



2012–2013 Minerals Yearbook

ALASKA [ADVANCE RELEASE]

ALASKA

LEGEND

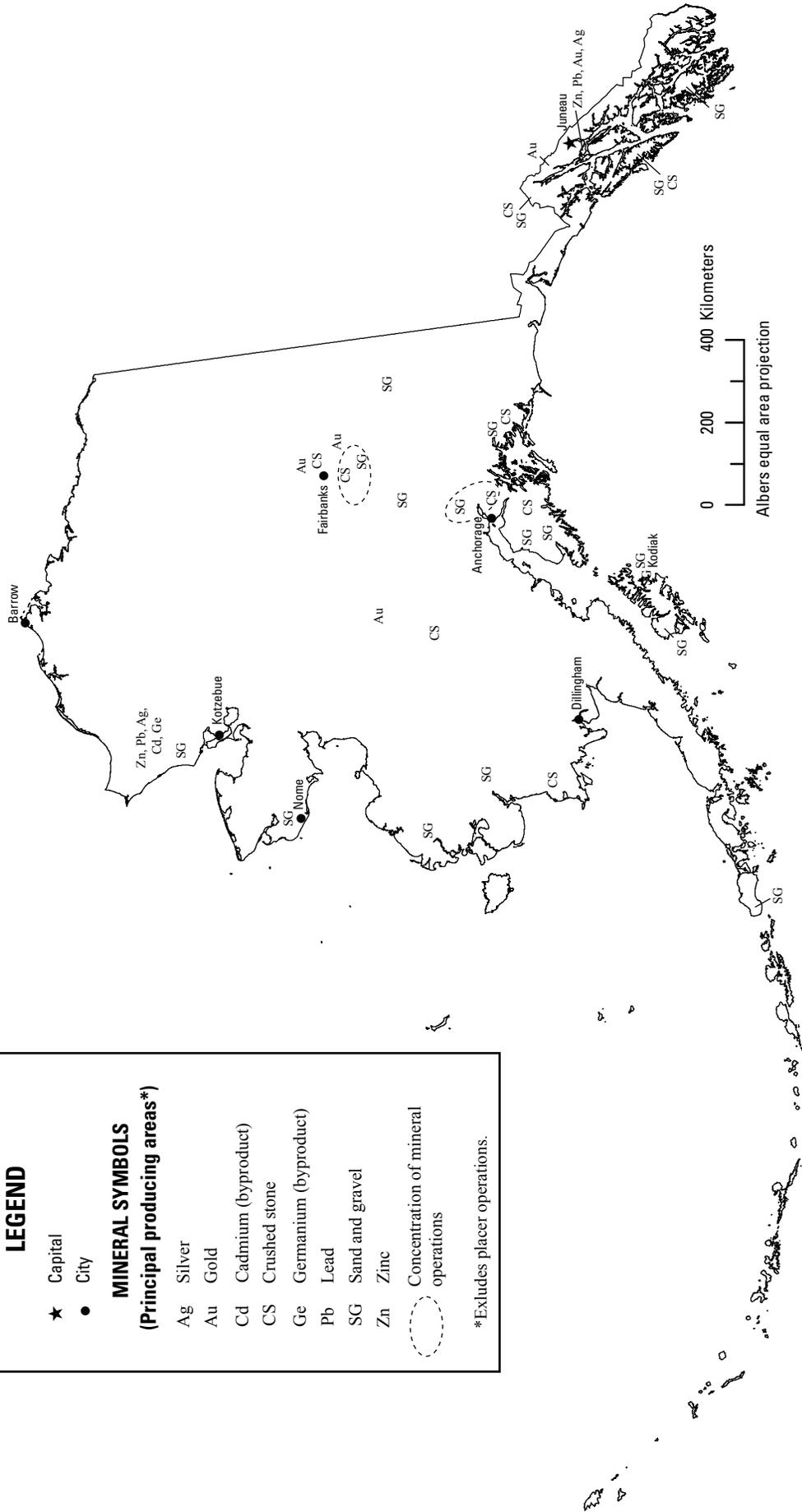
- ★ Capital
- City

MINERAL SYMBOLS
(Principal producing areas*)

- Ag Silver
- Au Gold
- Cd Cadmium (byproduct)
- CS Crushed stone
- Ge Germanium (byproduct)
- Pb Lead
- SG Sand and gravel
- Zn Zinc

○ Concentration of mineral operations

* Excludes placer operations.



THE MINERAL INDUSTRY OF ALASKA

In 2013, the value of the nonfuel mineral production¹ in the State of Alaska decreased to \$3.55 billion, 4.7% of the total U. S. nonfuel mineral production, ranking it seventh in the Nation. In 2012, the corresponding value was \$3.69 billion, 4.9% of the U.S. total nonfuel mineral production, ranking it fifth among the 50 States. In 2013, on a per capita basis, nonfuel mineral production in Alaska had a value of \$4,810 compared with the national average of \$238. In 2012, the per capita value was \$5,054 compared with the national average of \$241.

The value of nonfuel mineral production in Alaska for the years 2006 through 2013 was as follows (in billions of dollars): \$3.01 (2006), \$3.52 (2007), \$2.64 (2008), \$2.62 (2009), \$3.40 (2010), \$3.80 (2011), \$3.69 (2012), and \$3.55 (2013).

In 2013, there were 2,017 employees in nonfuel mineral mines in Alaska and 566 in mills and preparation plants. In 2012, the corresponding numbers were 1,892 in nonfuel mineral mines and 519 in mills and preparation plants (U.S. Mine Safety and Health Administration, 2013, p. 7; 2014, p. 7). In 2013, the average annual wage for Alaska for all mining was \$102,000 compared with \$50,600 for all industries. In 2012, the corresponding figures were \$98,900 and \$49,600, respectively (National Mining Association, unpub. data, February 4, 2016).

In 2013, on the basis of production quantity, Alaska was the leading State for the production of silver and zinc out of 11 and 4 producing States, respectively. The State was second for the production of gold and lead concentrate out of 10 and 3 producing States, respectively. There were at least four major mines that produced gold, along with other minerals such as silver, copper, zinc, and lead.

Alaska also produced construction sand and gravel, copper (2012 only), crushed stone, and gemstones. Gemstones found in Alaska include amethyst, rhodonite, epidote, Wrangell garnet, nephrite jade, fluorite, and rutiled quartz. There was only a small amount of copper produced in 2012, as a byproduct of gold production from the Nixon Fork Mine. The mine did not produce copper in 2013 and went into temporary closure in June 2013.

Alaska had a high level of mineral exploration. There were five lode gold mines and a large number of placer gold deposits that were mined sporadically. The Pebble project was a large gold-copper-molybdenum deposit on hold pending environmental review. The State also had large deposits of oil and gas and some coal operations.

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 USGS mineral production data published in this chapter are those available as of February 2016. Data in this report are rounded to three significant digits and percentages are calculated from unrounded data. 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>.

Commodity Review

The Alaska Division of Geological and Geophysical Surveys provided reports for the mineral industry of the State covering activities in 2012 and 2013 from which the following data have been extracted (Alaska Division of Geological and Geophysical Surveys Staff, 2013, 2014). These data may differ from U.S. Geological Survey (USGS) data, which are based on responses by companies to USGS surveys and estimation for nonrespondents. The USGS withheld some data to avoid disclosing company proprietary data.

Metals and Industrial Minerals

Mineral industry activity with respect to nonfuel minerals was as follows:

- December 2013—The total value of minerals produced for the year was estimated at \$3.42 billion, slightly less than the corresponding 2012 value.
- December 2013—Mineral exploration expenditures in the State for the year were \$176 million, down 48% from 2012, and slightly lower than those in 2006 and 2009. This may be partially due to the Donlin gold project progressing to development from exploration.
- December 2013—Development expenditures for the year increased by about 5% to \$359 million because of the Donlin project.
- December 2013—Estimated revenues to the State of Alaska and municipalities from mineral-industry-specific fees, rent, sales, royalties, and taxes amounted to about \$143 million for the year.
- December 2012—The total value of minerals produced for the year was estimated at \$3.44 billion, slightly below the corresponding 2011 value.
- December 2012—Mineral exploration expenditures in the State for the year were \$335 million, down 8% from 2011. However, this was the eighth consecutive year in which exploration expenditures in Alaska exceeded \$100 million.
- December 2012—Development expenditures in the State for the year increased by almost 26% from the 2011 figure, to approximately \$342 million.
- December 2012—Estimated revenues to the State of Alaska and municipalities from mineral-industry-specific fees, rent, sales, royalties, and taxes amounted to nearly \$125 million for the year.

References Cited

- Athey, J.E., Freeman, L.K., Harbo, L.A., and Lasley, P.S., 2014, Alaska’s mineral industry 2013: Alaska Division of Geological and Geophysical Surveys, Special Report 70, 66 p. (Accessed February 4, 2016, at <http://dgggs.alaska.gov/webpubs/dgggs/sr/text/sr069.pdf>.)

Athey, J.E., Harbo, L.A., Lasley, P.S., and Freeman, L.K., 2013, Alaska's mineral industry 2012: Alaska Division of Geological and Geophysical Surveys, Special Report 69, 72 p. (Accessed February 4, 2016, at <http://dggs.alaska.gov/webpubs/dggs/sr/text/sr068.pdf>.)

U.S. Mine Safety and Health Administration, [2013], Mine injury and worktime, quarterly, January–December 2012, Final, closeout edition, 33 p. (Accessed February 4, 2016, at http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20125.pdf.)

U.S. Mine Safety and Health Administration, [2014], Mine injury and worktime, quarterly, January–December 2013, Final, closeout edition, 34 p. (Accessed February 4, 2016, at http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20135.pdf.)

TABLE 1
NONFUEL MINERAL PRODUCTION IN ALASKA^{1,2}

(Thousand metric tons and thousand dollars)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Gemstones, natural	NA	70	NA	70	NA	70
Gold ³ kilograms	25,800	1,310,000	27,700	1,490,000	32,200	1,470,000
Sand and gravel, construction	7,710 ^r	70,800 ^r	7,400	52,200	8,090	58,500
Stone, crushed	1,000 ^r	11,900 ^r	2,540	22,700	1,060	13,200
Combined values of copper (2011–12), lead, silver, zinc	XX	2,410,000 ^r	XX	2,120,000	XX	2,010,000
Total	XX	3,800,000 ^r	XX	3,690,000	XX	3,550,000

^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.

³Recoverable content of ores, and so forth.

TABLE 2
ALASKA: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE¹

Type	2012				2013			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Shell	--	--	--	--	--	--	--	--
Granite	4	78	\$900	\$11.58	3	108	\$1,090	\$10.04
Traprock	7	126	1,240	9.83	1	43	259	6.06
Miscellaneous stone	18	2,330	20,600	8.84	20	912	11,800	12.96
Total or average	XX	2,540	22,700	8.97	XX	1,060	13,200	12.39

XX Not applicable. -- Zero.

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

TABLE 3
ALASKA: CRUSHED STONE SOLD OR USED BY PRODUCERS BY USE¹

Use	2012			2013		
	Quantity (thousand metric tons)	Value (thousands)	Unit value	Quantity (thousand metric tons)	Value (thousands)	Unit value
Construction:						
Coarse aggregate (+1½ inch):						
Macadam	--	--	--	--	--	--
Riprap and jetty stone	184	\$5,480	\$29.79	243	\$4,430	\$18.22
Filter stone	291	1,600	5.51	3	23	7.94
Unspecified coarse aggregate	--	--	--	7	52	6.89
Coarse aggregate, graded:						
Concrete aggregate, coarse	W	W	W	2	18	9.36
Bituminous aggregate, coarse	14	144	10.32	4	34	9.45
Bituminous surface-treatment aggregate	W	W	W	1	4	14.15
Railroad ballast	12	234	19.50	1	23	16.12
Unspecified graded coarse aggregate	--	--	--	72	780	10.78
Fine aggregate (-¾ inch):						
Stone sand, concrete	W	W	W	6	59	10.54
Stone sand, bituminous mix or seal	W	W	W	--	--	--
Screening, undesignated	5	60	12.00	--	--	--
Unspecified fine aggregate	W	W	W	--	--	--
Coarse and fine aggregates:						
Graded road base or subbase	36	338	9.39	52	373	7.19
Unpaved road surface	46	590	12.82	33	342	10.25
Crusher run or fill or waste	1,250	7,140	5.69	W	W	W
Unspecified coarse and fine aggregates	W	W	W	W	W	W
Unspecified and other construction materials	--	--	--	22	720	33.07
Other miscellaneous uses and specified uses not listed	2	29	14.44	19	29	1.57
Unspecified: ²						
Reported	243	2,500	10.28	128	1,290	10.05
Estimated	417	4,380	10.50	390	3,920	10.04
Total or average	2,540	22,700	8.97	1,060	13,200	12.39

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

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

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

TABLE 4
ALASKA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012,
BY MAJOR USE CATEGORY¹

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products	142	\$1,410	\$9.93
Asphaltic concrete aggregates and other bituminous mixtures	150	1,460	9.73
Road base and coverings	1,320	8,520	6.45
Fill	312	2,350	7.53
Snow and ice control	10	86	8.60
Railroad ballast	128	2,490	19.45
Other miscellaneous uses ²	486	2,970	6.11
Unspecified: ³			
Reported	2,800	19,100	6.82
Estimated	2,050	13,700	6.68
Total or average	7,400	52,200	7.05

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

²Includes filtration.

³Reported and estimated production without a breakdown by end use.

TABLE 5
ALASKA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013,
BY MAJOR USE CATEGORY¹

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products	3,160	\$31,600	\$9.98
Asphaltic concrete aggregates and other bituminous mixtures	207	1,470	7.12
Road base and coverings	603	3,910	6.48
Fill	147	378	2.57
Snow and ice control	7	82	11.71
Other miscellaneous uses ²	28	240	8.57
Unspecified: ³			
Reported	1,700	7,890	4.64
Estimated	2,230	13,000	5.81
Total or average	8,090	58,500	7.23

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

²Includes filtration.

³Reported and estimated production without a breakdown by end use.