,400
Norway	--	--	--	--	652	652
Russia	--	40	--	--	--	40
Spain	--	--	101	--	--	101
Sweden	--	--	67	1	1	69
Switzerland	55	--	--	--	--	55
Turkey	--	--	--	3	--	3
United Kingdom	33	18	445	4	536	1,040
Total	2,980	4,060	3,140	8	1,380	11,600
Asia:						
China	--	76	1,170	1	--	1,250
Hong Kong	--	1	230	--	6	237
India	15	--	16	--	265	296
Japan	2,280	--	765	--	3	3,040
Korea, Republic of	267	89	471	61	22	910
Malaysia	--	21	43	18	--	82
Philippines	40	329	2,320	36	--	2,720
Singapore	--	20	56	27	82	185

See footnotes at end of table.

TABLE 26--Continued
U.S. EXPORTS OF CRUSHED STONE IN 2002, BY DESTINATION[1]

(Metric tons unless otherwise specified)

Destination		Limestone	Limestone for cement manufacturing	Other	Chalk, crude	Granules, chippings	Total
Asia--Continued:							
Taiwan		--	--	44	35	1,900	1,980
Thailand		--	--	19	4	--	23
Vietnam		--	--	--	38	--	38
Total		2,600	536	5,130	220	2,280	10,800
Oceania:							
Australia		--	290	220	27	8,800	9,330
New Zealand		--	--	--	--	16,000	16,000
Total		--	290	220	27	24,800	25,300
Middle East:							
Israel		--	--	3	--	4	7
Saudi Arabia		--	--	--	--	2,330	2,330
United Arab Emirates		3	6	--	--	--	9
Total		3	6	3	--	2,340	2,350
Africa, Morocco		--	--	17	--	--	17
Grand total:							
Quantity	do.	585,000	1,780,000	51,300	3,320	145,000	2,560,000
Value	thousands	$4,810	$19,100	$15,100	$2	$15,100	$54,000

-- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 27
U.S. IMPORTS OF CRUSHED STONE AND CALCIUM CARBONATE FINES, BY TYPE[1]

Type	2001 Quantity (thousand metric tons)	2001 C.i.f. value[2] (thousands)	2001 Unit value	2002 Quantity (thousand metric tons)	2002 C.i.f. value[2] (thousands)	2002 Unit value
Crushed stone and chips:						
Limestone	7,460	62,600	$8.00	7,250	60,600	$8.00
Limestone for flux or cement manufacturing	3,440	23,700	7.00	4,360	30,300	7.00
Quartzite	1	657	842.00 r	1	504	838.00
Other	2,590 r	32,400 r	13.00 r	2,660	33,100	12.44
Total	13,500 r	119,000 r	XX	14,300	125,000	XX
Calcium carbonate fines:[3]						
Natural chalk	(4)	25	276.00 r	(4)	27	53.00
Calcium carbonates, other chalk	(4)	325	1,504.00 r	(4)	285	663.00
Total	(4)	350	XX	1	312	XX
Grand total	13,500 r	119,000 r	XX	14,300	125,000	XX

rRevised. XX Not applicable. -- Zero.
[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Cost, insurance, and freight value.
[3]Excludes precipitated calcium carbonates.
[4]Less than 1/2 unit.

Source: U.S. Census Bureau.