



2013 Minerals Yearbook

STATISTICAL SUMMARY [ADVANCE RELEASE]

STATISTICAL SUMMARY

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The world production table was prepared by Lisa D. Miller, international data coordinator.

This annual report summarizes data on nonfuel mineral production¹ for the United States, its island possessions, and the Commonwealth of Puerto Rico.

Although nonfuel mineral production may be measured at any stage of extraction and processing, the stage of measurement used most commonly in this annual report is what is termed “mine output.” This term refers to minerals or ores in the form in which they are first extracted from the ground, but customarily may include the output from auxiliary processing at or near the mines.

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 2013 U.S. Geological Survey (USGS) mineral production data published in this chapter are as of December 2015. For some mineral commodities, such as 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. Specialist contact information is available on the Internet at <http://minerals.usgs.gov/minerals/contacts/comdir.html>; alternatively, specialists' names and telephone numbers may be obtained by calling USGS information at (703) 648-4000 or by calling the USGS Earth Science Information Center at 1-888-ASK-USGS (275-8747). Minerals Yearbook chapters (for mineral commodities, States, and countries) and Mineral Industry Surveys are also available on the Internet at <http://minerals.usgs.gov/minerals>.

For copper, gold, lead, silver, and zinc, the quantities listed are recorded on a mine basis (as the recoverable content of ore sold or treated). The values assigned to the quantities, however, are based on the average selling price of refined metal, not the value of the mined material.

The total value of all nonfuel mineral production in the United States in 2013 decreased slightly to \$75.3 billion compared with that of 2012; metals decreased by 8% to \$32.1 billion; and industrial minerals increased by 5% to \$43.2 billion (table 1).

In 2013, 13 mineral commodities had production values greater than \$1 billion. They were, in descending order of value, stone (crushed), gold, copper, cement (portland), sand and gravel (construction), iron ore (usable shipped), sand and gravel (industrial), molybdenum concentrates, phosphate rock (marketable), lime, salt, soda ash, and zinc. The production of these mineral commodities accounted for 89% of the U.S. total production value (table 1).

In 2013, the top 25 States, in descending order of value of nonfuel mineral production, were Nevada, Arizona, Minnesota, Texas, Utah, Florida, Alaska, California, Michigan, Missouri, Wyoming, Colorado, Wisconsin, New Mexico, Pennsylvania, Georgia, New York, Ohio, Montana, Illinois, Kansas, North Carolina, Virginia, Alabama, and Idaho. The mineral production of these States accounted for 86% of the U.S. total production value (table 3).

TABLE 1
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES^{1, 2, 3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013		
	Quantity	Value	Quantity	Value	Quantity	Value	
Metals:							
Beryllium concentrates ⁴	metric tons	5,920	NA	5,570	NA	5,910	NA
Copper ⁵		1,110	9,960,000	1,170	9,450,000	1,250	9,360,000
Gold ⁵	kilograms	234,000	11,800,000	235,000	12,600,000	230,000	10,400,000
Iron ore, usable shipped		55,600	5,530,000	52,900 ^e	5,190,000	52,700 ^e	5,110,000 ^e
Lead ⁵	metric tons	334,000	895,000	336,000	845,000	331,000	837,000
Molybdenum concentrates ⁶	do.	63,700	3,830,000	61,500 ^f	3,090,000 ^f	60,700	3,060,000
Palladium ⁵	kilograms	12,400	295,000	12,300	257,000	12,600	295,000
Platinum ⁵	do.	3,700	205,000	3,670	184,000	3,720	178,000
Rare earths ⁷	metric tons	--	--	3,000	W	5,500	W
Silver ⁵	kilograms	1,120,000	1,270,000	1,060,000	1,060,000	1,040,000	793,000
Vanadium	metric tons	590	8,790 ^f	106 ^f	1,520 ^f	591	7,870
Zinc ⁵	do.	743,000	1,740,000	713,000	1,510,000	758,000	1,600,000
Combined values of bauxite, cadmium (byproduct from zinc concentrates), chromite ore (2011–12), magnesium metal, titanium concentrates, tungsten, zirconium concentrates, and values indicated by symbol W							
		XX	446,000	XX	523,000	XX	444,000 ^e
Total		XX	36,000,000	XX	34,700,000	XX	32,100,000 ^e
Industrial minerals, excluding fuels:⁸							
Barite		710	61,200	666	74,500	723	81,900
Cement: ⁹							
Masonry		1,760	237,000 ^e	1,930	259,000 ^e	2,120	303,000 ^e
Portland		66,100	5,820,000 ^e	72,200	6,390,000 ^e	74,700	6,980,000 ^e
Clays:							
Ball		886	40,900	973	45,100	1,000	42,800
Bentonite		4,990	304,000	4,980	311,000	4,350	282,000
Common		11,700	141,000	11,900 ^f	139,000 ^f	10,600	127,000
Fire		215	6,360	183	4,870	151	3,420
Fuller's earth ¹⁰		1,950	194,000	1,980	182,000	1,990	178,000
Kaolin		5,950	851,000	5,900 ^f	881,000 ^f	5,950	874,000
Diatomite		813	219,000	735	210,000	782	229,000
Feldspar ⁹		580 ^{f, 11}	45,400 ^f	560 ^{f, 11}	36,500 ^f	550 ¹¹	40,100
Garnet, industrial ⁹	metric tons	56,400	9,760	46,900	8,600	33,900	5,760
Gemstones, natural ⁹		NA	11,000	NA	11,300	NA	9,570
Gypsum, crude ⁹		9,770 ^f	80,400 ^f	14,800 ^f	115,000 ^f	15,500	137,000
Helium:							
Crude	million cubic meters	43	117,000	44	126,000	28	85,100
Grade-A	do.	127	731,000	128	784,000	118	807,000
Kyanite	metric tons	98,200	31,000 ^e	98,500	31,000 ^e	110,000	33,000 ^e
Lime ¹²		19,100	2,130,000	18,800	2,230,000	19,200	2,320,000
Lithium carbonate		(13)	W	(13)	W	4,600	11,200
Mica, crude	metric tons	52,000	6,890	47,500	6,070	48,100	5,940
Peat		595	13,500	484	11,800	453	11,500
Perlite, crude	metric tons	420,000	23,600	393,000 ^f	20,400 ^f	419,000	23,100
Phosphate rock, marketable ⁹		28,100	2,720,000	30,100	3,080,000	31,200	2,850,000
Potash, gross weight ¹¹		2,300 [*]	740,000 [*]	2,200 [*]	750,000 [*]	2,000 [*]	630,000
Pumice and pumicite	metric tons	343,000 ^f	10,500 ^f	338,000 ^f	10,800 ^f	269,000	9,320
Salt		45,500	1,770,000	34,900	1,460,000	43,400	2,090,000
Sand and gravel:							
Construction		809,000 ^f	6,070,000 ^f	816,000 ^f	6,250,000 ^f	850,000	6,470,000
Industrial		43,800	2,000,000	50,600 ^f	2,670,000	62,100	3,470,000
Soda ash ⁹		10,700	1,580,000	11,100	1,740,000	11,500	1,680,000
Stone:							
Crushed ¹⁴		1,150,000 ^f	11,100,000 ^f	1,170,000	11,400,000	1,180,000	11,800,000
Dimension		1,850	395,000	2,150	452,000	2,270	458,000

See footnotes at end of table.

TABLE 1—Continued
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES^{1, 2, 3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Industrial minerals, excluding fuels—Continued: ⁸						
Talc, crude ⁹	616	21,800	515	17,100	542	20,800
Tripoli ⁹ metric tons	73,700	16,500	120,000	18,900	110,000	17,600
Vermiculite, concentrate ⁶	100 ¹⁵	W	100 ¹⁵	W	100 ¹⁵	W
Zeolites ⁹ metric tons	65,400	W	74,000	W	69,500	W
Combined values of andalusite, boron minerals, bromine, clays (fuller's earth), emery, iodine (crude), iron oxide pigments (crude), magnesite, magnesium compounds, olivine (2011–12), pyrophyllite (crude), silica stone, staurolite, wollastonite, and values indicated by symbol W*						
	XX	1,290,000	XX	1,270,000 ^{r, *}	XX	1,150,000
Total	XX	38,800,000	XX	41,000,000 ^r	XX	43,200,000
Grand total	XX	74,800,000	XX	75,800,000 ^r	XX	75,300,000

⁶Estimated. ⁷Revised. do. Ditto. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined values." XX Not applicable. -- Zero.

¹Summary data from the chapters of the 2013 Minerals Yearbook as they were completed and released through December 8, 2015.

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

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

⁴Shipments.

⁵Recoverable content of ores, and so forth.

⁶Content of ore and concentrate.

⁷Rare-earth oxide basis.

⁸Sold or used unless otherwise specified.

⁹Production.

¹⁰Does not include attapulgit; included in "Combined values."

¹¹Data are rounded to two significant digits.

¹²Includes Puerto Rico.

¹³Withheld to avoid disclosing company proprietary data.

¹⁴Does not include abrasive stone; included elsewhere in table.

¹⁵Data are rounded to one significant digit.

*Correction posted March 1, 2017.

TABLE 2
NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 2013¹

Mineral ^{2,*}	Principal States ³	Other States ⁴
Andalusite	NC	
Barite	NV and GA	
Bauxite	AR and GA	
Beryllium concentrates	UT	
Boron minerals	CA	
Bromine	AR	
Cement:		
Masonry	FL, AL, TX, IN, CA	AR, AZ, CO, GA, KS, KY, MD, ME, MI, MO, MT, NE, NM, NY, OH, OK, PA, SC, TN, VA, WV.
Portland	TX, CA, MO, FL, MI	All other States, except AK, CT, DE, HI, ID, LA, MA, MN, MS, NC, ND, NH, NJ, RI, VT, WI.
Clays:		
Ball	TN, TX, MS, IN, KY	
Bentonite	WY, UT, AL, TX, CA	CO, MS, MT, NV, OR.
Common	TX, AL, NC, OR, OK	All other States, except AK, AZ, DE, FL, HI, ID, ME, MN, NH, NJ, NV, RI, VT, WA, WI.
Fire	MO, CO, TX	
Fuller's earth	GA, MO, MS, VA, FL	CA, IL, KS, NV, TN, TX.
Kaolin	GA, SC, AL, AR, TX	CA, FL, NC, NV.
Copper ⁵	AZ, UT, NM, NV, MT	AK, ID, MO.
Diatomite	NV, CA, OR, WA	
Emery	OR	
Feldspar	NC, ID, CA, VA, GA	OK and SD.
Garnet, industrial	NY, MT, ID	
Gemstones, natural ⁶	AZ, CA, OR, UT, MT	All other States.
Gold ⁵	NV, AK, CO, UT, WA	AZ, CA, MT, NM, SD.
Gypsum, crude	TX, OK, KS, NV, IN	AR, AZ, CA, CO, IA, LA, MI, NM, SD, UT, WY.
Helium:		
Crude	KS and TX	
Grade-A	KS, WY, OK, CO	
Iodine, crude	OK, MT	
Iron ore, usable shipped	MN, MI, UT	
Iron oxide pigments, crude	GA, AL, VA	
Kyanite	VA	
Lead ⁵	MO, AK, ID	
Lime	MO, AL, KY, OH, TX	All other States, except AK, CT, DE, HI, IL, KS, MD, ME, MS, NC, NH, NJ, NM, NY, RI, SC, VT.
Lithium carbonate	NV	
Magnesite	NV	
Magnesium compounds	MI, UT, DE, CA	
Magnesium metal	UT	
Mica, crude	SD, NC, GA, VA	
Molybdenum concentrates	CO, AZ, ID, UT, MT	NM and NV.
Palladium ⁵	MT	
Peat	FL, MN, IL, ME, MI	IA, IN, NJ, NY, OH, PA, WA.
Perlite, crude	NM, OR, AZ, ID, NV	CA.
Phosphate rock	FL, ID, NC, UT	
Platinum ⁵	MT	
Potash	NM, UT, MI	
Pumice and pumicite	ID, OR, CA, NM, KS	OK.
Pyrophyllite, crude	NC	
Rare earths ⁷	CA	
Salt	LA, TX, NY, OH, KS	AL, AZ, CA, MI, NM, NV, OK, TN, UT, VA, WV.
Sand and gravel:		
Construction	TX, CA, MN, AZ, MI	All other States.
Industrial	WI, IL, TX, MN, AR	All other States, except AK, CT, DE, HI, ID, KS, MA, MD, ME, MS, MT, NH, NM, OR, UT, VT, WY.
Silica stone ⁸	AR	
Silver ⁵	AK, NV, ID, UT, AZ	CA, CO, MO, MT, NM, SD.
Soda ash	WY and CA	
Staurolite	FL	
Stone:		
Crushed	TX, PA, MO, FL, OH	All other States.
Dimension	TX, WI, IN, MA, GA	All other States, except AK, CT, DE, FL, HI, IA, KY, LA, MS, ND, NE, NJ, OR, RI, WA, WV, WY.

See footnotes at end of table.

TABLE 2—Continued
 NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 2013¹

Mineral ^{2,*}	Principal States ³	Other States ⁴
Talc, crude	MT, TX, VT, VA	
Titanium concentrates, ilmenite	VA and FL	
Tripoli	MO, IL, AR	
Tungsten	CA	
Vanadium	UT	
Vermiculite, crude	SC and VA	
Wollastonite	NY	
Zeolites	NM, TX, ID, AZ, CA	OR.
Zinc ⁵	AK, TN, MO, ID	
Zirconium concentrates	VA and FL	

¹Summary data from the chapters of the 2013 Minerals Yearbook as they were completed and released through December 8, 2015.

²In addition to the commodities listed, cadmium was produced as a byproduct from zinc concentrates in Alaska, Idaho, Missouri, and Tennessee, and small quantities of chromite ore may have been produced in Oregon.

³Listed in order of quantity unless otherwise noted.

⁴Listed in alphabetical order by abbreviation.

⁵Recoverable content of ores, and so forth.

⁶Principal States listed in order of value.

⁷Rare-earth oxide basis.

⁸Grindstones, pulpstones, and sharpening stones; does not include mill liners and grinding pebbles.

*Correction posted March 1, 2017.

TABLE 3
VALUE OF NONFUEL MINERAL PRODUCTION IN THE UNITED STATES AND PRINCIPAL NONFUEL MINERALS PRODUCED IN 2013^{1,2}

State	Value (thousands)	Rank ³	Percentage of U.S. total	Principal minerals, in order of value
Alabama	\$1,040,000	24	1.38	Cement (portland), stone (crushed), lime, sand and gravel (construction), cement (masonry).
Alaska	3,550,000	7	4.71	Gold, zinc, silver, lead, sand and gravel (construction).
Arizona	7,540,000	2	10.01	Copper, molybdenum concentrates, sand and gravel (construction), cement (portland), stone (crushed).
Arkansas	689,000	32	0.92	Stone (crushed), bromine, sand and gravel (industrial), cement (portland), sand and gravel (construction).
California	3,290,000	8	4.37	Sand and gravel (construction), cement (portland), boron minerals, stone (crushed), gold.
Colorado	2,070,000	12	2.75	Molybdenum concentrates, gold, sand and gravel (construction), cement (portland), stone (crushed).
Connecticut ⁴	171,000	43	0.23	Stone (crushed), sand and gravel (construction), clays (common), gemstones (natural).
Delaware ⁴	12,400	50	0.02	Sand and gravel (construction), stone (crushed), magnesium compounds, gemstones (natural).
Florida	3,590,000	6	4.76	Phosphate rock, stone (crushed), cement (portland), sand and gravel (construction), cement (masonry).
Georgia	1,530,000	16	2.03	Clays (kaolin), stone (crushed), clays (fuller's earth), cement (portland), sand and gravel (construction).
Hawaii	103,000	47	0.14	Stone (crushed), sand and gravel (construction), gemstones (natural).
Idaho	997,000	25	1.32	Molybdenum concentrates, phosphate rock, silver, sand and gravel (construction), lead.
Illinois ⁴	1,190,000	20	1.58	Sand and gravel (industrial), stone (crushed), sand and gravel (construction), cement (portland), tripoli.
Indiana	813,000	27	1.08	Stone (crushed), cement (portland), sand and gravel (construction), lime, cement (masonry).
Iowa	700,000	31	0.93	Stone (crushed), cement (portland), sand and gravel (industrial), sand and gravel (construction), lime.
Kansas ⁴	544,000	21	0.72	Helium (Grade-A), cement (portland), salt, stone (crushed), helium (crude).
Kentucky	807,000	28	1.07	Stone (crushed), lime, cement (portland), sand and gravel (construction), sand and gravel (industrial).
Louisiana ⁴	539,000	33	0.72	Salt, sand and gravel (construction), stone (crushed), sand and gravel (industrial), lime.
Maine ⁴	88,200	45	0.12	Sand and gravel (construction), cement (portland), stone (crushed), stone (dimension), peat.
Maryland ⁴	262,000	35	0.35	Cement (portland), stone (crushed), sand and gravel (construction), cement (masonry), stone (dimension).
Massachusetts ⁴	277,000	40	0.37	Stone (crushed), sand and gravel (construction), stone (dimension), lime, clays (common).
Michigan	2,590,000	9	3.44	Iron ore (usable shipped), cement (portland), salt, sand and gravel (construction), stone (crushed).
Minnesota ⁴	601,000	3	0.80	Iron ore (usable shipped), sand and gravel (industrial), sand and gravel (construction), stone (crushed), stone (dimension).
Mississippi ⁴	130,000	44	0.17	Sand and gravel (construction), stone (crushed), clays (fuller's earth), clays (ball), clays (bentonite).
Missouri	2,410,000	10	3.19	Cement (portland), stone (crushed), lead, lime, sand and gravel (industrial).
Montana	1,310,000	19	1.74	Palladium, copper, molybdenum concentrates, platinum, gold.
Nebraska ⁴	166,000	39	0.22	Cement (portland), sand and gravel (construction), stone (crushed), sand and gravel (industrial), lime.
Nevada	9,200,000	1	12.22	Gold, copper, silver, lime, diatomite.
New Hampshire	96,100	48	0.13	Sand and gravel (construction), stone (crushed), stone (dimension), gemstones (natural).
New Jersey	284,000	41	0.38	Stone (crushed), sand and gravel (construction), sand and gravel (industrial), peat, gemstones (natural).
New Mexico	1,560,000	14	2.07	Copper, potash, sand and gravel (construction), molybdenum concentrates, stone (crushed).
New York	1,390,000	17	1.84	Salt, stone (crushed), sand and gravel (construction), cement (portland), wollastonite.
North Carolina ⁴	845,000	22	1.12	Stone (crushed), phosphate rock, sand and gravel (construction), sand and gravel (industrial), clays (common).
North Dakota ⁴	263,000	42	0.35	Sand and gravel (construction), lime, stone (crushed), clays (common), sand and gravel (industrial).
Ohio ⁴	1,050,000	18	1.39	Stone (crushed), salt, sand and gravel (construction), lime, cement (portland).
Oklahoma	709,000	30	0.94	Stone (crushed), cement (portland), sand and gravel (industrial), sand and gravel (construction), helium (Grade-A).
Oregon	346,000	36	0.46	Stone (crushed), sand and gravel (construction), cement (portland), diatomite, perlite (crude).

See footnotes at end of table.

TABLE 3—Continued
 VALUE OF NONFUEL MINERAL PRODUCTION IN THE UNITED STATES AND PRINCIPAL NONFUEL MINERALS PRODUCED IN 2013^{1,2}

State	Value (thousands)	Rank ³	Percentage of U.S. total	Principal minerals, in order of value
Pennsylvania ⁴	1,510,000	15	2.00	Stone (crushed), cement (portland), lime, sand and gravel (construction), sand and gravel (industrial).
Rhode Island ⁴	45,800	49	0.06	Sand and gravel (construction), stone (crushed), sand and gravel (industrial), gemstones (natural).
South Carolina ⁴	547,000	34	0.73	Cement (portland), stone (crushed), sand and gravel (construction), sand and gravel (industrial), cement (masonry).
South Dakota	325,000	38	0.43	Sand and gravel (construction), gold, cement (portland), stone (crushed), lime.
Tennessee	966,000	26	1.28	Stone (crushed), zinc, cement (portland), sand and gravel (construction), sand and gravel (industrial).
Texas	3,740,000	4	4.96	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), salt.
Utah	3,680,000	5	4.89	Copper, molybdenum concentrates, gold, magnesium metal, potash.
Vermont ⁴	126,000	46	0.17	Stone (crushed), sand and gravel (construction), stone (dimension), talc (crude), gemstones (natural).
Virginia	1,070,000	23	1.42	Stone (crushed), cement (portland), sand and gravel (construction), lime, zirconium concentrates.
Washington	739,000	29	0.98	Sand and gravel (construction), gold, stone (crushed), cement (portland), diatomite.
West Virginia ⁴	174,000	37	0.23	Stone (crushed), cement (portland), lime, sand and gravel (industrial), cement (masonry).
Wisconsin ⁴	1,530,000	13	2.04	Sand and gravel (industrial), sand and gravel (construction), stone (crushed), lime, stone (dimension).
Wyoming	2,260,000	11	3.00	Soda ash, clays (bentonite), helium (Grade-A), sand and gravel (construction), cement (portland).
Undistributed	5,850,000	XX	7.77	
Total	75,300,000	XX	100.00	

XX Not applicable.

¹Summary data from the chapters of the 2013 Minerals Yearbook as they were completed and released through December 8, 2015.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Rank based on total, unadjusted, State values.

⁴Partial total; does not include values that must be withheld to avoid disclosing company proprietary data which are included with "Undistributed."

*Correction posted March 1, 2017.

TABLE 4
 VALUE OF NONFUEL MINERAL PRODUCTION PER CAPITA AND PER SQUARE KILOMETER IN 2013, BY STATE^{1,2}

State	Land area (square kilometers)	Population (thousands)	Total value (thousands)	Per capita		Per square kilometer	
				Dollars	Rank ³	Dollars	Rank ³
Alabama	131,427	4,834	\$1,040,000	215	19	7,920	25
Alaska	1,481,355	737	3,550,000	4,810	1	2,390	44
Arizona	294,314	6,635	7,540,000	1,140	6	25,600	3
Arkansas	134,857	2,959	689,000	233	17	5,110	36
California	403,935	38,431	3,290,000	86	41	8,150	24
Colorado	268,629	5,272	2,070,000	393	11	7,700	27
Connecticut	12,548	3,599	171,000 ⁴	48	47	13,700	11
Delaware	5,060	925	12,400 ⁴	13	50	2,450	33
Florida	139,671	19,600	3,590,000	183	24	25,700	2
Georgia	149,977	9,995	1,530,000	153	26	10,200	18
Hawaii	16,635	1,409	103,000	73	42	6,160	29
Idaho	214,315	1,613	997,000	618	9	4,650	39
Illinois	143,962	12,891	1,190,000 ⁴	92	38	8,280	23
Indiana	92,895	6,571	813,000	124	31	8,750	22
Iowa	144,702	3,092	700,000	226	18	4,840	38
Kansas	211,901	2,896	544,000 ⁴	188	12	2,570	35
Kentucky	102,896	4,400	807,000	184	23	7,850	26
Louisiana	112,825	4,629	539,000 ⁴	116	28	4,770	30
Maine	79,931	1,329	88,200 ⁴	66	37	1,100	46
Maryland	25,314	5,939	262,000 ⁴	44	40	10,400	4
Massachusetts	20,306	6,709	277,000 ⁴	41	48	13,600	10
Michigan	147,122	9,898	2,590,000	262	16	17,600	7
Minnesota	206,190	5,422	601,000 ⁴	111	7	2,910	5
Mississippi	121,489	2,992	130,000 ⁴	44	45	1,070	50
Missouri	178,415	6,045	2,410,000	398	10	13,500	12
Montana	376,981	1,015	1,310,000	1,290	4	3,480	43
Nebraska	199,100	1,869	166,000 ⁴	89	25	835	47
Nevada	284,450	2,791	9,200,000	3,300	3	32,300	1
New Hampshire	23,227	1,323	96,100	73	43	4,140	41
New Jersey	19,211	8,912	284,000 [*]	32	49	14,800	9
New Mexico	314,311	2,087	1,560,000	746	8	4,950	37
New York	122,284	19,696	1,390,000	70	44	11,300	16
North Carolina	126,161	9,849	845,000 ⁴	86	35	6,700	21
North Dakota	178,648	724	263,000 ⁴	364	13	1,470	48
Ohio	106,056	11,572	1,050,000 ⁴	90	33	9,860	14
Oklahoma	177,848	3,853	709,000	184	22	3,990	42
Oregon	248,632	3,928	346,000	88	39	1,390	49
Pennsylvania	116,075	12,781	1,510,000 ⁴	118	32	13,000	13
Rhode Island	2,706	1,053	45,800 ⁴	43	46	16,900	6
South Carolina	77,984	4,772	547,000 ⁴	115	34	7,010	28
South Dakota	196,541	846	325,000	385	14	1,660	45
Tennessee	106,752	6,497	966,000	149	27	9,050	19
Texas	678,055	26,506	3,740,000	141	29	5,510	31
Utah	212,752	2,903	3,680,000	1,270	5	17,300	8
Vermont	23,956	627	126,000 ⁴	201	20	5,270	34
Virginia	102,549	8,270	1,070,000	129	30	10,400	17
Washington	172,349	6,974	739,000	106	36	4,290	40
West Virginia	62,361	1,854	174,000 ⁴	94	21	2,790	32
Wisconsin	140,663	5,743	1,530,000 ⁴	267	15	10,900	15
Wyoming	251,490	583	2,260,000	3,880	2	9,000	20
Undistributed	XX	XX	5,850,000	XX	XX	XX	XX
Total or average	9,161,816 ⁵	315,848 ⁵	75,300,000	238	XX	8,220	XX

See footnotes at end of table.

TABLE 4—Continued
VALUE OF NONFUEL MINERAL PRODUCTION PER CAPITA AND PER SQUARE KILOMETER IN 2013, BY STATE^{1,2}

XX Not applicable.

¹Summary data from the chapters of the 2013 Minerals Yearbook as they were completed and released through December 8, 2015.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Rank based on total, unadjusted, State values.

⁴Partial total; does not include values that must be concealed to avoid disclosing company proprietary data. Concealed values included with “Undistributed.”

⁵Does not include Washington, DC (which has no mineral production), with an area of 179 square kilometers and a population of 649,111.

Sources: U.S. Geological Survey and U.S. Census Bureau.

*Correction posted March 1, 2017.

TABLE 5
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Alabama:						
Clays, common	1,190	24,100	1,210	9,070	1,240	8,390
Gemstones, natural	NA	7	NA	7	NA	7
Lime	2,180	255,000	2,240	287,000	2,270	289,000
Sand and gravel:						
Construction	9,910	53,600	9,060	54,500	8,450	55,400
Industrial	352	10,500	401	13,200	334	14,900
Stone, crushed	33,200	289,000	34,400 ^r	300,000 ^r	33,400	309,000
Combined values of cement, clays (bentonite, kaolin), iron oxide pigments (crude), mica [crude (2011)], salt, stone (dimension)	XX	323,000 ^r	XX	327,000 ^r	XX	365,000
Total	XX	955,000	XX	991,000 ^r	XX	1,040,000
Alaska:						
Gemstones, natural	NA	70	NA	70	NA	70
Gold ⁴ kilograms	25,800	1,310,000	27,700	1,490,000	32,200	1,470,000
Sand and gravel, construction	7,710	70,800	7,400 ^r	52,200 ^r	8,090	58,500
Stone, crushed	1,000	11,900	2,540 ^r	22,700 ^r	1,060	13,200
Combined values of copper (2011–12), lead, silver, zinc	XX	2,410,000	XX	2,120,000	XX	2,010,000
Total	XX	3,800,000	XX	3,690,000	XX	3,550,000
Arizona:						
Copper ⁴	751	6,720,000	763	6,180,000	795	5,960,000
Gemstones, natural	NA	2,500	NA	2,500	NA	2,360
Sand and gravel, construction	31,600	267,000	34,100	301,000	33,900	289,000
Stone:						
Crushed	8,260	66,400	6,810 ^r	60,100 ^r	8,260	73,000
Dimension	112	13,300	46	5,570	57	6,420
Combined values of cement, clays [bentonite (2011–12), common (2011–12)], gold, gypsum (crude), lime, molybdenum concentrates, perlite (crude), salt, sand and gravel (industrial), silver, zeolites	XX	1,320,000	XX	1,400,000 ^r	XX	1,210,000
Total	XX	8,390,000	XX	7,950,000 ^r	XX	7,540,000
Arkansas:						
Clays, common	532	7,580	384	1,400	(5)	W
Gemstones, natural	NA	450	NA	388	NA	413
Sand and gravel:						
Construction	7,990	68,200	7,980	68,200	6,460	54,400
Industrial	(5)	W	2,800	211,000	2,130	133,000
Stone:						
Crushed	25,900	210,000	24,100 ^r	188,000 ^r	25,200	197,000
Dimension	15	1,770	10	1,160	10	1,320
Combined values of bauxite, bromine, cement, clays (kaolin), gypsum (crude), lime, silica stone, tripoli, and values indicated by symbol W	XX	495,000 ^r	XX	337,000 ^r	XX	303,000
Total	XX	782,000	XX	808,000 ^r	XX	689,000
California:						
Cement:						
Masonry	170	18,600 ^e	152	15,900 ^e	178	19,600 ^e
Portland	7,730	582,000 ^e	8,400	621,000 ^e	9,260	714,000 ^e
Clays:						
Bentonite	44	3,500	50	4,290	(5)	W
Common	398	6,990	(5)	W	(5)	W
Gemstones, natural	NA	759	NA	966	NA	1,220
Gypsum, crude	992	12,000	1,380	9,640	1,160	17,700
Pumice and pumicite metric tons	(5)	W	48,900	2,520	54,100	2,620
Rare earths, oxide basis do.	--	--	3,000	W	5,500	W

See footnotes at end of table.

TABLE 5—Continued
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
California—Continued:						
Sand and gravel:						
Construction	81,900 ^r	905,000 ^r	80,100 ^r	875,000 ^r	87,900	890,000
Industrial	1,320	43,500	1,010	37,600	863	42,500
Stone:						
Crushed	32,600	295,000	33,000 ^r	319,000	34,600	325,000
Dimension	25	9,590	23	9,200	24	9,210
Combined values of boron minerals, clays (fuller's earth, kaolin), diatomite, feldspar, gold, iron ore [usable shipped (2011)], lime, magnesium compounds, perlite [crude (2011, 2013)], salt, silver, soda ash, tungsten, zeolites, and values indicated by symbol W						
	XX	1,360,000	XX	1,390,000 ^r	XX	1,270,000
Total	XX	3,240,000 ^r	XX	3,280,000 ^r	XX	3,290,000
Colorado:						
Clays, common	123	293	235 ^r	5,000 ^r	228	4,880
Gemstones, natural	NA	440	NA	438	NA	447
Sand and gravel, construction	26,800	198,000	27,700	209,000	34,500	254,000
Stone:						
Crushed	8,130 ^r	63,300 ^r	7,830 ^r	63,800 ^r	9,010	74,500
Dimension	5	994	23	10,200	18	7,270
Combined values of cement, clays (bentonite, fire), gold, gypsum (crude), helium (Grade-A), lime, molybdenum concentrates, sand and gravel (industrial), silver						
	XX	1,680,000	XX	1,650,000	XX	1,730,000
Total	XX	1,950,000	XX	1,930,000	XX	2,070,000
Connecticut:						
Clays, common	(5)	(6)	(5)	(6)	(5)	(6)
Gemstones, natural	NA	7	NA	7	NA	7
Sand and gravel, construction	5,560	54,200	5,280	49,600	4,770	45,200
Stone:						
Crushed	7,310	101,000	8,040 ^r	118,000 ^r	8,420	126,000
Dimension	(5)	(6)	-- ^r	-- ^r	--	--
Total	XX	156,000	XX	167,000	XX	171,000
Delaware:						
Gemstones, natural	NA	1	NA	1	NA	1
Magnesium compounds	(5)	(6)	(5)	(6)	(5)	(6)
Sand and gravel, construction	1,910	11,200	1,820	15,600	1,580	12,400
Stone, crushed	(5)	(6)	(5)	(6)	(5)	(6)
Total	XX	11,200	XX	15,600	XX	12,400
Florida:						
Cement:						
Masonry	188	24,800 ^e	225	25,500 ^e	342	42,500 ^e
Portland	3,310	281,000 ^e	3,790	313,000 ^e	4,680	402,000 ^e
Clays, common	2	W	2	W	--	--
Gemstones, natural	NA	1	NA	1	NA	1
Peat	494	9,370	356	7,270	338	6,800
Sand and gravel:						
Construction	12,000	104,000	13,700	111,000	15,500	131,000
Industrial	180	4,370	195	5,800	200	10,300
Stone, crushed	40,700	516,000	47,100 ^r	572,000 ^r	52,600	630,000
Combined values of clays (fuller's earth, kaolin), lime, magnesium compounds (2011), phosphate rock, staurolite, titanium concentrates (ilmenite), zirconium concentrates, and values indicated by symbol W						
	XX	2,480,000	XX	2,780,000 ^r	XX	2,370,000
Total	XX	3,420,000	XX	3,810,000 ^r	XX	3,590,000

See footnotes at end of table.

TABLE 5—Continued
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Georgia:						
Barite	7	1,350	7	1,350	7	1,350
Clays:						
Common	644	6,880	687	3,770	(5)	W
Kaolin	5,480	814,000	5,410 ^r	844,000 ^r	5,450	836,000
Gemstones, natural	NA	103	NA	103	NA	103
Sand and gravel:						
Construction	5,150	30,300	5,410	33,800	4,260	28,500
Industrial	655	19,600	585	16,500	596	15,800
Stone:						
Crushed	41,400 ^r	478,000 ^r	37,700 ^r	451,000 ^r	40,300	493,000
Dimension	141	20,300	142	16,800	145	17,200
Combined values of bauxite, cement, clays (fuller's earth), feldspar, iron oxide pigments (crude), lime, mica (crude), and value indicated by symbol W	XX	114,000	XX	119,000	XX	137,000
Total	XX	1,480,000	XX	1,490,000 ^r	XX	1,530,000
Hawaii:						
Gemstones, natural	NA	151	NA	151	NA	139
Sand and gravel, construction	962	15,100	786	15,000	679	12,800
Stone, crushed	4,420	84,700	4,990 ^r	93,100 ^r	5,180	89,600
Total	XX	99,900	XX	108,000 ^r	XX	103,000
Idaho:						
Garnet, industrial ^e	16	3,740	14	2,830	14	2,380
Gemstones, natural	NA	379	NA	370	NA	371
Sand and gravel, construction	10,500	64,000	10,000	73,800	11,600	77,300
Stone:						
Crushed	3,780	20,800	4,590 ^r	30,900 ^r	3,820	24,000
Dimension	28	4,200	30	5,370	32	5,840
Combined values of cement [portland (2011–13)], copper, feldspar, lead, lime, molybdenum concentrates, perlite (crude), phosphate rock, pumice and pumicite, sand and gravel [industrial (2011)], silver, zeolites, zinc (2011, 2013)	XX	1,230,000	XX	702,000	XX	887,000
Total	XX	1,320,000	XX	815,000 ^r	XX	997,000
Illinois:						
Cement, portland	1,400	126,000 ^e	1,150	95,700 ^e	1,100	106,000 ^e
Gemstones, natural	NA	10	NA	10	NA	10
Sand and gravel:						
Construction	18,800	121,000	16,700	113,000	16,400	117,000
Industrial	6,160	311,000	7,440	504,000	9,850	501,000
Stone, crushed	52,200	499,000	49,000 ^r	479,000 ^r	45,600	468,000
Combined values of clays (common, fuller's earth), peat, stone (dimension), tripoli	XX	23,300	XX	22,700	XX	(6)
Total	XX	1,080,000	XX	1,220,000	XX	1,190,000
Indiana:						
Cement, portland	2,290	179,000 ^e	2,390	193,000 ^e	2,280	191,000 ^e
Clays, common	332	6,620	369	6,240	294	6,490
Gemstones, natural	NA	4	NA	4	NA	4
Sand and gravel, construction	18,800	111,000	18,500	107,000	17,000	128,000
Stone:						
Crushed	41,200	292,000	42,700	304,000 ^r	41,000	304,000
Dimension	164	29,200	186	32,000	150	26,200
Combined values of cement (masonry), clays (ball), gypsum (crude), lime, peat, sand and gravel (industrial)	XX	136,000	XX	163,000	XX	158,000
Total	XX	754,000 ^r	XX	806,000 ^r	XX	813,000

See footnotes at end of table.

TABLE 5—Continued
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Iowa:						
Clays, common	182	862	(5)	W	(5)	W
Gemstones, natural	NA	3	NA	3	NA	3
Peat	(5)	5	(5)	W	(5)	W
Sand and gravel, construction	15,200	102,000	13,600	89,200	12,900	85,700
Stone, crushed	31,700	309,000	32,400	302,000 ^r	30,700	285,000
Combined values of cement, gypsum (crude), lime, sand and gravel (industrial), and values indicated by symbol W	XX	240,000	XX	272,000 ^r	XX	329,000
Total	XX	652,000	XX	664,000 ^r	XX	700,000
Kansas:						
Cement, portland	1,570	152,000 ^e	1,730	169,000 ^e	1,780	178,000 ^e
Clays, common	291	1,880	296	1,750	309	1,800
Gemstones, natural	NA	1	NA	1	NA	1
Salt	3,060	186,000	2,570	175,000	2,650	174,000
Sand and gravel, construction	9,620	47,100	9,920 ^r	53,800 ^r	9,340	52,800
Stone:						
Crushed	15,900	132,000	15,900 ^r	136,000 ^r	15,400	132,000
Dimension	52	4,640	49	4,700	43	5,610
Combined values of cement (masonry), clays (fuller's earth), gypsum (crude), helium (crude, Grade-A), pumice and pumicite, sand and gravel [industrial (2011)]	XX	602,000	XX	622,000	XX	(6)
Total	XX	1,120,000	XX	1,160,000	XX	544,000
Kentucky:						
Clays, common	328	6,430	271	4,390	(5)	W
Gemstones, natural	NA	11	NA	11	NA	11
Sand and gravel, construction	6,810	32,500	6,610	32,400	8,110	42,800
Stone, crushed	48,000	463,000	44,400 ^r	447,000 ^r	46,300	452,000
Combined values of cement, clays (ball), lime, sand and gravel [industrial (2013)], and value indicated by symbol W	XX	(6)	XX	(6)	XX	312,000
Total	XX	502,000 ^r	XX	484,000 ^r	XX	807,000
Louisiana:						
Clays, common	144	1,280	145	1,330	(5)	W
Gemstones, natural	NA	7	NA	7	NA	7
Salt	14,300	234,000	11,600	172,000	14,300	318,000
Sand and gravel:						
Construction	21,400	212,000	18,800 ^r	208,000 ^r	17,900	185,000
Industrial	550	23,700	512	21,800	709	36,200
Combined values of gypsum (crude), lime, stone (crushed)	XX	(6)	XX	(6)	XX	(6)
Total	XX	471,000	XX	403,000 ^r	XX	539,000
Maine:						
Gemstones, natural	NA	353	NA	358	NA	364
Sand and gravel, construction	8,120	54,400	8,500	62,700	7,450	54,200
Stone:						
Crushed	3,990	31,900	3,840 ^r	31,500 ^r	3,690	30,900
Dimension	6	3,640	7	4,150	5	2,770
Combined values of cement, clays [common (2011–12)], peat	XX	(6)	XX	(6)	XX	(6)
Total	XX	90,300 ^r	XX	98,600 ^r	XX	88,200
Maryland:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	6,980	83,100	7,730	90,700	6,650	77,000
Stone:						
Crushed	21,000	209,000	20,300	188,000	19,700	184,000
Dimension	6	1,230	4	1,120	2	687

See footnotes at end of table.

TABLE 5—Continued
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Maryland—Continued:						
Combined values of cement and clays (common)	XX	(6)	XX	(6)	XX	(6)
Total	XX	294,000	XX	280,000	XX	262,000
Massachusetts:						
Clays, common	17	(6)	18	(6)	(5)	(6)
Gemstones, natural	NA	1	NA	1	NA	1
Lime	(5)	(6)	(5)	(6)	(5)	(6)
Sand and gravel, construction	9,270	93,800	9,470	88,200	11,300	103,000
Stone:						
Crushed	10,500	125,000	10,800 ^r	131,000 ^r	10,100	130,000
Dimension	83	16,200	145	34,200	148	43,500
Total	XX	235,000	XX	254,000 ^r	XX	277,000
Michigan:						
Cement:						
Masonry	61	8,300 ^e	73	9,540 ^e	61	8,500 ^e
Portland	3,480	353,000 ^e	3,890	346,000 ^e	3,860	370,000 ^e
Clays, common	312	1,280	(5)	W	(5)	W
Gemstones, natural	NA	2	NA	2	NA	2
Gypsum, crude	345	2,670	322	2,250	368	3,040
Iron ore, usable shipped	13,200	W	10,800 ^e	W	10,500 ^e	W
Lime	518	56,500	526	62,300	524	64,700
Peat	3	27	(5)	W	(5)	W
Sand and gravel:						
Construction	32,100	179,000	31,600	173,000	34,300	197,000
Industrial	1,830	67,500	1,450	59,100	1,230	49,000
Stone, crushed	22,700	137,000	24,900 ^r	168,000 ^r	26,700	193,000
Combined values of magnesium compounds, potash, salt, stone (dimension), and values indicated by symbol W	XX	1,650,000	XX	1,310,000	XX	1,710,000
Total	XX	2,450,000	XX	2,130,000 ^r	XX	2,590,000
Minnesota:						
Gemstones, natural	NA	7	NA	7	NA	7
Iron ore, usable shipped	42,400	W	41,700	W	41,100	W
Peat	44	2,490	56	2,880	55	2,980
Sand and gravel:						
Construction	32,100 ^r	182,000	44,600 ^r	222,000 ^r	43,600	203,000
Industrial	(5)	W	3,670	210,000	4,140	271,000
Stone:						
Crushed	8,370	101,000	8,510 ^r	102,000 ^r	8,590	100,000
Dimension	46	28,500	65	27,200	59	24,300
Combined values of lime and values indicated by symbol W	XX	3,870,000 ⁷	XX	3,600,000 ^{7,8}	XX	(6)
Total	XX	4,180,000 ^r	XX	4,200,000 ^{r,8,*}	XX	601,000
Mississippi:						
Clays, common	264	1,570	221	1,330	(5)	W
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	11,700	94,100	11,500	90,500	10,400	78,200
Stone, crushed	2,720	65,000	2,120	53,100	1,920	52,200
Combined values of clays (ball, bentonite, fuller's earth), and value indicated by symbol W	XX	(6)	XX	(6)	XX	(6)
Total	XX	161,000 ^r	XX	145,000 ^r	XX	130,000
Missouri:						
Cement, portland	7,050	559,000 ^e	7,950	635,000 ^e	8,220	703,000 ^e
Clays, common	431	3,370	409	3,190	344	1,660
Sand and gravel:						
Construction	9,340	64,800	9,310	62,500	12,300	85,000
Industrial	1,970	101,000	1,390	76,000	1,990	127,000

See footnotes at end of table.

TABLE 5—Continued
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Missouri—Continued:						
Stone, crushed	64,100	566,000	66,600 ^r	593,000 ^r	68,000	594,000
Combined values of cement (masonry), clays (fire, fuller's earth), copper, gemstones (natural), lead, lime, silver, stone (dimension), tripoli, zinc	XX	903,000	XX	913,000	XX	895,000
Total	XX	2,200,000	XX	2,280,000 ^r	XX	2,410,000
Montana:						
Garnet, industrial ⁶	18	2,650	15	2,650	--	--
Gemstones, natural	NA	524	NA	532	NA	539
Palladium ⁴ kilograms	12,400	295,000	12,300	257,000	12,600	295,000
Platinum ⁴ do.	3,700	205,000	3,670	184,000	3,720	178,000
Sand and gravel, construction	11,100	86,400	12,000	90,300	12,600	95,900
Stone:						
Crushed	2,640	26,800	2,750 ^r	28,500 ^r	2,690	32,200
Dimension	12	2,930	14	1,360	31	1,590
Combined values of cement, clays (bentonite, common), copper, gold, iodine (2012–13), lime, molybdenum concentrates, silver, talc (crude)	XX	829,000	XX	889,000 ^r	XX	709,000
Total	XX	1,450,000	XX	1,450,000	XX	1,310,000
Nebraska:						
Gemstones, natural	NA	4	NA	4	NA	4
Sand and gravel, construction	13,000	76,300	12,900	84,800	13,200	89,100
Stone, crushed	7,420	70,000	6,650 ^r	75,600 ^r	6,590	77,000
Combined values of cement, clays (common), lime, sand and gravel (industrial)	XX	(6)	XX	(6)	XX	(6)
Total	XX	146,000 ^r	XX	160,000 ^r	XX	166,000
Nevada:						
Barite	704	59,900	659	73,200	717	80,500
Clays, fuller's earth	--	--	(5)	W	(5)	W
Gold ⁴ kilograms	172,000	8,690,000	175,000	9,440,000	170,000	7,720,000
Lithium carbonate	(5)	W	(5)	W	5	11,200
Sand and gravel, construction	13,200	81,400	12,300	84,700	17,600	89,800
Silver ⁴ kilograms	209,000	237,000	250,000	251,000	255,000	195,000
Stone, crushed	6,850	71,200	8,350 ^r	80,900 ^r	7,940	80,700
Combined values of cement (portland), clays (bentonite, kaolin), copper, diatomite, gemstones (natural), gypsum (crude), lime, magnesite, molybdenum concentrates, perlite (crude), salt, sand and gravel (industrial), stone (dimension), and values indicated by symbol W	XX	876,000	XX	1,110,000	XX	1,030,000
Total	XX	10,000,000	XX	11,000,000	XX	9,200,000
New Hampshire:						
Gemstones, natural	NA	7	NA	7	NA	7
Sand and gravel, construction	6,270	54,400	7,040 ^r	50,800 ^r	6,270	48,300
Stone:						
Crushed	5,030	45,200	4,630 ^r	39,800 ^r	4,890	43,300
Dimension	(5)	(6)	32	4,370	34	4,510
Total	XX	99,600	XX	95,000 ^r	XX	96,100
New Jersey:*						
Gemstones, natural	NA	1	NA	1	NA	1
Peat	(5)	(9) *	(5)	(9) *	(5)	(9) *
Sand and gravel:						
Construction	11,800	108,000	11,100	97,600	13,600	113,000
Industrial	974	34,400	773	32,100	882	28,200
Stone, crushed	13,800	132,000	14,800	124,000 ^r	17,200	144,000
Total	XX	275,000	XX	254,000 ^r	XX	284,000

See footnotes at end of table.

TABLE 5—Continued
 NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
New Mexico:						
Clays, common	8	70	8	48	(5)	W
Copper ⁴	66	591,000	103	835,000	121	906,000
Gemstones, natural	NA	23	NA	17	NA	17
Sand and gravel, construction	9,410	74,600	10,200	83,200	8,370	71,800
Stone, crushed	5,180	36,600	4,950 ^r	41,400 ^r	5,040	41,500
Combined values of cement, gold, gypsum (crude), molybdenum concentrates, perlite (crude), potash, pumice and pumicite, salt, silver, stone (dimension), zeolites, and value indicated by symbol W	XX	544,000	XX	609,000	XX	537,000
Total	XX	1,250,000	XX	1,570,000	XX	1,560,000
New York:						
Clays, common	388	16,900	425	19,000	519	22,100
Garnet, industrial ^e	22	3,380	18	3,130	20	3,380
Gemstones, natural	NA	98	NA	98	NA	99
Peat	2	W	(10)	W	(5)	W
Salt	6,520	452,000	4,800	383,000	7,410	580,000
Sand and gravel, construction	30,300	257,000	28,900 ^r	254,000	28,900	254,000
Stone:						
Crushed	35,400 ^r	392,000 ^r	35,200 ^r	376,000 ^r	34,600	353,000
Dimension	99	17,800	99	18,400	120	17,300
Combined values of cement, sand and gravel (industrial), wollastonite, and values indicated by symbol W	XX	178,000	XX	187,000	XX	156,000
Total	XX	1,320,000	XX	1,240,000 ^r	XX	1,390,000
North Carolina:						
Clays, common	764	4,460	732 ^r	20,100 ^r	727	20,000
Gemstones, natural	NA	1,990	NA	2,060	NA	371
Sand and gravel:						
Construction	8,250	47,700	7,220	42,900	8,800	60,100
Industrial	1,330	35,300	1,230	30,400 ^r	1,290	30,700
Stone:						
Crushed	40,100	586,000	41,100	615,000 ^r	46,600	715,000
Dimension	59	11,600	53	8,480	47	19,600
Combined values of andalusite, clays (kaolin), feldspar, mica (crude), olivine (2011), phosphate rock, pyrophyllite (crude)	XX	(6)	XX	(6)	XX	(6)
Total	XX	687,000 ^r	XX	719,000 ^r	XX	845,000
North Dakota:						
Clays, common	(5)	(6)	(5)	(6)	(5)	(6)
Gemstones, natural	NA	4	NA	4	NA	4
Lime	(5)	(6)	(5)	(6)	(5)	(6)
Sand and gravel:						
Construction	21,700	116,000	29,400 ^r	208,000 ^r	32,600	255,000
Industrial	(5)	(6)	(5)	(6)	(5)	(6)
Stone, crushed	1,390	8,700	2,070 ^r	12,800 ^r	1,290	8,650
Total	XX	125,000	XX	221,000 ^r	XX	263,000
Ohio:						
Cement:						
Masonry	(5)	(6)	(5)	(6)	(5)	(6)
Portland	636	56,100 ^e	797	72,100 ^e	829	79,000 ^e
Clays, common	632	13,300	693	13,900	518	10,500
Gemstones, natural	NA	4	NA	4	NA	4
Lime	1,730	208,000	1,650	209,000	1,780	229,000
Peat	(10)	(10)	(10)	(10)	(10)	(10)
Salt	(5)	(6)	(5)	(6)	(5)	(6)

See footnotes at end of table.

TABLE 5—Continued
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Ohio—Continued:						
Sand and gravel:						
Construction	27,400	219,000	29,500	234,000	29,300	234,000
Industrial	1,100	54,000	1,160	34,500	1,230	61,100
Stone:						
Crushed	49,900	407,000	54,500 ^r	441,000 ^r	52,000	425,000
Dimension	25	5,100	25	5,700	27	6,610
Total	XX	963,000	XX	1,010,000	XX	1,050,000
Oklahoma:						
Clays, common	570	2,720	638	3,010	603	1,990
Gemstones, natural	NA	4	NA	4	NA	4
Sand and gravel:						
Construction	11,000	68,000	11,800	73,200	12,000	83,200
Industrial	1,780	69,600	2,850	112,000	2,120	89,100
Stone:						
Crushed	39,200	304,000 ^r	39,900 ^r	303,000 ^r	39,800	303,000
Dimension	35	6,310	53	7,420	43	7,880
Combined values of cement, feldspar, gypsum (crude), helium [Grade-A (2012–13)], iodine (crude), lime, pumice and pumicite (2013), salt	XX	162,000 ^r	XX	222,000 ^r	XX	223,000
Total	XX	612,000 ^r	XX	720,000 ^r	XX	709,000
Oregon:						
Clays, common	194	538	(5)	W	(5)	W
Gemstones, natural	NA	1,130	NA	1,150	NA	1,100
Sand and gravel, construction	11,300	86,900	10,400	89,500	11,500	97,700
Stone, crushed	14,900	118,000 ^r	14,800	110,000 ^r	16,400	129,000
Combined values of cement (portland), chromite ore (2011–12), clays (bentonite), diatomite, emery (crude), lime, perlite (crude), pumice and pumicite, zeolites (2012–13), and values indicated by symbol W	XX	95,400	XX	93,600	XX	118,000
Total	XX	302,000	XX	294,000 ^r	XX	346,000
Pennsylvania:						
Cement:						
Masonry	141	19,700 ^e	147	7,010 ^e	143	7,500 ^e
Portland	3,270	297,000 ^e	3,360	308,000 ^e	3,620	353,000 ^e
Clays, common	(5)	W	317	2,480	236	1,240
Gemstones, natural	NA	1	NA	1	NA	1
Lime	1,150	156,000	1,090	151,000	1,090	151,000
Sand and gravel, construction	12,800	115,000	11,600	103,000	11,200	101,000
Stone:						
Crushed	87,900	951,000	82,600 ^r	897,000 ^r	79,200	891,000
Dimension	25	5,040	25	6,540	25	5,890
Combined values of peat, sand and gravel (industrial), tripoli (2011), and value indicated by symbol W	XX	(6)	XX	(6)	XX	(6)
Total	XX	1,540,000 ^r	XX	1,470,000	XX	1,510,000
Rhode Island:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	2,010	26,000	2,500	28,400	2,280	28,100
Industrial	(5)	(6)	(5)	(6)	(5)	(6)
Stone, crushed	1,530	16,200	1,480	16,300	1,650	17,700
Total	XX	42,200	XX	44,700	XX	45,800
South Carolina:						
Cement:						
Masonry	143	18,300 ^e	158	20,800 ^e	155	22,000 ^e
Portland	2,480	197,000 ^e	2,770	222,000 ^e	2,780	236,000 ^e

See footnotes at end of table.

TABLE 5—Continued
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
South Carolina—Continued:						
Clays:						
Common	227	1,250	197	1,120	144	921
Kaolin	246	19,700	256 ^r	20,600 ^r	257	21,800
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	7,070	31,400	6,380	36,300	6,430	37,700
Industrial	451	16,700	483	20,300	521	23,600
Stone:						
Crushed	19,500	199,000	19,100 ^r	188,000 ^r	19,800	205,000
Dimension	(5)	(6)	(5)	(6)	(5)	(6)
Vermiculite	(5)	(6)	(5)	(6)	(5)	(6)
Total	XX	483,000	XX	510,000 ^r	XX	547,000
South Dakota:						
Sand and gravel, construction	12,700	47,800	13,100	63,100	17,400	80,500
Stone, crushed	6,480 ^r	48,200 ^r	6,530 ^r	48,600 ^r	7,450	57,800
Combined values of cement (portland), clays (common), feldspar, gemstones (natural), gold, gypsum (crude), iron ore [usable shipped (2011)] ¹¹ , lime, mica (crude), sand and gravel [industrial (2012–13)], silver, stone (dimension)	XX	215,000	XX	230,000	XX	187,000
Total	XX	311,000 ^r	XX	342,000 ^r	XX	325,000
Tennessee:						
Clays, common	113	817	114	817	(5)	W
Sand and gravel:						
Construction	6,100	45,600	6,110	47,500	5,420	43,200
Industrial	1,050	16,500	1,040	26,600	1,090	35,600
Stone:						
Crushed	38,900	484,000	38,800 ^r	476,000 ^r	38,200	474,000
Dimension	(5)	W	32	7,210	32	6,140
Combined values of cadmium (byproduct from zinc concentrates), cement, clays (ball, fuller's earth), gemstones (natural), lime, salt, zinc, and values indicated by symbol W	XX	331,000	XX	377,000	XX	407,000
Total	XX	878,000	XX	935,000 ^r	XX	966,000
Texas:						
Cement:						
Masonry	187	25,100 ^e	215	31,900 ^e	238	37,300 ^e
Portland	9,200	926,000 ^e	10,000	937,000 ^e	10,100	995,000 ^e
Clays:						
Bentonite	67	10,300	57	9,730	56	9,990
Common	1,840	13,300	1,940	13,400	1,520	12,100
Gemstones, natural	NA	203	NA	203	NA	172
Lime	1,350	148,000	1,360	154,000	1,360	154,000
Salt	9,330	180,000	7,790	161,000	7,770	166,000
Sand and gravel:						
Construction	79,200	593,000	80,800	584,000	78,300	606,000
Industrial	7,000	337,000	7,010	357,000	7,080	434,000
Stone:						
Crushed	117,000	791,000	134,000 ^r	1,020,000 ^r	136,000	1,100,000
Dimension	535	117,000	766	151,000	905	151,000
Combined values of clays (ball, fire, fuller's earth, kaolin), gypsum (crude), helium [crude, Grade-A (2011–12)], silver (2013), talc (crude), zeolites	XX	75,000 ^r	XX	73,700 ^r	XX	70,100
Total	XX	3,220,000	XX	3,490,000 ^r	XX	3,740,000

See footnotes at end of table.

TABLE 5—Continued
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Utah:						
Beryllium concentrates metric tons	5,920	NA	5,570	NA	5,910	NA
Clays, common	334	7,260	332	12,100	306	11,900
Gemstones, natural	NA	789	NA	879	NA	857
Iron ore, usable shipped	--	--	437	20,400	1,310	190,000
Salt	2,660	126,000	1,380	99,600	2,040	183,000
Sand and gravel, construction	25,300	149,000	23,900 ^r	173,000 ^r	24,500	175,000
Stone:						
Crushed	7,920	61,200	7,370 ^r	56,900 ^r	7,260	59,300
Dimension	7	595	(5)	W	(5)	W
Vanadium ⁴ metric tons	590	8,790 ^r	106 ^r	1,520 ^r	591	7,870
Combined values of cement (portland), clays (bentonite), copper, gold, gypsum (crude), lime, magnesium compounds, magnesium metal, molybdenum concentrates, phosphate rock, potash, silver, and values indicated by symbol W	XX	3,960,000	XX	2,960,000	XX	3,060,000
Total	XX	4,310,000	XX	3,320,000 ^r	XX	3,680,000
Vermont:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	5,070	33,800	4,700	38,400	4,820	37,700
Stone:						
Crushed	6,510	67,100	6,190 ^r	62,200 ^r	6,400	63,200
Dimension	79	21,800	75	24,900	80	25,200
Talc, crude	(5)	(6)	(5)	(6)	(5)	(6)
Total	XX	123,000	XX	126,000 ^r	XX	126,000
Virginia:						
Clays, common	503	6,030	(5)	W	(5)	W
Kyanite metric tons	98,200	31,000 ^e	98,500	31,000 ^e	110,000	33,000 ^e
Sand and gravel, construction	6,680	77,500	6,470	73,700	6,960	77,800
Stone:						
Crushed	45,600	665,000	44,000 ^r	662,000 ^r	41,600	626,000
Dimension	12	7,380	13	8,110	12	7,590
Combined values of cement, clays (fuller's earth), feldspar, gemstones (natural), iron oxide pigments (crude), lime, mica [crude (2013)], salt, sand and gravel (industrial), talc (crude), titanium concentrates (ilmenite), vermiculite (crude), zirconium concentrates, and values indicated by symbol W	XX	356,000 ^r	XX	401,000 ^r	XX	325,000
Total	XX	1,140,000	XX	1,180,000	XX	1,070,000
Washington:						
Gemstones, natural	NA	57	NA	57	NA	58
Sand and gravel, construction	29,600	211,000	28,100	214,000	29,500	224,000
Stone, crushed	14,800	152,000	14,800 ^r	179,000 ^r	14,400	188,000
Combined values of cement (portland), clays [common (2011–12)], diatomite, gold, lime, olivine (2011–12), peat, sand and gravel (industrial), stone [dimension (2011)]	XX	394,000	XX	362,000	XX	328,000
Total	XX	757,000	XX	756,000 ^r	XX	739,000
West Virginia:						
Clays, common	138	210	(5)	W	(5)	W
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	534	4,470	578	4,890	487	4,130
Industrial	(5)	W	312	16,000	429	21,900

See footnotes at end of table.

TABLE 5—Continued
 NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE^{1,2,3}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
West Virginia—Continued:						
Stone, crushed	16,400	171,000	15,700 ^r	152,000 ^r	14,800	148,000
Combined values of cement, lime, salt, stone [dimension (2011)], and values indicated by symbol W	XX	150,000	XX	144,000 ^r	XX	(6)
Total	XX	326,000	XX	317,000 ^r	XX	174,000
Wisconsin:						
Gemstones, natural	NA	7	NA	7	NA	7
Lime	939	95,900	924	102,000	(5)	(6)
Peat	(5)	(9)	(5)	(9)	--	--
Sand and gravel:						
Construction	27,900	147,000	27,500	138,000	29,700	157,000
Industrial	5,510	280,000	10,700	611,000	19,800	1,210,000
Stone:						
Crushed	24,100 ^r	127,000	22,300 ^r	135,000	20,000	129,000
Dimension	170	38,600 ^r	158	37,900	156	37,200
Total	XX	688,000 ^r	XX	1,020,000	XX	1,530,000
Wyoming:						
Clays, bentonite	4,510	263,000	4,500	267,000	4,000	253,000
Gemstones, natural	NA	15	NA	19	NA	18
Sand and gravel, construction	12,500	89,800	11,800	100,000	12,600	95,100
Stone, crushed	11,500	51,300	11,400	50,500	9,380	39,300
Combined values of cement (portland), clays (common), gypsum (crude), helium (Grade-A), lime, soda ash, stone [dimension (2012)]	XX	1,710,000	XX	1,910,000	XX	1,880,000
Total	XX	2,120,000	XX	2,330,000	XX	2,260,000
Undistributed:						
Connecticut, Delaware, Illinois (2013), Kansas (2013), Kentucky (2011–12), Louisiana, Maine, Maryland, Massachusetts, Minnesota (2013), Mississippi, Nebraska, New Hampshire (2011), North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, Vermont, West Virginia (2013), Wisconsin (2013)*	XX	1,850,000 ^r	XX	2,000,000 ^r	XX	5,850,000

⁶Estimated. ^rRevised. do. Ditto. NA Not available. W Withheld to avoid disclosing company proprietary data; included in “Combined values” data for each State. XX Not applicable. -- Zero.

¹Summary data from the chapters of the 2013 Minerals Yearbook as they were completed and released through December 8, 2015.

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

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

⁴Recoverable content of ores, and so forth.

⁵Withheld to avoid disclosing company proprietary data.

⁶Withheld to avoid disclosing company proprietary data; value included in “Undistributed.”

⁷Partial total; excludes values that must be concealed to avoid disclosing company proprietary data. Concealed values included in “Undistributed.”

⁸Data rounded to two significant digits.

⁹Withheld to avoid disclosing company proprietary data; included in “Total.”*

¹⁰Less than ½ unit.*

¹¹Discontinued because South Dakota is not a steel producer.*

*Correction posted March 1, 2017.

TABLE 6
NONFUEL RAW MINERAL PRODUCTION IN THE COMMONWEALTH OF PUERTO RICO AND ISLANDS ADMINISTERED
BY THE UNITED STATES^{1, 2, 3, 4}

(Thousand metric tons and thousand dollars)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Puerto Rico:						
Cement:						
Masonry	--	--	(5)	W	(5)	W
Portland	744	W	783	W	610	W
Clays, common ^e	54	328	55	328	55	328
Lime	W	3,760 ^e	W	3,760 ^e	W	3,760 ^e
Salt ^c	45	1,500	45	1,500	45	1,500
Stone, crushed	7,140	73,400	7,370 ^r	74,100 ^r	5,960	60,800
Total	XX	78,900	XX	79,600 ^r	XX	66,300

^eEstimated. ^rRevised. W Withheld to avoid disclosing company proprietary data; excluded from "Total." XX Not applicable. -- Zero.

¹Summary data from the chapters of the 2013 Minerals Yearbook as they were completed and released through December 8, 2015.

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

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

⁴Data on crushed stone for the Administered Islands (American Samoa, Guam, and the Virgin Islands) are withheld to avoid disclosing company proprietary data.

⁵Less than ½ unit.

TABLE 7
U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013		
	Quantity	Value	Quantity	Value	
Metals:					
Aluminum:					
Crude and semicrude	metric tons	3,480,000	9,480,000	3,390,000	9,530,000
Manufactures	do.	140,000	594,000	114,000	494,000
Antimony:					
Metal, alloys, waste and scrap	do.	847	4,310	1,550	5,540
Oxide, antimony content	do.	3,870	21,700	2,420	14,200
Arsenic metal, arsenic content	do.	439	NA	1,630	NA
Bauxite and alumina:					
Alumina, calcined equivalent		1,720 ^r	740,000 ^r	2,300	870,000
Bauxite:					
Calcined, refractory and other grade		18	3,750	10	1,410
Crude and dried		11	313	4	110
Specialty aluminum compounds, sulfate, chloride, fluoride-based	metric tons	37,900	34,900	NA	NA
Beryllium, unwrought, and waste and scrap, other including articles not elsewhere specified, beryllium content	kilograms	55,000	22,800	35,200	19,100
Bismuth, metal, alloys, waste and scrap, bismuth content	do.	764,000	8,110	816,000	9,040
Cadmium:					
Metal	do.	378,000	1,180	266,000	629
Sulfide, gross weight	do.	9,340	5	5,710	3
Unwrought and powder	do.	253,000	406	131,000	327
Waste and scrap	do.	--	--	20,400	43
Chromium:					
Ores and concentrate	metric tons	21,200	9,870	8,530	3,040
Metals and alloys:					
Metal, unwrought powders, waste and scrap, other	do.	462	13,000	856	19,000
Ferrous alloys, high-carbon, low-carbon, ferrochromium-silicon	do.	5,300	7,250	4,850	7,300
Chemicals:					
Oxides, trioxide, other	do.	22,800	88,200	20,600	85,700
Sulfates	do.	40	254	128	701
Salts of oxometallic or peroxometallic acids, zinc and lead chromate, sodium dichromate, potassium dichromate, other	do.	14,500	20,700	15,100	29,900
Pigments and preparations	do.	791	5,480	649	6,090
Cobalt:					
Acetates	do.	205	3,350	236	2,050
Chlorides	do.	22	238	6	98
Oxides and hydroxides	do.	397	2,540	409	4,250
Metal, unwrought, powders, waste and scrap, mattes, other intermediate products of metallurgy	do.	3,420	106,000	3,500	97,000
Copper:					
Unmanufactured, does not include unalloyed scrap, copper content	do.	510,000	3,080,000	504,000	3,260,000
Semimanufactures	do.	245,000	2,140,000	256,000	2,090,000
Scrap, alloyed and unalloyed	do.	1,200,000	4,400,000	1,160,000	4,080,000
Ferrous alloys not listed elsewhere:					
Ferrophosphorous	do.	161	358	619	1,310
Other	do.	3,240	7,900	2,120	5,730
Gold:					
Ores and concentrates	kilograms	9,560 ^r	252,000	7,210	316,000
Dore and precipitates	do.	312,000 ^r	13,700,000	195,000	8,390,000
Bullion, refined	do.	373,000 ^r	19,400,000 ^r	489,000	22,800,000
Waste and scrap	do.	266,000	2,310,000	128,000	951,000
Metal powder	do.	304	8,710	269	8,650
Compounds	do.	2,820,000	107,000	1,170,000	92,100
Iron and steel:					
Steel mill products		12,500	NA	11,500	NA
Fabricated steel products		1,990	NA	1,880	NA

See footnotes at end of table.

TABLE 7—Continued
U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013	
	Quantity	Value	Quantity	Value
Metals—Continued:				
Iron and steel—Continued:				
Cast iron and steel products	253 ^r	NA	283	NA
Iron and steel scrap:				
Ferrous, includes tinplate and terneplate, excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping	21,400	9,430,000	18,500	7,570,000
Pig iron, all grades metric tons	21,200	8,110	18,000	4,440
Direct-reduced iron, steelmaking grade do.	533	56	265	29
Ships, boats, and other vessels for scrapping	5	913	7	1,030
Used rails for rerolling and other uses, includes mixed (used plus new) rails	36	37,600	37	35,100
Iron ore	11,200	1,440,000	11,000	1,480,000
Lead:				
Base bullion, lead content metric tons	72	852	349	1,300
Ore and concentrates, lead content do.	214,000	360,000	215,000	386,000
Unwrought and alloys, lead content do.	47,000	57,800	41,600	62,700
Wrought and alloys, lead content do.	6,300	10,400	6,610	10,800
Scrap, gross weight do.	25,900	30,600	34,900	45,400
Magnesium:				
Waste and scrap, magnesium content do.	2,100	5,290	471	1,420
Metal, magnesium content do.	7,020	21,400	5,790	17,600
Alloys, gross weight do.	7,310	36,300	8,240	37,200
Powder, sheets, tubing, ribbons, wire, other forms, gross weight do.	1,870	40,100	1,600	55,100
Manganese, gross weight:				
Ores and concentrates with 20% or more manganese do.	1,710	1,990	628	1,350
Ferromanganese, all grades do.	5,350	6,540	1,970	3,300
Silicomanganese do.	5,850	8,220	5,890	6,500
Metal, including alloys and waste and scrap do.	2,580	7,510	1,680	5,770
Dioxide do.	9,260	16,800	6,530	14,500
Mercury:				
Metal do.	103	243	(3)	10
Amalgams of precious metals whether or not chemically defined do.	171	286,000	153	361,000
Molybdenum:				
Ore and concentrates, including roasted and other, molybdenum content do.	43,500	1,120,000	48,600	1,030,000
Chemicals:				
Oxides and hydroxides, gross weight do.	1,590	34,900	1,320	26,400
Molybdates, all, gross weight do.	1,530	22,300	1,740	31,200
Ferromolybdenum, molybdenum content do.	996	33,100	862	22,900
Other, includes powders, unwrought, bars and rods, waste and scrap, wire, other, gross weight do.	1,850	112,000	1,060	78,700
Nickel, nickel content:				
Primary, unwrought and chemicals do.	9,100	372,000	10,600	397,000
Secondary, stainless steel scrap and waste and scrap do.	59,800	925,000	61,200	853,000
Wrought, not alloyed, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes do.	820	25,100	728	25,000
Alloyed, unwrought ingot, bars, rods, profiles, wire, sheets, strip, foil, tubes pipes, other alloyed articles, gross weight do.	43,900	1,830,000	42,400	1,760,000
Niobium (columbium) and tantalum:				
Niobium:				
Ores and concentrates kilograms	31,500	239	111,000	1,430
Ferroniobium do.	512,000	5,630	588,000	7,280
Tantalum:				
Ores and concentrates, includes synthetic do.	XX	10,700	XX	4,730
Unwrought powders do.	111,000 ^r	45,900 ^r	146,000	75,700
Unwrought, alloys and metal do.	25,200	9,000	15,000	8,000
Waste and scrap do.	235,000	31,000	521,000	67,800
Wrought do.	81,200	59,000	54,200	36,400

See footnotes at end of table.

TABLE 7—Continued
 U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013		
	Quantity	Value	Quantity	Value	
Metals—Continued:					
Platinum-group metals:					
Palladium, palladium content	do.	32,200	467,000	25,900	452,000
Platinum, includes waste and scrap and metal, platinum content	do.	93,400	1,210,000	375,000	1,560,000
Iridium, osmium, ruthenium, gross weight	do.	1,640	17,100	1,320	21,200
Rhodium, rhodium content	do.	1,040	43,600	1,220	43,100
Rare earths, estimated rare-earth oxide content:					
Compounds:					
Cerium compounds	do.	996,000 ^r	16,900	734,000	12,400
Other	do.	1,830,000	66,400	5,570,000	49,700
Metals:					
Ferrocerium and other pyrophoric alloys	do.	960,000 ^r	12,800 ^r	1,420,000	14,600
Other, metals and alloys	do.	2,080,000	24,400	1,040,000	9,600
Selenium and tellurium:					
Selenium, selenium content	do.	952,000	19,700	648,000	13,000
Tellurium, tellurium content	do.	47,400	5,900 ^r	42,300	2,670
Silicon, gross weight:					
Ferrosilicon	metric tons	20,600	34,400	17,300	31,800
Metal	do.	76,200	1,900,000	38,300	1,350,000
Silver:					
Bullion, silver content	kilograms	837,000	795,000	347,000	258,000
Dore, silver content	do.	67,900	70,400	48,000	39,400
Metal powder, gross weight	do.	774,000	729,000	660,000	551,000
Nitrate, gross weight	do.	47,400	6,170	39,800	4,370
Ores and concentrates, silver content	do.	41,500	39,900	13,800	31,300
Semimanufactured forms containing 99.5% or more by weight of silver, gross weight	do.	628,000	543,000	741,000	535,000
Waste and scrap, gross weight	do.	13,000,000	2,050,000	19,300,000	1,570,000
Unwrought, other, gross weight	do.	284,000	298,000	120,000	116,000
Thorium and thorium-bearing materials, compounds	metric tons	3	734	1	523
Tin:					
Ingots and pigs	do.	5,560	36,200 ^r	5,870	38,400
Tin scrap and other tin bearing material, except tinplate scrap, includes rods, profiles, wire, powders, flakes, tubes, pipes	do.	15,100	66,000	10,700	59,000
Tinplate and terneplate	do.	160,000	132,000	135,000	109,000
Titanium:					
Metal, waste and scrap, unwrought, wrought products and castings, ferrotitanium and ferrosilicon titanium	do.	41,000	1,450,000	39,000	1,460,000
Ores and concentrates	do.	43,000	31,900	11,500	22,700
Pigment, dioxide and oxide	do.	624,000	2,040,000	670,000	1,800,000
Tungsten, tungsten content:					
Ammonium paratungstate	do.	833	16,500	1,600	31,400
Carbide powder	do.	878	52,800	901	46,700
Metal powders	do.	637	50,800	455	38,600
Miscellaneous tungsten-bearing materials, ferrotungsten, ferrosilicon tungsten, unwrought, waste and scrap, wrought, compounds	do.	4,180	70,300	3,710	68,800
Ores and concentrates	do.	203	3,800	1,060	33,600
Vanadium:					
Aluminum-vanadium master alloy, gross weight	kilograms	1,360,000	18,600	4,270,000	22,300
Ferrovandium, vanadium content	do.	337,000	11,000	259,000	7,720
Metal, including waste and scrap, gross weight	do.	26,700 ^r	862 ^r	52,500	1,560
Pentoxide, anhydride, vanadium content	do.	61,800	1,160	76,500	1,110
Other oxides and hydroxides, vanadium content	do.	287,000	3,540	358,000	3,790

See footnotes at end of table.

TABLE 7—Continued
 U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013		
	Quantity	Value	Quantity	Value	
Metals—Continued:					
Zinc:					
Compounds, chloride, chromates of zinc or of lead, compounds n.s.p.f. ⁴ , lithopone, oxide, sulfate, sulfide	metric tons	XX	67,800 ^r	XX	54,700
Ores and concentrates, zinc content	do.	591,000 ^r	811,000 ^r	669,000	868,000
Refined	do.	14,200 ^r	NA	11,500	NA
Zirconium:					
Ferrozirconium	do.	2,560	6,420	1,980	5,000
Ores and concentrates	do.	20,000	34,900	29,200	43,300
Oxide, includes germanium oxides and zirconium dioxides	do.	6,230	NA	7,000	NA
Unwrought, including powders	do.	478 ^r	25,300	432	19,100
Waste and scrap	do.	1,320	121,000	1,310	130,000
Total		XX	86,500,000 ^r	XX	79,300,000
Industrial minerals:					
Abrasives, manufactured:					
Aluminum oxide, crude	do.	19,100	64,200	22,000	65,900
Metallic abrasives	do.	39,000	53,400	35,900	51,100
Silicon carbide, crude, ground and refined	do.	20,000	40,400	18,400	34,900
Asbestos, includes reexports:					
Manufactured		NA	26,400	NA	33,400
Unmanufactured	metric tons	47	69	27	48
Barite, natural barium sulfate	do.	151,000	42,200	199,000	58,900
Boron minerals and compounds:					
Boric acid, includes orthoboric and anhydrous		190	155,000	232	211,000
Sodium borates		457 ^r	260,000 ^r	514	287,000
Bromine:					
Compounds, includes methyl bromine and ethylene dibromide, bromine content	metric tons	2,700	15,000	2,440	13,100
Elemental, gross weight	do.	3,730	9,960	5,530	10,300
Cement, hydraulic and clinker ⁵		1,750	229,000	1,670	230,000
Clays:					
Ball		77 ^r	4,580	52	6,610
Bentonite		1,030 ^r	164,000 ^r	890	157,000
Fire		289	47,200	268	41,100
Fuller's earth		107 ^r	36,300 ^r	86	29,100
Kaolin		2,450	549,000	2,540	577,000
Other, n.e.c. ⁶		315 ^r	68,200 ^r	304	81,200
Diamond:					
Gemstones, natural, including reexports	thousand carats	14,400 ^r	16,900,000	14,800	19,400,000
Industrial including reexports:					
Unworked	do.	19,700 ^r	36,400 ^r	15,500	30,000
Powder, dust and grit, natural and synthetic	do.	175,000 ^r	80,500 ^r	150,000	72,600
Diatomite		96	50,700	92	48,700
Feldspar	metric tons	13,000	4,390	17,700	5,310
Fluorspar	do.	23,800	3,640	16,000	2,520
Garnet, industrial	do.	14,600	14,700 ^r	14,400	16,000
Graphite, natural and artificial	do.	54,900	188,000	38,200	224,000
Gypsum and gypsum products:					
Crude		408	28,800	142	25,100
Plasters		140	39,200 ^r	121	44,100
Boards		856	154,000	834	150,000
Other		XX	57,000	XX	60,300
Helium, Grade-A	million cubic meters	85	NA	82	NA
Iodine:					
Crude, resublimed	metric tons	1,040	27,800	1,150	33,200
Potassium iodide	do.	336	6,760	276	5,320

See footnotes at end of table.

TABLE 7—Continued
U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013		
	Quantity	Value	Quantity	Value	
Industrial minerals—Continued:					
Iron oxide pigments and hydroxides:					
Pigment grade	do.	8,950	13,500	8,170	13,400
Other grade	do.	51,400	41,900	58,500	34,900
Kyanite and related materials	do.	36,400 ^r	11,700	42,400	13,100
Lime		212	36,700	270	48,200
Lithium chemicals:					
Carbonate	metric tons	1,060	6,310	1,010	5,870
Hydroxide	do.	6,440	50,500	5,850	43,500
Magnesium compounds:					
Compounds, chlorides, hydroxide and peroxide, sulfates	do.	45,500	31,800	41,400	28,300
Magnesite, crude and processed:					
Caustic-calcined magnesia	do.	190 ^r	139 ^r	1,470	872
Dead-burned and fused magnesia	do.	15,900	10,200	18,900	13,200
Other magnesia	do.	14,700	17,200	14,000	15,300
Crude	do.	5,210	799	881	992
Mica:					
Scrap and flake:					
Powder	do.	5,820	7,980	6,110	8,360
Waste	do.	74	47	148	522
Sheet:					
Unworked	do.	322	678	192	133
Worked	do.	1,340	21,000	1,080	19,700
Nitrogen, major compounds, nitrogen content		1,460 ^r	NA	1,510	NA
Peat		75 ^r	NA	41	NA
Perlite, crude ^c	metric tons	38,000	NA	51,000	NA
Phosphate rock:					
Diammonium phosphate		3,630	1,770,000	3,260	1,390,000
Elemental phosphorus		19	62,000	20	61,400
Monoammonium phosphate		2,410	1,280,000	1,900	915,000
Phosphoric acid		788	313,000 ^r	825	263,000
Potash, gross weight:					
Potassium chloride	metric tons	157,000	NA	289,000	NA
Potassium sulfates, all grades	do.	503,000	NA	409,000	NA
Potassium nitrate	do.	15,700	11,400	13,900	NA
Pumice and pumicite		12	NA	12	NA
Salt		809	90,300	525	88,800
Sand and gravel:					
Construction:					
Sand		197	19,600	49	9,610
Gravel		229	5,930	10	6,110
Industrial		4,360	327,000	2,960	352,000
Soda ash		6,110	1,240,000	6,470	1,210,000
Stone:					
Crushed		1,140	44,600	404	55,100
Dimension		XX	64,900	XX	61,000
Strontium carbonate, precipitated	kilograms	120,000	130	62,600	84
Sulfur:					
Elemental		1,850	366,000	1,750	234,000
Sulfuric acid, 100% H ₂ SO ₄		161	33,000	165	30,100
Talc, excludes powders-talcum (in package), face, compact		270 ^r	56,800 ^r	189	52,800
Vermiculite		2	NA	2	NA
Wollastonite ^c	metric tons	10,000	3,240	10,000	3,270
Zeolites ^c	do.	750	183	200	49
Total		XX	25,300,000 ^r	XX	27,000,000
Grand total		XX	112,000,000 ^r	XX	106,000,000

See footnotes at end of table.

TABLE 7—Continued
U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

⁶Estimated. ¹Revised. do. Ditto. NA Not available. XX Not applicable. -- Zero.

¹Summary data from the chapters of the 2013 Minerals Yearbook as they were completed and released through December 8, 2015.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Less than ½ unit.

⁴Not specifically provided for.

⁵Does not include Puerto Rico.

⁶Not elsewhere classified.

Source: 2013 Minerals Yearbook and U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}
(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013	
	Quantity	Value ³	Quantity	Value ³
Metals:				
Aluminum:				
Crude and semicrude	4,350,000	11,000,000	4,720,000	11,200,000
Manufactures	374,000	1,210,000	381,000	1,250,000
Antimony:				
Metal	5,050	59,200	6,170	58,300
Ore and concentrate, antimony content	380	4,780	342	3,790
Oxide, antimony content	17,200	172,000	18,200	156,000
Arsenic:				
Acid	4	40	2	16
Metal	883	2,550	514	1,880
Sulfide	(4)	30	--	--
Trioxide	7,550	3,910	8,310	4,470
Bauxite and alumina:				
Alumina, calcined equivalent	1,900 ^r	711,000 ^r	2,050	842,000
Bauxite:				
Calcined, refractory and other grade	406 ^r	57,000 ^r	580	84,900
Crude and dried	10,300	459,000 ^s	9,830	386,000 ^s
Specialty aluminum compounds, sulfate, chloride, fluoride-based	64,900	72,100	NA	NA
Beryllium ore, concentrates, oxide, hydroxide, unwrought including powders, waste and scrap, other, beryllium-copper master alloys, beryllium-copper plates, sheets, strip, beryllium content				
Bismuth, metallic	99,700	23,000	57,000	19,000
Cadmium:	1,700,000	38,100	1,710,000	33,600
Metal	21,300	97	104,000	391
Sulfide, gross weight	34,000	946	6,860	1,270
Unwrought and powder	170,000	1,160	284,000	739
Waste and scrap	1,280	22	16	33
Chromium:				
Chromite ore	277,000	109,000	173,000	53,600
Metals and alloys:				
Ferroalloys, high-carbon, low-carbon, ferrochromium-silicon	526,000	728,000	478,000	580,000
Metal, unwrought powders, waste and scrap, other	15,300	203,000	13,700	152,000
Chemicals:				
Oxides, hydroxides, trioxide and other	9,960	38,200	9,900	36,000
Sulfates	346	376	490	547
Salts of oxometallic or peroxometallic acids, zinc and lead chromate, sodium dichromate, potassium dichromate, other	1,330	3,960	962	3,530
Carbide	171	3,600	132	3,280
Pigments and preparations based on chromium	1,850	11,400	1,390	9,800

See footnotes at end of table.

TABLE 8—Continued
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013	
	Quantity	Value ³	Quantity	Value ³
Metals—Continued:				
Cobalt:				
Metal, unwrought, excluding alloys and waste and scrap, includes cathode and metal powder, may include intermediate products of cobalt metallurgy	8,750	264,000	8,230	222,000
do.	1,670	51,200	1,740	53,600
Oxide and hydroxides, content	633	21,000	472	16,000
Other forms, includes acetates, carbonates, chlorides, sulfates, content				
Copper:				
Unmanufactured, does not include unalloyed scrap, copper content	638,000	5,080,000	739,000	5,580,000
do.	247,000	1,940,000	242,000	1,830,000
Semimanufactures	83,800 ^r	533,000	84,700	525,000
Scrap, alloyed and unalloyed, copper content				
Ferroalloys not listed elsewhere:				
Ferrophosphorus	7,070	4,340	8,740	4,580
Other	8,160	32,200	8,600	30,600
Gallium:				
Unwrought and waste and scrap	58,200	22,700	35,400	10,800
Gallium arsenide wafers, doped and undoped	218,000 ^r	211,000 ^r	635,000	214,000
Germanium, wrought, unwrought, waste and scrap, gross weight	37,500	46,900	34,300	49,700
Gold:				
Ores and concentrates	11,800 ^r	252,000 ^r	369	18,200
do.	311,000 ^r	13,700,000 ^r	216,000	9,610,000
Dore and precipitates	371,000 ^r	19,300,000 ^r	98,600	4,430,000
Bullion, refined	116,000	1,570,000	286,000	1,220,000
Waste and scrap	318	8,500	4,050	9,550
Metal powder	13,400	3,440	17,100	1,080
Compounds	109,000	53,900	97,200	53,400
Indium, unwrought metal and powders				
Iron and steel:				
Steel mill products	30,400	NA	29,200	NA
Fabricated steel products	4,680 ^r	NA	4,740	NA
Cast iron and steel products	491 ^r	NA	491	NA
Stainless steel	1,050,000	NA	935,000	NA
Iron and steel scrap:				
Ferrous, includes tinplate and terneplate, excludes used rails for rolling and other uses and ships, boats, and other vessels for scrapping	3,720	1,590,000	3,930	1,470,000
Pig iron, all grades	4,270	1,900,000	4,120	1,640,000
Direct-reduced iron, steelmaking grade	2,470	921,000	2,240	775,000
Ships, boats, and other vessels for scrapping	(4)	22	(4)	446
Used rails for rolling and other uses, includes mixed (used plus new) rails	71	32,000	86	40,000
Iron ore	5,160 ^r	759,000 ^r	3,250	426,000
Lead:				
Base bullion	1,020	3,900	1,900	3,680
Pigs and bars, lead content	349,000	699,000	500,000	1,040,000

See footnotes at end of table.

TABLE 8—Continued
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013	
	Quantity	Value ³	Quantity	Value ³
Metals—Continued:				
Lead—Continued:				
Pigments and compounds, lead content	29,900	66,900	33,500	65,100
Scrap, reclaimed, includes ash and residues, lead content	2,860 ^r	3,450 ^r	939	943
Wrought, all forms, including wire and powders, gross weight	2,270	8,370	1,440	6,140
Magnesium:				
Waste and scrap, gross weight	20,900	47,800	17,500	43,300
Metal, gross weight	16,200	69,100	15,200	60,100
Alloys, magnesium content	12,700	61,500	12,400	60,200
Powder, sheets, tubing, ribbons, wire, other forms, magnesium content	882	10,700	836	9,200
Manganese:				
Ores and concentrates with 20% or more manganese, manganese content	226,000	101,000	29,200	16,100
Ferromanganese, all grades, manganese content	314,000	482,000	257,000	355,000
Silicomanganese, manganese content	231,000	419,000	223,000	339,000
Metal, unwrought, other wrought, waste and scrap, gross weight	44,200 ^r	126,000	40,600	102,000
Chemicals, gross weight:				
Manganese dioxide	24,700	53,500	19,900	42,200
Potassium permanganate	1,480	4,620	1,320	3,820
Mercury:				
Metal	249	4,860	38	885
Amalgams of precious metals whether or not chemically defined	21	76,200	21	51,100
Molybdenum:				
Ores and concentrates, including roasted and other, molybdenum content	12,000	299,000	13,100	297,000
Chemicals, gross weight:				
Oxides and hydroxides	532	10,600	283	5,390
Molybdates, all, molybdenum content	476 ^r	15,700	612	17,200
Orange	355	2,910	274	2,430
Ferromolybdenum, molybdenum content	4,320	138,000	4,090	108,000
Other, includes powders, unwrought, bars and rods, waste and scrap, wire, other, gross weight	2,650	104,000	2,270	84,300
Nickel, nickel content:				
Primary, unwrought and chemicals	133,000	2,520,000	126,000	2,090,000
Secondary, stainless steel scrap and waste and scrap	22,300	445,000	26,300	359,000
Wrought, not alloyed, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes	1,440	38,800	859	25,700
Alloyed, unwrought ingot, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes, other alloyed articles	30,100	906,000	27,900	892,000
Niobium (columbium) and tantalum:				
Niobium:				
Ores and concentrates	11,000	761	8,470	600
Oxide	1,740,000	77,400	1,430,000	62,000
Ferri niobium	11,400,000	324,000	9,450,000	267,000

See footnotes at end of table.

TABLE 8—Continued
 U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1, 2}
 (Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013	
	Quantity	Value ³	Quantity	Value ³
Metals—Continued:				
Niobium (columbitum) and tantalum—Continued:				
Niobium—Continued:				
Unwrought powders	1,440,000	84,400	1,360,000	77,600
Tantalum:				
Ores and concentrates, includes synthetic concentrates	261,000	13,000	653,000	54,000
Unwrought powders	138,000	57,400	113,000	51,900
Unwrought, alloys and metal	205,000	78,000	197,000	73,000
Waste and scrap	519,000	99,800	527,000	63,000
Wrought	70,200	36,700	67,700	41,100
Platinum-group metals, metal content:				
Platinum, grains and nuggets, sponge, other unwrought, other, waste and scrap, coins	172,000	3,110,000	116,000	2,730,000
Palladium, unwrought and other	80,100	1,650,000	83,100	1,920,000
Iridium, unwrought and other forms	1,230	40,500	1,720	43,200
Osmium, unwrought	130	737	77	444
Ruthenium, unwrought	10,200	35,100	15,300	36,200
Rhodium, unwrought and other forms	12,800	529,000	11,100	367,000
Rare earths, estimated equivalent rare-earth oxide (REO) content:				
Cerium compounds, including oxides	1,390,000	52,000	1,110,000	21,900
Other rare-earth compounds:				
Scandium or yttrium compounds	27,200	5,870	114,000	19,100
Carbonates, lathanum and other	XX	XX	641,000	6,640
Chlorides	XX	27,700	357,000	14,100
Oxides, except cerium oxide	534,000	25,700	2,390,000	31,000
Unspecified	2,840,000	378,000	4,750,000	147,000
Metals and alloys:				
Cesium, unalloyed	XX	XX	91,100	990
Lanthanum, unalloyed	XX	XX	29,300	275
Neodymium, unalloyed	XX	XX	14,100	785
Other, unalloyed	XX	XX	17,300	582
Other, alloys	XX	XX	42,900	1,530
Unspecified metals and alloys	240,000	21,800 ^r	199,000	5,460
Rhenium:				
Metal	27,400	67,500	22,700	59,500
Ammonium perrhenate	19,200 ^r	32,900 ^r	18,000	30,800
Selenium and tellurium:				
Selenium, selenium content:				
Selenium	440,000	49,200	428,000	33,100
Dioxide	19,900 ^r	1,370	14,000	841
Tellurium, tellurium content	36,100	8,740	63,900	6,790

See footnotes at end of table.

TABLE 8—Continued
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013	
	Quantity	Value ³	Quantity	Value ³
Metals—Continued:				
Silicon, gross weight:				
Ferrosilicon	250,000	373,000	254,000	343,000
Metal	137,000	552,000	119,000	415,000
do.				
Silver:				
Ash and residues, silver content	391	119	134	30
Bullion, silver content	4,030,000	4,040,000	3,830,000	3,020,000
Dore, silver content	1,030,000	1,430,000	1,190,000	1,390,000
Metal powder, gross weight	444,000	323,000	742,000	385,000
Nitrate, gross weight	1,730	601	1,860	537
Ores and concentrates, silver content	8,920 ^r	4,870 ^r	10,700	3,440
Semimanufactured forms containing 99.5% or more by weight of silver, gross weight	498,000	484,000	1,300,000	986,000
Waste and scrap, gross weight	7,320,000	518,000	8,480,000	443,000
Unwrought, other, gross weight	199,000	203,000	194,000	159,000
Thallium, unwrought powders, waste and scrap, other	4,730	2,010	NA	NA
do.				
Thorium:				
Ore, monazite concentrate	43	26	--	--
Thorium and thorium-bearing materials, compounds	4	300	3	184
do.				
Tin, gross weight:				
Compounds	438	9,400	257	5,230
Dross, skimmings, scrap, residues, alloys, n.s.p.f. ⁶	73,300	39,300	64,300	36,100
Metal, unwrought	36,900	735,000	34,900	771,000
do.				
Miscellaneous, includes tinfoil, tin powder, flitters, metallics, manufactures, n.s.p.f. ⁶	XX	35,700	XX	33,900
Tinplate and templeplate	428,000	500,000	488,000	546,000
do.				
Tinplate scrap	91,300	30,800	59,700	21,400
do.				
Titanium:				
Concentrate:				
Ilmenite	374,000	63,200	389,000	90,600
Rutile, natural and synthetic	389,000	494,000	406,000	436,000
Metal:				
Waste and scrap	14,400	98,500	12,700	63,500
Unwrought:				
Sponge	33,600	398,000	19,900	230,000
Ingots	510	8,500	883	14,100
Powder	33	3,110	88	4,410
Other	448	13,700	775	24,600
Wrought products and castings, includes bar, castings, foil, pipe, plate, profile, rod, sheet, strip, tube, wire, other	6,840	302,000	6,580	305,000
Ferrotitanium and ferrosilicon titanium	2,410	12,000	1,680	7,260
Pigment, dioxide and oxide	203,000	709,000	213,000	638,000
do.				

See footnotes at end of table.

TABLE 8—Continued
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013	
	Quantity	Value ³	Quantity	Value ³
Metals—Continued:				
Titanium—Continued:				
Titaniferous iron ore	286	52	13,800	1,460
Titaniferous slag	618,000	453,000	682,000	463,000
Tungsten, tungsten content:				
Ammonium paratungstate	1,500	56,300	2,220	84,200
Ferrotungsten and ferrosilicon tungsten	316	14,200	470	19,200
Miscellaneous tungsten-bearing materials, metal powders, carbide powder, unwrought, waste and scrap, wrought, oxides, calcium tungstate, other tungstates, other compounds	6,230	348,000	5,790	295,000
Ores and concentrates	3,650	139,000	3,690	123,000
Vanadium:				
Aluminum-vanadium master alloy, gross weight	218,000	3,700	254,000	4,970
Ferrovandium, vanadium content	4,190,000	108,000	3,710,000	89,800
Metal, including waste and scrap, gross weight	154,000	4,840	35,300	1,310
Miscellaneous chemicals, sulfates and vanadates, vanadium content	309,000	6,560	305,000	6,010
Pentoxide, anhydride, vanadium content	1,640,000	26,500	2,040,000	29,900
Vanadium-bearing ash and residues from the manufacture of iron and steel, vanadium oxide content	2,040,000	9,880	4,190,000	22,500
Other oxides and hydroxides, vanadium content	905,000	12,800	205,000	2,560
Zinc:				
Compounds, chloride, chromates of zinc or of lead, compounds n.s.p. ^{f,6} , lithopone, oxide, sulfate, sulfide, gross weight	XX	221,000	XX	350,000
Ores and concentrates, zinc content	6,140	NA	2,550	NA
Refined	655,000	NA	713,000	NA
Zirconium and hafnium:				
Hafnium, unwrought, including powders	23	6,440	10	5,030
Zirconium:				
Ferrozirconium	5	72	4	44
Ores and concentrates	25,800	66,400	12,400	15,500
Oxide	4,560 ^r	NA	3,190	NA
Unwrought, including powder	116	4,210	187	7,120
Waste and scrap	451	58,900	527	58,500
Total	XX	89,700,000 ^r	XX	67,300,000
Industrial minerals:				
Abrasives, manufactured:				
Aluminum oxide, crude, ground and refined	231,000	166,000	184,000	170,000
Metallic abrasives	22,000	21,700	24,100	24,800
Silicon carbide, crude, ground and refined	100,000	126,000	119,000	115,000

See footnotes at end of table.

TABLE 8—Continued
 U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}
 (Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013	
	Quantity	Value ³	Quantity	Value ³
Industrial minerals—Continued:				
Asbestos:				
Chrysotile and other unspecified type	1,610	2,520	772	1,160
Products with basis of asbestos, cellulose, or other minerals	NA	8,610	NA	6,100
Barite:				
Chloride, oxide, hydroxide, peroxide, precipitated carbonate	10,100	17,500	7,820	13,200
Crude	1,110,000	171,000	557,000	80,900
Ground	1,790,000	237,000	1,670,000	248,000
Other sulfates	18,100	22,300	15,800	23,300
do.				
Boron minerals and compounds:				
Borax	2	844	2	778
Boric acid	55	42,800 ^r	53	36,700
Colemanite	28	23,200	5	2,970
Ulexite	12	2,940	13	3,080
Bromine:				
Compounds, contained bromine	52,000 ^r	117,000 ^r	33,700	80,200
Elemental	1,580	3,910	2,600	7,850
Cement, hydraulic and clinker ⁷	6,890	513,000	7,100	530,000
Clays:				
China clay or kaolin	472	56,800	468	56,000
Fire clay	8	1,380	3	1,390
Ball clay	(4)	137	(4)	174
Bentonite	12	15,300	15	16,100
Fuller's earth	1	160	8	434
Chamotte or dina's earth	(4)	109	(4)	159
Artificially activated clay and earth	31	34,000	28	31,500
Diamond, industrial:				
Diamond stones, natural and miners'	2,330	35,700	1,940	30,000
Powder, dust and grit, natural and synthetic	595,000 ^r	80,000 ^r	728,000	79,800
Feldspar and nepheline syenite:				
Feldspar	1,640	342	4,310	1,110
Nepheline syenite	386,000	44,200	491,000	59,300
Fluorspar:				
Aluminum fluoride	50,000	65,900	43,400	58,100
Cryolite	8,140	10,100	18,900	12,600
Fluorspar	620,000	157,000	643,000	147,000
Hydrofluoric acid	133,000	233,000	119,000	199,000
Garnet, industrial	166,000	34,500	148,000	34,000
Gemstones	2,220,000 ^r	21,500,000 ^r	2,590,000	24,700,000

See footnotes at end of table.

TABLE 8—Continued
 U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}
 (Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013	
	Quantity	Value ³	Quantity	Value ³
Industrial minerals—Continued:				
Graphite:				
Natural	56,700	68,400	61,300	70,500
Electric furnace electrodes	98,600	423,000	63,600	251,000
do.				
Gypsum:				
Crude	3,250	40,600	3,290	42,600
Plasters	17	7,150	16	5,830
Boards	297	49,400	327	66,800
Other	XX	42,400	XX	33,300
Iodine:				
Crude	5,960	250,000	5,960	254,000
Potassium iodide	431	6,250	340	6,130
do.				
Iron oxide pigments:				
Natural	3,280	2,400	3,340	2,310
Synthetic	148,000	179,000	162,000	188,000
do.				
Kyanite and related materials	3,260	1,610	4,110	1,610
Lime	468	68,300 ⁵	394	64,100 ⁵
Lithium chemicals:				
Carbonate	13,200	55,100	10,500	45,300
Hydroxide	1,640	10,600	1,340	7,790
Magnesium compounds:				
Compounds, chlorides, hydroxide, peroxide, sulfates	119,000	49,100	147,000	48,400
Magnesite, crude and processed:				
Caustic-calined magnesia	114,000	35,500	133,000	41,600
do.				
Dead-burned and fused magnesia	292,000	178,000	215,000	145,000
do.				
Other magnesia	26,000	23,000	25,900	19,100
do.				
Crude	14,000	5,180	11,300	4,790
Mica:				
Scrap and flake:				
Powder	23,500	14,900	27,400	16,200
do.				
Waste	3,640	2,210	3,460	2,090
Sheet:				
Unworked	212	693	72	203
do.				
Worked	2,170	19,100	1,840	16,200
do.				
Nitrogen, major compounds, nitrogen content	9,720 ^r	9,020,000 ^r	9,300	8,030,000
Peat	909,000 ^r	237,000	915,000	247,000
do.				
Perlite, processed crude	150,000	NA	187,000	NA
Phosphate rock and phosphatic materials:				
Phosphate rock:				
Unground	3,190 ^r	406,000 ^{r,5}	2,690	294,000 ⁵
do.				
Ground	385	74,200 ^{r,5}	476	88,500 ⁵

See footnotes at end of table.

TABLE 8—Continued
 U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}
 (Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2012		2013	
	Quantity	Value ³	Quantity	Value ³
Industrial minerals—Continued:				
Phosphate rock and phosphatic materials—Continued:				
Dicalcium phosphate	7	11,200 ⁵	10	18,200 ⁵
Elemental phosphorus	11	43,000 ⁵	15	54,000 ⁵
Normal superphosphate	1	337 ⁵	1	460 ⁵
Triple superphosphate	209	104,000 ⁵	236	105,000 ⁵
Diammonium phosphate	92	52,500 ⁵	142	74,600 ⁵
Monoammonium phosphate	477	268,000 ⁵	669	342,000 ⁵
Fertilizer containing nitrates and phosphates	3	1,320 ⁵	10	1,270 ⁵
Phosphoric acid	2	598 ⁵	2	548 ⁵
Potash, gross weight, chloride, sulfate, nitrate, sodium nitrate mixtures	7,010	2,220,000	7,660	2,640,000
Pumice:				
Crude or unmanufactured	66,700	1,230	71,800	1,410
Wholly or partially manufactured	8,390	711	806	713
Salt	9,880	292,000	11,900	348,000
Sand and gravel:				
Construction	4,110	59,200 ⁵	4,230	67,500 ⁵
Industrial	306	36,600	160	11,700
Soda ash	13	3,360	13	3,470
Stone:				
Crushed, chips, calcium carbonate fines, excludes precipitated carbonates	15,400	208,000 ⁵	17,700	218,000 ⁵
Dimension	XX	1,740,000	XX	2,100,000
Strontium:				
Carbonate	11,300,000	9,270	9,730,000	8,000
Celestite	19,700,000	983	49,800,000	2,490
Metal	130,000	1,180	124,000	1,020
Nitrate	3,090,000	3,670	3,050,000	3,660
Oxide, hydroxide, peroxide	21,300	55	42,800	70
Sulfur:				
Elemental ⁸	2,930 ^e	238,000	2,990 ^e	202,000
Sulfuric acid, 100% H ₂ SO ₄	2,860	239,000	2,970	211,000
Talc, unmanufactured	350 ^r	109,000	269	111,000
Vermiculite	57	NA	36	NA
Wollastonite ^e	4,500	630	4,000	566
Zeolites ^e	5	1	5	1
Total	XX	40,600,000 ^r	XX	43,300,000
Grand total	XX	130,000,000 ^r	XX	111,000,000

^eEstimated. Revised. do. Ditto. NA Not available. XX Not applicable.

¹Summary data from the chapters of the 2013 Minerals Yearbook as they were completed and released through December 8, 2015.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Customs value unless otherwise specified.

TABLE 8—Continued
U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS^{1,2}

⁴Less than ½ unit.

⁵Cost, insurance, and freight value.

⁶Not specifically provided for.

⁷Does not include Puerto Rico.

⁸General imports.

Source: 2013 Minerals Yearbook and U.S. Census Bureau.

TABLE 9
WORLD AND U.S. PRODUCTION OF SELECTED NONFUEL MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Mineral or product	World total					United States		Percentage of world total
	2009	2010	2011	2012	2013	2013	2013	
Metals:								
Alumina, calcined equivalent	77,200 ^r	85,500	91,900 ^r	97,000 ^r	103,000	4,390	4,390	4.3
Aluminum ²	37,200 ^r	41,200	44,400	45,800 ^r	47,600 ^e	1,946	1,946	4.1
Antimony, Sb content	158,000 ^r	184,000 ^r	191,000 ^r	180,000 ^r	159,000 ^e	--	--	--
Arsenic trioxide ^{e,3}	47,600	52,400	46,800 ^r	45,700 ^r	45,200	--	--	--
Bauxite ^{3,4,5}	209,000 ^r	239,000 ^r	260,000 ^r	259,000 ^r	283,000 ^e	NA	NA	NA
Beryl ³	3,590	5,090	6,540	6,150	6,550 ^e	5,910	5,910	90.2
Bismuth, refinery ⁶	14,000	16,000	17,000	17,000 ^r	17,000	--	--	--
Cadmium, refinery ⁵	20,800 ^r	23,400 ^r	21,000 ^r	22,300 ^r	22,000 ^e	W	W	NA
Chromite ³	19,700 ^r	24,400	27,600 ^r	25,600 ^e	28,800 ^e	NA	NA	NA
Cobalt, Co content:								
Mine	80,200 ^r	107,000	108,000 ^r	101,000 ^r	110,000 ^e	--	--	--
Refinery	62,100 ^r	79,500	82,400	78,100 ^r	86,000	--	--	--
Copper:								
Mine	16,000	16,100 ^r	16,100 ^r	16,900 ^r	18,300	1,250	1,250	6.8
Smelter ³	14,900	15,600	15,900	16,200 ^r	17,100	516	516	3.0
Refinery	18,400 ^r	19,100	19,700	20,200 ^r	21,000	1,040	1,040	5.0
Gold	2,490 ^r	2,590 ^r	2,630 ^r	2,710 ^r	2,800 ^e	230	230	8.2
Indium, refinery ⁶	670,000 ^r	664,000 ^r	723,000 ^r	783,000 ^r	799,000	--	--	--
Iron ore ³	2,220,000 ^r	2,590,000	2,930,000	2,960,000 ^r	3,160,000 ^e	53,000 ^e	53,000 ^e	1.7
Iron and steel:								
Direct-reduced iron ²	64,800 ^r	69,200 ^r	68,800 ^r	68,200 ^r	66,900	--	--	--
Pig iron ²	919,000	1,040,000 ^r	1,110,000 ^r	1,120,000 ^r	1,180,000	30,300	30,300	2.6
Raw steel	1,230,000	1,430,000	1,520,000	1,520,000 ^r	1,620,000	86,900	86,900	5.4
Lead:								
Mine, Pb content	3,870 ^r	4,160 ^r	4,740 ^r	5,250 ^r	5,500 ^e	340	340	6.2
Refinery	8,850 ^r	9,520 ^r	10,200 ^r	10,400 ^r	10,500 ^e	1,260	1,260	12.0
Magnesium ^{e,2,5}	588,000 ^r	745,000 ^r	755,000 ^r	787,000 ^r	877,000	W	W	NA
Manganese ore ³	33,800	44,000 ^r	47,000 ^r	47,200 ^r	51,300	--	--	--
Mercury ⁵	1,880 ^r	2,150 ^r	1,850 ^r	1,580 ^r	1,880 ^e	NA ⁶	NA ⁶	NA
Molybdenum, Mo content	221,000 ^r	245,000 ^r	265,000 ^r	258,000 ^r	258,000 ^e	60,700 ⁷	60,700 ⁷	23.5
Nickel, Ni content:								
Mine	1,410 ^r	1,710 ^r	2,320 ^r	2,410 ^r	2,660	4	4	0.2
Refinery	1,400 ^r	1,470 ^r	1,630 ^r	1,800 ^r	1,990	--	--	--
Niobium (columbium)-tantalum concentrates ³	1,960,000 ^r	1,930,000 ^r	2,220,000 ^r	2,320,000 ^r	2,450,000 ^e	--	--	--
Platinum-group metals:								
Palladium	195,000	208,000	216,000	206,000	203,000	12,600	12,600	6.2

See footnotes at end of table.

TABLE 9—Continued
 WORLD AND U.S. PRODUCTION OF SELECTED NONFUEL MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Mineral or product	World total					United States		
	2009	2010	2011	2012	2013	2013	Percentage of world total	
Metals—Continued:								
Platinum-group metals—Continued:								
Platinum	do.	185,000	193,000	202,000	181,000	184,000	3,720	2.0
Other platinum-group metals	do.	69,500	71,500	72,700	36,000	67,700	--	NA
Rare earths, REO equivalent ^e	metric tons	138,000 ^r	131,000 ^r	116,000 ^r	114,000 ^r	109,000 ^r	5,500	5.0
Rhenium	kilograms	42,700 ^{r,e}	45,500 ^{r,e}	48,900 ^{r,e}	52,900 ^{r,e}	48,900 ^{r,e}	7,110	14.5
Selenium, refinery, Se content ^{2,5}	metric tons	2,160 ^r	2,150 ^r	2,170 ^r	2,110 ^r	2,170 ^e	W	NA
Silver	do.	22,600 ^r	24,100 ^r	24,300 ^r	25,500	25,900	1,040	4.0
Tin:								
Mine	metric tons	246,000 ^r	267,000 ^r	265,000 ^r	243,000	294,000 ^e	--	--
Smelter ⁸	do.	331,000 ^r	340,000 ^r	343,000 ^r	328,000 ^r	324,000 ^e	11,100 ^p	3.4
Titanium concentrates:³								
Ilmenite and leucoxene	metric tons	5,480 ^r	7,530	7,630 ^r	7,800	7,890	300 ⁹	3.8
Rutile ⁵	metric tons	577,000	734,000	808,000	795,000 ^r	740,000	W	NA
Tungsten, W content	do.	61,200	68,400 ^r	73,900	76,400 ^r	81,400 ^e	NA	NA
Vanadium, V content	do.	58,800 ^{r,e}	71,700 ^{r,e}	72,100 ^{r,e}	74,500 ^{r,e}	78,200 ^e	591	0.8
Zinc:								
Mine, Zn content of concentrate and direct shipping ore								
Smelter		11,600	12,300 ^r	12,500 ^r	13,300 ^r	13,400	784	5.9
		11,400	12,800	13,100 ^r	12,600 ^r	13,000 ^e	233 ^e	1.8
Zirconium concentrates ⁵		1,120 ^r	1,290 ^r	1,680 ^r	1,450 ^{r,e}	1,510 ^e	W	NA
Industrial minerals:								
Asbestos		2,110	2,010 ^r	2,050 ^r	2,010 ^r	2,020	--	--
Barite		6,660 ^r	7,950	7,350 ^r	9,060 ^r	9,110 ^e	723 ¹⁰	7.9
Boron minerals ⁵		3,600	4,120	3,780	3,230 ^e	3,470 ^e	W	NA
Bromine ^{e,5}	metric tons	301,000 ^r	371,000 ^r	389,000 ^r	370,000 ^r	403,000	W	NA
Cement, hydraulic		3,050,000 ^{r,e}	3,290,000 ^e	3,650,000 ^e	3,820,000 ^{r,e}	4,070,000 ^e	77,415 ¹¹	1.9
Clays:								
Bentonite		10,200 ^r	11,600 ^r	11,700 ^r	13,000 ^r	12,040 ^e	4,350	36.1
Fuller's earth		3,130 ^r	3,200 ^r	2,970 ^r	2,990 ^{r,e}	3,000 ^e	1,990 ¹⁰	66.3
Kaolin		33,500 ^r	34,200 ^r	38,100 ^r	39,200 ^r	40,000 ^e	5,950 ¹⁰	14.9
Diamond, natural ^e	thousand carats	120,000	128,000	123,000	128,000	130,000	--	--
Diatomite		1,830 ^{r,e}	1,930 ^{r,e}	2,230 ^{r,e}	2,460 ^{r,e}	2,380 ^e	782 ¹⁰	32.9
Feldspar		19,200 ^r	21,300 ^r	20,600 ^r	19,800 ^r	19,600 ^e	550 ^{e,12}	2.8
Fluorspar ^e		6,300 ^r	6,940 ^r	6,800 ^r	7,170 ^r	6,770	--	--
Graphite, natural ^f		746 ^r	1,030 ^r	1,180 ^r	1,170	1,110	--	--
Gypsum		231,000 ^r	226,000 ^r	237,000 ^r	240,000 ^r	244,000 ^e	15,500	6.4
Iodine, crude ^{e,5}	metric tons	26,500 ^r	25,900 ^r	26,100 ^r	27,900 ^r	31,300	W	NA

See footnotes at end of table.

TABLE 9—Continued
WORLD AND U.S. PRODUCTION OF SELECTED NONFUEL MINERAL COMMODITIES¹

(Thousand metric tons unless otherwise specified)

Mineral or product	World total					United States		Percentage of world total
	2009	2010	2011	2012	2013	2013	2013	
Industrial minerals—Continued:								
Kyanite and related minerals ^e	do.	341,000 r	399,000 r	411,000 r	427,000 r	464,000	110,000	23.7
Lime		291,000 r	309,000 r	323,000 r	343,000 r,e	353,000 e	19,200 ^{10,11}	5.4
Magnesite, crude ⁵		18,300 r	21,200 r	27,300 r	23,300 r,e	24,800 e	W	NA
Mica, including scrap and flake	metric tons	1,060,000	1,110,000	1,100,000	1,090,000 r	1,120,000 e	48,100 e, ¹³	4.3
Monazite concentrates ³	do.	12,000 r	15,800 r	11,500 r	6,780 r,e	6,990 e	--	--
Nitrogen, N content of ammonia		127,000 r,e	133,000 r,e	140,000 r,e	142,000 r,e	144,000 e	9,170 ¹⁴	6.4
Peat		27,600 r	30,700 r	29,800 r,e	27,500 r,e	27,500 e, ¹⁵	465 ¹⁶	1.7
Perlite	metric tons	2,220,000 r	2,130,000 r	2,370,000 r	2,370,000 r	2,490,000 e	419,000 ¹⁰	16.8
Phosphate rock ³		161,000 r	184,000	199,000 r	217,000 r	224,000 e	31,200	13.9
Potash, K ₂ O equivalent		20,800 r	34,300 r	35,900 r	33,100	34,500	960 ¹²	2.8
Pumice and related materials		17,100 r	16,600 r	19,200 r	18,400 r	18,600 e	269 ¹⁰	1.4
Salt		265,000 r	270,000 r	272,000	260,000 r	262,000 e	40,300 ¹¹	15.4
Sand and gravel, industrial, silica		109,000 r	113,000 r	126,000 r	130,000 r	142,000 e	62,100 ¹⁰	43.7
Soda ash, natural and manufactured		42,100 r,e	45,800 r,e	48,900 r,e	50,700 r,e	51,300 e	11,500 ¹⁷	22.4
Sulfur, all forms		68,300 r	68,800 r	69,900 r	69,200 r	70,400	9,210 ⁶	13.1
Talc and pyrophyllite ¹⁸		6,870 r	6,830 r	6,910 r,e	6,810 r,e	6,900 e	542	7.9
Vermiculite	metric tons	409,000	424,000 r	412,000	374,000 r,e	358,000 e	100,000 e, ^{10,19}	27.9

^eEstimated. ^pPreliminary. ^rRevised. ^{do.} Ditto. ^{NA} Not available. ^W Withheld to avoid disclosing company proprietary data, not included in "World total." -- Zero.¹Data are rounded to no more than three significant digits. Summary data from the chapters of the 2013 Minerals Yearbook (MYB) as they were completed and released through December 8, 2015.²Primary.³Gross weight.⁴Individual country figures that are included in the world total represent dried bauxite equivalent of crude ore, but for some countries available data are insufficient to permit this adjustment.⁵"World total" for years listed does not include U.S. production.⁶U.S. production is byproduct only.⁷Listed in 2013 MYB molybdenum chapter (table 1) as production.⁸Includes tin content of alloys made directly from ore. U.S. production is secondary.⁹Includes rutile to avoid disclosing company proprietary data. Rounded to one significant digit.¹⁰Quantity sold or used by producers.¹¹Includes Puerto Rico.¹²Datum is rounded to no more than two significant digits.¹³Excludes, if any, U.S. production of low-quality sericite and sheet mica.¹⁴Synthetic anhydrous ammonia; excludes coke oven byproduct ammonia.¹⁵Data revised from that reported in the 2013 MYB peat chapter (table 9) as production.¹⁶Horticultural use.¹⁷U.S. production is natural only.¹⁸Excludes U.S. proprietary pyrophyllite production.¹⁹U.S. data rounded to one significant digit metric tons to avoid disclosing company proprietary data.