

THE MINERAL INDUSTRY OF MISSISSIPPI

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Mississippi Department of Environmental Quality, Office of Geology, for collecting information on all nonfuel minerals.

In 1999, the preliminary estimated value¹ of nonfuel mineral production for Mississippi was \$168 million, according to the U.S. Geological Survey (USGS). This was about a 6% increase from that of 1998,² following a 9.1% decrease in 1998 from 1997.

Construction sand and gravel was Mississippi's leading nonfuel mineral, accounting for about 41% of the State's value in 1999. It was followed by portland cement, fuller's earth, and industrial sand and gravel. Most of the State's rise in value in 1999 resulted from a \$5 million increase in construction sand and gravel, further supported by smaller yet significant increases in crushed stone, portland cement, and ball clay (listings are in descending order of increase). Small decreases occurred in bentonite and common clay, while gemstones was unchanged (table 1). In 1998, a \$30.1 million decrease in the value of crushed stone was countered somewhat by increases in portland cement and construction sand and gravel.

Based upon USGS estimates of the quantities of minerals produced in the 50 States during 1999, Mississippi remained second in fuller's earth and fourth in ball clay and bentonite. Additionally, the State was a significant producer of construction sand and gravel and common clays. Metals produced in Mississippi, especially raw steel, were processed from materials received from other domestic and foreign sources.

The following narrative information was provided by the Mississippi Department of Environmental Quality's (DEQ) Office of Geology³ (MOG). Calendar year 1999 was the end of an era for the mining company, Vulcan Materials Co., when

¹The 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 1999 USGS mineral production data published in this chapter are preliminary estimates as of May 2000 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. A telephone listing for the specialists may be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals/contacts/comdir.html>, by using MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset (request Document #1000 for a telephone listing of all mineral commodity specialists), or by calling USGS information at (703) 648-4000 for the specialist's name and number. All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals>; facsimile copies may be obtained from MINES FaxBack.

²Values, percentage calculations, and rankings for 1998 may vary from the Minerals Yearbook, Area Reports: Domestic 1998, Volume II, owing to the revision of preliminary 1998 to final 1998 data. Data for 1999 are preliminary and are expected to change; related rankings may also be subject to change.

³James E. Starnes, Geologist with the Mississippi Department of Environmental Quality's Office of Geology, provided the Mississippi minerals industry information.

its impressive 60-meter-deep (200 feet) aggregate quarry in Tishomingo County was put up for final bond release. The company had been mining in the same Mississippian age limestone quarry since before the Mississippi Surface Mining and Reclamation Act of 1977. Vulcan's established presence in Mississippi can be seen throughout the State in the riprap used in road and bridge building projects and in U.S. Army Corps of Engineers projects.

The Commission on Environmental Quality approved Unimin Corp. for a Class I surface mining permit to expand its clay mine an additional 68 hectares (ha). Unimin holds multiple Class I surface mining permits dating back to 1978 and totaling more than 260 ha. Unimin's large bentonite clay mine is in Monroe County near the town of Aberdeen.

Efforts to amend Mississippi's 1977 Surface Mining and Reclamation Act, the State's noncoal surface mining law, passed in the State Senate but failed in the State House of Representatives. (Similar legislation also failed to pass in the 1997 and the 1998 legislative sessions.) The MOG, the Mississippi Mining Coalition, and the Mississippi Asphalt Paving Association led the efforts to tighten up the 1977 law. According to the MOG, the new bill would have updated the current law for the benefit of the State as well as industry, which assisted in drafting it.

The new law would have reduced the current 60% after-the-fact permit rate by changing a present provision that allows an operator a 10-day grace period to file for a permit, without penalty, after being found by the State to be mining without a valid permit. The current statutes put the onus on government enforcement agencies to "chase after" violators of the law rather than on the operators to abide by mine permitting regulations from the beginning. Also, the current statutes provide for a "temporary permit" to be issued automatically as soon as an application for surface mining is deemed administratively complete. Consequently, the Mississippi Commission on Environmental Quality (CEQ) could issue a permit (in order to guarantee the reclamation of the mine) to an operator who may have already adversely affected an environmentally or culturally sensitive site. Currently, the CEQ both (1) issues the permits for surface mines and (2) enforces laws governing activities at the same mines. According to the MOG, the new law was intended to tighten the permit process, as well as to divide the regulatory authority between the Environmental Quality Permit Board and the CEQ, as it is with all other statutes pertaining to the Mississippi DEQ. Additionally, the legislation would have eliminated the 4-acre (1.6-ha) surface mine permit exemption rule and modified the permit classification system that thoroughly describes how a permit is issued but not how a mine is operated or reclaimed.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN MISSISSIPPI 1/ 2/

(Thousand metric tons and thousand dollars)

Mineral	1997		1998		1999 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays:						
Common	503	3,460	502	3,410	507	3,320
Fuller's earth	388	28,100	372 r/	30,400 r/	371	30,200
Gemstones	NA	1	NA	1	NA	1
Sand and gravel: Construction	13,000	59,600	13,300	64,400	14,100	69,400
Stone: Crushed 3/	5,180	32,900	789	2,790	800	5,740
Combined values of cement (portland), clays (ball, bentonite), sand and gravel (industrial), stone (crushed marl)	XX	51,300	XX	58,400 r/	XX	59,100
Total	XX	175,000	XX	159,000 r/	XX	168,000

p/ Preliminary. r/ Revised. 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.

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

Kind	1997				1998			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	12	5,180	\$32,900	\$6.36	3	789	\$2,790	\$3.54
Calcareous marl	1	W	W	W	2	W	W	W
Total or average	XX	5,180	32,900	6.36	XX	789	2,790	3.54

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

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

TABLE 3
MISSISSIPPI: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 1998, BY USE 1/ 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Agricultural: Agricultural limestone	W	W	W
Chemical and metallurgical: Cement manufacture	W	W	W
Unspecified 3/	W	W	W
Total or average	789	2,790	3.54

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/ Includes limestone; excludes calcareous marl to avoid disclosing company proprietary data.

3/ Estimated production without a breakdown by end use.

TABLE 4
MISSISSIPPI: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1998,
BY MAJOR USE CATEGORY 1/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate 2/	2,390	\$12,200	\$5.09
Concrete products (blocks, bricks, pipe, decorative, etc.)	94	570	6.06
Asphaltic concrete aggregates and other bituminous mixtures	2,000	10,700	5.33
Road base and coverings	1,110	5,140	4.62
Fill	251	412	1.64
Unspecified: 3/			
Actual	3,510	18,100	5.14
Estimated	3,990	17,400	4.37
Total or average	13,300	64,400	4.83

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

2/ Includes plaster and gunite sand.

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

TABLE 5
MISSISSIPPI: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1998, BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3		Unspecified districts 2/	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate 3/	W	W	1,320	5,890	W	W	154	913
Asphaltic concrete aggregates and other bituminous mixtures	872	4,670	1,070	5,810	--	--	61	190
Road base and covering	W	W	570	2,700	W	W	50	185
Fill	60	70	48	152	115	159	28	32
Unspecified: 4/								
Actual	2,490	11,600	714	5,030	313	1,440	--	--
Estimated	777	3,710	2,030	8,130	1,180	5,570	--	--
Total	5,610	27,900	5,750	27,700	1,700	7,510	294	1,320

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 production within the State with no district reported.

3/ Includes concrete products and plaster and gunite sand.

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