THE MINERAL INDUSTRY OF NEBRASKA

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 University of Nebraska-Lincoln, Nebraska Geological Survey, for collecting information on all nonfuel minerals.

In 1995, for the 2d consecutive year, Nebraska ranked 41st among the 50 States in total nonfuel mineral production value,[1] according to the U.S. Geological Survey (USGS). The estimated value for 1995 was $142 million, a 3% decrease from that of 1994. This followed a 16% gain in value from 1993 to 1994. The State accounted for a little less than 0.5% of the U.S. total nonfuel mineral production value. Construction sand and gravel, followed by portland cement, and crushed stone continued to be Nebraska's leading nonfuel mineral commodities by value. In 1995, construction sand and gravel accounted for about 40% of the State's total nonfuel mineral value. Compared with 1994, the values of construction sand and gravel and common clays increased,while portland cement, crushed stone, lime, and masonry cement decreased. All the States's portland cement was manufactured in one plant in Louisville, in eastern Nebraska. Metals produced in the State, mostly raw steel and lead, were processed from materials acquired from other domestic and foreign sources. Uranium was in situ leach mined at one location in northwestern Nebraska but is not included in USGS statistics because it is a fuel mineral.

The Nebraska Geological Survey[2] (NGS) has been very active for the past several years, conducting studies of the State's geology and its mineral and water resources. Geologists from 10 of the State geological surveys (Nebraska, Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, North Dakota, South Dakota, and Wyoming) and the USGS jointly conducted ongoing exploratory studies of the Missouri River Basin, especially from Omaha to Kansas City, Missouri. These studies were initiated because of increasing concerns about the interactions and potential effects of modern industry, mining, agriculture, and society on this busy urban-rural corridor. The joint effort will result in a large database, with maps and references, that will include a variety of information about the basin, including details about soil, rock formations, and water.

The Nebraska Earth Science Education Network recently launched a pilot project that will provide kindergarten through 12th grade (K-12) teachers with information about the Earth through advanced technology. Nebraska's Institute of Agriculture and Natural Resources and the University of Nebraska-Lincoln Computing Resource Center, together with one of the State's U.S. Senators, obtained a $200,000 grant from the National Aeronautics and Space Administration. The grant was used to purchase computer equipment for each participating school and to develop an information transfer program, including a home page on the World Wide Web. Teachers in seven schools will use personal computers and the Internet to access natural resources data, particularly from satellites and the space shuttle. The project is designed to promote information exchange between university and K-12 educators.

In mineral industry news, Potash Corp. of Saskatchewan (PCS) agreed to acquire 100% of Texasgulf Inc.'s U.S. operations for $810 million in cash. Included in this transaction was an underground limestone mine near Weeping Water that Texasgulf has operated since 1975. The Nebraska Public Power District is experimenting with burning low-BTU coal with fly ash to help cleanse the

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN NEBRASKA[1 2]

Mineral		1993		1994		1995[p]	
		Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Clays	thousand metric tons	192	$932	206	$867	222	$1,030
Lime	do.	24	1,230	24	904	13	668
Sand and gravel (construction)	do.	[e]12,900	[e]41,900	15,000	49,200	16,000	55,200
Stone (crushed)	do.	6,760	38,900	6,890	41,600	6,600	39,600
Combined value of cement, gemstones, and sand and gravel (industrial)		XX	43,200	XX	53,600	XX	45,200
Total		XX	126,000	XX	146,000	XX	142,000

[e]Estimated. [p]Preliminary. XX Not applicable.
[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).
[2]Data are rounded to three significant digits; may not add to totals shown.

plant's boiler furnaces of slag.

The NGS produced several mining-related publications which were published by Nebraska's Conservation and Survey Division, including a 1995 update of *Mineral Facts for Nebraska*, *Test-Hole Drilling in Nebraska*, and water and mineral test-hole log books for holes drilled in Boyd, Fillmore, and Thayer Counties. Other recent publications (1994) still available were the *Directory of Quarries, Pits and Mines in Nebraska* and the *GIS Data Base and Assessment of the Physical Natural Resources of the Cedar River Basin, Nebraska*. Information concerning these and other State geologic publications is available from the office of the State Geologist.

[1]The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending on 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 1995 USGS mineral production data are estimates, as of Dec. 1995. For some commodities, especially 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. Call MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset and request Document No. 1000 for a telephone listing of all mineral commodity specialists or call USGS information at (703) 648-4000 for the specialist's name and number.

[2]The remaining narrative portion of this report was based on information provided by the Nebraska Geological Survey.

TABLE 2

NEBRASKA: CRUSHED STONE[1] SOLD OR USED BY PRODUCERS IN 1994, BY USE[2]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch): Riprap and jetty stone[3]	344	$2,720	$7.92
Coarse aggregate, graded:			
Concrete aggregate, coarse	763	5,400	7.08
Bituminous aggregate, coarse	W	W	6.43
Railroad ballast	5	31	6.20
Fine aggregate (-3/8 inch): Screening, undesignated	83	127	1.53
Coarse and fine aggregates:			
Graded road base or subbase	W	W	6.73
Unpaved road surfacing	376	2,770	7.37
Crusher run or fill or waste	403	2,670	6.62
Other construction materials	683	4,470	6.54
Agricultural: Agricultural limestone[4]	286	2,400	8.39
Chemical and metallurgical: Cement manufacture	([5])	([5])	3.80
Special: Asphalt fillers or extenders	([5])	([5])	16.10
Unspecified: Actual[6]	2,560	15,900	6.20
Total	6,890	41,600	6.04

W Withheld to avoid disclosing company proprietary data; included with "Other construction materials."
[1]Includes limestone.
[2]Data are rounded to three significant digits.
[3]Includes other coarse aggregate.
[4]Includes poultry grit and mineral food, and other agricultural uses.
[5]Withheld to avoid disclosing company proprietary data; included in "Total."
[6]Includes production reported without a breakdown by end use and estimates for nonrespondents.

TABLE 3

NEBRASKA: CRUSHED STONE SOLD OR USED, BY KIND[1]

Kind	1993				1994			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	14	6,760	$38,900	$5.75	12	6,890	$41,600	$6.04

[1]Data are rounded to three significant digits.

TABLE 4

NEBRASKA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1994, BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Value per ton
Concrete aggregate (including concrete sand)	4,950	$16,200	$3.26
Plaster and gunite sands	160	637	3.98
Concrete products (blocks, brick, pipe, decorative, etc.)	164	521	3.18
Asphaltic concrete aggregates and other bituminous mixtures	1,510	5,230	3.46
Road base and coverings[2]	4,200	13,000	3.10
Fill	594	1,210	2.03
Snow and ice control	181	731	4.04
Railroad ballast	30	275	9.17
Other[3]	123	558	4.54
Unspecified:[4]			
Actual	562	2,240	3.98
Estimated	2,480	8,600	3.47
Total or average	15,000	49,200	3.29

[1]Data are rounded to three significant digits; may not add to totals shown.
[2]Includes road and other stabilization (cement and lime).
[3]Includes roofing granules
[4]Includes production reported without a breakdown by end use and estimates for nonrespondents.

TABLE 5

NEBRASKA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1994, 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 aggregate and concrete products[2]	437	1,650	1,180	3,450	3,660	12,200
Asphaltic-bituminous mixtures	313	954	588	2,200	[3]608	[3]2,080
Road base and coverings[4]	1,180	2,780	1,350	4,190	1,680	6,050
Fill	120	259	290	483	184	466
Other miscellaneous uses[5]	57	330	67	235	208	999
Unspecified:[6]						
Actual	148	435	37	130	376	1,670
Estimated	389	1,200	1,360	4,830	728	2,560
Total	2,640	7,610	4,870	15,500	[3]7,440	[3]26,000

[1]Data are rounded to three significant digits; may not add to totals shown.
[2]Includes plaster and gunite sands.
[3]Includes unspecified within all districts.
[4]Includes fill, road and other stabilization (cement and lime).
[5]Includes railroad ballast, roofing granules, and snow and ice control.
[6]Includes production reported without a breakdown by end use and estimates for nonrespondents.

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