

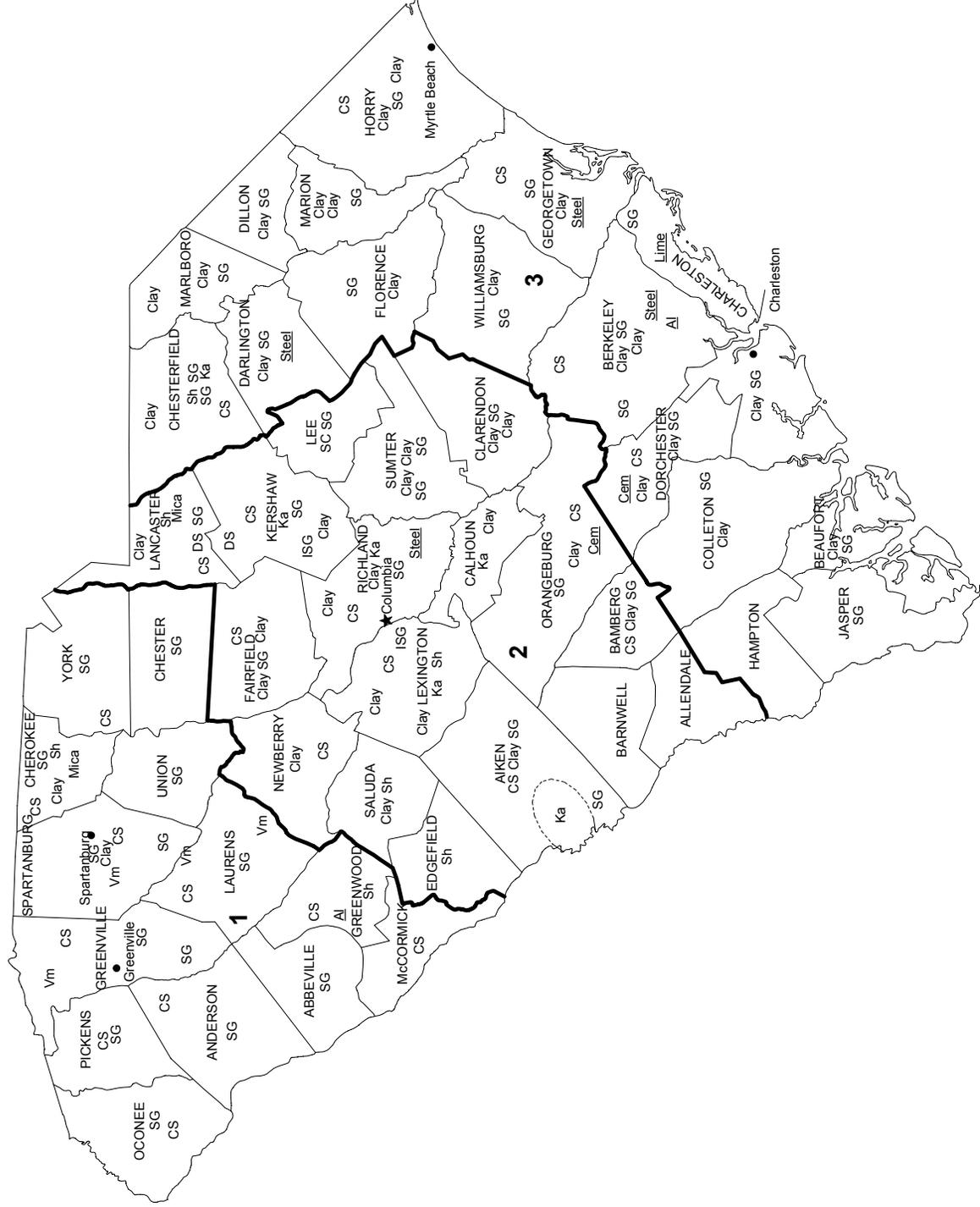
# SOUTH CAROLINA

**LEGEND**

- County boundary
- ★ Capital
- City
- 1** — Crushed stone/sand and gravel districts

**MINERAL SYMBOLS  
(Major producing areas)**

- Al Aluminum plant
- Cem Cement plant
- Clay Common clay
- CS Crushed stone
- DS Dimension stone
- ISG Industrial sand and gravel
- Ka Kaolin
- Lime Lime plant
- Mica Mica
- SG Construction sand and gravel
- Sh Shale
- Steel Steel plant
- Vm Vermiculite
- Concentration of mineral operations



# THE MINERAL INDUSTRY OF SOUTH CAROLINA

**This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the South Carolina Geological Survey for collecting information on all nonfuel minerals.**

In 2001, the estimated value<sup>1</sup> of nonfuel mineral production for South Carolina was \$531 million, based upon preliminary U.S. Geological Survey (USGS) data. This was about a 4% decrease from that of 2000<sup>2</sup> and followed a 3.2% decrease from 1999 to 2000. The State remained 27th in rank among the 50 States in total nonfuel mineral production value, of which South Carolina accounted for about 1% of the U.S. total.

In 2001, cement (portland and masonry) by value was the State's leading nonfuel mineral commodity followed by crushed

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<sup>1</sup>The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the minerals or mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 2001 USGS mineral production data published in this chapter are preliminary estimates as of August 2002 and are expected to change. For some mineral commodities, such as construction sand and gravel, crushed stone, and portland cement, estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Specialist contact information may be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals/contacts/comdir.html>; alternatively, specialists' names and telephone numbers may be obtained by calling USGS information at (703) 648-4000 or by calling the USGS Earth Science Information Center at 1-888-ASK-USGS (275-8747). All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals>.

<sup>2</sup>Values, percentage calculations, and rankings for 2000 may differ from the Minerals Yearbook, Area Reports: Domestic 2000, Volume II, owing to the revision of preliminary 2000 to final 2000 data. Data for 2001 are preliminary and are expected to change; related rankings may also change.

stone, construction sand and gravel, kaolin, industrial sand and gravel, and vermiculite. The first three accounted for almost 90% of South Carolina's total nonfuel mineral production value. Gold had been a significant portion of the State's nonfuel mineral economy for more than a decade, but gold has not been produced in South Carolina since Kennecott Minerals Co.'s Ridgeway Mine ceased production in the fall of 1999.

In 2000, increases in the values of lime, kaolin, portland cement, and construction sand and gravel, were more than offset by the substantial decrease in the value of gold, plus smaller yet significant decreases in the values of masonry cement and common clay, resulting in the net decrease of the year (descending order of change) (table 1). All other changes in value were less than \$1 million and had little effect on the overall result.

Based upon USGS estimates of the quantities produced in the 50 States in 2001, South Carolina remained first of 2 States that produce vermiculite, third in kaolin and fire clays (descending order of value), and was fourth in masonry cement. While the State decreased to 4th from 3d in mica and to 11th from 8th in portland cement, it continued to be 11th in industrial sand and gravel. Additionally, significant quantities of crushed stone, construction sand and gravel, dimension stone, and common clay were produced in South Carolina. Primary aluminum and raw steel also were produced in the State but from raw materials that were acquired from other domestic and foreign sources. South Carolina rose to seventh from eighth of 13 States in the production of primary aluminum in 2001.

TABLE 1  
NONFUEL RAW MINERAL PRODUCTION IN SOUTH CAROLINA 1/ 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1999		2000		2001 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement:						
Masonry	421	49,400 e/	411	45,500 e/	390 e/	43,700 e/
Portland	2,610	205,000 e/	2,910	210,000 e/	2,920 e/	211,000 e/
Clays:						
Common	1,130	4,930	890	2,790	890	2,790
Fire	35	45	40	50	W	W
Kaolin	408	15,700	397	21,900	422	20,600
Gemstones	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	9,660	38,200	10,300	40,800	10,100	40,500
Industrial	769	18,400	755	18,600	755	18,600
Stone:						
Crushed	28,600 r/	189,000 r/	29,400	189,000	27,200	180,000
Dimension	metric tons	9,230	855	W	W	W
Combined values of gold (1999), lime (1999-2000), mica (crude), silver (1999), vermiculite, and values indicated by symbol W						
Total	XX	47,800 r/	XX	21,900	XX	13,500
Total	XX	569,000 r/	XX	551,000	XX	531,000

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined values" data. XX Not applicable.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

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

TABLE 2  
SOUTH CAROLINA: CRUSHED STONE SOLD OR USED, BY KIND 1/

Kind	1999				2000			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	7 r/	3,930	\$21,500	\$5.48	6	4,330	\$24,600	\$5.67
Granite	26 r/	21,600 r/	150,000 r/	6.96 r/	24	22,000	147,000	6.67
Marble	1	W	W	W	1	W	W	W
Calcareous marl	2	W	W	W	2	W	W	W
Total or average	XX	28,600 r/	189,000 r/	6.62 r/	XX	29,400	189,000	6.42

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

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

TABLE 3  
SOUTH CAROLINA: CRUSHED STONE SOLD OR USED BY PRODUCERS  
IN 2000, BY USE 1/ 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
<b>Construction:</b>			
Coarse aggregate (+1 1/2 inch):			
Macadam	W	W	\$5.87
Riprap and jetty stone	W	W	12.90
Filter stone	W	W	9.97
Other coarse aggregate	4,540	\$29,000	6.68
Coarse aggregate, graded:			
Concrete aggregate, coarse	W	W	8.80
Bituminous aggregate, coarse	W	W	9.67
Railroad ballast	W	W	9.63
Other graded coarse aggregate	7,400	57,900	7.82
Fine aggregate (-3/8 inch):			
Stone sand, bituminous mix or seal	W	W	5.86
Screening, undesignated	W	W	5.08
Other fine aggregate	2,450	12,800	5.20
Coarse and fine aggregates:			
Graded road base or subbase	W	W	9.83
Crusher run or fill or waste	W	W	5.90
Other coarse and fine aggregates	2,260	14,300	6.34
Chemical and metallurgical, cement manufacture	(3/)	(3/)	4.71
Unspecified: 4/			
Reported	8,890	56,100	6.31
Estimated	250	1,600	6.39
Total or average	29,400	189,000	6.42

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

1/ Data are rounded to three significant digits, except unit value; may not add to totals shown.

2/ Includes calcareous marl, granite, limestone, and marble.

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

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

TABLE 4  
SOUTH CAROLINA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2000,  
BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>Construction:</b>						
Coarse aggregate (+1 1/2 inch) 2/	2,800	18,600	W	W	W	W
Coarse aggregate, graded 3/	4,530	31,500	W	W	W	W
Fine aggregate (-3/8 inch) 4/	1,560	7,020	W	W	W	W
Coarse and fine aggregate 5/	1,400	5,940	--	--	857	8,380
Chemical and metallurgical 6/	--	--	W	W	W	W
Unspecified: 7/						
Reported	1,630	10,100	4,030	25,500	3,240	20,500
Estimated	--	--	180	1,200	64	410
Total	11,900	73,200	9,080	59,900	8,430	55,700

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 filter stone, macadam, riprap and jetty stone, and other coarse aggregate.

3/ Includes bituminous aggregate (coarse), concrete aggregate (coarse), railroad ballast, and other graded coarse aggregate.

4/ Includes screening (undesignated), stone sand (bituminous mix or seal), and other fine aggregate.

5/ Includes crusher run (select material or fill), graded road base or subbase, and other coarse and fine aggregates.

6/ Includes cement manufacture.

7/ Reported and estimated production without a breakdown by end use.

TABLE 5  
SOUTH CAROLINA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2000,  
BY MAJOR USE CATEGORY 1/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	3,430	\$13,200	\$3.85
Concrete products (blocks, bricks, pipe, decorative, etc.)	381	1,410	3.70
Asphaltic concrete aggregates and other bituminous mixtures	168	392	2.33
Road base and coverings 2/	113	613	5.42
Fill	2,080	6,060	2.91
Snow and ice control	5	32	6.40
Other miscellaneous uses 3/	146	676	4.63
Unspecified: 4/			
Reported	3,460	16,500	4.75
Estimated	550	2,000	3.58
Total or average	10,300	40,800	3.95

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

2/ Includes road and other stabilization (cement).

3/ Includes filtration and railroad ballast.

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

TABLE 6  
SOUTH CAROLINA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2000,  
BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products	410	1,390	1,340	4,370	2,060	8,840
Asphaltic concrete aggregates and road base materials 2/	W	W	W	W	W	W
Fill	59	175	104	227	1,920	5,660
Other miscellaneous uses 3/	13	55	55	175	363	1,480
Unspecified: 4/						
Reported	6	22	691	3,670	2,770	12,800
Estimated	220	880	15	58	320	1,100
Total	711	2,520	2,200	8,500	7,420	29,800

W Withheld to avoid disclosing company proprietary data; included with "Other miscellaneous uses."

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

2/ Includes road and other stabilization (cement).

3/ Includes filtration, railroad ballast, and snow and ice control.

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