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# 2014 Minerals Yearbook

## NEBRASKA [ADVANCE RELEASE]

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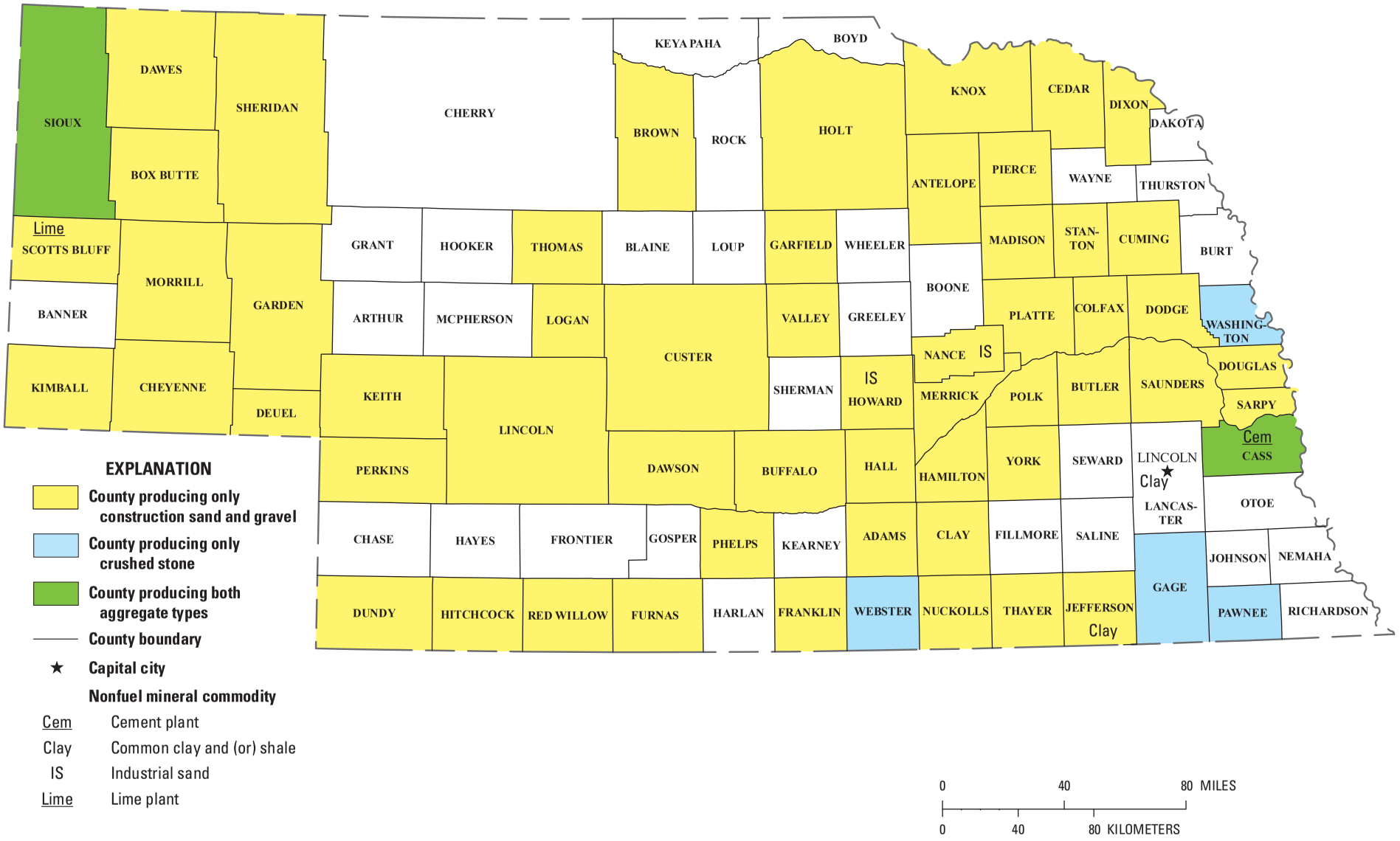


**Figure 1.** Map showing major nonfuel-mineral-producing areas in Nebraska in 2014. Sources: University of Nebraska-Lincoln, Nebraska Geological Survey, and U.S. Geological Survey.

# The Mineral Industry of Nebraska

By Robert M. Callaghan

**This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Nebraska Geological Survey at the University of Nebraska-Lincoln for collecting information on all nonfuel minerals.**

In 2014, in the State of Nebraska (fig. 1), the partial value of the nonfuel mineral production[1] for the mineral commodities published in this report increased to $169 million,[2] a 3% increase from the State's revised nonfuel mineral production partial value of $164 million[2] in 2013 for these mineral commodities (table 1). The State's rank in the Nation for total nonfuel mineral production value, including those mineral commodities for which values were withheld, was 37th in 2014. The per capita value of the published nonfuel mineral commodities, primarily aggregates, increased to $90 as compared with $252 for the Nation, with increased employment despite a decrease in total number of mines (table 2). The leading nonfuel mineral commodities, in decreasing order of value, were industrial sand and gravel, cement, crushed stone, and construction sand and gravel. About 95% of Nebraska's crushed stone in 2014 consisted of limestone, 4% was dolomite, and 1% was classified as "miscellaneous." Nebraska's limestone production provided raw material for the State's only cement plant and for one lime plant, which produced lime used in sugar beet processing. Other companies in the State (table 3) produced clay for brick and tile.

## Events, Trends, and Issues

In 2014, use of industrial sand for hydraulic fracturing in the United States doubled from that used in 2013. Industrial sand became Nebraska's most valuable mineral commodity, rising from fourth in the State in 2013. Crushed stone also contributed to the State's increase in nonfuel mineral production in 2014. Production value of aggregates overall had been increasing since 2009, the last year of the recession that began in December 2007, and by 2012 had surpassed the prerecession level in 2008 (fig. 2). Construction is the major end use for aggregates; highway construction is one component of this, and about $565 million was spent on transportation construction in 2014. This was close to a high of $587 million in 2013; expenditures had been increasing since 2011 when the Build Nebraska Act was passed, which reassigned 1/4 of 1 cent of the existing general State sales tax receipts to State and local road improvements. Funds were first available in the latter half of 2013 with 2014 being the first fully funded year; this funding mechanism was estimated to generate $1.2 billion for construction spending over 20 years (State of Nebraska Department of Roads, 2016). The number of new housing units also continued to increase, to 7,605 from 7,543 in 2013 and up from the recent low of 5,150 in 2009 (U.S. Census Bureau, undated). However, total aggregates production quantities remained lower in the years after the recession than before.

Though all of Nebraska's active mines produced industrial minerals, one project for metallic minerals was under development. NioCorp Developments Ltd. continued working on a preliminary economic assessment of its Elk Creek niobium deposit in Johnson County. Drilling results on the property in 2014 were used to update an NI 43–101 resource report (Niocorp Developments Ltd., 2014, p. 10). The United States is 100% import dependent on niobium, used primarily in superalloys. The Elk Creek carbonatite had previously been explored for rare-earth elements and phosphate rock in the mid-1980s; core sample analysis reports were available through the Nebraska Geological Survey (University of Nebraska-Lincoln School of Natural Resources, 2017).

## Aggregates by State and End Use

A companion dataset, "Aggregates by State and End Use," replaces the discrete aggregate tables that were included in the individual State chapters prior to 2014 and is available on the State Minerals Statistics and Information web page at https://minerals.usgs.gov/minerals/pubs/state/. This dataset is updated annually.

## References Cited

Niocorp Developments Ltd., 2014, Annual information form: Vancouver, British Columbia, Canada, NioCorp Developments Ltd., December 18, 43 p. (Accessed September 22, 2017, via http://www.sedar.com/.)

State of Nebraska Department of Roads, 2016, State of Nebraska Department of Roads annual report 2015: State of Nebraska Department of Roads, 33 p. (Accessed May 22, 2017, at http://dot.nebraska.gov/media/3493/annual-report.pdf.)

University of Nebraska-Lincoln School of Natural Resources, 2017, Geological and mineral resources: University of Nebraska-Lincoln School of Natural Resources. (Accessed May 22, 2017, at http://snr.unl.edu/data/geologysoils/geologicalmineralresources.aspx.)

U.S. Census Bureau, [undated], Number of new residential housing units by State (total): U.S. Census Bureau, 51 p. (Accessed July 16, 2016, at http://www.census.gov/construction/bps/xls/annualhistorybystatebystructure.xls.)

[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 USGS mineral production data published in this chapter are those available as of June 2017. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the internet at http://minerals.usgs.gov/minerals.

[2]Partial total; excludes values that must be withheld to avoid disclosing company proprietary data.

TABLE 1
NONFUEL MINERAL PRODUCTION IN NEBRASKA[1, 2, 3]

(Thousand metric tons and thousand dollars)

| Mineral | 2012 | | 2013 | | 2014 | |
|---|---|---|---|---|---|---|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Gemstones, natural[e] | NA | 4 | NA | 4 | NA | 4 |
| Sand and gravel, construction | 13,300 [r] | 87,600 [r] | 12,600 [r] | 88,100 [r] | 11,600 | 83,800 |
| Stone, crushed | 6,650 | 74,900 [r] | 6,590 | 76,400 [r] | 7,470 | 85,200 |
| Combined values of cement, clays (common clay), lime, sand and gravel (industrial) | XX | W | XX | W | XX | W |
| Total | XX | 162,000 [r] | XX | 164,000 [r] | XX | 169,000 |

[e]Estimated. [r]Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; excluded from "Total." XX Not applicable.
[1]Includes data available through June 2017.
[2]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).
[3]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 2
MINING ACTIVITY IN NEBRASKA

| Mining activity | | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| State rank[1] | | 38 | 38 | 37 |
| Employment, number:[2] | | | | |
| Nonfuel mineral mines | | 815 | 760 | 768 |
| Mills and plants | | 174 | 163 | 162 |
| Number of nonfuel mineral mines[2] | | 169 | 162 | 158 |
| Number of mills and plants[2] | | 7 | 7 | 7 |
| Average annual wage, all mining[3] | dollars per year | 48,296 | 51,070 | 52,183 |
| Average annual wage, all industries[3] | do. | 38,660 | 39,354 | 40,641 |
| Per capita value[4] | dollars per person | 88 | 88 | 90 |
| National per capita value[1] | do. | 241 | 236 | 252 |

do. Ditto.
[1]Based on unadjusted State total value.
[2]Source: U.S. Mine Safety and Health Administration.
[3]Source: National Mining Association.
[4]Based on partial State total value to avoid disclosing company proprietary data.

TABLE 3
STRUCTURE OF THE NONFUEL MINERAL INDUSTRY IN NEBRASKA

(Nonfuel-mineral-producing companies, not including aggregate producers)

| Commodity | Company | County |
|---|---|---|
| Cement, portland, and masonry | Ash Grove Cement Co. | Cass |
| Clays, common clay | Endicott Clay Products Co. | Jefferson |
| Do. | Yankee Hill Brick Manufacturing Co., Inc. | Lancaster |
| Lime | Western Sugar Cooperative, Inc. | Scotts Bluff |
| Sand and gravel, industrial | Nebraska Sand Co., LLC | Howard |
| Do. | Preferred Sands, LLC | Nance |

Do. Ditto.

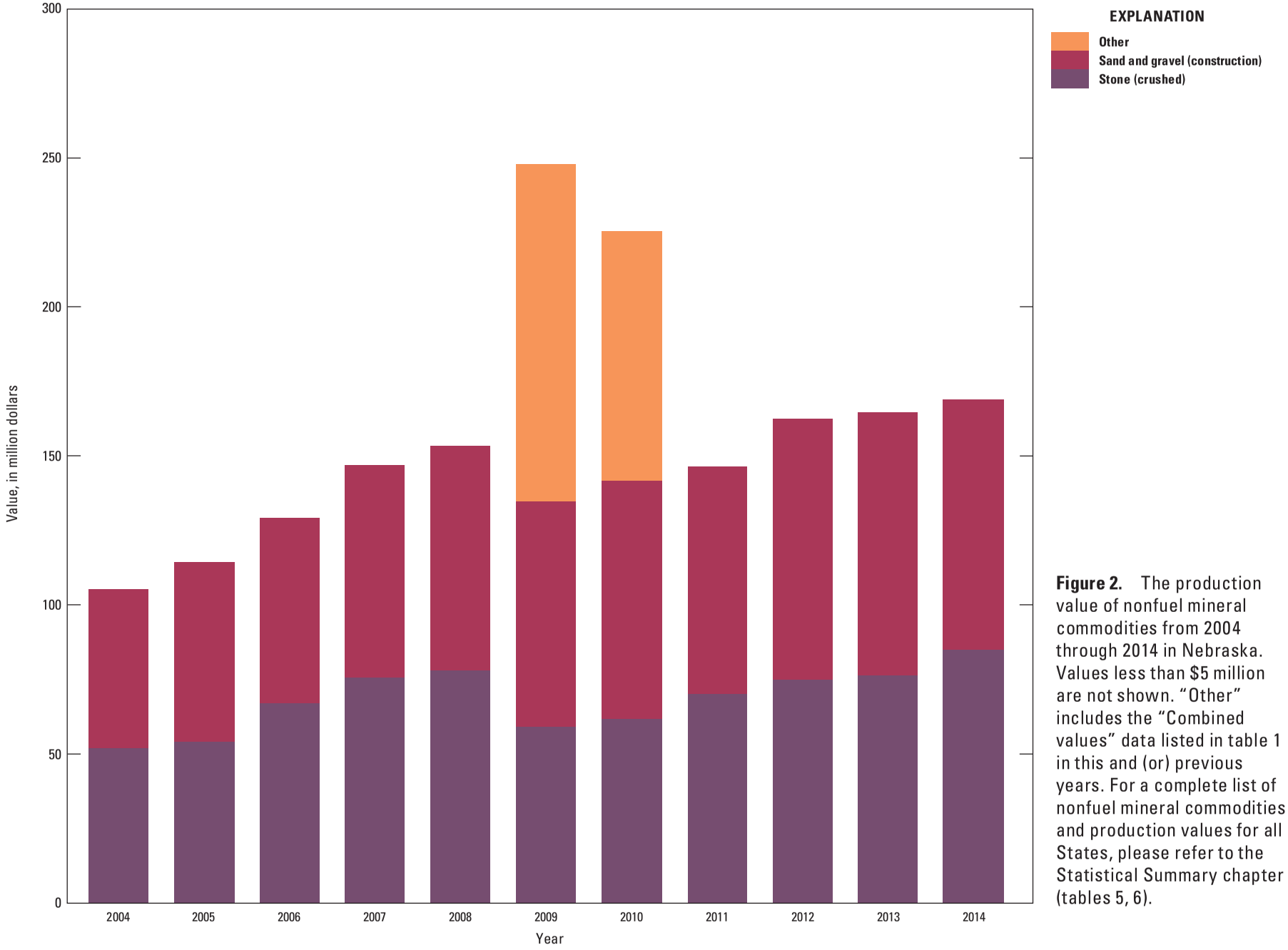


**Figure 2.** The production value of nonfuel mineral commodities from 2004 through 2014 in Nebraska. Values less than $5 million are not shown. "Other" includes the "Combined values" data listed in table 1 in this and (or) previous years. For a complete list of nonfuel mineral commodities and production values for all States, please refer to the Statistical Summary chapter (tables 5, 6).