

THE MINERAL INDUSTRY OF OKLAHOMA

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Oklahoma Geological Survey for collecting information on all nonfuel minerals.

In 2000, the estimated value¹ of nonfuel mineral production for Oklahoma was \$453 million, based upon preliminary U.S. Geological Survey (USGS) data. This was a 2.7% increase from that of 1999,² following a 4.1% decrease from 1998 to 1999. For the third consecutive year, the State was 31st in rank among the 50 States in total nonfuel mineral production value, of which Oklahoma accounted for more than 1% of the U.S. total.

In 2000, crushed stone continued to be Oklahoma's leading nonfuel mineral commodity, accounting for about one-third of

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.

the State's total nonfuel mineral production value. Based upon value, crushed stone was followed by cement (masonry and portland), construction sand and gravel, industrial sand and gravel, gypsum, iodine, and lime. The combined values of three of Oklahoma's four major construction materials—crushed stone, construction sand and gravel, and gypsum (descending order of value)—accounted for almost 48% of the total value. Further information regarding masonry and portland cement is withheld to protect company proprietary data. In 1999, the most substantial changes in nonfuel mineral value were those of Grade-A helium and crude helium, which were down a combined \$25 million, and that of crushed stone, which was down \$7 million. All other nonfuel minerals showed increases of smaller magnitude except common clays, which was down by \$2.4 million, and dimension stone, which was unchanged (table 1).

Oklahoma's mines exclusively produced industrial minerals; no metals were mined in the State. Based upon USGS estimates of the quantities produced in the 50 States during 2000, Oklahoma remained the only State that produced iodine, first in gypsum, second of 4 States that produce tripoli, third of 3 States in crude helium, and fifth in feldspar. While the State rose in rank to virtually tie another State for seventh from eighth in industrial sand and gravel, it decreased to fifth from fourth in Grade-A helium. Additionally, significant quantities of crushed stone, masonry and portland cements, common clays, and gemstones (descending order of value) were produced in the State.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN OKLAHOMA 1/ 2/
(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1998		1999		2000 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement:						
Masonry	96	7,140 e/	W	W	W	W
Portland	1,830	132,000 e/	W	W	W	W
Clays, common	658	4,450	757	2,050	757	2,050
Gemstones	NA	53	NA	268	NA	273
Gypsum, crude	3,020	19,500	3,510	20,100	4,000	22,000
Iodine, crude	1,490	22,700	1,620	23,800	1,440	21,000
Sand and gravel:						
Construction	9,000	35,900	10,200	41,200	11,200	46,000
Industrial	1,380	26,600	1,470	30,900	1,640	31,200
Stone:						
Crushed	38,500	152,000	36,300	145,000	36,000	148,000
Dimension	3,480	635	3,480	635	3,480	635
Combined values of feldspar, helium, lime, salt, tripoli, and values indicated by symbol W	XX	55,600	XX	177,000	XX	182,000
Total	XX	460,000	XX	441,000	XX	453,000

e/ Estimated. p/ Preliminary. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined values" data. 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.

TABLE 2
OKLAHOMA: 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	42 r/	27,700 r/	\$109,000 r/	\$3.95 r/	42	28,000	\$111,000	\$3.96
Dolomite	3	1,560 r/	6,570	4.20	3	1,700	5,630	3.31
Granite	3	6,720	25,700	3.83	4	2,400	9,210	3.85
Sandstone	8 r/	1,050 r/	3,300 r/	3.15 r/	9	2,490	11,100	4.47
Miscellaneous stone	3	1,500	7,130	4.76	3	1,660	7,920	4.76
Total or average	XX	38,500	152,000	3.95	XX	36,300	145,000	4.00

r/ Revised. XX Not applicable.

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

TABLE 3
OKLAHOMA: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 1999, BY USE 1/ 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit Value
Construction:			
Coarse aggregate (+1 1/2 inch):			
Riprap and jetty stone	604	\$3,600	\$5.96
Filter stone	161	905	5.62
Other coarse aggregate	835	2,640	3.16
Coarse aggregate, graded:			
Concrete aggregate, coarse	4,850	23,400	4.82
Bituminous aggregate, coarse	1,140	5,100	4.48
Bituminous surface-treatment aggregate	W	W	W
Railroad ballast	620	4,580	7.39
Other graded coarse aggregate	6,050	22,300	3.69
Fine aggregate (-3/8 inch):			
Stone sand, concrete	511	1,740	3.40
Stone sand, bituminous mix or seal	190	841	4.43
Screening, undesignated	2,640	9,020	3.42
Other fine aggregate	133	474	3.56
Coarse and fine aggregates:			
Graded road base or subbase	3,000	12,400	4.15
Crusher run or fill or waste	3,430	12,900	3.77
Other coarse and fine aggregates	717	3,080	4.30
Other construction materials	(3/)	(3/)	(3/)
Agricultural, limestone	208	716	3.44
Chemical and metallurgical:			
Cement manufacture	W	W	W
Flux stone	W	W	W
Other chemical and metallurgical	2,270	8,630	3.79
Other miscellaneous uses, building products	(3/)	(3/)	(3/)
Unspecified: 4/			
Reported	4,960	19,200	3.88
Estimated	3,500	12,000	3.29
Total or average	36,300	145,000	4.00

W Withheld to avoid disclosing company proprietary data; included with "Other."

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

2/ Includes dolomite, granite, limestone, miscellaneous stone, and sandstone.

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

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

TABLE 4
OKLAHOMA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1999, BY USE AND DISTRICT 1/ 2/

(Thousand metric tons and thousand dollars)

Use	District 2		District 3		District 4		District 5	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:								
Coarse aggregate (+1 1/2 inch) 3/	270	1,930	73	372	1,100	3,790	159	1,060
Coarse aggregate, graded 4/	1,700	10,200	599	3,460	9,360	37,200	1,000	4,510
Fine aggregate (-3/8 inch) 5/	480	1,800	183	661	2,250	7,640	553	1,960
Coarse and fine aggregate 6/	2,440	10,700	688	2,980	1,980	6,740	2,040	8,010
Other construction materials	--	--	W	W	--	--	W	W
Agricultural 7/	W	W	W	W	W	W	W	W
Chemical and metallurgical 8/	1,090	3,700	--	--	W	W	W	W
Unspecified: 9/								
Reported	W	W	1,570	5,610	--	--	W	W
Estimated	51	170	920	3,100	200	680	2,400	7,700
Total	9,300	41,600	4,310	17,100	15,900	59,900	6,790	26,300

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/ No production reported in District 1.

3/ Includes filter stone, riprap and jetty stone, and other coarse aggregate.

4/ Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), railroad ballast, and other graded coarse aggregate.

5/ Includes screening (undesignated), stone sand (bituminous mix or seal), stone sand (concrete), and other fine aggregate.

6/ Includes crusher run (select material or fill), graded road base or subbase, and other coarse and fine aggregates.

7/ Includes agricultural limestone.

8/ Includes cement manufacture and flux stone.

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

TABLE 5
OKLAHOMA: 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)	5,760	\$26,300	\$4.57
Gunite and plaster sands	17	71	4.18
Concrete products (blocks, bricks, decorative, pipe, etc.)	183	759	4.15
Asphaltic concrete aggregates and other bituminous mixtures	298	856	2.87
Road base and coverings	271	1,030	3.80
Fill	1,340	2,400	1.79
Other miscellaneous uses 2/	44	295	6.70
Unspecified: 3/			
Reported	539	1,640	3.04
Estimated	1,700	7,800	4.59
Total or average	10,200	41,200	4.04

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

2/ Includes railroad ballast and snow and ice control.

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

TABLE 6
OKLAHOMA: 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	
	Quantity	Value	Quantity	Value
Concrete aggregate (including concrete sand)	74	2,420	1,750	6,240
Concrete products (blocks, bricks, pipe, decorative, etc.) 2/	W	W	76	299
Asphaltic concrete aggregates and road base materials	W	W	186	513
Fill	167	280	896	1,530
Other miscellaneous uses 3/	W	W	--	--
Unspecified: 4/				
Reported	--	--	433	1,020
Estimated	400	2,100	500	1,900
Total	1,420	5,360	3,820	11,500
	District 4		Districts 3 and 5 5/	
	Quantity	Value	Quantity	Value
Concrete aggregate (including concrete sand)	2,100	10,500	1,160	7,160
Concrete products (blocks, bricks, pipe, decorative, etc.) 2/	--	--	W	W
Asphaltic concrete aggregates and road base materials	W	W	157	798
Fill	131	157	146	435
Other miscellaneous uses 3/	--	--	W	W
Unspecified: 4/				
Reported	5	21	101	593
Estimated	700	3,100	200	700
Total	3,090	14,000	1,870	10,300

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 gunite and plaster sands.

3/ Includes railroad ballast and ice and snow control.

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

5/ Districts 3 and 5 are combined to avoid disclosing company proprietary data.