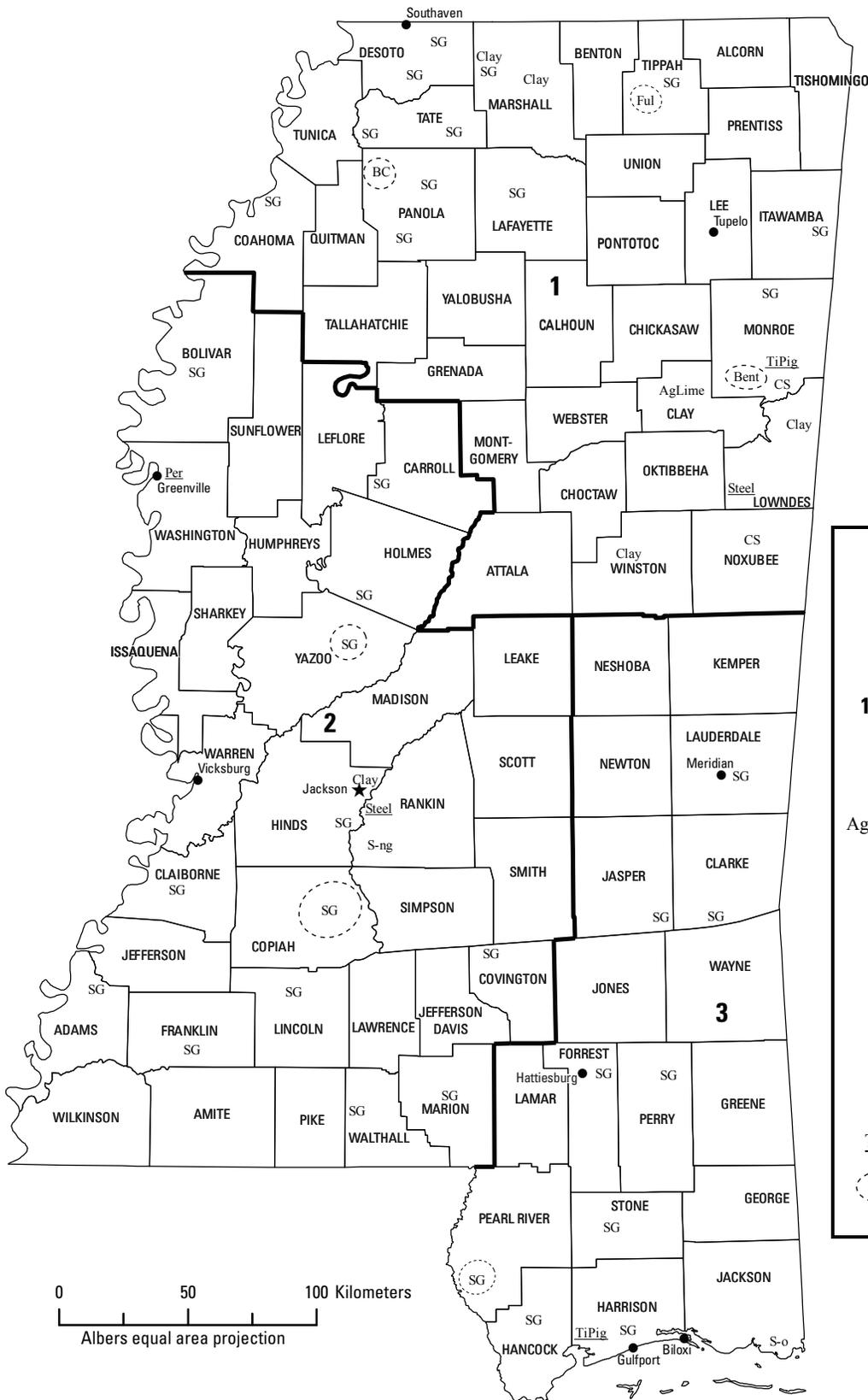




2012–2013 Minerals Yearbook

MISSISSIPPI [ADVANCE RELEASE]

MISSISSIPPI

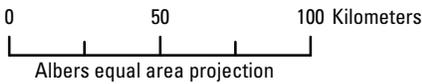


LEGEND

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

**MINERAL SYMBOLS
(Principal producing areas)**

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



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 2013, the value of the nonfuel mineral production¹ in the State of Mississippi was \$130 million,² 0.2% of the total U.S. nonfuel mineral production value, ranking it 44th in the Nation. In 2012, the corresponding value was \$145 million,² 0.2% of the U.S. total nonfuel mineral production, also ranking it 44th among the 50 States. In 2013, on a per capita basis, nonfuel mineral production in Mississippi had a value of \$44 compared with the national average of \$238. In 2012, the per capita value was \$49 compared with the national average of \$241. The value of nonfuel mineral production in Mississippi for the years 2006 through 2013 was as follows (in millions of dollars): \$272 (2006), \$245 (2007), \$263 (2008), \$203 (2009), \$193 (2010), \$161² (2011), \$145² (2012), and \$130² (2013).

In 2013, there were 496 employees in nonfuel mineral mines in Mississippi and 277 in mills and preparation plants. In 2012, the corresponding numbers were 494 in nonfuel mineral mines and 272 in mills and preparation plants (U.S. Mine Safety and Health Administration, 2013, p. 11; 2014, p. 11). In 2013, the annual average wage in Mississippi for all mining was \$55,148 as compared with \$35,885 for all industries. In 2012, the corresponding figures were \$51,859 and \$35,263, respectively (National Mining Association, unpub. data, February 4, 2016).

In 2013 and 2012, on the basis of production quantity, Mississippi was third in the production of ball clay and montmorillonite out of 5 and 10 producing States, respectively. The State also produced bentonite, clays (ball clay and fuller's earth), construction sand and gravel, crushed stone, and natural gemstones (table 1).

¹The 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 USGS mineral production data published in this chapter are those available as of February 2016. Data in this report are rounded to three significant digits and percentages are calculated from unrounded data. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at <http://minerals.usgs.gov/minerals>.

²Partial total; excludes values that must be withheld to avoid disclosing company proprietary data.

Commodity Review

Industrial Minerals

Mineral industry activity with respect to industrial minerals was as follows:

In Mississippi, there was only one company that produced ball clay in Panola County, and two companies that mined bentonite, both in Tippah County. Montmorillonite was produced in Benton, Clay, Hinds, Jones, Kemper, Monroe, Smith, Tippah, and Winston Counties (Mindat, 2016).

In 2013, there were 20 active crushed stone operations with 3 quarries and 3 processing plants and there were 67 active construction sand and gravel operations, including 7 dredging operations. In 2012, there were 21 crushed stone operations with 4 quarries and 4 processing plants and there were 77 construction sand and gravel operations, including 12 dredging operations.

Titanium dioxide pigments were produced at the 340,000-metric-ton-per-year (t/yr)-capacity DeLisle plant, owned and operated by E.I. du Pont de Nemours and Co. (Wilmington, DE), in Harrison County, and at Tronox Inc.'s (Stamford, CT) 225,000-t/yr-capacity Hamilton plant in Monroe County.

Steel produced in Mississippi was processed from raw materials (including scrap) received from domestic and foreign sources. Steel was produced at facilities near Jackson in Rankin County and in Lowndes County in the eastern portion of the State.

References Cited

- Mindat.org, 2016, Montmorillonite from Mississippi, USA: mindat.org Web site. (Accessed June 3, 2016, at <http://www.mindat.org/minoclist.php?m=2821&l=16820>.)
- U.S. Mine Safety and Health Administration, (2013), Mine injury and worktime, quarterly, January–December 2012, Final, closeout edition, 33 p. (Accessed February 4, 2016, at http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20125.pdf.)
- U.S. Mine Safety and Health Administration, (2014), Mine injury and worktime, quarterly, January–December 2013, Final, closeout edition, 34 p. (Accessed February 4, 2016, at http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20135.pdf.)

TABLE 1
NONFUEL MINERAL PRODUCTION IN MISSISSIPPI^{1,2}

(Thousand metric tons and thousand dollars)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	264	1,570	221	1,330	W	W
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	11,700 ^r	94,100 ^r	11,500	90,500	10,400	78,200
Stone, crushed	2,720	65,000	2,120	53,100	1,920	52,200
Combined values of clays (ball, bentonite, fuller's earth)	XX	W	XX	W	XX	W
Total	XX	161,000 ^r	XX	145,000	XX	130,000

^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data; excluded from "Total." XX Not applicable.

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

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

TABLE 2
MISSISSIPPI: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE¹

Type	2012				2013			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone ²	4	2,120	\$53,100	\$25.12	2	1,910	\$52,000	\$27.22
Calcareous marl	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Miscellaneous stone	--	--	--	--	1	5	113	24.91
Total or average	XX	2,120	53,100	25.12	XX	1,920	52,200	27.21

XX Not applicable. -- Zero.

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

²Includes limestone-dolomite reported with no distinction between the two kinds of stone.

³Withheld to avoid disclosing company proprietary data; included with "Miscellaneous stone."

TABLE 3
MISSISSIPPI: CRUSHED STONE SOLD OR USED BY PRODUCERS BY USE¹

Use	2012			2013		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:						
Coarse aggregate (+1½ inch):						
Unspecified coarse aggregate	W	W	W	W	W	W
Coarse aggregate, graded:						
Unspecified graded coarse aggregate	W	W	W	W	W	W
Fine aggregate (-¾ inch):						
Unspecified fine aggregate	W	W	W	W	W	W
Coarse and fine aggregates:						
Unspecified coarse and fine aggregates	W	W	W	W	W	W
Agricultural:						
Agricultural limestone	72	\$1,270	\$17.67	W	W	W
Unspecified and other agricultural uses	--	--	--	5	\$113	\$24.80
Chemical and metallurgical:						
Sulfur oxide removal	146	4,020	27.51	W	W	W
Special:						
Other miscellaneous uses and specified uses not listed						
Unspecified: ²						
Reported	37	959	25.92	25	638	25.11
Estimated	535	12,500	23.29	526	12,200	23.28
Total or average	2,120	53,100	25.12	1,920	52,200	27.21

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

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

²Reported and estimated production without a breakdown by end use.

TABLE 4
MISSISSIPPI: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2012, BY USE AND DISTRICT¹

(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 (-¾ inch) ⁴	--	--	W	W	W	W
Coarse and fine aggregates ⁵	W	W	W	W	W	W
Agricultural ⁶	72	1,270	--	--	--	--
Chemical and metallurgical ⁷	146	4,020	--	--	--	--
Unspecified: ⁸						
Reported	37	959	--	--	--	--
Estimated	100	1,280	435	11,200	--	--
Total	405	8,600	W	W	W	W
			Unspecified districts			
Use	Quantity	Value				
Construction:						
Coarse aggregate (+1½ inch) ²	1	12				
Coarse aggregate, graded ³	135	1,160				
Fine aggregate (-¾ inch) ⁴	--	--				
Coarse and fine aggregates ⁵	4	34				
Other construction materials	--	--				
Agricultural ⁶	--	--				
Chemical and metallurgical ⁷	--	--				
Unspecified: ⁸						
Reported	--	--				
Estimated	--	--				
Total	140	1,210				

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

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

²Includes unspecified coarse aggregate.

³Includes unspecified graded coarse aggregate.

⁴Includes unspecified fine aggregate.

⁵Includes unspecified coarse and fine aggregates.

⁶Includes agricultural limestone.

⁷Includes sulfur oxide removal.

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

TABLE 5
MISSISSIPPI: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2013, BY USE AND DISTRICT¹

(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 (-¾ inch) ⁴	--	--	W	W	W	W
Coarse and fine aggregates ⁵	W	W	W	W	W	W
Agricultural ⁶	W	W	--	--	--	--
Chemical and metallurgical ⁷	W	W	--	--	--	--
Special	--	--	--	--	--	--
Other miscellaneous uses and specified uses not listed	--	--	--	--	--	--
Unspecified: ⁸						
Reported	25	638	--	--	--	--
Estimated	91	1,050	435	11,200	--	--
Total	325	7,530	W	W	W	W

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

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

²Includes unspecified coarse aggregate.

³Includes unspecified graded coarse aggregate.

⁴Includes unspecified fine aggregate.

⁵Includes unspecified coarse and fine aggregates.

⁶Includes agricultural limestone.

⁷Includes sulfur oxide removal.

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

TABLE 6
MISSISSIPPI: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012,
BY MAJOR USE CATEGORY¹

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	2,430	\$18,000	\$7.41
Plaster and gunite sands	30	269	8.97
Concrete products (blocks, bricks, pipe, decorative, and so forth)	88	906	10.30
Asphaltic concrete aggregates and other bituminous mixtures	596	6,520	10.94
Road base and coverings ²	819	6,380	7.79
Other miscellaneous uses ³	637	3,140	4.93
Unspecified: ⁴			
Reported	1,180	9,690	8.21
Estimated	5,710	45,500	7.97
Total or average	11,500	90,500	7.87

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

²Includes road and other stabilization (lime).

³Includes fill.

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

TABLE 7
MISSISSIPPI: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013,
BY MAJOR USE CATEGORY¹

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand) ²	2,100	\$12,500	\$5.97
Asphaltic concrete aggregates and other bituminous mixtures ³	1,430	14,100	9.85
Fill	209	400	1.91
Other miscellaneous uses	117	987	8.44
Unspecified: ⁴			
Reported	1,100	8,990	8.15
Estimated	5,470	41,100	7.52
Total or average	10,400	78,200	7.49

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

²Includes plaster and gunite sands.

³Includes road base coverings.

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

TABLE 8
MISSISSIPPI: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012, BY USE AND DISTRICT¹

(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	1,250	8,720	1,000	8,500	304	1,990
Asphaltic concrete aggregates and road base materials ³	1,010	8,840	370	3,770	38	294
Other miscellaneous uses ⁴	559	2,970	6	40	71	136
Unspecified: ⁵						
Reported	743	6,350	431	3,320	2	17
Estimated	625	4,760	2,820	23,500	2,270	17,300
Total	4,180	31,600	4,620	39,100	2,680	19,700

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

²Includes plaster and gunite sands.

³Includes road and other stabilization (lime).

⁴Includes fill.

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

TABLE 9
MISSISSIPPI: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013, BY USE AND DISTRICT¹

(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	W	W	W	W	333	1,830
Asphaltic concrete aggregates and road base materials	W	W	W	W	91	1,250
Other miscellaneous uses ³	255	1,100	50	161	21	125
Unspecified: ⁴						
Reported	661	5,580	442	3,410	--	--
Estimated	881	6,620	2,340	18,700	2,240	15,800
Total	3,750	27,700	3,990	31,400	2,690	19,000

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

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

²Includes plaster and gunite sands.

³Includes fill.

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