

THE MINERAL INDUSTRY OF IOWA

This chapter has been prepared under a Memorandum of Understanding between the U.S. Bureau of Mines, U.S. Department of the Interior, and the Geological Survey Bureau, Division of Energy and Geological Resources, Iowa Department of Natural Resources, for collecting information on all nonfuel minerals.

Iowa ranked 28th among the 50 States in total nonfuel mineral value¹ in 1994, moving down from its 1993 standing of 26th, according to the U.S. Bureau of Mines (USBM). The estimated value for 1994 was more than \$426 million, a 7% increase from \$398 million in 1993. This increase followed a 1.6% increase from 1992 to 1993. The State accounted for more than 1% of the U.S. total value. Based on value, crushed stone remained the State's leading mineral commodity, accounting for more than 40% of the State's total nonfuel mineral value, followed by portland cement with nearly 35% and construction sand and gravel with about 17%. Compared with 1993, the mineral commodity values for the following increased: crushed stone, portland cement, construction sand and gravel, gypsum, lime, masonry cement, common clays, and peat. Decreases occurred in gemstones.

Based on a comparison of USBM—estimated quantities

of minerals produced in the United States during 1994, Iowa remained 3d among all States in the production of gypsum; rose from 10th to 9th in portland cement; and ranked 15th in the production of both crushed stone and construction sand and gravel. Iowa mines produced significant quantities of dimension stone and common clays, while similar production of masonry cement was achieved at manufacturing plants within the State. Nonfuel mineral production in Iowa consisted entirely of industrial minerals; no metals were mined in the State. Metal production in the State was the result of materials received from other domestic and foreign sources.

¹The term value, referring throughout this document to that of nonfuel minerals, here addresses the total monetary value as represented by either mine shipments, mineral commodity sales, or marketable production as is applicable to the individual mineral commodities.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN IOWA¹

Mineral	1992		1993		1994 ^p		
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	
Cement:							
Masonry	thousand metric tons	45	\$4,120	W	W	W	
Portland	do.	2,562	116,477	2,302	\$136,316	2,500	\$148,000
Clays	do.	389	1,612	358	1,667	371	2,030
Gemstones		NA	1,606	NA	46	NA	W
Gypsum (crude)	thousand metric tons	1,989	11,626	1,988	12,280	2,180	13,600
Sand and gravel (construction)	do.	15,263	58,382	^e 16,600	^e 64,700	18,500	74,000
Stone (crushed)	do.	^e 234,473	^e 2186,200	30,500	168,597	^e 31,000	^e 174,000
Combined value of lime, peat, sand and gravel (industrial), stone [crushed dolomite and limestone (1992), dimension], and values indicated by symbol W							
		XX	11,140	XX	13,920	XX	15,000
Total		XX	391,163	XX	397,526	XX	³ 426,000

^aEstimated. ^pPreliminary. NA Not available. W Withheld to avoid disclosing company proprietary data; values included with "Combined value" data.

XX Not applicable.

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

²Excludes certain stones; value included with "Combined value" data.

³Data do not add to total shown because of independent rounding.

TABLE 2
IOWA: CRUSHED STONE¹ SOLD OR USED BY PRODUCERS IN 1993, BY USE

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch):			
Macadam	339	\$1,856	\$5.47
Riprap and jetty stone	335	2,341	6.99
Filter stone	294	1,697	5.77
Other coarse aggregate	64	415	6.48
Coarse aggregate, graded:			
Concrete aggregate, coarse	1,634	11,227	6.87
Bituminous aggregate, coarse	803	5,239	6.52
Bituminous surface-treatment aggregate	1,236	7,847	6.35
Railroad ballast	48	240	5.00
Other graded coarse aggregate	W	W	5.88
Fine aggregate (-3/8 inch):			
Stone sand, concrete	W	W	6.16
Stone sand, bituminous mix or seal	72	388	5.39
Screening, undesignated	224	965	4.31
Other fine aggregate	W	W	3.96
Coarse and fine aggregates:			
Graded road base or subbase	2,701	14,762	5.47
Unpaved road surfacing	2,682	13,849	5.16
Crusher run or fill or waste	259	990	3.82
Other coarse and fine aggregates	W	W	5.42
Other construction materials	213	1,159	5.44
Roofing granules	5	43	8.60
Agricultural:			
Agricultural limestone	820	4,379	5.34
Poultry grit and mineral food	(?)	(?)	20.85
Other agricultural uses	(?)	(?)	11.02
Chemical and metallurgical:			
Cement manufacture	(?)	(?)	6.61
Lime manufacture	(?)	(?)	4.30
Flux stone	(?)	(?)	6.15
Glass manufacture	(?)	(?)	10.99
Special:			
Asphalt fillers or extenders	(?)	(?)	13.83
Other fillers or extenders	(?)	(?)	8.92
Other specified uses not listed	2,004	17,403	8.68
Unspecified:³			
Actual	13,792	70,554	5.12
Estimated	<u>2,975</u>	<u>13,245</u>	<u>4.45</u>
Total	30,500	⁴ 168,597	5.53
Total ^{5 6}	33,620	168,597	5.01

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

¹Includes dolomite, limestone, limestone-dolomite, and miscellaneous stone.

²Withheld to avoid disclosing company proprietary data; included with "Other specified uses not listed."

³Includes production reported without a breakdown by use and estimates for nonrespondents.

⁴Data do not add to total shown because of independent rounding.

⁵One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.

⁶Total shown in thousand short tons and thousand dollars.

TABLE 3
IOWA: CRUSHED STONE SOLD OR USED, BY KIND

Kind	1991 ¹				1993 ²			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	258	28,802	\$151,238	\$5.25	215	30,300	\$167,888	\$5.54
Dolomite	(³)	(³)	(³)	(³)	1	W	W	4.65
Miscellaneous stone	2	100	304	3.04	5	W	W	3.09
Total ⁴	XX	28,903	151,690	5.25	XX	30,500	168,597	5.53
Total ^{5 6}	XX	31,860	151,690	4.76	XX	33,620	168,597	5.01

¹Revised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

²Excludes limestone-dolomite from State total to avoid disclosing company proprietary data.

³Includes "Limestone-dolomite," reported with no distinction between the two.

⁴Excludes dolomite from State total to avoid disclosing company proprietary data.

⁵Data may not add to totals shown because of independent rounding.

⁶One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.

⁶Total shown in thousand short tons and thousand dollars.

TABLE 4
IOWA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1993, BY USE AND DISTRICT

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction aggregates:						
Coarse aggregate (+1 1/2 inch) ¹	—	—	316	1,607	W	W
Coarse aggregate, graded ²	—	—	340	1,745	W	W
Fine aggregate (-3/8 inch) ³	(⁴)	(⁴)	129	620	—	—
Coarse and fine aggregates ⁵	(⁴)	(⁴)	1,503	7,476	W	W
Other construction materials ⁶	—	—	—	—	334	1,399
Agricultural ⁷	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)	(⁴)
Chemical and metallurgical ⁸	—	—	(⁴)	(⁴)	—	—
Special ⁹	—	—	—	—	—	—
Unspecified: ¹⁰	—	—	—	—	—	—
Actual	(⁴)	(⁴)	2,677	15,300	(⁴)	(⁴)
Estimated	(⁴)	(⁴)	323	1,088	—	—
Total ¹¹	1,208	7,713	6,416	34,964	5,717	37,698
Total ^{12 13}	1,332	7,713	7,072	34,964	6,302	37,698

See footnotes at end of table.

TABLE 4—Continued
IOWA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1993, BY USE AND DISTRICT

(Thousand metric tons and thousand dollars)

Use	District 4		District 5		District 6	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction aggregates:						
Coarse aggregate (+1 1/2 inch) ¹	434	2,607	W	W	W	W
Coarse aggregate, graded ²	1,065	6,937	W	W	230	1,663
Fine aggregate (-3/8 inch) ³	67	277	W	W	W	W
Coarse and fine aggregates ⁵	2,047	9,384	W	W	1,419	8,892
Other construction materials ⁶	—	—	2,901	19,663	121	736
Agricultural ⁷	(⁴)	(⁴)	(⁴)	(⁴)	90	402
Chemical and metallurgical ⁸	(⁴)	(⁴)	—	—	—	—
Special ⁹	(⁴)	(⁴)	—	—	—	—
Unspecified: ¹⁰	—	—	—	—	(⁴)	(⁴)
Actual	2,186	5,057	(⁴)	(⁴)	2,340	10,809
Estimated	1,978	8,726	—	—	(⁴)	(⁴)
Total ¹¹	8,753	38,663	3,932	26,431	4,474	23,128
Total ^{12 13}	9,649	38,663	4,334	26,431	4,932	23,128

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

¹Includes filter stone, macadam, and riprap and jetty stone.

²Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and other graded coarse aggregate.

³Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesignated), and other fine aggregate.

⁴Withheld to avoid disclosing company proprietary data; included with "Total."

⁵Includes graded road base or subbase, unpaved road surfacing, crusher run (select material or fill), and other coarse and fine aggregates.

⁶Includes roofing granules.

⁷Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

⁸Includes cement manufacture, flux stone, glass manufacture, and lime manufacture.

⁹Includes asphalt fillers or extenders, other fillers or extenders, and other specified uses not listed.

¹⁰Includes production reported without a breakdown by use and estimates for nonrespondents.

¹¹Data may not add to totals shown because of independent rounding.

¹²One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.

¹³Total shown in thousand short tons and thousand dollars.