

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 2000, the estimated value¹ of nonfuel mineral production for Mississippi was \$157 million, based upon preliminary U.S. Geological Survey (USGS) data. This was a slight decrease from that of 1999,² following a marginal increase in 1999 from 1998.

Construction sand and gravel was Mississippi's leading nonfuel mineral, accounting for about 34% of the State's value in 2000. It was followed by portland cement, fuller's earth (about 19% of the value), crushed stone (about 12%), and industrial sand and gravel. In 1999, the State's rise in value resulted mostly from an increase in crushed stone of more than \$13 million; this was nearly offset by decreases in the values of construction sand and gravel (down \$5.5 million), portland cement and industrial sand and gravel (down about \$2.5 million each), bentonite, and fuller's earth (down about \$1 million). All other changes were marginal (table 1).

Based upon USGS estimates of the quantities of minerals produced in the 50 States during 2000, Mississippi remained second in fuller's earth and fourth in ball clay and bentonite. Additionally, the State was a significant producer of 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). In 2000, approximately 9,300 hectares (ha) of the State of Mississippi were under permit to mine. The total of the areas receiving bond releases for the year was approximately 400 ha. The Mississippi Commission on Environmental Quality (CEQ) approved a mining permit to Unimin Corp. for a Class I surface mining permit to expand by

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 2000 USGS mineral production data published in this chapter are preliminary estimates as of July 2001 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 of 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 1999 may vary from the Minerals Yearbook, Area Reports: Domestic 1999, Volume II, owing to the revision of preliminary 1999 to final 1999 data. Data for 2000 are preliminary and are expected to change; related rankings may also change.

³Kenneth McCarley, Director of the Mining and Reclamation Division of the Mississippi Department of Environmental Quality's Office of Geology, provided the Mississippi minerals industry information.

an additional 13 ha its clay mine near the Town of Aberdeen in Monroe County. Unimin holds several permits in this area for the mining of bentonite clay. The clay is used in making paint and drilling mud. The Commission also approved a permit for Oil-Dri Production Co. to expand by an additional 19 ha its clay mine near the Town of Ripley in Tippah County. Oil-Dri mines fuller's earth, an absorbent clay used in clarifying edible oils and fats. The Commission continued to issue Class II surface mining permits for the mining of borrow material, typically made up of sand and clay gravel.

The MOG submitted, as it had in 1999, a bill to the Mississippi Legislature to amend the State's 1977 Surface Mining and Reclamation Act, Mississippi's noncoal surface mining law. The bill, supported by the Mississippi Mining Coalition, again 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 bill would have tightened up the existing law to include the requirement that a mine operator have a permit in hand before mining operations can begin, thereby reducing the 60% after-the-fact permit rate of recent years. The present provision 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 discover violators of the law rather than on the operators to abide by mine permitting regulations from the beginning of the process. 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, a permit can be issued to an operator who may have already adversely affected an environmentally or culturally sensitive site. Under the proposed law, the mine permitting authority would have been transferred to the Mississippi Environmental Quality Permit Board (EQPB) from CEQ. According to the MOG, the new law was intended to tighten the permit process, as well as to divide the regulatory authority between the EQPB and the CEQ, as it is with all other statutes pertaining to the Mississippi DEQ. To date, the CEQ both (1) approves and issues permits for surface mines and (2) enforces laws governing activities at the same mines. The surface mining permit is the only permit that the Commission is currently responsible for approving and issuing. Additionally, the proposed legislation would have modified the permit classification system and required the permitting as well as reclamation of small pits, commonly referred to as 4-acre "exempt" pits. Although the current permit classification system thoroughly describes how a permit is issued, it does not describe how a mine is operated or reclaimed. Under the 1977 law, surface mines of 1.6 ha (4 acres) or less were required neither to obtain a mining permit nor to perform reclamation of any kind.

The U.S. Department of Labor's Mine Safety and Health Administration (MSHA) issued new Part 46 regulations. The new regulations, which became effective on October 1, 2000,

required all operations that process material in some way to have safety plans in place at its mines or mineral processing sites and for all personnel to be trained in the execution of such

plans. The State's Mining and Reclamation Division, in conjunction with MSHA, held meetings Statewide during the year to educate the industry on the new requirements.

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

(Thousand metric tons and thousand dollars)

Mineral	1998		1999		2000 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays:						
Common	502	3,410	497	3,390	497	3,390
Fuller's earth	372	30,400	377	29,400	371	30,100
Gemstones	NA	1	NA	1	NA	1
Sand and gravel, construction	13,300	64,400	12,100	58,900	10,600	53,000
Stone, crushed 3/	789	2,790	1,760	15,900	2,000	18,500
Combined values of cement (portland), clays (ball, bentonite), sand and gravel (industrial), stone (crushed marl)	XX	58,400	XX	52,300	XX	52,400
Total	XX	159,000	XX	160,000	XX	157,000

p/ Preliminary. 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	1998				1999			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	3	789	\$2,790	\$3.54	10	1,760	\$15,900	\$9.00
Calcareous marl	2	W	W	W	1	W	W	W
Total or average	XX	789	2,790	3.54	XX	1,760	15,900	9.00

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 1999, BY USE 1/ 2/ 3/ 4/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1 ½ inch), other coarse aggregate	W	W	\$15.87
Coarse aggregate, graded, other graded coarse aggregate	W	W	14.06
Fine aggregate (-3/8 inch), other fine aggregate	W	W	11.82
Coarse and fine aggregates, other coarse and fine aggregates	W	W	13.18
Agricultural:			
Agricultural limestone	W	W	14.09
Other agricultural uses	(5/)	(5/)	(5/)
Chemical and metallurgical, cement manufacture	W	W	3.40
Unspecified: 6/			
Reported	W	W	3.31
Estimated	8	\$25	3.13
Total or average	1,760	15,900	9.00

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

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

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

3/ No district production was reported in 1999.

4/ Most of the production included in this table was shipped into Mississippi from other States.

5/ Withheld to avoid disclosing company proprietary data; excluded from "Total."

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

TABLE 4
MISSISSIPPI: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1999,
BY MAJOR USE CATEGORY 1/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	3,200	\$17,600	\$5.51
Concrete products (blocks, bricks, pipe, decorative, etc.)	157	949	6.04
Asphaltic concrete aggregates and other bituminous mixtures	2,090	12,000	5.74
Road base and coverings 2/	1,030	4,280	4.15
Fill	294	409	1.39
Other miscellaneous uses 3/	76	241	3.17
Unspecified: 4/			
Reported	974	4,040	4.15
Estimated	4,300	19,000	4.42
Total or average	12,100	58,900	4.88

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

2/ Includes road and other stabilization (cement and lime).

3/ Includes filtration and ice and snow control.

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

TABLE 5
MISSISSIPPI: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1999, BY USE AND DISTRICT 1/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products 2/	2,150	11,700	877	4,800	198	1,360	123	703
Asphaltic concrete aggregates and other bituminous mixtures	1,200	6,610	W	W	W	W	90	213
Road base and covering 3/	636	2,600	W	W	W	W	41	205
Fill	161	260	10	23	118	142	11	13
Other miscellaneous uses 4/	59	188	1,130	6,560	46	125	--	--
Unspecified: 5/								
Reported	581	2,260	86	345	307	1,440	--	--
Estimated	1,100	5,600	2,300	9,900	870	3,900	--	--
Total	5,850	29,200	4,420	21,600	1,540	6,970	265	1,130

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

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 and lime).

4/ Includes filtration and ice and snow control.

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