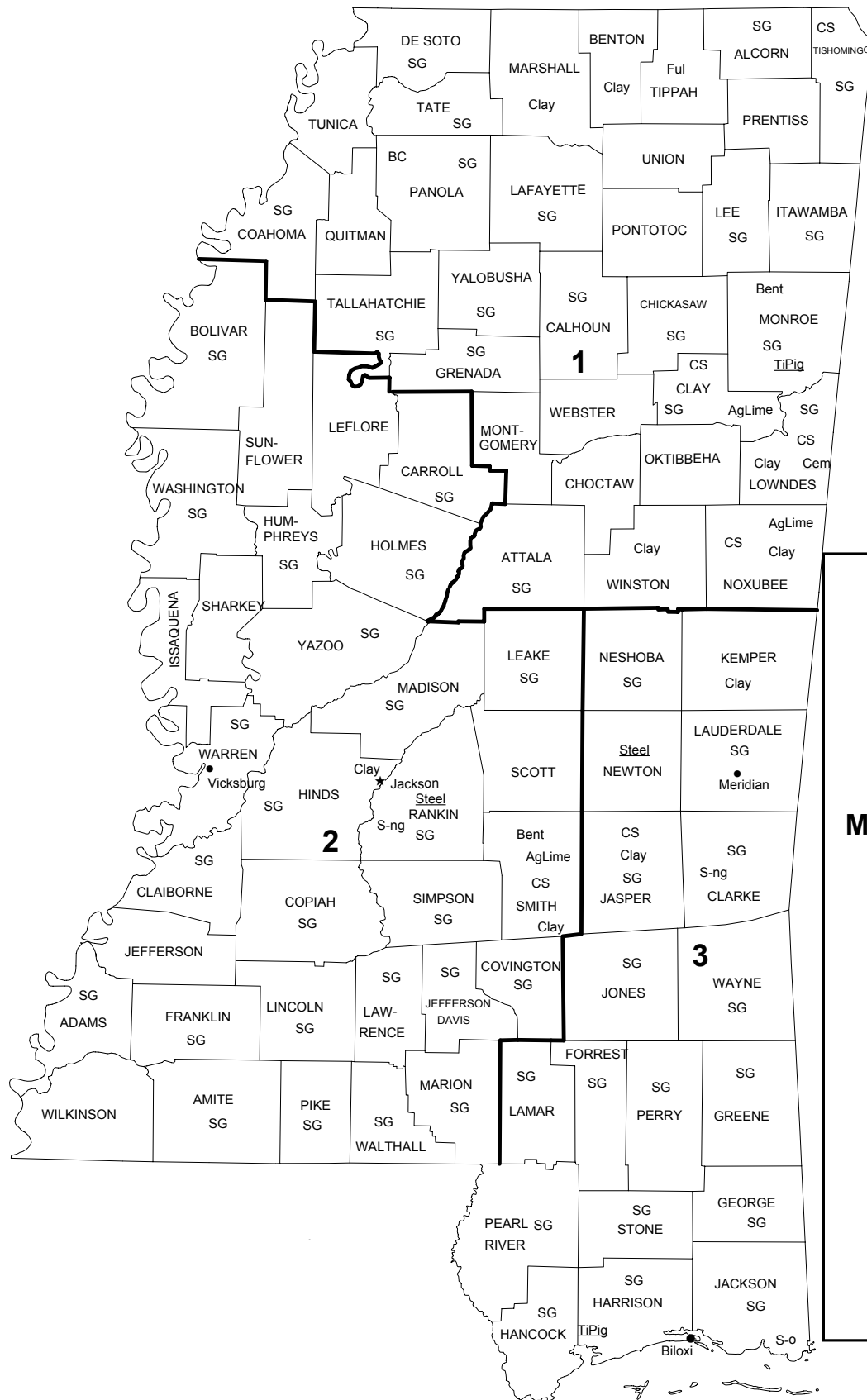


MISSISSIPPI



LEGEND

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

MINERAL SYMBOLS (Major producing areas)

- AgLime Agricultural lime
- BC Ball clay
- Bent Bentonite
- Cem Cement plant
- Clay Common clay
- CS Crushed stone
- Ful Fuller's earth
- S-ng Sulfur (natural gas)
- S-o Sulfur (oil)
- SG Construction sand and gravel
- Steel Steel plant
- TiPig Titanium dioxide pigment plant



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 2001, the estimated value¹ of nonfuel mineral production for Mississippi was \$177 million, based upon preliminary U.S. Geological Survey (USGS) data. This was a 19% increase from that of 2000,² and followed a 6.9% decrease in 2000 from that of 1999.

Construction sand and gravel was Mississippi's leading nonfuel mineral, accounting for about 37% of the State's total nonfuel mineral value in 2001. It was followed by crushed stone, portland cement, fuller's earth, and industrial sand and gravel. The State's major construction materials—construction sand and gravel, portland cement, and crushed stone (including crushed marl)—accounted for about 70% of Mississippi's total value. In 2001, the nonfuel mineral with the largest increase was construction sand and gravel, up more than \$23 million. In 2000, increases in crushed stone and industrial sand and gravel of \$7.8 million and \$6 million, respectively, were not enough to offset decreases of \$17 million in construction sand and gravel and about \$8 million in portland cement, resulting in the overall decrease for the year. All other changes were about \$1 million

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 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>.

²Values, 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.

or less, having little effect on the net result (table 1).

Based upon USGS estimates of the quantities of minerals produced in the 50 States during 2001, Mississippi remained second in fuller's earth, increased to third from fourth in bentonite, and continued to be fourth of four ball-clay-producing States. Additionally, the State was a significant producer of industrial 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). The Mississippi Commission on Environmental Quality issued 42 surface mining permits covering approximately 400 hectares (ha) and processed 91 Notices of Exempt Operations [1.6 ha (4 acres) or less] covering approximately 140 ha. Under State law, surface mines of 1.6 ha or less were required neither to obtain a mining permit nor to perform reclamation of any kind. The MOG's Mining and Reclamation Division (MRD) performed 839 annual inspections for all active mining permits on file and received applications for bond release on 121 permits. During the year, 400 ha were reclaimed and released.

The U.S. Department of Labor's Mine Safety and Health Administration (MSHA) by regulation (Parts 46 and 48) required annual miner safety training. In part, all operations that process material in some way, such as rock crushing or washing operations, were required to have detailed safety plans in place at mines or mineral processing sites, and all personnel were required to train in the execution of such plans. The MRD employed a contractor to perform the training throughout the entire State and helped oversee the training. This trainer was paid in part by a grant from MSHA.

³Ken 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.

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

(Thousand metric tons and thousand dollars)

Mineral	1999		2000		2001 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays:						
Common	497	3,390	484	2,200	484	2,190
Fuller's earth	377	29,400	371	30,100	369	22,900
Gemstones	NA	1	NA	1	NA	1
Sand and gravel, construction	12,100	58,900	11,700	60,900	12,400	65,600
Stone, crushed 3/	1,760	15,900	2,530	23,700	3,300	31,800
Combined values of cement (portland), clays (ball, bentonite), sand and gravel (industrial), stone (crushed marl)	XX	52,300	XX	51,700	XX	54,000
Total	XX	160,000	XX	149,000	XX	177,000

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	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	10	1,760	\$15,900	\$9.00	5	2,530	\$23,700	\$9.37
Calcareous marl	1	W	W	W	1	W	W	W
Total or average	XX	1,760	15,900	9.00	XX	2,530	23,700	9.37

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 2000, BY USE 1/ 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:			
Coarse aggregate (+1 1/2 inch), other coarse aggregate	W	W	\$13.43
Coarse aggregate, graded, other graded coarse aggregate	W	W	10.58
Fine aggregate (-3/8 inch), other fine aggregate	W	W	14.69
Coarse and fine aggregates, other coarse and fine aggregates	W	W	13.01
Agricultural limestone	W	W	15.90
Chemical and metallurgical, cement manufacture	W	W	3.86
Unspecified: 3/			
Reported	363	\$3,200	8.82
Estimated	30	270	9.07
Total or average	2,530	23,700	9.37

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

TABLE 4
MISSISSIPPI: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2000, BY USE AND DISTRICT 1/ 2/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:								
Coarse aggregate (+1 1/2 inch) 3/	W	W	W	W	W	W	W	W
Coarse aggregate, graded 4/	W	W	W	W	W	W	W	W
Fine aggregate (-3/8 inch) 5/	W	W	W	W	W	W	--	--
Coarse and fine aggregate 6/	W	W	W	W	W	W	W	W
Agricultural 7/	W	W	W	W	--	--	--	--
Chemical and metallurgical 8/	W	W	--	--	--	--	--	--
Unspecified: 9/								
Reported	--	--	127	1,120	236	2,080	--	--
Estimated	12	100	19	170	--	--	--	--
Total	1,240	10,400	391	4,970	474	5,850	424	2,550

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

3/ Includes other coarse aggregate.

4/ Includes other graded coarse aggregate.

5/ Includes other fine aggregate.

6/ Includes other coarse and fine aggregate.

7/ Includes agricultural limestone.

8/ Includes cement manufacture.

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

TABLE 5
MISSISSIPPI: 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)	3,290	\$19,500	\$5.93
Plaster and gunitite sands	29	204	7.03
Concrete products (blocks, bricks, pipe, decorative, etc.)	93	611	6.57
Asphaltic concrete aggregates and other bituminous mixtures	2,620	15,400	5.88
Road base and coverings	1,050	3,960	3.79
Fill	387	683	1.76
Other miscellaneous uses	86	773	8.99
Unspecified: 2/			
Reported	1,020	4,160	4.07
Estimated	3,100	16,000	5.02
Total or average	11,700	60,900	5.21

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 6
 MISSISSIPPI: 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		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products 2/	1,490	8,850	W	W	W	W	92	490
Asphaltic concrete aggregates and other bituminous mixtures	1,660	10,100	892	5,150	--	--	70	154
Road base and covering	726	2,680	W	W	W	W	45	188
Fill	235	444	34	107	91	101	27	32
Other miscellaneous uses	--	--	2,040	12,300	492	2,170	--	--
Unspecified: 3/								
Reported	680	2,550	W	W	W	W	--	--
Estimated	470	2,300	1,500	7,500	1,200	5,800	--	--
Total	5,260	27,000	4,450	25,000	1,740	8,030	235	864

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