



2009 Minerals Yearbook

IOWA

THE MINERAL INDUSTRY OF IOWA

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

In 2009, Iowa's nonfuel raw mineral production¹ was valued at \$596 million, based upon annual U.S. Geological Survey data. This was an \$84 million, or 12%, decrease in the State's total nonfuel mineral production value from that of 2008, which followed a \$1 million, or less than 1%, decrease in 2007 from a total of \$681 million in 2006. Although the State's total production value decreased, the State remained 31st in rank among the 50 States in total nonfuel mineral production value and accounted for 1% of the U.S. total.

Crushed stone, portland cement, construction sand and gravel, lime, and crude gypsum (in descending order of value) continued to be Iowa's leading nonfuel mineral commodities in 2009, accounting for more than 99% of the State's total nonfuel mineral production value. Excluding gemstones, which had no change in production value, the only two mineral commodities produced in Iowa in 2009 to increase in production value were crude gypsum and peat. Crude gypsum saw a \$5.5 million, or 60%, increase in production value, while production rose by 530,000 metric tons, or 42%. Peat production (actual values

withheld—company proprietary data) rose significantly over 2007–08 levels.

The largest decrease in production value took place with portland cement, down 28%, with production down almost 31% (actual values withheld—company proprietary data). Other significant decreases took place with crushed stone, lime, and construction sand and gravel. Crushed stone was down by \$15 million, with production down from 38.7 million metric tons (Mt) in 2008 to 32.6 Mt in 2009, or almost 16%, reversing the 9% increase in production from 2007–08. Construction sand and gravel experienced a 3.5-Mt decline in production from 2007–09, or 20%, with production values decreasing by \$6.5 million, or almost 7%, over the same time period.

Iowa continued to be ranked second among the 16 crude gypsum-producing States in 2009. The State continued to rank among the top 20 producing States for portland cement, lime, and crushed stone. No metals were mined in Iowa; the State's metal production, including molybdenum and steel, came from the processing of materials acquired from other domestic and foreign sources. Secondary molybdenum products were produced at a plant in Fort Madison, Lee County, by Climax Molybdenum Co. (a subsidiary of Freeport-McMoRan Copper & Gold Inc.). Steel and steel products were produced at a steel mill outside of Wilton, Muscatine County, by Gerdau Ameristeel Corp. (part of the Gerdau Corp.), and at a mill, also in Muscatine County, by Ipsco Steel Inc. The State had many foundries and recyclers of iron and steel scrap, the most being in Lee and Scott Counties.

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 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 IOWA^{1,2}

(Thousand metric tons and thousand dollars)

| Mineral | 2007 | | 2008 | | 2009 | |
|---|----------|----------------------|---------------------|----------------------|----------|---------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Clays, common | 331 | 2,630 | 269 | 1,140 | 184 | 828 |
| Gemstones, natural | NA | 3 | NA | 3 | NA | 3 |
| Gypsum, crude | 1,490 | 9,050 | 1,250 | 9,230 | 1,780 | 14,800 |
| Sand and gravel, construction | 17,100 | 94,100 ^r | 15,800 ^r | 89,500 ^r | 13,600 | 87,600 |
| Stone, crushed | 35,500 | 286,000 | 38,700 ^r | 312,000 ^r | 32,600 | 297,000 |
| Combined values of cement, lime, peat, sand and gravel (industrial) | XX | 289,000 ^r | XX | 268,000 ^r | XX | 196,000 |
| Total | XX | 681,000 ^r | XX | 680,000 | XX | 596,000 |

^rRevised. NA Not available. 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
IOWA: CRUSHED STONE SOLD OR USED, BY TYPE¹

| Type | 2008 | | | 2009 | | |
|------------------------|--------------------|---------------------------------|------------------------|--------------------|---------------------------------|-------------------|
| | Number of quarries | Quantity (thousand metric tons) | Value (thousands) | Number of quarries | Quantity (thousand metric tons) | Value (thousands) |
| Limestone ² | 209 ^r | 38,700 ^r | \$312,000 ^r | 214 | 32,600 | \$297,000 |
| Miscellaneous stone | 1 | 39 | 202 | 2 | 37 | 270 |
| Total | XX | 38,700 ^r | 312,000 ^r | XX | 32,600 | 297,000 |

^rRevised. XX Not applicable.

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

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

TABLE 3
IOWA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2009,
BY USE¹

(Thousand metric tons and thousand dollars)

| Use | Quantity | Value |
|--|----------|---------|
| Construction: | | |
| Coarse aggregate (+1½ inch): | | |
| Macadam | 277 | 3,840 |
| Riprap and jetty stone | 360 | 6,660 |
| Filter stone | 49 | 695 |
| Other coarse aggregate | 254 | 2,400 |
| Coarse aggregate, graded: | | |
| Concrete aggregate, coarse | 1,010 | 12,500 |
| Bituminous aggregate, coarse | 300 | 3,780 |
| Bituminous surface-treatment aggregate | 126 | 1,540 |
| Railroad ballast | W | W |
| Other graded coarse aggregate | 52 | 591 |
| Fine aggregate (-¾ inch): | | |
| Stone sand, concrete | 93 | 908 |
| Stone sand, bituminous mix or seal | 216 | 2,900 |
| Screening, undesignated | 206 | 876 |
| Other fine aggregate | 55 | 571 |
| Coarse and fine aggregates: | | |
| Graded road base or subbase | 3,600 | 35,600 |
| Unpaved road surfacing | 2,680 | 23,700 |
| Crusher run or fill or waste | 75 | 2,090 |
| Roofing granules | W | W |
| Other coarse and fine aggregates | 575 | 3,320 |
| Other construction materials | 226 | 3,040 |
| Agricultural, limestone | W | W |
| Chemical and metallurgical: | | |
| Cement manufacture | 2,050 | 4,300 |
| Lime manufacture | W | W |
| Flux stone | W | W |
| Glass manufacture | W | W |
| Special, asphalt fillers or extenders | W | W |
| Other miscellaneous uses and specified uses not listed | 29 | 114 |
| Unspecified: ² | | |
| Reported | 11,200 | 107,000 |
| Estimated | 7,500 | 67,700 |
| Total | 32,600 | 297,000 |

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

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

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

TABLE 4
IOWA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2009, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

| Use | District 1 | | District 2 | | District 3 | | District 4 | |
|--|------------|--------|------------|--------|-----------------------|--------|------------|--------|
| | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
| Construction: | | | | | | | | |
| Coarse aggregate (+1½ inch) ² | W | W | W | W | W | W | 80 | 615 |
| Coarse aggregate, graded ³ | -- | -- | W | W | W | W | 232 | 2,420 |
| Fine aggregate (-¾ inch) ⁴ | -- | -- | W | W | W | W | W | W |
| Coarse and fine aggregate ⁵ | W | W | 1,870 | 17,300 | W | W | W | W |
| Other construction materials | -- | -- | 152 | 1,510 | -- | -- | 73 | 1,540 |
| Agricultural ⁶ | 4 | 29 | 74 | 495 | W | W | 44 | 255 |
| Chemical and metallurgical ⁷ | -- | -- | W | W | -- | -- | W | W |
| Special ⁸ | -- | -- | -- | -- | -- | -- | W | W |
| Other miscellaneous uses | -- | -- | -- | -- | -- | -- | 29 | 114 |
| Unspecified: ⁹ | | | | | | | | |
| Reported | 378 | 3,670 | 1,670 | 16,200 | 4,170 | 40,300 | 2,670 | 24,800 |
| Estimated | -- | -- | 3,320 | 28,900 | 402 | 5,180 | 2,110 | 18,500 |
| Total | 564 | 5,960 | 9,030 | 79,200 | 5,630 | 56,300 | 8,380 | 68,000 |
| | District 5 | | District 6 | | Unspecified districts | | | |
| | Quantity | Value | Quantity | Value | Quantity | Value | | |
| Construction: | | | | | | | | |
| Coarse aggregate (+1½ inch) ² | 300 | 4,900 | 204 | 2,580 | 9 | 168 | | |
| Coarse aggregate, graded ³ | 243 | 3,380 | W | W | 29 | 356 | | |
| Fine aggregate (-¾ inch) ⁴ | 157 | 2,020 | W | W | 48 | 196 | | |
| Coarse and fine aggregate ⁵ | W | W | 1,750 | 15,900 | 302 | 1,740 | | |
| Other construction materials | -- | -- | -- | -- | -- | -- | | |
| Agricultural ⁶ | W | W | 120 | 707 | 11 | 80 | | |
| Chemical and metallurgical ⁷ | -- | -- | -- | -- | -- | -- | | |
| Special ⁸ | -- | -- | -- | -- | -- | -- | | |
| Other miscellaneous uses | -- | -- | -- | -- | -- | -- | | |
| Unspecified: ⁹ | | | | | | | | |
| Reported | 557 | 5,410 | 1,550 | 14,300 | 221 | 1,960 | | |
| Estimated | 587 | 5,210 | 1,080 | 9,840 | -- | -- | | |
| Total | 3,480 | 38,000 | 4,870 | 45,200 | 620 | 4,500 | | |

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

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

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

⁵Includes crusher run or fill or waste, graded road base or subbase, roofing granules, unpaved road surfacing, and other coarse and fine aggregates.

⁶Includes limestone.

⁷Includes cement, lime, and glass manufacture, and flux stone.

⁸Includes asphalt fillers or extenders.

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

TABLE 5
IOWA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2009,
BY MAJOR USE CATEGORY¹

| Use | Quantity (thousand metric tons) | Value (thousands) | Unit value |
|---|---------------------------------------|----------------------|---------------|
| Concrete aggregate (including concrete sand) | 1,770 | \$11,800 | \$6.69 |
| Plaster and gunite sands | 107 | 711 | 6.64 |
| Concrete products (blocks, bricks, pipe, decorative, etc.) | 58 | 829 | 14.29 |
| Asphaltic concrete aggregates and other bituminous mixtures | 209 | 1,090 | 5.20 |
| Road base and coverings ² | 1,680 | 6,590 | 3.92 |
| Fill | 587 | 2,390 | 4.07 |
| Roofing granules | 34 | 194 | 5.71 |
| Snow and ice control | 36 | 367 | 10.19 |
| Other miscellaneous uses ³ | 324 | 5,720 | 17.67 |
| Unspecified: ⁴ | | | |
| Reported | 5,740 | 39,200 | 6.83 |
| Estimated | 3,060 | 18,700 | 6.12 |
| Total or average | 13,600 | 87,600 | 6.44 |

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 railroad ballast.

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

TABLE 6
IOWA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2009, 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 (including concrete sand) | 479 | 2,970 | 305 | 1,780 | 167 | 1,120 |
| Concrete products (blocks, bricks, pipe, decorative, etc.) ² | W | W | W | W | 2 | 22 |
| Asphaltic concrete aggregates and road base materials ³ | 828 | 2,940 | 481 | 1,850 | W | W |
| Fill | 181 | 562 | 116 | 625 | 94 | 443 |
| Other miscellaneous uses ⁴ | 14 | 68 | 384 | 6,060 | 300 | 1,300 |
| Unspecified: ⁵ | | | | | | |
| Reported | 1,170 | 7,740 | 320 | 2,060 | 3,740 | 25,700 |
| Estimated | 1,230 | 6,860 | 559 | 3,600 | 59 | 377 |
| Total | 3,910 | 21,100 | 2,170 | 16,000 | 4,360 | 28,900 |
| Use | District 4 | | District 5 | | District 6 | |
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Concrete aggregate (including concrete sand) | 277 | 2,060 | -- | -- | 542 | 3,910 |
| Concrete products (blocks, bricks, pipe, decorative, etc.) ² | W | W | -- | -- | W | W |
| Asphaltic concrete aggregates and road base materials ³ | W | W | (6) | (6) | 183 | 1,030 |
| Fill | 97 | 391 | -- | -- | 98 | 371 |
| Other miscellaneous uses ⁴ | 143 | 1,550 | -- | -- | 187 | 1,050 |
| Unspecified: ⁵ | | | | | | |
| Reported | 154 | 1,170 | (6) | (6) | (6) | (6) |
| Estimated | 418 | 2,780 | (6) | (6) | (6) | (6) |
| Total | 1,090 | 7,950 | 223 | 1,390 | 1,770 | 11,700 |
| Use | Unspecified districts | | | | | |
| | Quantity | Value | | | | |
| Concrete aggregate (including concrete sand) | -- | -- | | | | |
| Concrete products (blocks, bricks, pipe, decorative, etc.) ² | -- | -- | | | | |
| Asphaltic concrete aggregates and road base materials ³ | 84 | 511 | | | | |
| Fill | -- | -- | | | | |
| Other miscellaneous uses ⁴ | -- | -- | | | | |
| Unspecified: ⁵ | | | | | | |
| Reported | -- | -- | | | | |
| Estimated | -- | -- | | | | |
| Total | 84 | 511 | | | | |

W Withheld to avoid disclosing company proprietary data; included in "Other miscellaneous uses." -- Zero.

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 railroad ballast, roofing granules, and snow and ice control.

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

⁶Withheld to avoid disclosing company proprietary data; included in "Total."