2009 Minerals Yearbook

OKLAHOMA [ADVANCE RELEASE]

U.S. Department of the Interior
U.S. Geological Survey

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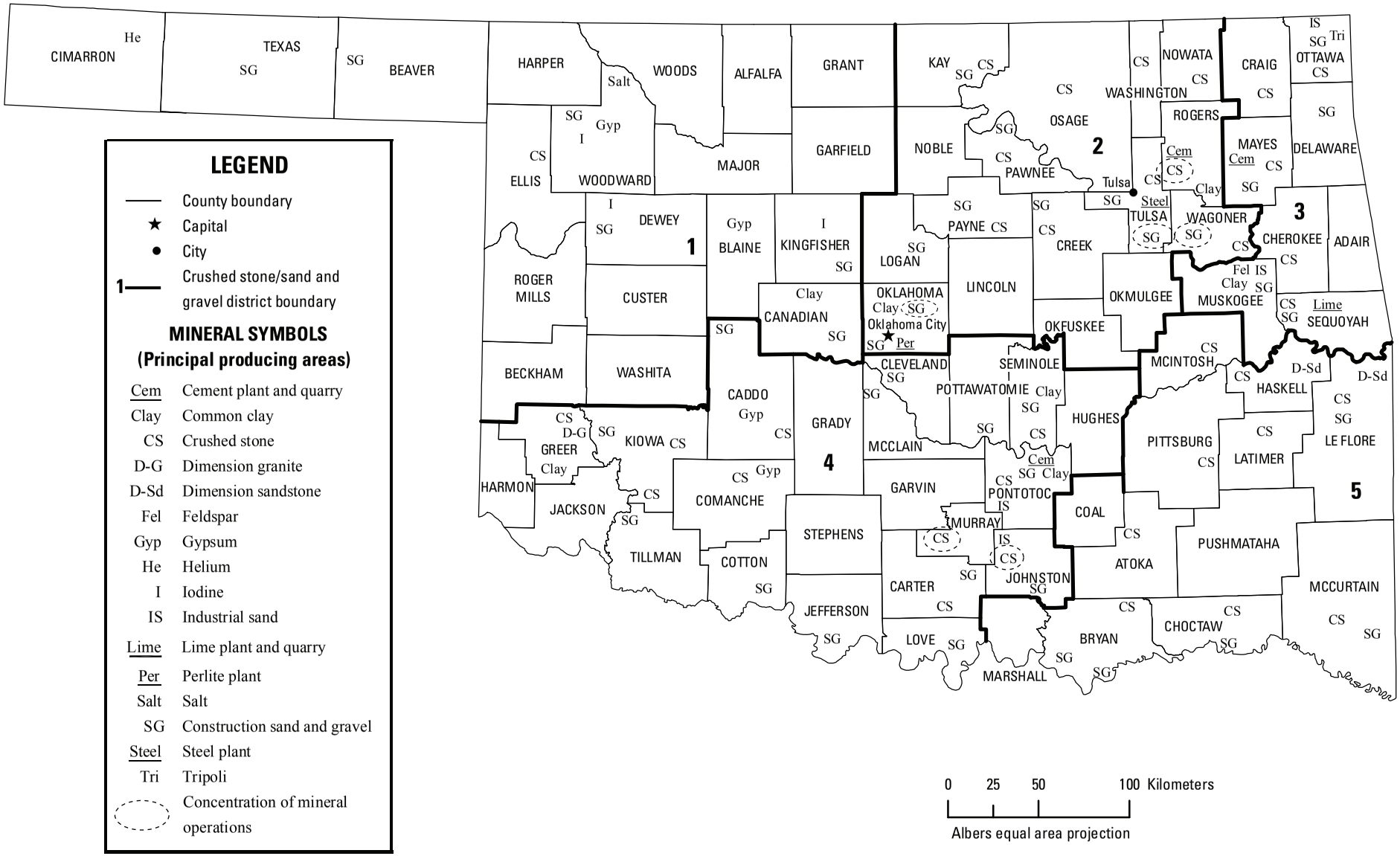
OKLAHOMA



LEGEND

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

MINERAL SYMBOLS
(Principal producing areas)

Cem	Cement plant and quarry
Clay	Common clay
CS	Crushed stone
D-G	Dimension granite
D-Sd	Dimension sandstone
Fel	Feldspar
Gyp	Gypsum
He	Helium
I	Iodine
IS	Industrial sand
Lime	Lime plant and quarry
Per	Perlite plant
Salt	Salt
SG	Construction sand and gravel
Steel	Steel plant
Tri	Tripoli
⬭	Concentration of mineral operations

Source: Oklahoma Geological Survey/U.S. Geological Survey (2009).

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 2009, Oklahoma's nonfuel raw mineral production[1] was valued at $667 million, based upon annual U.S. Geological Survey (USGS) data. This was a $153 million, or 18%, decrease from the State's total nonfuel mineral value of $820 million in 2008, which then had increased by $86 million, or almost 12%, from the total of $734 million in 2007. The State decreased to 28th from 27th in rank among the 50 States in total nonfuel mineral production value, accounting for 1.1% of the U.S. total value.

In 2009, crushed stone continued to be Oklahoma's leading nonfuel mineral commodity, based upon value, accounting for 46% of the State's total nonfuel mineral production value, an increase from 42% in 2008. Crushed stone was followed by portland cement, construction sand and gravel, crude iodine, industrial sand and gravel, and Grade-A helium (descending order of value). Four of the State's leading industrial minerals—crushed stone, construction sand and gravel, industrial sand and gravel, and crude gypsum—accounted for 65% of the State's total production value, essentially unchanged from 63% and 62% in 2008 and 2007, respectively.

Almost all mineral commodities produced in the State decreased in production value in 2009. The two exceptions were gemstones, the production value of which remained unchanged from that of 2008, and Grade-A helium, which saw an 8% increase in production value with a 25% increase in production. All other mineral commodities produced in the State declined in both the quantity produced and production value. The largest single decrease for production and production value was for portland cement, down almost 29% in production and production value from 2008 (actual values withheld—company proprietary data). This was followed by crushed stone, down by almost $38 million, construction sand and gravel, down by $27 million, industrial sand and gravel, down by $23 million, and dimension stone, down by $4 million. Combined, these four mineral commodities were down $92 million from almost $513 million in 2008 to $420 million in 2009, which was 6% lower than their combined production value figure of almost $449 million in 2007. The largest single decrease in production was for crushed stone, down 10.4 million metric tons (Mt) from 47.2 Mt in 2008 to 36.8 Mt in 2009. Other significant decreases in production and production value were for salt, iodine, and lime.

No metals were mined in the State in 2009. In 2009, Oklahoma continued to be the only State that produced iodine and remained 4th in industrial sand and gravel production, 7th in common clay production, and 11th in masonry cement production. Oklahoma increased to first from fourth in the production of crude gypsum. The State decreased to second from first among the four tripoli-producing States and to fifth from fourth in the production of feldspar among the seven feldspar-producing States. Expanded perlite was produced at a facility near Oklahoma City and steel and steel products were produced in the Tulsa vicinity.

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[1]The 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 2009 USGS mineral production data published in this chapter are those available as of September 2011. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN OKLAHOMA[1, 2]

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2007 Quantity	2007 Value	2008 Quantity	2008 Value	2009 Quantity	2009 Value
Clays, common	1,050	5,170	756	3,900	572	2,800
Gemstones, natural	NA	106	NA	4	NA	4
Gypsum, crude	2,820 r	17,100 r	2,180 r	16,200 r	2,180	15,900
Sand and gravel:						
Construction	16,200	94,200 r	14,700 r	95,500 r	11,600	68,200
Industrial	1,710	44,600	2,040	63,700	1,410	40,300
Stone:						
Crushed	45,800	298,000	47,200 r	345,000 r	36,800	308,000
Dimension	65	11,700	53	8,750	35	4,330
Tripoli metric tons	40,600	1,600	86,000	1,800	W	W
Combined values of cement, feldspar, helium (Grade–A), iodine (crude), lime, salt, and value indicated by symbol W	XX	261,000	XX	285,000	XX	228,000
Total	XX	734,000 r	XX	820,000 r	XX	667,000

[r]Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. Withheld values included in "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 TYPE[1]

Type	2008 Number of quarries	2008 Quantity (thousand metric tons)	2008 Value (thousands)	2009 Number of quarries	2009 Quantity (thousand metric tons)	2009 Value (thousands)
Limestone[2]	50 r	40,800 r	$298,000 r	51	31,300	$262,000
Granite	3	1,870	15,300	4	2,810	24,400
Sandstone and quartzite	9 r	1,220 r	9,070 r	11	861	7,350
Miscellaneous stone	13	3,310	23,100	11	1,840	14,200
Total	XX	47,200 r	345,000 r	XX	36,800	308,000

[r]Revised. XX Not applicable.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes limestone-dolomite reported with no distinction between the two.

TABLE 3
OKLAHOMA: CRUSHED STONE SOLD OR USED BY
PRODUCERS IN 2009, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Riprap and jetty stone	191	2,330
Filter stone	131	925
Other coarse aggregate	110	850
Coarse aggregate, graded:		
Concrete aggregate, coarse	2,950	37,600
Bituminous aggregate, coarse	182	1,610
Bituminous surface-treatment aggregate	327	3,770
Railroad ballast	W	W
Other graded coarse aggregate	3,280	26,000
Fine aggregate (-⅜ inch):		
Stone sand, bituminous mix or seal	W	W
Screening, undesignated	105	760
Other fine aggregate	119	897
Coarse and fine aggregates:		
Graded road base or subbase	762	6,690
Unpaved road surfacing	179	1,130
Terrazzo and exposed aggregate	W	W
Crusher run or fill or waste	835	7,400
Other coarse and fine aggregates	485	2,640
Agricultural, limestone	W	W
Chemical and metallurgical, cement manufacture	W	W
Unspecified:[2]		
Reported	18,500	150,000
Estimated	6,900	55,200
Total	36,800	308,000

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

[1]Data are rounded to no more than three significant digits.

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

TABLE 4
OKLAHOMA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2009, BY USE AND DISTRICT[1]

(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
Coarse aggregate, graded[3]	--	--	W	W	--	--
Fine aggregate (-⅜ inch)[4]	--	--	W	W	W	W
Coarse and fine aggregate[5]	--	--	W	W	W	W
Agricultural[6]	--	--	W	W	W	W
Chemical and metallurgical[7]	--	--	W	W	--	--
Unspecified:[8]						
Reported	11	55	2,850	21,400	653	5,110
Estimated	--	--	1,060	8,520	2,170	16,200
Total	11	55	8,040	77,100	3,170	23,600

	District 4		District 5	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1½ inch)[2]	W	W	123	1,020
Coarse aggregate, graded[3]	W	W	W	W
Fine aggregate (-⅜ inch)[4]	W	W	W	W
Coarse and fine aggregate[5]	W	W	W	W
Agricultural[6]	--	--	W	W
Chemical and metallurgical[7]	W	W	--	--
Unspecified:[8]				
Reported	11,200	91,400	3,740	31,600
Estimated	1,400	12,200	2,270	18,300
Total	18,800	150,000	6,870	56,600

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 filter stone, riprap and jetty stone, and other coarse aggregate.

[3]Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), railroad ballast, and other graded coarse aggregate.

[4]Includes screening (undesignated), stone sand (bituminous mix or seal), and other fine aggregate.

[5]Includes crusher run or fill or waste, graded road base or subbase, terrazzo and exposed aggregate, unpaved road surfacing, and other coarse and fine aggregates.

[6]Includes limestone.

[7]Includes cement manufacture.

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

TABLE 5
OKLAHOMA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2009,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregates and concrete products	1,760	$10,600	$6.05
Plaster and gunite sands	267	1,790	6.72
Asphaltic concrete aggregates and other bituminous mixtures	268	1,440	5.36
Road base and coverings	379	2,100	5.55
Fill	1,030	4,050	3.94
Other miscellaneous uses[2]	7	41	5.86
Unspecified:[3]			
Reported	3,160	23,200	7.33
Estimated	4,700	25,000	5.32
Total or average	11,600	68,200	5.90

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes 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 2009,
BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregates and concrete products[2]	W	W	1,120	5,340	W	W
Asphaltic concrete aggregates and road base materials	W	W	102	612	W	W
Fill	38	156	474	1,400	W	W
Other miscellaneous uses[3]	--	--	6	36	--	--
Unspecified:[4]						
Reported	913	7,860	1,210	8,910	W	W
Estimated	392	2,070	1,960	10,100	416	2,600
Total	1,990	14,700	4,880	26,400	1,040	6,100

Use	District 4		District 5	
	Quantity	Value	Quantity	Value
Concrete aggregates and concrete products[2]	376	2,980	W	W
Asphaltic concrete aggregates and road base materials	158	603	W	W
Fill	819	2,780	W	W
Other miscellaneous uses[3]	1	5	--	--
Unspecified:[4]				
Reported	602	4,320	W	W
Estimated	314	2,010	2,830	18,400
Total	2,270	12,700	1,400	8,290

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 plaster and gunite sands.
[3]Includes snow and ice control.
[4]Reported and estimated production without a breakdown by end use.