



# 2010–2011 Minerals Yearbook

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## ALASKA

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**LEGEND**

- ★ Capital
- City
- Regional boundary

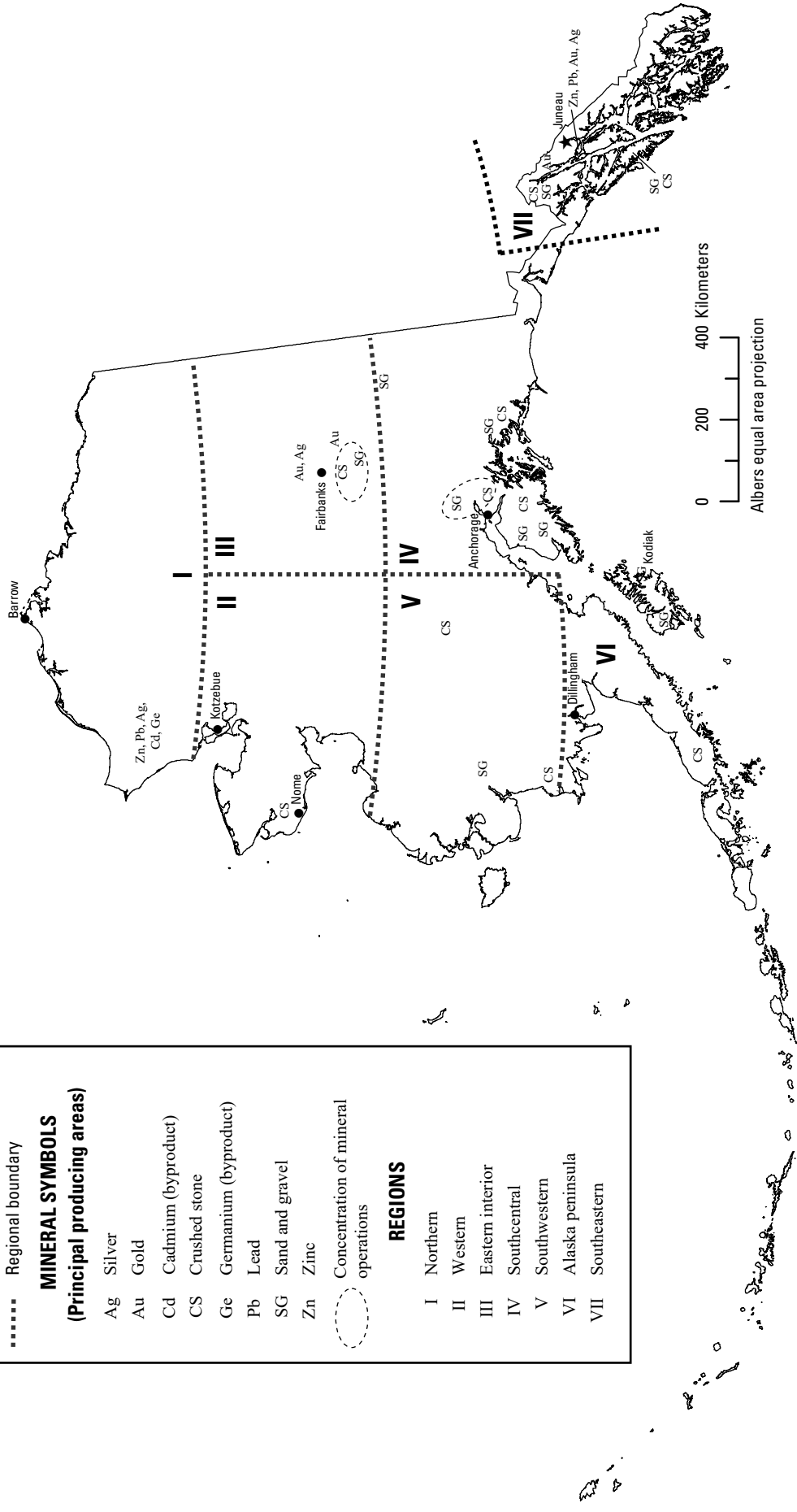
**MINERAL SYMBOLS**  
(Principal producing areas)

- 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

**REGIONS**

- I Northern
- II Western
- III Eastern interior
- IV Southcentral
- V Southwestern
- VI Alaska peninsula
- VII Southeastern



# THE MINERAL INDUSTRY OF ALASKA

In 2011, Alaska's nonfuel mineral production<sup>1</sup> was valued at \$3.81 billion, based upon annual U.S. Geological Survey (USGS) data. This was a \$413 million (12%) increase from the State's total nonfuel mineral production value of \$3.4 billion in 2010, which followed a \$774 million (30%) increase from \$2.62 billion in 2009. The State rose in rank to fifth in 2011 and 2010, from seventh in 2009, among the 50 States in total nonfuel mineral production value, and accounted for approximately 5% of the total U.S. value in 2011 and 2010. On a per capita basis, Alaska led the Nation in nonfuel mineral production in 2011 with a value of \$5,270, almost 22 times the national average of \$240.

The nonfuel mineral industry in Alaska has grown significantly during the 1997–2011 period. In 1997, the State climbed to 15th in the nonfuel mineral production value rankings, up from 21st the previous year. It then surpassed \$1 billion in total production value for the first time in 1999, and jumped to sixth place in 2006. In every year since 2006, Alaska has ranked no lower than eighth and has produced more than \$2.6 billion worth of nonfuel minerals each year.

Metal mining dominates the nonfuel mineral industry in Alaska. In 2011 and 2010, zinc, gold, silver, and lead were the leading commodities in the State, in descending order of production value. These four metals together constituted nearly 98% of Alaska's total nonfuel mineral production value in both 2011 and 2010. Construction sand and gravel, crushed stone, cadmium, copper (2011 only), and gemstones compose the remainder of the total.

While the quantities of the four major metals were characterized by a mix of losses and gains in 2011 and 2010, the production values of these commodities almost uniformly increased in each year. The only exception was a decline in

the production value of lead in 2011. Compared to 2009, the production value of zinc rose 30% through 2011, silver grew 107%, and lead edged up slightly (0.8%) (values withheld—proprietary company data). In 2011, the production value of gold grew by 18% from the previous year. Among other mineral commodities, production of construction sand and gravel in 2011 decreased by 13,000 metric tons (t) relative to 2009, a decline of 0.2%, but the production value climbed to \$70 million from \$56 million, a gain of 26%. The quantity and value of crushed stone production declined by 652,000 t (34%) and \$20 million (59%), respectively, from 2009 to 2011.

During 2011 and 2010, Alaska continued to rank first in the quantity of cadmium produced among 4 producing States, first in silver out of 11 States, and first in zinc out of 4 States. It remained second in gold production out of 10 producing States in both 2011 and 2010 (constituting 11% of the total U.S. gold production in 2011). In 2011, the State fell to second in lead production out of three States from first in 2009 and 2010. Alaska was eighth of eight States to produce copper in 2011 (there was no production in the State during 2009 and 2010).

The following information is from published data from various agencies of the State of Alaska.

The total employment in nonfuel mining in 2011 was about 3,000 with an additional 960 in mineral development and exploitation. The corresponding numbers of employees for 2010 were approximately 2,800 and 1,050, respectively.

The quantities of metals produced in 2011 were gold, 26.4 t (849,000 troy ounces); silver, 364 t (11.7 million troy ounces); platinum, 156 kilograms (kg) (5,000 troy ounces); lead, 103,000 t (114,000 short tons); zinc, 632,000 t (697,000 short tons), and copper, 481 kg (1,060 pounds). In 2010, the production was gold, 303 t (974,000 troy ounces); silver, 435 t (14 million troy ounces); lead, 132,000 t (146,000 short tons); and zinc, 606,000 t (668,000 short tons). No platinum or copper production was reported in 2010. Industrial minerals produced in 2011 were sand and gravel, 5.2 million metric tons (Mt) (5.7 million short tons); and rock (crushed stone), 454,000 t (500,000 short tons). The value of the other mineral commodities was \$3.2 million. In 2010, 6.35 Mt (7 million short tons) of sand and gravel and 264,000 t (291,000 short tons) of rock were produced, with the value of other mineral commodities being \$2.3 million.

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<sup>1</sup>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 May 2013. 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>.

TABLE 1

NONFUEL MINERAL PRODUCTION IN ALASKA<sup>1,2</sup>

(Thousand metric tons and thousand dollars)

Mineral	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Gemstones, natural	NA	69	NA	70	NA	70
Gold <sup>3</sup>	W	W	28,100	1,110,000	25,800	1,310,000
Sand and gravel, construction	7,360 <sup>r</sup>	55,800 <sup>r</sup>	6,390	52,700	7,340	70,000
Stone, crushed	1,940	34,700 <sup>r</sup>	1,270	17,300	1,290	14,400
Combined values of cadmium (byproduct from zinc concentrates), copper (2011), lead, silver, zinc, and value indicated by symbol W	XX	2,530,000	XX	2,220,000	XX	2,420,000
Total	XX	2,620,000	XX	3,400,000	XX	3,810,000

<sup>1</sup>Revised. NA Not available. Withheld to avoid disclosing company proprietary data. Withheld values included in "Combined values" data. XX Not applicable.

<sup>2</sup>Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

<sup>3</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>4</sup>Recoverable content of ores.

TABLE 2

ALASKA: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE<sup>1</sup>

Type	2009			2010			2011		
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Number of quarries	Quantity (thousand metric tons)	Value (thousands)
Granite	8	286 <sup>r</sup>	\$4,190 <sup>r</sup>	6	203	\$2,680	5	152	\$2,280
Miscellaneous stone	20 <sup>r</sup>	1,650	30,600	28	1,060	14,600	26	1,130	12,100
Total or average	XX	1,940	34,700 <sup>r</sup>	XX	1,270	17,300	XX	1,290	14,400
			17,89			13,66			11,19
			13.18			13.76			10.67
			152			12,100			11.19

<sup>1</sup>Revised. XX Not applicable. -- Zero

<sup>2</sup>Data 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  
IN 2010, BY USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
<b>Construction:</b>		
Coarse aggregate (+1½ inch), riprap and jetty stone	W	W
Coarse aggregate, graded, bituminous aggregate, coarse	W	W
<b>Coarse and fine aggregates:</b>		
Graded road base or subbase	W	W
Unpaved road surface	W	W
Crusher run or fill or waste	W	W
Other coarse and fine aggregates	W	W
Other construction materials	37	646
<b>Unspecified:<sup>2</sup></b>		
Reported	177	1,710
Estimated	955	17,100
<b>Total</b>	<b>1,270</b>	<b>17,300</b>

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

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

<sup>2</sup>Reported and estimated production without a breakdown by end use.

TABLE 4  
ALASKA: CRUSHED STONE SOLD OR USED BY PRODUCERS  
IN 2011, BY USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
<b>Construction:</b>		
<b>Coarse aggregate (+1½ inch):</b>		
Riprap and jetty stone	76	1,320
Filter stone	43	738
Unspecified coarse aggregate	64	770
<b>Coarse aggregate, graded:</b>		
Concrete aggregate, coarse	W	W
Bituminous aggregate, coarse	W	W
Bituminous surface-treatment aggregate	W	W
<b>Fine aggregate (-¾ inch):</b>		
Stone sand, concrete	W	W
Unspecified fine aggregate	11	130
<b>Coarse and fine aggregates:</b>		
Graded road base or subbase	W	W
Unpaved road surface	68	657
Terrazzo and exposed aggregate	6	31
Crusher run or fill or waste	W	W
Unspecified coarse and fine aggregates	11	75
Other miscellaneous uses and specified uses not listed	19	30
<b>Unspecified:<sup>2</sup></b>		
Reported	51	629
Estimated	841	8,950
<b>Total</b>	<b>1,290</b>	<b>14,400</b>

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

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

<sup>2</sup>Reported and estimated production without a breakdown by end use.

TABLE 5  
ALASKA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2010,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	932	\$8,600	\$9.23
Concrete products (blocks, bricks, pipe, decorative, etc.)	14	138	9.86
Asphaltic concrete aggregates and other bituminous mixtures	216	2,340	10.81
Road base and coverings	699	5,410	7.74
Fill	195	692	3.55
Other miscellaneous uses <sup>2</sup>	145	738	5.09
Unspecified: <sup>3</sup>			
Reported	873	7,310	8.37
Estimated	3,270	27,000	8.27
Total or average	6,390	52,700	8.24

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

<sup>2</sup>Includes filtration, and snow and ice control.

<sup>3</sup>Reported and estimated production without a breakdown by end use.

TABLE 6  
ALASKA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2011,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate and concrete products	900	\$9,550	\$10.61
Asphaltic concrete aggregates and other bituminous mixtures	210	2,410	11.48
Road base and coverings	1,160	11,600	10.00
Fill	319	2,200	6.90
Other miscellaneous uses <sup>2</sup>	252	3,090	12.26
Unspecified: <sup>3</sup>			
Reported	1,770	15,600	8.81
Estimated	2,730	25,600	9.38
Total or average	7,340	70,000	9.54

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

<sup>2</sup>Includes filtration, railroad ballast, and snow and ice control.

<sup>3</sup>Reported and estimated production without a breakdown by end use.