2006 Minerals Yearbook

SOUTH CAROLINA

U.S. Department of the Interior
U.S. Geological Survey

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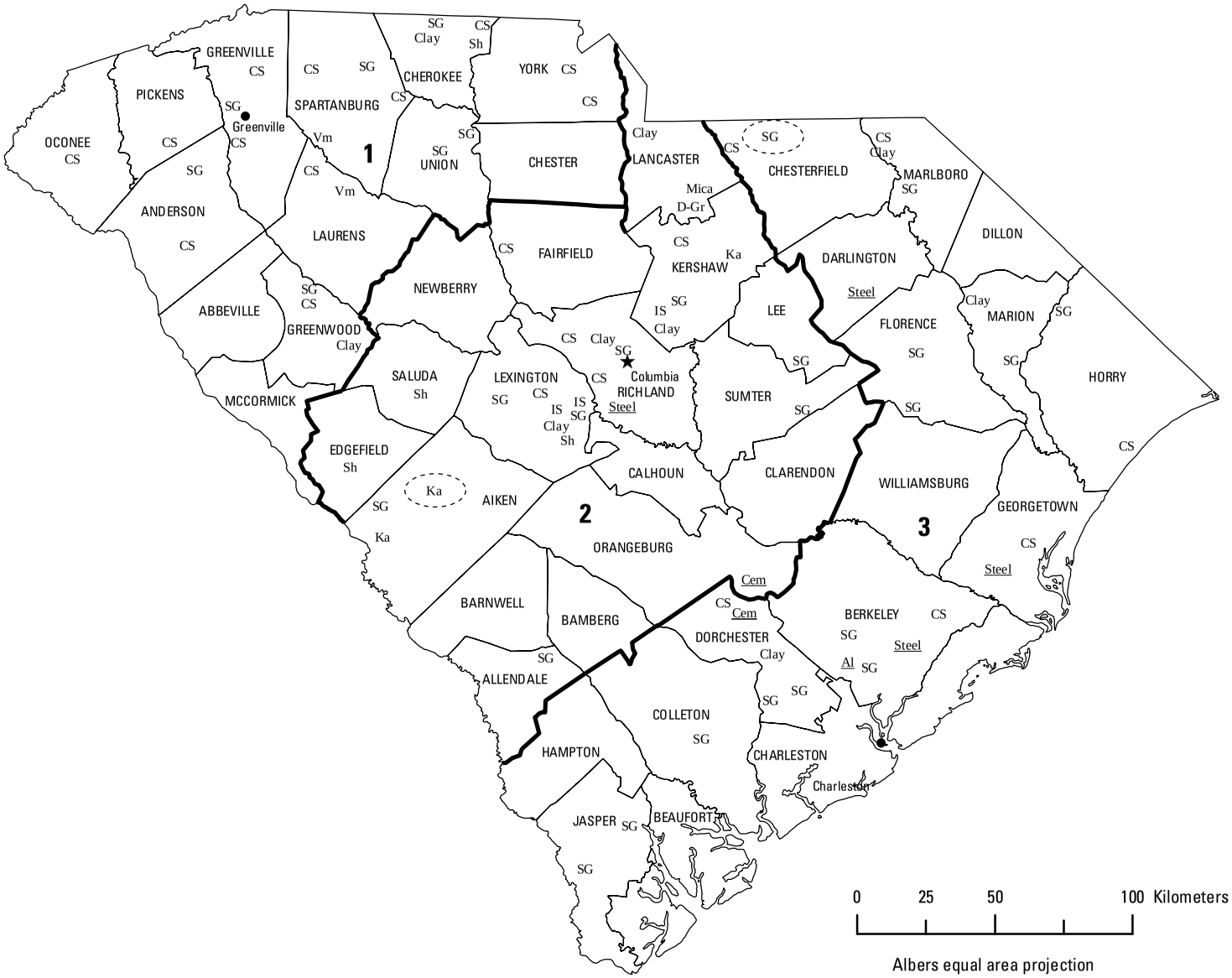
SOUTH CAROLINA



LEGEND

——	County boundary
★	Capital
●	City
1——	Crushed stone/sand and gravel district boundary

MINERAL SYMBOLS
(Major producing areas)

Al	Aluminum plant
Cem	Cement plant
Clay	Common clay
CS	Crushed stone
D-Gr	Dimension granite
IS	Industrial sand
Ka	Kaolin
Mica	Mica
SG	Construction sand and gravel
Sh	Shale
Steel	Steel plant
Vm	Vermiculite
⬭	Concentration of mineral operations

Source: South Carolina Geological Survey/U.S. Geological Survey (2006).

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 2006, South Carolina's nonfuel raw mineral production[1] was valued at $735 million, based upon annual U.S. Geological Survey (USGS) data. This was a $76 million, or an 11.5%, increase from the State's total nonfuel mineral value of $659 million in 2005, which was up by $127 million, or nearly 24% from 2004[2] to 2005. South Carolina was 29th in rank (28th in 2005) among the 50 States in total nonfuel mineral production value and accounted for more than 1% of the U.S. total.

A large majority of South Carolina's nonfuel mineral production resulted from the mining and production of construction minerals and materials. In 2006, cement (portland and masonry), by value, remained the State's leading nonfuel mineral commodity by value of production, followed by crushed stone and construction sand and gravel. These three mineral commodities accounted for nearly 92% of the State's total nonfuel mineral value, followed, in descending order of value, by industrial sand and gravel, kaolin, and crude vermiculite.

In 2006, most of the State's nonfuel mineral commodities increased in value, led in particular by cement. The combined increase in value of masonry cement and portland cement was nearly $62 million. With increases in the production of each, the increase in the quantity of masonry cement produced was the most pronounced, up nearly 16%, as compared with that of portland cement, which had a 2% increase in production. The value of masonry cement rose by 27%, while the value of portland cement was up by 19%.

Smaller increases took place in the values of construction sand and gravel, crushed stone, and industrial sand and gravel, up by nearly $6 million, $3 million, and more than $2 million, respectively. Whereas small to somewhat moderate decreases took place in the production of the former two mineral commodities, industrial sand and gravel production rose by 14% (table1). The production and the related value of crude vermiculite increased, its value rising by about $1 million, and increases also took place in the values of crushed marble and crushed sandstone.

In 2006, South Carolina, of two producing States, continued to rank first in the quantities of vermiculite that it produced, and it remained second in the production of kaolin clay, third in masonry cement, fourth in crude mica, and eighth in the production of portland cement. Although fire clay production rose by more than 10%, it decreased to fourth (from third) of six fire clay-producing States. A small decrease took place in common clay production and the State decreased to ninth from eighth in the quantity of common clay produced. Additionally, the State continued to produce significant quantities of crushed stone, construction sand and gravel, and industrial sand and gravel, as compared with other producing States. Primary aluminum and raw steel also were produced in the State but from raw materials that were acquired from foreign and other domestic sources. South Carolina continued to be fifth of 11 States in the production of primary aluminum in 2006.

[1]The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the 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 2006 USGS mineral production data published in this chapter are those available as of March 2008. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

[2]Because data for crushed marble, crude mica, and crude vermiculite have been withheld (company proprietary data) for 2004, the actual total value is somewhat higher than that reported in table 1.

TABLE 1

NONFUEL RAW MINERAL PRODUCTION IN SOUTH CAROLINA[1, 2]

(Thousand metric tons and thousand dollars)

Mineral	2004 Quantity	2004 Value	2005 Quantity	2005 Value	2006 Quantity	2006 Value
Cement:						
Masonry	453	49,900 [e]	498	54,300 [e]	575	68,900 [e]
Portland	3,110	196,000 [e]	3,270	247,000 [e]	3,320	294,000 [e]
Clays:						
Common	1,050	3,350	1,020	3,610	992	4,250
Fire	1	64	54	892	60	348
Kaolin	296	19,600	287	17,700	294	17,900
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	9,960	35,100	11,100	45,200	10,900	51,100
Industrial	719	17,600	794	19,400	905	21,800
Stone:						
Crushed	31,300	210,000	33,800 [3]	258,000 [3]	30,400 [3]	261,000 [3]
Dimension	9	850	9	850	9	850
Combined values of mica (crude), stone [crushed marble (2005–06) and curshed stone (2006)], vermiculite (crude)	XX	(4)	XX	12,600	XX	15,200
Total	XX	532,000	XX	659,000	XX	735,000

[e]Estimated. NA Not available. 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.

[3]Excludes certain stones; kind and value included with "Combined values" data.

[4]Value withheld to avoid disclosing company proprietary data.

TABLE 2

SOUTH CAROLINA: CRUSHED STONE SOLD OR USED, BY KIND[1]

Kind	2005 Number of quarries	2005 Quantity (thousand metric tons)	2005 Value (thousands)	2006 Number of quarries	2006 Quantity (thousand metric tons)	2006 Value (thousands)
Limestone	3	3,700	$26,200	3	4,110	$30,800
Marble	1	W	W	1	W	W
Calcareous marl	4	4,920	28,200	4	2,750	10,500
Granite	23	25,200	203,000	22	23,500	219,000
Sandstone	--	--	--	1	W	W
Total	XX	33,800	258,000	XX	30,400	261,000

W Withheld to avoid disclosing company proprietary data. XX Not applicable. -- Zero.

[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 2006, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Macadam	W	W
Riprap and jetty stone	W	W
Other coarse aggregate	355	5,810
Total	660	8,390
Coarse aggregate, graded:		
Concrete aggregate, coarse	W	W
Bituminous aggregate, coarse	W	W
Railroad ballast	W	W
Other graded coarse aggregate	5,680	72,300
Total	7,040	84,800
Fine aggregate (-⅜ inch):		
Stone sand, concrete	(2)	(2)
Screening, undesignated	78	517
Other fine aggregate	2,460	18,800
Total	2,540	19,300
Coarse and fine aggregates:		
Graded road base or subbase	(3)	(3)
Crusher run or fill or waste	869	5,710
Other coarse and fine aggregates	5,180	38,400
Total	6,050	44,100
Other construction materials	79	516
Chemical and metallurgical, cement manufacture	(4)	(4)
Unspecified:[5]		
Reported	14,100	103,000
Estimated	53	530
Total	14,000	103,000
Grand total	30,400	261,000

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]Withheld to avoid disclosing company proprietary data; included with "Other fine aggregates."

[3]Withheld to avoid disclosing company proprietary data; included with "Other coarse and fine aggregates."

[4]Withheld to avoid disclosing company proprietary data; included with "Unspecified: Reported."

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

TABLE 4

SOUTH CAROLINA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2006, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch)[2]	W	W	W	W	W	W
Coarse aggregate, graded[3]	W	W	W	W	W	W
Fine aggregate (-⅜ inch)[4]	W	W	W	W	W	W
Coarse and fine aggregate[5]	W	W	W	W	W	W
Other construction materials	--	--	79	516	--	--
Chemical and metallurgical[6]	--	--	(7)	(7)	(7)	(7)
Unspecified:[8]						
Reported	3,770	32,200	1,170	8,010	9,140	63,100
Estimated	--	--	46	460	7	66
Total	10,800	96,200	7,750	64,500	11,800	99,800

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 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 (concrete), and other fine aggregates.

[5]Includes crusher run or fill or waste, graded road base or subbase, and other coarse and fine aggregates.

[6]Includes cement manufacture.

[7]Withheld to avoid disclosing company proprietary data; included with "Unspecified: Reported."

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

TABLE 5

SOUTH CAROLINA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2006, BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products[2]	5,320	$25,900	$4.87
Asphaltic concrete aggregates and road base materials[3]	325	1,110	3.41
Fill	679	1,580	2.32
Other miscellaneous uses	182	722	3.97
Unspecified:[4]			
Reported	3,320	16,600	5.01
Estimated	1,100	5,140	4.68
Total or average	10,900	51,100	4.68

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

[2]Includes plaster and gunite sands.

[3]Includes road and other stabilization (cement).

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

TABLE 6
SOUTH CAROLINA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2006,
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[2]	555	2,320	1,810	7,720	2,700	14,500
Fill	--	--	190	436	471	1,120
Other miscellaneous uses	--	--	--	--	135	496
Unspecified:[3]						
Reported	64	472	--	--	3,250	16,100
Estimated	99	458	185	867	815	3,820
Total	718	3,250	2,180	9,020	7,380	36,000

	Unspecified districts	
	Quantity	Value
Concrete aggregate and concrete products[2]	585	2,540
Fill	18	23
Other miscellaneous uses	47	226
Unspecified:[3]		
Reported	--	--
Estimated	--	--
Total	650	2,790

-- Zero.

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

[2]Includes plaster and gunite sands, asphaltic concrete aggregates, road base materials, and road and other stabilization (cement).

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