



2011 Minerals Yearbook

STATISTICAL SUMMARY

STATISTICAL SUMMARY

By Joseph M. Krisanda

The world production table was prepared by Glenn J. Wallace, international data coordinator.

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

Although crude mineral production may be measured at any of several stages of extraction and processing, the stage of measurement used 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 2011 U.S. Geological Survey (USGS) mineral production data published in this chapter are as of May 2013. 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>.

Because of inadequacies in the statistics available, some series deviate from the foregoing definition. 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 mine value.

The total value of all nonfuel mineral production in the United States in 2011 increased to \$74.7 billion, which was a 13% increase compared with that of 2010; metals increased to \$36.0 billion, which was an increase of 19%; and industrial minerals increased to \$38.7 billion, an increase of 7%.

In 2011, the value of nonfuel mineral commodity production for the following 14 mined commodities, in descending order of production value, was greater than \$1 billion: gold, stone (crushed), copper, sand and gravel (construction), cement (portland), iron ore (usable shipped), molybdenum concentrates, phosphate rock (marketable), lime, sand and gravel (industrial), salt, zinc, soda ash, and silver. They accounted for 90% of the U.S. total production value (table 1).

In 2011, the value of nonfuel mineral commodity production in the following 21 States, in descending order of production value, was greater than \$1 billion: Nevada, Arizona, Minnesota, Utah, Alaska, Florida, California, Texas, Michigan, Missouri, Wyoming, Colorado, Pennsylvania, Georgia, Montana, New York, Idaho, New Mexico, Virginia, Kansas, and Illinois. They accounted for 82% 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	2009		2010		2011		
	Quantity	Value	Quantity	Value	Quantity	Value	
Metals:							
Beryllium concentrates ⁴	metric tons	3,030	NA	4,460	NA	5,920	NA
Cadmium ^{6, 5}	do.	2,840	8,140	2,890	11,300	2,970	8,190
Copper ⁶		1,180	6,280,000	1,110	8,520,000	1,110	9,960,000
Gold ⁶	kilograms	223,000	7,000,000	231,000	9,130,000	234,000	11,800,000
Iron ore, usable shipped		27,600	2,560,000	50,600	5,000,000	55,600	5,530,000
Lead ⁶	metric tons	395,000	757,000	356,000	854,000	334,000	895,000
Molybdenum concentrates ⁷	do.	47,800	2,870,000	59,400	3,580,000	63,700	3,830,000
Palladium ⁶	kilograms	12,700	108,000	11,600	199,000	12,400	295,000
Platinum ⁶	do.	3,830	149,000	3,450	179,000	3,700	205,000
Silver ⁶	do.	1,250,000	588,000	1,280,000	829,000	1,120,000	1,270,000
Zinc ⁶	metric tons	710,000	1,220,000	723,000	1,620,000	743,000	1,740,000
Combined values of magnesium metal, titanium concentrates, tungsten, zirconium concentrates		XX	251,000 ^r	XX	364,000 ^r	XX	446,000
Total		XX	21,800,000 ^r	XX	30,300,000 ^r	XX	36,000,000
Industrial minerals, excluding fuels:⁸							
Andalusite		(9)	W	(9)	W	5,000	720
Barite		396 ^r	31,800 ^r	662	51,000 ^r	710	61,200
Cement: ¹⁰							
Masonry		1,970	269,000 ^e	1,900	251,000 ^e	1,760	237,000 ^e
Portland		61,900	5,950,000 ^e	64,500	5,870,000 ^e	66,100	5,820,000 ^e
Clays:							
Ball		831	37,700	912	41,300	886	40,900
Bentonite		3,650	207,000	4,600 ^r	266,000 ^r	4,810	327,000
Common		12,500	156,000	11,900 ^r	146,000 ^r	11,700	141,000
Fire		320	12,000	216	6,120	215	6,160
Fuller's earth ¹¹		2,010	206,000	2,050	201,000	1,950	194,000
Kaolin		5,290	714,000	5,950 ^r	817,000 ^r	5,770	817,000
Diatomite		575	147,000	595	178,000	813	219,000
Feldspar ¹⁰		550 ¹²	35,600	550 ¹²	33,400 ^r	650 ¹²	40,500
Garnet, industrial ¹⁰	metric tons	45,600	6,850	52,600	7,910	56,400	9,760
Gemstones, natural ¹⁰		NA	9,310	NA	10,000	NA	11,000
Gypsum, crude ¹⁰		10,100 ^r	74,700 ^r	8,800 ^r	60,800 ^r	8,480	70,500
Helium:							
Crude	million cubic meters	40	85,700	49	115,000	43	117,000
Grade-A	do.	122 ^r	572,000	129	697,000	127	731,000
Kyanite		71	21,000	93	28,000	98	29,400
Lime		15,800	1,650,000	18,300	1,950,000 ^r	19,100	2,130,000
Mica, crude	metric tons	51,100	6,530	52,800	7,240	50,000	6,110
Peat		644	15,000	605	14,800	595	13,500
Perlite, crude	metric tons	348,000	17,100	414,000	21,600	420,000	23,600
Phosphate rock, marketable ¹⁰		26,400	3,360,000	25,800	1,980,000	28,100	2,720,000
Potash, gross weight ¹²		1,500	500,000	2,400	660,000	2,300	740,000
Pumice and pumicite	metric tons	410,000	12,300	390,000	7,810	489,000	11,200
Salt		43,100	1,750,000	43,500	1,690,000	45,500	1,770,000
Sand and gravel:							
Construction		838,000 ^r	6,290,000 ^r	805,000 ^r	5,870,000 ^r	810,000	6,020,000
Industrial		27,500 ^r	942,000 ^r	32,300 ^r	1,150,000 ^r	43,700	2,000,000
Soda ash ¹⁰		9,310	1,330,000	10,600	1,360,000	10,700	1,580,000
Stone:							
Crushed ¹³		1,160,000	11,300,000	1,160,000	11,100,000 ^r	1,160,000	11,200,000
Dimension		1,620	328,000	1,670	323,000	1,710	323,000
Talc, crude ¹⁰		511	14,600	604	19,100	616	21,800
Tripoli ¹⁰	metric tons	79,700	16,400	108,000	20,000	73,700	16,500
Vermiculite, concentrate ^e		100 ¹⁴	W	100 ¹⁴	W	100 ¹⁴	W

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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Industrial minerals, excluding fuels—Continued:⁸						
Zeolites ¹⁰ metric tons	59,500	W	61,300	W	65,400	W
Combined values of boron minerals, bromine, clays (fuller's earth), emery, greensand marl, iodine (crude), iron oxide pigments (crude), lithium carbonate, magnesite, magnesium compounds, olivine, pyrophyllite (crude), silica stone, staurolite, wollastonite, and values indicated by symbol W	XX	963,000	XX	1,220,000	XX	1,290,000
Total	XX	37,000,000 ^r	XX	36,100,000 ^r	XX	38,700,000
Grand total	XX	58,800,000 ^r	XX	66,400,000	XX	74,700,000

⁸Estimated. ^rRevised. do. Ditto. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined values."

XX Not applicable.

¹Table includes data available through May 9, 2013.

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.

⁵Byproduct from zinc concentrates.

⁶Recoverable content of ores, etc.

⁷Content of ore and concentrate.

⁸Sold or used unless otherwise specified.

⁹Withheld to avoid disclosing company proprietary data.

¹⁰Production.

¹¹Excludes attapulgitic; included in "Combined values."

¹²Data are rounded to two significant digits.

¹³Excludes abrasive stone and bituminous limestone and sandstone; all included elsewhere in table.

¹⁴Data are rounded to one significant digit.

TABLE 2
NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 2011¹

(Principal States based on quantity unless otherwise noted)

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

See footnotes at end of table.

TABLE 2—Continued
 NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 2011¹

(Principal States based on quantity unless otherwise noted)

Mineral	Principal States	Other States (alphabetical order)
Talc, crude	MT, TX, VT, VA	
Titanium concentrates, ilmenite	VA and FL	
Tripoli	IL, MO, AR, PA	
Tungsten	CA	
Vermiculite, crude	SC and VA	
Wollastonite	NY	
Zeolites	NM, TX, ID, AZ, CA	
Zinc ²	AK, TN, MO, ID	
Zirconium concentrates	VA and FL	

¹Table includes data available through May 9, 2013.

²Content of ores, etc.

³Principal States based on value.

⁴Grindstones, pulpstones, and sharpening stones; excludes mill liners and grinding pebbles.

TABLE 3

VALUE OF NONFUEL MINERAL PRODUCTION IN THE UNITED STATES AND PRINCIPAL NONFUEL MINERALS PRODUCED IN 2011^{1,2}

State	Value (thousands)	Rank	Percentage of U.S. total	Principal minerals, in order of value
Alabama	960,000	23	1.28	Stone (crushed), cement (portland), lime, sand and gravel (construction), cement (masonry).
Alaska	3,810,000	5	5.10	Zinc, gold, silver, lead, sand and gravel (construction).
Arizona	8,390,000	2	11.22	Copper, molybdenum concentrates, sand and gravel (construction), silver, cement (portland).
Arkansas	789,000	27	1.06	Stone (crushed), bromine, sand and gravel (industrial), cement (portland), sand and gravel (construction).
California	3,210,000	7	4.30	Sand and gravel (construction), boron minerals, cement (portland), gold, stone (crushed).
Colorado	1,930,000	12	2.58	Molybdenum concentrates, gold, sand and gravel (construction), cement (portland), stone (crushed).
Connecticut ³	156,000	43	0.21	Stone (crushed), sand and gravel (construction), clays (common), stone (dimension), gemstones (natural).
Delaware ³	11,200	50	0.02	Magnesium compounds, sand and gravel (construction), stone (crushed), gemstones (natural).
Florida	3,430,000	6	4.58	Phosphate rock, stone (crushed), cement (portland), sand and gravel (construction), zirconium concentrates.
Georgia	1,450,000	14	1.94	Clays (kaolin), stone (crushed), clays (fuller's earth), cement (portland), sand and gravel (construction).
Hawaii	101,000	47	0.14	Stone (crushed), sand and gravel (construction), gemstones (natural).
Idaho	1,320,000	17	1.77	Molybdenum concentrates, phosphate rock, silver, sand and gravel (construction), lead.
Illinois	1,070,000	21	1.44	Stone (crushed), sand and gravel (industrial), cement (portland), sand and gravel (construction), tripoli.
Indiana	762,000	28	1.02	Stone (crushed), cement (portland), sand and gravel (construction), lime, stone (dimension).
Iowa	653,000	31	0.87	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), lime.
Kansas	1,120,000	20	1.50	Helium (Grade-A), salt, cement (portland), stone (crushed), helium (crude).
Kentucky	791,000	26	1.06	Stone (crushed), lime, cement (portland), sand and gravel (construction), clays (common).
Louisiana ³	465,000	34	0.62	Salt, sand and gravel (construction), stone (crushed), sand and gravel (industrial), lime.
Maine	118,000	45	0.16	Sand and gravel (construction), cement (portland), stone (crushed), stone (dimension), peat.
Maryland ³	293,000	38	0.39	Stone (crushed), cement (portland), sand and gravel (construction), cement (masonry), stone (dimension).
Massachusetts ³	225,000	41	0.30	Stone (crushed), sand and gravel (construction), stone (dimension), lime, clays (common).
Michigan	2,410,000	9	3.23	Iron ore (usable shipped), cement (portland), salt, sand and gravel (construction), magnesium compounds.
Minnesota ³	4,490,000	3	6.01	Iron ore (usable shipped), sand and gravel (industrial), sand and gravel (construction), stone (crushed), stone (dimension).
Mississippi	195,000	42	0.26	Sand and gravel (construction), stone (crushed), clays (fuller's earth), clays (ball), clays (bentonite).
Missouri	2,200,000	10	2.95	Stone (crushed), cement (portland), lead, lime, sand and gravel (industrial).
Montana	1,440,000	15	1.93	Copper, palladium metal, molybdenum concentrates, platinum metal, gold.
Nebraska	238,000	40	0.32	Sand and gravel (construction), stone (crushed), sand and gravel (industrial), cement (portland), lime.
Nevada	10,000,000	1	13.43	Gold, copper, silver, lime, sand and gravel (construction).
New Hampshire ³	99,700	48	0.13	Sand and gravel (construction), stone (crushed), stone (dimension), gemstones (natural).
New Jersey ³	275,000	39	0.37	Stone (crushed), sand and gravel (construction), sand and gravel (industrial), greensand marl, peat.
New Mexico	1,250,000	18	1.67	Copper, potash, sand and gravel (construction), stone (crushed), salt.
New York	1,340,000	16	1.79	Salt, stone (crushed), sand and gravel (construction), cement (portland), wollastonite.
North Carolina	843,000	25	1.13	Stone (crushed), phosphate rock, sand and gravel (construction), sand and gravel (industrial), feldspar.
North Dakota ³	125,000	44	0.17	Sand and gravel (construction), lime, stone (crushed), clays (common), sand and gravel (industrial).
Ohio ³	962,000	22	1.29	Stone (crushed), salt, sand and gravel (construction), lime, cement (portland).
Oklahoma	608,000	32	0.81	Stone (crushed), cement (portland), sand and gravel (industrial), sand and gravel (construction), iodine.
Oregon	305,000	37	0.41	Stone (crushed), sand and gravel (construction), cement (portland), diatomite, perlite (crude).
Pennsylvania	1,600,000	13	2.14	Stone (crushed), cement (portland), lime, sand and gravel (construction), sand and gravel (industrial).
Rhode Island ³	42,200	49	0.06	Sand and gravel (construction), stone (crushed), sand and gravel (industrial), gemstones (natural).
South Carolina ³	483,000	33	0.65	Stone (crushed), cement (portland), sand and gravel (construction), clays (kaolin), cement (masonry).
South Dakota	312,000	36	0.42	Gold, cement (portland), stone (crushed), sand and gravel (construction), lime.
Tennessee	878,000	24	1.17	Stone (crushed), zinc, cement (portland), sand and gravel (construction), lime.
Texas	3,030,000	8	4.05	Cement (portland), stone (crushed), sand and gravel (construction), sand and gravel (industrial), salt.
Utah	4,300,000	4	5.76	Copper, molybdenum concentrates, gold, potash, magnesium metal.
Vermont ³	118,000	46	0.16	Stone (crushed), sand and gravel (construction), stone (dimension), talc (crude), gemstones (natural).
Virginia	1,190,000	19	1.59	Stone (crushed), zirconium (concentrates), sand and gravel (construction), lime, cement (portland).
Washington	742,000	29	0.99	Gold, sand and gravel (construction), stone (crushed), cement (portland), diatomite.
West Virginia	324,000	35	0.43	Stone (crushed), cement (portland), lime, sand and gravel (industrial), cement (masonry).
Wisconsin ³	683,000	30	0.91	Sand and gravel (industrial), sand and gravel (construction), stone (crushed), lime, stone (dimension).
Wyoming	2,140,000	11	2.87	Soda ash, clays (bentonite), helium (Grade-A), sand and gravel (construction), cement (portland).
Undistributed	1,010,000	XX	1.35	
Total	74,700,000	XX	100.00	

XX Not applicable.

¹Table includes data available through May 9, 2013.²Data are rounded to no more than three significant digits; may not add to totals shown.³Partial total; excludes values that must be withheld to avoid disclosing company proprietary data which are included with "Undistributed."

TABLE 4
VALUE OF NONFUEL MINERAL PRODUCTION PER CAPITA AND PER SQUARE KILOMETER IN 2011 BY STATE^{1,2}

State	Land area (square kilometers)	Population (thousands)	Total value (thousands)	Per capita		Per square kilometer	
				Dollars	Rank	Dollars	Rank
Alabama	131,000	4,800	\$960,000	\$200	17	\$7,310	24
Alaska	1,480,000	723	3,810,000	5,270	1	2,570	43
Arizona	294,000	6,480	8,390,000	1,290	6	28,500	2
Arkansas	135,000	2,940	789,000	269	14	5,850	30
California	404,000	37,700	3,210,000	85	37	7,960	21
Colorado	269,000	5,120	1,930,000	377	12	7,190	25
Connecticut	12,500	3,580	156,000 ³	44	46	12,400	10
Delaware	5,060	907	11,200 ³	12	50	2,220	44
Florida	140,000	19,100	3,430,000	180	21	24,500	3
Georgia	150,000	9,820	1,450,000	148	24	9,680	16
Hawaii	16,600	1,380	101,000	74	42	6,090	29
Idaho	214,000	1,590	1,320,000	835	8	6,180	28
Illinois	144,000	12,900	1,070,000	83	38	7,460	23
Indiana	92,900	6,520	762,000	117	31	8,210	20
Iowa	145,000	3,060	653,000	213	16	4,510	35
Kansas	212,000	2,870	1,120,000	390	10	5,280	31
Kentucky	103,000	4,370	791,000	181	20	7,690	22
Louisiana	113,000	4,580	465,000 ³	102	34	4,130	39
Maine	79,900	1,330	118,000	89	35	1,480	47
Maryland	25,300	5,830	293,000 ³	50	45	11,600	12
Massachusetts	20,300	6,590	225,000 ³	34	48	11,100	14
Michigan	147,000	9,880	2,410,000	244	15	16,400	6
Minnesota	206,000	5,350	4,490,000 ³	841	7	21,800	4
Mississippi	121,000	2,980	195,000	66	44	1,610	45
Missouri	178,000	6,010	2,200,000	366	13	12,300	11
Montana	377,000	998	1,440,000	1,440	5	3,830	41
Nebraska	199,000	1,840	238,000	129	27	1,200	49
Nevada	284,000	2,720	10,000,000	3,690	3	35,300	1
New Hampshire	23,200	1,320	99,700 ³	76	41	4,290	38
New Jersey	19,200	8,820	275,000 ³	31	49	14,300	8
New Mexico	314,000	2,080	1,250,000	601	9	3,980	40
New York	122,000	19,500	1,340,000	69	43	10,900	15
North Carolina	126,000	9,660	843,000	87	36	6,680	26
North Dakota	179,000	684	125,000 ³	183	19	699	50
Ohio	106,000	11,500	962,000 ³	83	39	9,070	17
Oklahoma	178,000	3,790	608,000	160	23	3,420	42
Oregon	249,000	3,870	305,000	79	40	1,230	48
Pennsylvania	116,000	12,700	1,600,000	126	28	13,800	9
Rhode Island	2,710	1,050	42,200 ³	40	47	15,600	7
South Carolina	78,000	4,680	483,000 ³	103	33	6,200	27
South Dakota	197,000	824	312,000	379	11	1,590	46
Tennessee	107,000	6,400	878,000	137	26	8,220	19
Texas	678,000	25,700	3,030,000	118	30	4,470	36
Utah	213,000	2,820	4,300,000	1,530	4	20,200	5
Vermont	24,000	626	118,000 ³	188	18	4,910	33
Virginia	103,000	8,100	1,190,000	147	25	11,600	13
Washington	172,000	6,830	742,000	109	32	4,310	37
West Virginia	62,400	1,860	324,000	175	22	5,200	32
Wisconsin	141,000	5,710	683,000 ³	120	29	4,860	34
Wyoming	251,000	568	2,140,000	3,770	2	8,520	18
Undistributed	XX	XX	1,010,000	XX	XX	XX	XX
Total or average	9,160,000 ⁴	311,000 ⁴	74,700,000	240	XX	8,160	XX

XX Not applicable.

¹Table includes data available through May 9, 2013.

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

³Partial total; excludes values that must be concealed to avoid disclosing company proprietary data. Concealed values included with "Undistributed."

⁴Excludes Washington, DC (which has no mineral production), with an area of 179 square kilometers and a population of 618,000.

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

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

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Alabama:						
Cement:						
Masonry	208	25,600 ^e	191	24,300 ^e	(4)	W ^e
Portland	3,420	307,000 ^e	3,290	273,000 ^e	(4)	W ^e
Clays:						
Common	1,340	25,300	1,300	21,500	1,190	24,100
Kaolin	(4)	W	174 ^r	W	104	5,750
Gemstones, natural	NA	142	NA	7	NA	7
Lime	1,960	226,000	2,150	239,000	2,180	255,000
Sand and gravel:						
Construction	10,400 ^r	66,100 ^r	10,400 ^r	56,200	9,910	53,600
Industrial	370	11,200	386	10,400	352	10,500
Stone:						
Crushed	35,700	327,000	36,500 ^r	325,000 ^r	33,700	295,000
Dimension, marble, sandstone	4	1,460	(4)	W	(4)	W
Combined values of clays (bentonite), iron oxide pigments (crude), mica (crude), salt, and values indicated by symbol W	XX	26,500	XX	19,600 ^r	XX	316,000
Total	XX	1,020,000	XX	969,000	XX	960,000
Alaska:						
Gemstones, natural	NA	69	NA	70	NA	70
Gold ⁵ kilograms	(4)	W	28,100	1,110,000	25,800	1,310,000
Sand and gravel, construction	7,360 ^r	55,800 ^r	6,390 ^r	52,700 ^r	7,340	70,000
Stone, crushed	1,940	34,700	1,270 ^r	17,300 ^r	1,290	14,400
Combined values of cadmium (byproduct from zinc concentrates), copper (2011), lead, silver, zinc, and value indicated by symbol W	XX	2,530,000	XX	2,220,000	XX	2,420,000
Total	XX	2,620,000	XX	3,400,000	XX	3,810,000
Arizona:						
Clays, bentonite	17	913	(4)	W	(4)	W
Copper ⁵	711	3,780,000	703	5,400,000	751	6,720,000
Gemstones, natural	NA	1,540	NA	1,550	NA	2,500
Sand and gravel, construction	40,800 ^r	363,000 ^r	35,800 ^r	296,000 ^r	32,800	264,000
Stone:						
Crushed	9,210 ^r	85,400 ^r	8,220 ^r	81,000 ^r	8,260	63,900
Dimension, sandstone	94	13,800	81	11,700	112	13,300
Combined values of cement, clays (common), gold, gypsum (crude), lime, molybdenum concentrates, perlite (crude), pumice and pumicite, salt, sand and gravel (industrial), silver, zeolites, and values indicated by symbol W	XX	944,000 ^r	XX	1,010,000	XX	1,320,000
Total	XX	5,190,000	XX	6,810,000 ^r	XX	8,390,000
Arkansas:						
Clays, common	539	7,630	534	7,580	532	7,580
Gemstones, natural	NA	410	NA	424	NA	450
Sand and gravel, construction	7,780	60,000	9,050	76,800	7,830	66,800
Stone:						
Crushed	29,400	215,000	31,300 ^r	240,000 ^r	26,100	219,000
Dimension	18	2,360	11	1,580 ^r	15	1,770
Combined values of bromine, cement, clays [kaolin (2009–10)], gypsum (crude), lime, sand and gravel (industrial), silica stone, tripoli	XX	339,000 ^r	XX	388,000 ^r	XX	494,000
Total	XX	625,000 ^r	XX	714,000 ^r	XX	789,000
California:						
Cement:						
Masonry	236	28,100 ^e	178	19,500 ^e	170	18,600 ^e
Portland	7,150	646,000 ^e	6,950	549,000 ^e	7,730	582,000 ^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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
California—Continued:						
Clays:						
Bentonite	22	2,310	23	2,700	19	2,270
Common	318	2,370	355	5,000	398	6,990
Kaolin	(4)	W	7	W	7	659
Gemstones, natural	NA	727	NA	754	NA	759
Gypsum, crude	807 ^r	6,870 ^r	873 ^r	6,020	992	12,000
Sand and gravel:						
Construction	78,800 ^r	912,000	74,700	811,000 ^r	80,300	889,000
Industrial	1,300	35,800	1,320	39,400	1,300	40,800
Stone:						
Crushed	36,600 ^r	364,000 ^r	31,000 ^r	306,000 ^r	32,800	295,000
Dimension	24	6,100	26	6,940	25	9,590
Combined values of boron minerals, clays [fire (2009), fuller's earth], diatomite, feldspar, gold, iron ore (usable shipped), lime, magnesium compounds, perlite (crude), pumice and pumicite, pyrophyllite (2009–10), salt, silver, soda ash, tungsten, zeolites and values indicated by symbol W						
	XX	888,000	XX	1,140,000 ^r	XX	1,360,000
Total	XX	2,890,000 ^r	XX	2,890,000	XX	3,210,000
Colorado:						
Clays:						
Bentonite	1	30	(4)	W	(4)	W
Common	60	405	109	352 ^r	123	293
Gemstones, natural	NA	426	NA	431	NA	440
Sand and gravel, construction	29,400 ^r	218,000 ^r	28,900	209,000	27,100	198,000
Stone:						
Crushed	6,780 ^r	61,600 ^r	6,220 ^r	49,000 ^r	6,200	48,200
Dimension	11	3,110	10 ^r	1,960 ^r	5	994
Combined values of cement, clays [fire (2009, 2011)], gold, gypsum (crude), helium (Grade-A), lime, molybdenum concentrates, sand and gravel (industrial), silver, and values indicated by symbol W						
	XX	1,130,000	XX	1,590,000 ^r	XX	1,680,000
Total	XX	1,420,000	XX	1,850,000	XX	1,930,000
Connecticut:						
Clays, common						
	20	224	(4)	(6)	(4)	(6)
Gemstones, natural	NA	7	NA	7	NA	7
Sand and gravel, construction	5,700 ^r	61,000 ^r	5,910	55,300	5,510	54,600
Stone:						
Crushed	8,160	102,000	7,270 ^r	92,900 ^r	7,310	101,000
Dimension	(4)	(6)	(4)	(6)	(4)	(6)
Total	XX	164,000 ^r	XX	148,000	XX	156,000
Delaware:						
Gemstones, natural						
	NA	1	NA	1	NA	1
Magnesium compounds	(4)	(6)	(4)	(6)	(4)	(6)
Sand and gravel, construction	2,080	24,500	1,620	12,300	1,910	11,200
Stone, crushed	(4)	(6)	(4)	(6)	(4)	(6)
Total	XX	24,500	XX	12,300	XX	11,200
Florida:						
Cement:						
Masonry	123	18,700 ^e	198	26,100 ^e	188	24,800 ^e
Portland	3,150	307,000 ^e	3,380 ^r	306,000 ^{r,e}	3,310	290,000 ^e
Clays:						
Common	(4)	W	2	W	2	W
Kaolin	18	3,000	15	W	17	2,630
Gemstones, natural	NA	2	NA	1	NA	1
Peat	527	10,100	480	9,710	494	9,370

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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Florida—Continued:						
Sand and gravel:						
Construction	16,300 ^r	132,000 ^r	13,300 ^r	105,000 ^r	12,000	105,000
Industrial	431	8,270	173	3,980	180	4,370
Stone, crushed	40,800 ^r	548,000 ^r	42,100 ^r	535,000 ^r	40,300	509,000
Combined values of clays (fuller's earth), lime, magnesium compounds, phosphate rock, staurolite, titanium concentrates (ilmenite), zirconium concentrates, and values indicated by symbol W	XX	3,130,000	XX	1,690,000	XX	2,480,000
Total	XX	4,160,000	XX	2,670,000^r	XX	3,430,000
Georgia:						
Barite	7	1,350	7	1,350	7	1,350
Clays:						
Common	631	3,870	657	3,910	644	6,880
Kaolin	4,970	693,000	5,470 ^r	780,000 ^r	5,340	781,000
Gemstones, natural	NA	74	NA	75	NA	103
Sand and gravel:						
Construction	5,260	31,100	5,120	28,400	5,050	29,700
Industrial	775	19,300	670	17,800	655	19,600
Stone:						
Crushed	44,500	510,000	43,000 ^r	467,000 ^r	41,500	479,000
Dimension	153	16,900	269 ^r	26,600 ^r	141	20,300
Combined values of cement, clays (fuller's earth), feldspar, iron oxide pigments (crude), lime, mica (crude)	XX	129,000	XX	131,000 ^r	XX	114,000
Total	XX	1,400,000	XX	1,460,000^r	XX	1,450,000
Hawaii:						
Gemstones, natural	NA	151	NA	151	NA	151
Sand and gravel, construction	1,180 ^r	15,000 ^r	1,020 ^r	15,500 ^r	962	15,100
Stone, crushed	5,800	101,000	4,740 ^r	91,900	4,490	86,000
Total	XX	116,000^r	XX	108,000^r	XX	101,000
Idaho:						
Gemstones, natural	NA	492	NA	430	NA	379
Sand and gravel, construction	12,900	74,800	13,800 ^r	78,500 ^r	12,400	67,700
Stone:						
Crushed	3,880	26,800 ^r	3,960 ^r	23,600 ^r	3,910	21,500
Dimension, quartzite, sandstone	25	3,370	25	3,520	28	4,200
Combined values of cadmium (byproduct from zinc concentrates), cement (portland), copper, feldspar, garnet (industrial), gold (2009–10), lead, lime, molybdenum concentrates, perlite (crude), phosphate rock, pumice and pumicite, sand and gravel (industrial), silver, zeolites, zinc	XX	825,000	XX	1,080,000	XX	1,230,000
Total	XX	931,000	XX	1,180,000	XX	1,320,000
Illinois:						
Cement, portland	1,490	141,000 ^c	1,620	144,000 ^c	1,400	126,000 ^c
Gemstones, natural	NA	10	NA	10	NA	10
Sand and gravel:						
Construction	22,500	144,000	19,600 ^r	129,000 ^r	18,800	121,000
Industrial	4,100 ^r	139,000 ^r	5,080 ^r	183,000 ^r	6,160	311,000
Stone, crushed	56,900	514,000	54,300 ^r	487,000 ^r	51,400	492,000
Combined values of clays (common, fuller's earth), peat, stone (dimension dolomite), tripoli	XX	26,900	XX	27,400	XX	23,300
Total	XX	965,000^r	XX	970,000^r	XX	1,070,000
Indiana:						
Cement, portland	2,690	233,000 ^c	2,470	199,000 ^c	2,290	179,000 ^c
Clays, common	413	6,610	358	7,110	332	6,620
Gemstones, natural	NA	4	NA	4	NA	4
Sand and gravel, construction	19,200 ^r	102,000 ^r	18,900 ^r	116,000 ^r	18,800	111,000

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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Indiana—Continued:						
Stone:						
Crushed	44,100 ^r	290,000	44,400 ^r	294,000 ^r	42,200	301,000
Dimension	206	41,500	173	31,400	164	29,200
Combined values of cement (masonry), clays (ball), gypsum (crude), lime, peat, sand and gravel (industrial)	XX	134,000 ^r	XX	140,000 ^r	XX	136,000
Total	XX	806,000 ^r	XX	789,000 ^r	XX	762,000
Iowa:						
Clays, common	184	828	201	827 ^r	182	862
Gemstones, natural	NA	3	NA	3	NA	3
Peat	(4)	W	(4)	W	(4)	5
Sand and gravel, construction	13,600	87,800	13,700 ^r	84,400 ^r	15,000	101,000
Stone, crushed	32,700	298,000	32,000 ^r	289,000 ^r	32,100	311,000
Combined values of cement, gypsum (crude), lime, sand and gravel (industrial), and values indicated by symbol W	XX	248,000 ^r	XX	211,000 ^r	XX	240,000
Total	XX	635,000 ^r	XX	585,000 ^r	XX	653,000
Kansas:						
Cement, portland	1,670	170,000 ^c	1,820	178,000 ^c	1,570	152,000 ^c
Clays, common	381	2,430	353	1,850	291	1,880
Gemstones, natural	NA	1	NA	1	NA	1
Helium, Grade-A million cubic meters	68	332,000	78	421,000	(4)	W
Salt	2,710	188,000	3,080	194,000	3,060	186,000
Sand and gravel, construction	9,130 ^r	46,300 ^r	9,970 ^r	52,000 ^r	9,620	47,100
Stone:						
Crushed	16,900	140,000 ^r	17,600 ^r	146,000 ^r	15,400	126,000
Dimension	29	4,650	47	4,720	52	4,640
Combined values of cement (masonry), clays (fuller's earth), gypsum (crude), helium (crude), pumice and pumicite, sand and gravel (industrial), and value indicated by symbol W	XX	70,200 ^r	XX	102,000 ^r	XX	602,000
Total	XX	953,000 ^r	XX	1,100,000 ^r	XX	1,120,000
Kentucky:						
Clays, common	288	5,980	284	5,780	328	6,430
Gemstones, natural	NA	37	NA	12	NA	11
Sand and gravel, construction	6,810 ^r	36,100 ^r	5,760 ^r	30,100 ^r	5,750	32,600
Stone, crushed	47,000	415,000	47,900 ^r	417,000 ^r	47,900	462,000
Combined values of cement, clays (ball), lime	XX	244,000 ^r	XX	301,000	XX	290,000
Total	XX	702,000	XX	753,000 ^r	XX	791,000
Louisiana:						
Clays, common	353	9,120	151	1,340	144	1,280
Gemstones, natural	NA	7	NA	7	NA	7
Gypsum, crude	(4)	(6)	(4)	(6)	(4)	(6)
Lime	(4)	(6)	(4)	(6)	(4)	(6)
Salt	13,200	229,000	14,100	234,000	14,300	234,000
Sand and gravel:						
Construction	20,800 ^r	209,000 ^r	21,300 ^r	197,000 ^r	20,700	207,000
Industrial	682	25,900	629	25,600	550	23,700
Stone, crushed	(4)	(6)	(4)	(6)	(4)	(6)
Total	XX	473,000 ^r	XX	458,000 ^r	XX	465,000
Maine:						
Gemstones, natural	NA	353	NA	347	NA	353
Sand and gravel, construction	9,180 ^r	59,800 ^r	7,970 ^r	45,900 ^r	7,990	53,500
Stone:						
Crushed	3,600	31,600	3,520 ^r	31,200 ^r	3,650	26,600
Dimension	6	1,300	8	1,250	6	3,640
Combined values of cement, clays (common), peat	XX	32,600	XX	32,900	XX	33,800
Total	XX	126,000 ^r	XX	112,000 ^r	XX	118,000

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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Maryland:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	7,980	99,200	8,120	82,700	6,980	83,100
Stone:						
Crushed	23,300	208,000	21,500 ^r	217,000 ^r	20,400	209,000
Dimension	(4)	W	8	1,630	6	1,230
Combined values of cement, clays (common), and value indicated by symbol W	XX	198,000	XX	(6)	XX	(6)
Total	XX	505,000	XX	302,000 ^r	XX	293,000
Massachusetts:						
Clays, common	(4)	(6)	17	(6)	17	(6)
Gemstones, natural	NA	1	NA	1	NA	1
Lime	(4)	(6)	(4)	(6)	(4)	(6)
Sand and gravel, construction	9,460	85,600	9,710 ^r	91,400	9,230	93,500
Stone:						
Crushed	11,200	129,000 ^r	10,400	119,000 ^r	10,600	115,000
Dimension	44	6,130	73	21,700	83	16,200
Total	XX	221,000	XX	232,000 ^r	XX	225,000
Michigan:						
Cement:						
Masonry	80	9,800 ^e	83	10,200 ^e	61	8,300 ^e
Portland	3,550	350,000 ^e	3,480	350,000 ^e	3,480	353,000 ^e
Clays, common	318	1,310	312	1,280	312	1,280
Gemstones, natural	NA	2	NA	2	NA	2
Gypsum, crude	345 ^r	2,440 ^r	302	2,080	345	2,670
Iron ore, usable shipped	8,870	W	11,900	W	13,200	W
Peat	(4)	W	4	W	3	27
Sand and gravel:						
Construction	34,100 ^r	174,000 ^r	33,300 ^r	190,000 ^r	31,900	178,000
Industrial	1,410 ^r	32,000 ^r	1,350 ^r	31,700 ^r	1,830	67,500
Stone, crushed	20,400	116,000	21,500 ^r	100,000 ^r	20,700	99,000
Combined values of lime, magnesium compounds, potash, salt, stone (dimension dolomite sandstone), and values indicated by symbol W	XX	1,080,000	XX	1,490,000	XX	1,700,000
Total	XX	1,760,000	XX	2,170,000 ^r	XX	2,410,000
Minnesota:						
Gemstones, natural	NA	7	NA	7	NA	7
Iron ore, usable shipped	18,700	W	38,800	3,810,000	42,400	4,180,000
Peat	44	2,850	41	2,500	44	2,490
Sand and gravel, construction	31,700 ^r	193,000 ^r	32,600 ^r	160,000 ^r	36,600	180,000
Stone:						
Crushed	7,440	92,300	7,140 ^r	87,600 ^r	8,600	105,000
Dimension	25	16,700	35	15,400	46	28,500
Combined values of lime, sand and gravel (industrial), and value indicated by symbol W	XX	1,830,000	XX	(6)	XX	(6)
Total	XX	2,140,000	XX	4,080,000 ^r	XX	4,490,000
Mississippi:						
Clays, common	263	1,540	259	1,540	264	1,570
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	11,900 ^r	95,800 ^r	12,000 ^r	93,800 ^r	11,600	93,600
Stone, crushed	3,130	63,400	2,730 ^r	63,500 ^r	2,720	65,000
Combined values of cement (portland), clays (ball, bentonite, fuller's earth), sand and gravel [industrial (2009)]	XX	42,200	XX	34,100	XX	35,100
Total	XX	203,000 ^r	XX	193,000 ^r	XX	195,000

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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Missouri:						
Cement, portland	4,420	434,000 ^e	6,470	534,000 ^e	7,050	559,000 ^e
Clays, common	421	3,020	412	3,060	431	3,370
Sand and gravel:						
Construction	11,500	72,000 ^r	11,900 ^r	73,900 ^r	9,250	64,100
Industrial	836 ^r	32,900 ^r	782 ^r	28,700 ^r	1,970	101,000
Stone, crushed	72,800	637,000 ^r	69,400 ^r	584,000 ^r	64,700	571,000
Combined values of cadmium (byproduct from zinc concentrates), cement (masonry), clays (fire, fuller's earth), copper, gemstones (natural), lead, lime, silver, stone (dimension granite), tripoli (2010–11), zinc	XX	661,000	XX	785,000	XX	904,000
Total	XX	1,840,000	XX	2,010,000	XX	2,200,000
Montana:						
Gemstones, natural	NA	378	NA	515	NA	524
Palladium ⁵ kilograms	12,700	108,000	11,600	199,000	12,400	295,000
Platinum ⁵ do.	3,830	149,000	3,450	179,000	3,700	205,000
Sand and gravel, construction	11,200	86,100 ^r	10,200 ^r	82,100 ^r	11,000	85,800
Stone:						
Crushed	1,990	20,400	2,050 ^r	21,300 ^r	2,160	20,600
Dimension	(4)	W	11	2,950	12	2,930
Combined values of cadmium [byproduct from zinc concentrates (2009)], cement, clays (bentonite, common), copper, garnet (industrial), gold (2009, 2011), lead (2009), lime, molybdenum concentrates, silver, talc (crude), zinc (2009), and value indicated by symbol W	XX	619,000	XX	651,000 ^r	XX	832,000
Total	XX	983,000	XX	1,140,000	XX	1,440,000
Nebraska:						
Gemstones, natural	NA	4	NA	4	NA	4
Sand and gravel, construction	12,900	75,600 ^r	12,600 ^r	80,000 ^r	12,900	77,900
Stone, crushed	6,200	59,200	6,760	62,000 ^r	7,430	70,100
Combined values of cement, clays (common), lime, sand and gravel [industrial]	XX	113,000	XX	83,600	XX	90,300
Total	XX	248,000	XX	226,000 ^r	XX	238,000
Nevada:						
Barite	389 ^r	30,400 ^r	656	49,700 ^r	704	59,900
Clays, kaolin	(4)	W	19	W	18	247
Gold ⁵ kilograms	161,000	5,040,000	166,000	6,560,000	172,000	8,690,000
Sand and gravel, construction	19,800	124,000	15,100	87,500	17,300	89,200
Silver ⁵ kilograms	203,000	95,900	224,000	145,000	209,000	237,000
Stone, crushed	7,380	81,300	7,210 ^r	83,400 ^r	7,320	78,500
Combined values of cement (portland), clays [bentonite (2009, 2011), fuller's earth (2009–10)], copper, diatomite, gemstones (natural), gypsum (crude), lime, lithium carbonate, magnesite, molybdenum concentrates, perlite (crude), pumice and pumicite, salt, sand and gravel (industrial), stone (dimension), zeolites (2009–10), and values indicated by symbol W	XX	639,000 ^r	XX	791,000	XX	876,000
Total	XX	6,010,000 ^r	XX	7,720,000 ^r	XX	10,000,000
New Hampshire:						
Gemstones, natural	NA	7	NA	7	NA	7
Sand and gravel, construction	7,050 ^r	56,300 ^r	6,620 ^r	55,600 ^r	6,260	54,500
Stone:						
Crushed	4,780 ^r	46,800 ^r	4,370 ^r	38,900 ^r	5,030	45,200
Dimension, granite	35	4,880	(4)	(6)	(4)	(6)
Total	XX	108,000	XX	94,600 ^r	XX	99,700

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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
New Jersey:						
Gemstones, natural	NA	1	NA	1	NA	1
Greensand marl	(4)	(6)	(4)	(6)	(4)	(6)
Peat	(4)	(6)	(4)	(6)	(4)	(6)
Sand and gravel:						
Construction	11,100	116,000	10,000	105,000	11,800	108,000
Industrial	906	30,200	918	33,600	974	34,400
Stone, crushed	14,500	124,000	14,500 ^r	120,000 ^r	13,800	132,000
Total	XX	270,000	XX	259,000 ^r	XX	275,000
New Mexico:						
Clays, common	10	90	13	116	8	70
Copper ⁵	56	300,000	53	405,000	66	591,000
Gemstones, natural	NA	21	NA	15	NA	23
Sand and gravel, construction	14,100	111,000	11,600	84,400	10,300	76,200
Stone:						
Crushed	6,000	40,300 ^r	5,280 ^r	38,400 ^r	5,840	41,400
Dimension	32	986	(4)	W	(4)	W
Combined values of cement, clays [bentonite (2010)], gold (2009, 2011), gypsum (crude), helium [Grade-A (2009)], lime (2010), molybdenum concentrates, perlite, potash, pumice and pumicite, salt, silver (2009, 2011), zeolites, and values indicated by symbol W						
Total	XX	426,000 ^r	XX	499,000 ^r	XX	544,000
Total	XX	879,000	XX	1,030,000 ^r	XX	1,250,000
New York:						
Clays, common	605	30,200	595	30,000	388	16,900
Gemstones, natural	NA	97	NA	97	NA	98
Peat	(4)	W	(4)	W	2	W
Salt	6,240	426,000	6,460	442,000	6,520	452,000
Sand and gravel, construction	31,100	267,000 ^r	30,800 ^r	249,000 ^r	30,300	257,000
Stone:						
Crushed	37,800 ^r	431,000	33,900 ^r	383,000 ^r	36,000	414,000
Dimension	97	28,200	94 ^r	25,800 ^r	99	17,800
Combined values of cement, garnet (industrial), sand and gravel (industrial), wollastonite, and values indicated by symbol W						
Total	XX	207,000	XX	193,000	XX	182,000
Total	XX	1,390,000	XX	1,320,000 ^r	XX	1,340,000
North Carolina:						
Andalusite	(4)	W	(4)	W	5,000 ^e	720 ^e
Clays:						
Common	828	4,980	846	4,890	764	4,460
Kaolin	(4)	W	10	W	10	421
Gemstones, natural	NA	1,260	NA	1,950	NA	1,990
Sand and gravel:						
Construction	7,680 ^r	43,600 ^r	8,260 ^r	46,500 ^r	8,140	47,000
Industrial	1,300	28,000	1,400	30,900	1,330	35,300
Stone:						
Crushed	38,700	587,000	40,600 ^r	592,000 ^r	42,500	621,000
Dimension	62	22,300	58 ^r	20,700 ^r	59	11,600
Combined values of feldspar, mica (crude), olivine, phosphate rock, pyrophyllite (crude), and values indicated by symbol W						
Total	XX	163,000	XX	183,000	XX	121,000
Total	XX	850,000	XX	880,000	XX	843,000
North Dakota:						
Clays, common	(4)	(6)	(4)	(6)	(4)	(6)
Gemstones, natural	NA	4	NA	4	NA	4
Lime	(4)	(6)	(4)	(6)	(4)	(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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
North Dakota—Continued:						
Sand and gravel:						
Construction	14,300	46,500	17,000	66,400 ^r	21,300	116,000
Industrial	(4)	(6)	(4)	(6)	(4)	(6)
Stone, crushed	985	3,980	843 ^r	3,810 ^r	1,540	9,130
Total	XX	50,500 ^r	XX	70,200 ^r	XX	125,000
Ohio:						
Cement, portland	550	53,000 ^c	627	57,800 ^c	636	56,100 ^c
Clays, common	770	13,400	671 ^r	12,600 ^r	633	13,300
Gemstones, natural	NA	4	NA	4	NA	4
Lime	1,130	129,000	1,610	189,000 ^r	1,730	208,000
Sand and gravel:						
Construction	27,200	199,000	29,900	232,000	27,400	219,000
Industrial	849	26,300	821	27,800	1,100	54,000
Stone:						
Crushed	44,300 ^r	394,000 ^r	47,000 ^r	380,000 ^r	49,300	406,000
Dimension	26	4,790	25	4,440	25	5,100
Combined values of cement (masonry), clays [fire (2009–10)], peat, salt	XX	277,000	XX	274,000	XX	(6)
Total	XX	1,100,000	XX	1,180,000 ^r	XX	962,000
Oklahoma:						
Clays, common	572	2,800	554	2,600	570	2,720
Gemstones, natural	NA	4	NA	4	NA	4
Sand and gravel:						
Construction	12,100 ^r	71,700 ^r	10,600 ^r	64,600 ^r	10,700	65,900
Industrial	1,530 ^r	47,000 ^r	2,060 ^r	64,800 ^r	1,780	69,600
Stone:						
Crushed	36,100	296,000 ^r	39,200 ^r	321,000 ^r	39,100	306,000
Dimension	35	4,330	28 ^r	2,520 ^r	35	6,310
Combined values of cement, feldspar, gypsum (crude), helium [Grade-A (2009–10)], iodine (crude), lime, salt, tripoli (2009)	XX	239,000 ^r	XX	236,000	XX	158,000
Total	XX	660,000 ^r	XX	691,000 ^r	XX	608,000
Oregon:						
Clays, common	--	--	--	--	194	538
Gemstones, natural	NA	1,220	NA	1,050	NA	1,130
Sand and gravel, construction	12,200	102,000	11,400	93,000	13,000	90,400
Stone, crushed	15,500	118,000	15,500 ^r	117,000 ^r	15,300	118,000
Combine values of cement (portland), clays (bentonite), diatomite, emery (crude), lime, perlite (crude), pumice and pumicite	XX	91,500	XX	96,400	XX	95,400
Total	XX	313,000	XX	307,000 ^r	XX	305,000
Pennsylvania:						
Cement:						
Masonry	176	23,700 ^c	147	17,700 ^c	141	19,700 ^c
Portland	3,720	354,000 ^c	3,380	321,000 ^c	3,270	297,000 ^c
Clays, common	451	3,040	344	2,490	(4)	W
Gemstones, natural	NA	1	NA	1	NA	1
Lime	985	126,000	1,110	145,000	1,150	156,000
Peat	3	90	2	58	(4)	W
Sand and gravel:						
Construction	14,000	115,000	13,500 ^r	119,000 ^r	12,700	114,000
Industrial	618	15,600	524	13,400	(4)	W
Stone:						
Crushed	81,100 ^r	987,000 ^r	85,300 ^r	1,040,000 ^r	89,100	981,000
Dimension	39	9,670	27 ^r	6,070 ^r	25	5,040
Combined values of tripoli and values indicated by symbol W	XX	(7)	XX	(7)	XX	30,300
Total	XX	1,630,000 ^r	XX	1,660,000 ^r	XX	1,600,000

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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Rhode Island:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	1,880 ^r	24,000 ^r	1,510 ^r	17,800 ^r	2,010	26,000
Industrial	(4)	(6)	(4)	(6)	(4)	(6)
Stone, crushed	1,820	20,200	1,380 ^r	14,500 ^r	1,520	16,200
Total	XX	44,100 ^r	XX	32,300 ^r	XX	42,200
South Carolina:						
Cement:						
Masonry	174	22,000 ^e	152	18,300 ^e	143	18,300 ^e
Portland	1,870	169,000 ^e	2,050	178,000 ^e	2,480	197,000 ^e
Clays:						
Common	311	1,300	267	1,190	227	1,250
Kaolin	144	8,590	158	10,500	246	19,700
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	5,900	32,900	7,100	30,200	7,070	31,400
Industrial	441	14,000	530	14,700	451	16,700
Stone:						
Crushed	18,200	201,000	19,200	215,000	19,500	199,000
Dimension	3	401	(4)	(6)	(4)	(6)
Vermiculite	(4)	(6)	(4)	(6)	(4)	(6)
Total	XX	449,000	XX	468,000	XX	483,000
South Dakota:						
Sand and gravel, construction	11,300 ^r	40,800 ^r	11,600 ^r	48,600 ^r	12,700	47,800
Stone, crushed	4,540	29,800 ^r	5,470 ^r	36,600 ^r	6,050	49,400
Combined values of cement (portland), clays (common), feldspar, gemstones (natural), gold, gypsum [crude (2010–11)], iron ore (usable shipped), lime, mica (crude), silver, stone (dimension granite)	XX	163,000	XX	182,000	XX	215,000
Total	XX	233,000 ^r	XX	267,000 ^r	XX	312,000
Tennessee:						
Clays:						
Ball	511	22,800	570	25,600	(4)	W
Common	113	816	113	817	113	817
Sand and gravel:						
Construction	5,360	42,800	5,900	47,000	6,100	45,600
Industrial	783	27,100	907	30,500	1,050	16,500
Stone, crushed	39,900 ^r	451,000 ^r	40,900	472,000 ^r	38,800	483,000
Combined values of cadmium (byproduct from zinc concentrates), cement, clays (fuller's earth), gemstones (natural), lime, salt, stone (dimension marble), zinc, and value indicated by symbol W	XX	150,000	XX	263,000	XX	332,000
Total	XX	695,000 ^r	XX	839,000 ^r	XX	878,000
Texas:						
Cement:						
Masonry	202	28,300 ^e	199	26,800 ^e	187	25,100 ^e
Portland	8,350	815,000 ^e	8,870	785,000 ^e	9,200	836,000 ^e
Clays:						
Bentonite	54	8,610	64	9,900	67	10,300
Common	1,800	13,000	1,730 ^r	14,000	1,840	13,300
Kaolin	(4)	W	47	13,900	22	6,920
Gemstones, natural	NA	202	NA	203	NA	203
Lime	1,040	105,000	1,280	136,000	1,350	148,000
Salt	8,910	164,000	9,130	173,000	9,330	180,000
Sand and gravel:						
Construction	71,900 ^r	540,000 ^r	71,500 ^r	540,000 ^r	76,400	573,000
Industrial	3,220 ^r	143,000 ^r	4,480 ^r	202,000 ^r	7,000	337,000

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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Texas—Continued:						
Stone:						
Crushed	110,000	784,000 ^r	114,000	805,000 ^r	117,000	787,000
Dimension	236	42,000	195	57,000	202	47,100
Combined values of clays (ball, fire, fuller's earth) gypsum (crude), helium, talc (crude), zeolites, and value indicated by symbol W						
	XX	79,000 ^r	XX	73,500 ^r	XX	64,300
Total	XX	2,720,000 ^r	XX	2,840,000 ^r	XX	3,030,000
Utah:						
Beryllium concentrates metric tons	3,030	NA	4,460	NA	5,920	NA
Clays, common	342	7,230	322	7,020	334	7,260
Gemstones, natural	NA	783	NA	786	NA	789
Salt	2,000	152,000	1,940	100,000	2,660	126,000
Sand and gravel, construction	33,100 ^r	194,000 ^r	26,900 ^r	156,000 ^r	25,400	149,000
Stone:						
Crushed	4,640 ^r	37,000 ^r	5,650 ^r	41,300 ^r	8,000	61,800
Dimension, sandstone	9	844	9	674	7	595
Combined values of cement (portland), clays (bentonite), copper, gold, gypsum (crude), helium [Grade-A (2009–10)], lime, magnesium compounds, magnesium metal, molybdenum concentrates, phosphate rock, potash, silver						
	XX	3,420,000 ^r	XX	3,990,000 ^r	XX	3,960,000
Total	XX	3,810,000 ^r	XX	4,300,000 ^r	XX	4,300,000
Vermont:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	4,470	36,700	4,820 ^r	35,600 ^r	5,050	33,700
Stone:						
Crushed	5,480	55,900	6,240 ^r	64,700 ^r	6,070	62,100
Dimension	108	30,000	68	21,900	79	21,800
Talc, crude	(4)	(6)	(4)	(6)	(4)	(6)
Total	XX	123,000	XX	122,000 ^r	XX	118,000
Virginia:						
Clays, common	505	5,830	503	6,010	500	6,000
Kyanite	71	21,000	93	28,000	98	29,400
Sand and gravel, construction	7,230	82,200	7,780 ^r	89,200 ^r	6,670	77,500
Stone:						
Crushed	42,300	579,000 ^r	44,000 ^r	603,000 ^r	49,400	711,000
Dimension	(4)	W	14	3,920	12	7,380
Combined values of cement, clays (fuller's earth), feldspar, gemstones (natural), iron oxide pigments [crude (2009, 2011)], lime, salt, sand and gravel (industrial), talc [crude (2011)], titanium concentrates (ilmenite), vermiculite (crude), zirconium concentrates, and value indicated by symbol W						
	XX	260,000	XX	303,000	XX	356,000
Total	XX	947,000 ^r	XX	1,030,000 ^r	XX	1,190,000
Washington:						
Gemstones, natural	NA	65	NA	64	NA	57
Sand and gravel, construction	30,000 ^r	231,000 ^r	27,700 ^r	191,000 ^r	29,100	208,000
Stone, crushed	14,700 ^r	143,000 ^r	14,800	141,000 ^r	14,800	140,000
Combined values of cadmium [byproduct from zinc concentrates (2009)], cement (portland), clays [common, fire (2009–10)], diatomite, gold, lead (2009), lime, olivine, peat, sand and gravel (industrial), stone (dimension miscellaneous), zinc (2009)						
	XX	289,000	XX	391,000	XX	394,000
Total	XX	663,000 ^r	XX	723,000 ^r	XX	742,000
West Virginia:						
Clays, common	(4)	W	138	199 ^r	138	210
Gemstones, natural	NA	1	NA	1	NA	1

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	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
West Virginia—Continued:						
Gypsum, crude	-- ^r	-- ^r	-- ^r	-- ^r	--	--
Sand and gravel:						
Construction	410	3,480	448	3,740	534	4,470
Industrial	241	14,700	277	17,300	(4)	W
Stone, crushed	12,300	112,000	14,500 ^r	141,000	16,200	169,000
Combined values of cement, lime, salt, stone (dimension sandstone), and values indicated by symbol W						
Total	XX	71,600	XX	108,000 ^r	XX	150,000
Total	XX	201,000 ^r	XX	271,000 ^r	XX	324,000
Wisconsin:						
Gemstones, natural	NA	7	NA	7	NA	7
Lime	750	70,000	867	81,200	939	95,900
Peat	--	--	(4)	W	(4)	W
Sand and gravel:						
Construction	28,500 ^r	140,000 ^r	26,200 ^r	134,000 ^r	27,500	145,000
Industrial	2,930 ^r	116,000 ^r	3,670 ^r	156,000 ^r	5,510	280,000
Stone:						
Crushed	23,100	179,000	24,000 ^r	135,000 ^r	23,800	124,000
Dimension	207	29,800	144	23,200	170	38,600
Total	XX	535,000 ^r	XX	529,000 ^r	XX	683,000
Wyoming:						
Clays:						
Bentonite	3,230	172,000	4,120 ^r	230,000 ^r	4,350	287,000
Common	41	104	12	33	20	60
Gemstones, natural	NA	14	NA	14	NA	15
Sand and gravel, construction	17,300 ^r	92,400 ^r	14,500 ^r	72,200 ^r	12,800	91,000
Stone, crushed	16,500 ^r	76,300 ^r	9,240 ^r	41,400 ^r	11,500	50,700
Combined values of cement (portland), gypsum (crude), helium (Grade-A), lime, soda ash, stone [dimension (2009–10)]						
Total	XX	1,460,000	XX	1,530,000	XX	1,710,000
Total	XX	1,800,000	XX	1,870,000 ^r	XX	2,140,000
Undistributed:						
Connecticut, Delaware, Louisiana, Maryland (2010–11), Massachusetts, Minnesota (2010–11), New Hampshire, (2010–11), New Jersey, North Dakota, Ohio (2011), Rhode Island, South Carolina, Vermont, Wisconsin (2010–11), Undistributed						
Total	XX	189,000 ^r	XX	618,000 ^r	XX	1,010,000

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.

¹Table includes data available through May 9, 2013.

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.

⁴Withheld to avoid disclosing company proprietary data.

⁵Recoverable content of ores, etc.

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

⁷Withheld to avoid disclosing company proprietary data; included in “Total.”

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

(Thousand metric tons and thousand dollars)

Mineral	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Puerto Rico:						
Cement, portland	936	W	755	W	744	W
Clays, common	54	328	54	328	54	328
Lime ^c	11	1,750	12	3,660	12	3,760
Salt ^c	45	1,500	45	1,500	45	1,500
Stone, crushed	9,450	81,100 ^r	7,610 ^r	64,000 ^r	7,530	77,500
Total	XX	84,700 ^r	XX	69,400 ^r	XX	83,000
Administered Islands:						
American Samoa, stone, crushed	W	W	W	W	W	W
Guam, stone, crushed	W	W	W	W	W	W
Virgin Islands, stone, crushed	W	W	W	W	W	W
Total	XX	W	XX	W	XX	W

^cEstimated. ^rRevised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

¹Table includes data available through May 9, 2013.

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.

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	2010		2011		
	Quantity	Value	Quantity	Value	
Metals:					
Aluminum:					
Crude and semicrude	metric tons	3,040,000	7,650,000	3,420,000	9,640,000
Manufactures	do.	128,000	570,000	171,000	741,000
Antimony:					
Metal, alloys, waste and scrap	do.	427	2,230	581	5,530
Oxide, antimony content	do.	2,120	12,000	3,590	17,800
Arsenic metal, arsenic content	do.	481	1,020	705	1,630
Bauxite and alumina:					
Alumina, calcined equivalent		1,520	724,000	1,730	905,000
Bauxite:					
Calcined, refractory and other grade		19	7,280 ^r	31	9,910
Crude and dried		21	618	22	855
Specialty aluminum compounds, sulfate, chloride, fluoride-based	metric tons	37,600	37,600	31,100	31,100
Beryllium, unwrought, and waste and scrap, other including articles not elsewhere specified, beryllium content	kilograms	38,700	24,300	21,200	14,900
Bismuth, metal, alloys, waste and scrap, bismuth content	do.	1,040,000 ^r	12,700 ^r	1,030,000	10,400
Cadmium:					
Metal	do.	231,000	945	204,000	790
Sulfide, gross weight	do.	46,900	24	71,500	37
Unwrought and powder	do.	75,300	571	62,900	223
Waste and scrap	do.	--	--	4,700	64
Chromium:					
Ores and concentrate	metric tons	4,420	2,620	5,250	3,520
Metals and alloys:					
Metal, unwrought powders, waste and scrap, other	do.	597	18,400	557	13,800
Ferroalloys, high-carbon, low-carbon, ferrochromium-silicon	do.	9,130	12,900	5,330	7,670
Chemicals:					
Oxides, trioxide, other	do.	19,900	56,700	17,800	54,800
Sulfates	do.	60	306	53	263
Salts of oxometallic or peroxometallic acids, zinc and lead chromate, sodium dichromate, potassium dichromate, other	do.	30,500	31,500	31,100	33,400
Pigments and preparations	do.	2,540	8,640	1,810	10,600
Cobalt:					
Acetates	do.	406	5,860	396	4,490
Chlorides	do.	30	650	7	102
Oxides and hydroxides	do.	258	2,380	332	2,700
Metal:					
Unwrought, powders, waste and scrap, mattes, other intermediate products of metallurgy	do.	2,350	75,000	3,060	96,300
Copper:					
Unmanufactured, does not include unalloyed scrap, copper content	do.	276,000	1,630,000	345,000	2,170,000
Semimanufactures	do.	238,000	1,740,000	234,000	2,180,000
Scrap, alloyed and unalloyed	do.	1,030,000	3,550,000	1,240,000	4,980,000
Ferroalloys not listed elsewhere:					
Ferrophosphorous	do.	1,030	2,000	577	1,240
Other	do.	4,570	9,210	8,700	13,800
Gold:					
Ores and concentrates	kilograms	3,460	102,000	8,400	282,000
Dore and precipitates	do.	84,400	3,160,000	62,800	2,430,000
Bullion, refined	do.	295,000	11,400,000	403,000	19,600,000
Waste and scrap	do.	660,000	2,180,000	626,000	7,510,000
Metal powder	do.	2,340	74,700	670	19,100
Compounds	do.	4,270,000	107,000	3,930,000	98,700
Iron and steel:					
Steel mill products		11,000	NA	12,200	NA
Fabricated steel products		2,010	NA	1,920	NA
Cast iron and steel products		287	NA	250	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	2010		2011	
	Quantity	Value	Quantity	Value
Metals—Continued:				
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	20,500	8,380,000	24,300	11,400,000
Pig iron, all grades	2,220	13,400	51	27,000
Direct-reduced iron, steelmaking grade metric tons	974	115	3910	448
Ships, boats, and other vessels for scrapping	4	743	4	835
Used rails for rerolling and other uses, includes mixed (used plus new) rails	49	41,000	49	50,400
Iron ore	9,950	1,090,000	11,100	1,330,000
Lead:				
Base bullion, lead content metric tons	199	758 ^r	70	743
Ore and concentrates, lead content do.	299,000	472,000	223,000	425,000
Unwrought and alloys, lead content do.	77,700	84,100	40,100	54,100
Wrought and alloys, lead content do.	5,590	9,170	7,030	13,500
Scrap, gross weight do.	43,500	33,800	31,100	36,800
Magnesium:				
Waste and scrap, magnesium content do.	481	802	1,680	3,960
Metal, magnesium content do.	5,300	19,800	5,520	14,600
Alloys, gross weight do.	6,940	30,900	3,500	14,500
Powder, sheets, tubing, ribbons, wire, other forms, gross weight do.	2,070	36,600	1,620	35,600
Manganese, gross weight:				
Ores and concentrates with 20% or more manganese do.	13,900	5,990	1,360	1,500
Ferromanganese, all grades do.	19,100	27,800	4,510	7,780
Silicomanganese do.	9,360	13,100	8,470	11,100
Metal, including alloys and waste and scrap do.	3,660	10,300	3,370	10,100
Dioxide do.	8,980 ^r	14,700	10,900	18,400
Mercury:				
Metal do.	459	6,830	132	2,050
Amalgams of precious metals whether or not chemically defined do.	203	274,000	128	341,000
Molybdenum:				
Ore and concentrates, including roasted and other, molybdenum content do.	40,600	1,050,000	47,100	1,450,000
Chemicals:				
Oxides and hydroxides, gross weight do.	6,040	99,300	4,840	92,400
Molybdates, all, gross weight do.	1,680	26,200	2,010	35,600
Ferromolybdenum, molybdenum content do.	978	33,100	1,330	47,100
Other, includes powders, unwrought, bars and rods, waste and scrap, wire, other, gross weight do.	2,540	153,000	2,970	144,000
Nickel, nickel content:				
Primary, unwrought and chemicals do.	12,600	345,000	12,400	391,000
Secondary, stainless steel scrap and waste and scrap do.	80,300	1,030,000	64,800	1,090,000
Wrought, not alloyed, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes do.	1,900	35,400	891	30,000
Alloyed, unwrought ingot, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes, other alloyed articles, gross weight do.	34,500	1,320,000	45,300	1,840,000
Niobium (columbium) and tantalum:				
Niobium:				
Ores and concentrates kilograms	24,900	228	12,300	129
Ferroniobium do.	395,000	4,190	519,000	5,640
Tantalum:				
Ores and concentrates, includes synthetic do.	172,000	3,100	207,000	3,300
Unwrought powders, waste and scrap, unwrought alloys and metal do.	315,000	79,000	501,000	124,000
Wrought do.	65,200	35,900	81,800	47,800
Platinum-group metals:				
Palladium, palladium content do.	38,100	419,000	32,000	416,000
Platinum, includes waste and scrap and metal, platinum content do.	55,100	1,880,000	130,000	1,990,000
Iridium, osmium, ruthenium, gross weight do.	3,720	36,800	1,150	18,000
Rhodium, rhodium content do.	2,320	136,000	1,370	71,700
Rare earths, estimated rare-earth oxide content:				
Cerium compounds do.	1,350,000	14,300	1,640,000	50,900
Ferrocerium and other pyrophoric alloys do.	3,460,000	19,000	2,010,000	18,300

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	2010		2011		
	Quantity	Value	Quantity	Value	
Metals—Continued:					
Rare earths, estimated rare-earth oxide content—Continued:					
Compounds, inorganic and organic	kilograms	1,690,000	27,200	3,620,000	116,000
Metals, including scandium and yttrium	do.	1,380,000	27,500	3,030,000	63,900
Selenium and tellurium:					
Selenium, selenium content	do.	919,000	16,000	1,440,000	26,500
Tellurium, tellurium content	do.	59,000	5,400	38,600	7,210
Silicon, gross weight:					
Ferrosilicon	metric tons	25,400	29,600	34,000	40,600
Metal	do.	65,900	2,700,000	79,500	2,640,000
Silver:					
Bullion, silver content	kilograms	523,000	326,000	625,000	673,000
Dore, silver content	do.	104,000	45,900	107,000	133,000
Metal powder, gross weight	do.	1,280,000	874,000	1,080,000	1,120,000
Nitrate, gross weight	do.	53,500	4,540	54,400	7,130
Ores and concentrates, silver content	do.	82,100	47,700	172,000	94,200
Semimanufactured forms containing 99.5% or more by weight of silver, gross weight	do.	617,000	353,000	1,080,000	807,000
Waste and scrap, gross weight	do.	3,760,000	5,990,000	4,450,000	3,440,000
Unwrought, other, gross weight	do.	87,300	49,800	193,000	169,000
Thorium:					
Ore, monazite concentrate	metric tons	1 ^r	15 ^e	--	--
Thorium and thorium-bearing materials, compounds	do.	2 ^r	605	4	762
Tin:					
Ingots and pigs	do.	5,630	35,900	5,450	33,300
Tin scrap and other tin bearing material, except tinplate scrap, includes rods, profiles, wire, powders, flakes, tubes, pipes	do.	15,600	70,300	21,900	88,200
Tinplate and terneplate	do.	209,000	171,000	216,000	183,000
Titanium:					
Metal, waste and scrap, unwrought, wrought products and castings, ferrotitanium and ferrosilicon titanium	do.	24,100	868,000	34,500	1,340,000
Ores and concentrates	do.	18,900	11,800	26,600	11,000
Pigment, dioxide and oxide	do.	758,000	1,690,000	789,000	2,230,000
Tungsten, tungsten content:					
Ammonium paratungstate	do.	538	8,840	977	18,700
Carbide powder	do.	1,220 ^e	43,600	1,250 ^e	63,000
Metal powders	do.	803 ^e	39,600	686 ^e	54,300
Miscellaneous tungsten-bearing materials, ferrotungsten, ferrosilicon tungsten, unwrought, waste and scrap, wrought, compounds	do.	1,790	60,100 ^r	4,050	73,800
Ores and concentrates	do.	276 ^e	6,440 ^r	169 ^e	6,140
Vanadium:					
Aluminum-vanadium master alloy, gross weight	kilograms	1,190,000 ^r	6,500 ^r	920,000	6,930
Ferrovanadium, vanadium content	do.	611,000	18,100	314,000	9,980
Metal, including waste and scrap, gross weight	do.	21,300 ^r	675 ^r	102,000	3,340
Pentoxide, anhydride, vanadium content	do.	140,000	2,020 ^r	88,700	1,410
Other oxides and hydroxides, vanadium content	do.	1,100,000	10,600	254,000	2,390
Zinc:					
Compounds, chloride, chromates of zinc or of lead, compounds n.s.p.f. ³ , lithopone, oxide, sulfate, sulfide	metric tons	XX	53,700	XX	63,600
Ores and concentrates, zinc content	do.	752,000	903,000	660,000	997,000
Rolled	do.	7,380	NA	NA	NA
Slab	do.	4,200	NA	19,000	NA
Zirconium:					
Ferrozirconium	do.	569	1,200	2,680	6,720
Ores and concentrates	do.	47,400	51,100	24,300	45,200
Oxide, includes germanium oxides and zirconium dioxides	do.	5,630	59,000	6,710	87,400
Unwrought powders	do.	438	16,400	528	26,900
Waste and scrap	do.	1,620	147,000	1,480	132,000
Total		XX	65,300,000	XX	87,300,000

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	2010		2011		
	Quantity	Value	Quantity	Value	
Industrial Minerals:					
Abrasives, manufactured:					
Aluminum oxide, crude	metric tons	20,000	67,900	19,900	74,700
Metallic abrasives	do.	30,800	41,300	39,500	55,000
Silicon carbide, crude, ground and refined	do.	23,100	56,000	27,800	59,000
Asbestos, includes reexports:					
Manufactured		NA	27,000	NA	27,000
Unmanufactured	metric tons	171	121	169	207
Barite, natural barium sulfate	do.	109,000	17,800	98,300	17,300
Boron minerals and compounds:					
Boric acid, includes orthoboric and anhydrous		264	170,000	235	166,000
Sodium borates		423	218,000	492	244,000
Bromine:					
Compounds, includes methyl bromine and ethylene dibromide, bromine content	metric tons	3,620	14,300	2,560	9,610
Elemental, gross weight	do.	4,530	7,970	4,580	8,790
Cement, hydraulic and clinker ⁴		1,180	168,000	1,410	187,000
Clays:					
Ball		45	3,300	49	2,890
Bentonite		953	143,000	1,020	167,000
Fire		404	61,500	371	61,600
Fuller's earth		100	35,400	102	45,900
Kaolin		2,470	537,000	2,490	555,000
Other, n.e.c. ⁵ , includes chamotte or dinas earth, activated clays and earths, artificially activated clays		382 ^r	82,200 ^r	358	76,400
Diamond:					
Gemstones, natural, including reexports	thousand carats	23,700	14,100,000	16,000	18,200,000
Industrial including exports and reexports:					
Unworked	do.	1,080	23,400	1,260	32,100
Powder, dust and grit, natural and synthetic	do.	131,000	61,500	167,000	81,400
Diatomite		86	44,500	106	55,800
Feldspar	metric tons	16,800	2,280	17,000	2,020
Fluorspar	do.	17,900	2,740	24,100	3,780
Garnet, industrial	do.	11,700	14,400	14,500	14,100
Graphite, natural and artificial	do.	45,600	152,000	60,200	191,000
Gypsum and gypsum products:					
Crude		360	19,300	316	20,000
Plasters		190	42,200	307	48,200
Boards		729	129,000	833	149,000
Other		XX	66,200	XX	68,600
Helium, Grade-A	million cubic meters	77	NA	84	NA
Iodine:					
Crude, resublimed	metric tons	1,070	22,300	900	19,200
Potassium iodide	do.	442	9,330	344	7,250
Iron oxide pigments and hydroxides:					
Pigment grade	do.	8,750 ^r	15,700 ^r	8,650	14,900
Other grade	do.	44,700	34,400	53,400	36,700
Kyanite, andalusite, sillimanite ^c		38	11,300	38	11,600
Lime		215	36,200	231	40,100
Lithium chemicals:					
Carbonate	metric tons	1,350 ^r	7,240 ^r	1,260	7,090
Hydroxide	do.	6,960	43,600	6,410	42,300
Magnesium compounds:					
Compounds, chlorides, hydroxide and peroxide, sulfates	do.	34,900	25,100	42,600	28,300
Magnesite, crude and processed:					
Caustic-calcined magnesia	do.	278	165	166	112
Dead-burned and fused magnesia	do.	8,650	6,550	17,900	12,700

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	2010		2011		
	Quantity	Value	Quantity	Value	
Industrial Minerals—Continued:					
Magnesium compounds—Continued:					
Magnesite, crude and processed—Continued:					
Other magnesia	metric tons	18,100	20,300	15,700	17,400
Crude	do.	8,920	1,310	18,400	2,540
Mica:					
Scrap and flake:					
Powder	do.	5,550	8,190	5,800	8,700
Waste	do.	935	468	68	35
Sheet:					
Unworked	do.	53	163	60	275
Worked	do.	879	15,900	978	17,900
Nitrogen, major compounds, nitrogen content		1,420 ^r	NA	1,460	
Peat		69	7,230	49	5,560
Perlite, crude ^e	metric tons	42,000	NA	36,000	NA
Phosphate rock:					
Diammonium phosphate		4,090	1,710,000	3,940	2,190,000
Elemental phosphorus		18	56,600	13	45,700
Monoammonium phosphate		2,330	1,000,000	2,710	1,650,000
Phosphoric acid		674 ^r	235,000	954	408,000
Potash:					
Potassium chloride	metric tons	248,000	NA	65,100	NA
Potassium sulfates, all grades	do.	555,000	NA	594,000	NA
Potassium nitrate	do.	9,990	9,070	16,400	10,700
Pumice and pumicite		13	5,970	14	6,420
Salt		595	69,300	846	87,500
Sand and gravel:					
Construction:					
Sand		59	16,600	144	21,900
Gravel		322	6,010	213	6,310
Industrial		3,950	323,000	4,330	371,000
Silica, special stone products		NA	11,300	NA	11,100
Soda ash		5,390	886,000	5,470	1,040,000
Stone:					
Crushed		1,210	52,100	911	41,800
Dimension		XX	54,500	XX	66,000
Strontium compounds:					
Carbonate, precipitated	kilograms	121,000	105	30,300	41
Oxide, hydroxide, peroxide	do.	707,000	395	NA	NA
Sulfur:					
Elemental		1,450	171,000	1,310	266,000
Sulfuric acid, 100% H ₂ SO ₄		215	26,400	332	41,500
Talc, excludes powders-talcum (in package), face, compact		240 ^r	54,300 ^r	233	47,200
Vermiculite		2	1,360 ^r	2	1,380
Wollastonite ^e	metric tons	10,000	3,120	1,000	3,120
Zeolites ^e	do.	400	94	1,100	259
Total		XX	21,300,000 ^r	XX	27,200,000
Grand total		XX	86,600,000 ^r	XX	115,000,000

^eEstimated. ^rRevised. do. Ditto. NA Not available. XX Not applicable. -- Zero.

¹Table includes data available through May 9, 2013.

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

³Not specifically provided for.

⁴Excludes Puerto Rico.

⁵Not elsewhere classified.

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	2010		2011		
	Quantity	Value ³	Quantity	Value ³	
Metals:					
Aluminum:					
Crude and semicrude	metric tons	4,120,000	10,300,000	4,290,000	11,900,000
Manufactures	do.	281,000	930,000	316,000	1,120,000
Antimony:					
Metal	do.	5,360	39,100	5,040	60,700
Ore and concentrate, antimony content	do.	181	1,840	288	4,150
Oxide, antimony content	do.	20,600	144,000	18,200	197,000
Arsenic:					
Acid	do.	60	43	24	42
Metal	do.	769	2,440	628	2,130
Sulfide	do.	13	35	2	28
Trioxide	do.	5,920	2,830	6,570	3,240
Bauxite and alumina:					
Alumina, calcined equivalent		1,790 ^r	734,000 ^r	2,280	1,020,000
Bauxite:					
Calcined, refractory and other grade		690 ^r	146,000	353	58,200
Crude and dried		8,120	411,000 ⁴	9,540	514,000 ⁴
Specialty aluminum compounds, sulfate, chloride, fluoride-based	metric tons	50,200	53,300	52,600	63,600
Beryllium, ore, concentrates, oxide, hydroxide, unwrought including powders, waste and scrap, other, beryllium-copper master alloys, beryllium-copper plates, sheets, strip, beryllium content	kilograms	271,000	20,600	92,000	26,100
Bismuth, metallic	do.	1,620,000	30,100	1,750,000	41,100
Cadmium:					
Metal	do.	4,910	509	9,140	786
Sulfide, gross weight	do.	255,000	3,400	230,000	2,870
Unwrought and powder	do.	216,000	2,400	201,000	1,240
Waste and scrap		59	6	23	4
Chromium:					
Chromite ore	metric tons	139,000	29,500 ^r	191,000	67,900
Metals and alloys:					
Ferroalloys, high-carbon, low-carbon, ferrochromium-silicon	do.	524,000	791,000	538,000	824,000
Metal, unwrought powders, waste and scrap, other	do.	13,000	148,000	13,600	192,000
Chemicals:					
Oxides, hydroxides, trioxide and other	do.	8,240	27,900	7,100	27,300
Sulfates	do.	325	351	308	368
Salts of oxometallic or peroxometallic acids, zinc and lead chromate, sodium dichromate, potassium dichromate, other	do.	769	2,730	673	2,410
Carbide	do.	242	4,370	276	5,690
Pigments and preparations based on chromium	do.	2,280	11,600	2,650	13,600
Cobalt:					
Metal:					
Unwrought, excluding alloys and waste and scrap, includes cathode and metal powder, may include intermediate products of cobalt metallurgy	do.	8,750	350,000	8,020	296,000
Oxide and hydroxides, content	do.	1,450	60,700	1,870	61,200
Other forms, includes acetates, carbonates, chlorides, sulfates, content	do.	853 ^r	28,900	704	25,300
Copper:					
Unmanufactured, does not include unalloyed scrap, copper content	do.	634,000	4,680,000	687,000	6,190,000
Semimanufactures	do.	234,000	1,630,000	264,000	2,320,000
Scrap, alloyed and unalloyed	do.	95,800	403,000	110,000	553,000
Ferroalloys not listed elsewhere:					
Ferrophosphorus	do.	7,650	4,180	8,690	5,120
Other	do.	8,730	27,900	8,050	32,400
Gallium:					
Unwrought and waste and scrap	kilograms	59,200	19,200	85,700	43,700
Gallium arsenide wafers, doped and undoped	do.	229,000	191,000	301,000	226,000
Germanium, wrought, unwrought, waste and scrap, gross weight	do.	27,000	25,900	28,300	39,400

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	2010		2011		
	Quantity	Value ³	Quantity	Value ³	
Metals—Continued:					
Gold:					
Ores and concentrates	kilograms	257,000	58,000	203,000	115,000
Dore and precipitates	do.	148,000	4,520,000	161,000	6,910,000
Bullion, refined	do.	199,000	7,020,000	143,000	6,010,000
Waste and scrap	do.	46,100	722,000	57,400	849,000
Metal powder	do.	652	11,500	437	7,570
Compounds	do.	43,500	1,480	37,600	1,630
Indium, unwrought metal and powders	do.	117,000	58,700	146,000	91,000
Iron and steel:					
Steel mill products		21,700	NA	25,900	NA
Fabricated steel products		4,110	NA	4,270	NA
Cast iron and steel products		605	NA	751	NA
Stainless steel	metric tons	813,000	NA	968,000	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		3,780	1,420,000	4,010	1,650,000
Pig iron, all grades		3,780	1,540,000	4,190	2,120,000
Direct-reduced iron, steelmaking grade		1,640	607,000	1,800	775,000
Ships, boats, and other vessels for scrapping		(⁵)	226	(⁵)	50
Used rails for rerolling and other uses, includes mixed (used plus new) rails		53	23,700	71	35,000
Iron ore		6,420	703,000	5,270	841,000
Lead:					
Base bullion	metric tons	602	1,720	434	1,940
Pigs and bars, lead content	do.	271,000	559,000	313,000	700,000
Pigments and compounds, lead content	do.	28,600	61,000	26,400	62,500
Scrap, reclaimed, includes ash and residues, lead content	do.	3,730	8,880	2,400	5,380
Wrought, all forms, including wire and powders, gross weight	do.	1,290	6,270	2,450	11,100
Magnesium:					
Waste and scrap, gross weight	do.	22,100	56,500	22,000	48,700
Metal, gross weight	do.	18,200	83,500	14,300	68,900
Alloys, magnesium content	do.	11,600	54,400	11,200	54,600
Powder, sheets, tubing, ribbons, wire, other forms, magnesium content	do.	788	9,160	974	12,800
Manganese:					
Ores and concentrates with 20% or more manganese, manganese content	do.	255,000	133,000	266,000	145,000
Ferromanganese, all grades, manganese content	do.	257,000	493,000	274,000	483,000
Silicomanganese, manganese content	do.	197,000	381,000 ^r	232,000	417,000
Metal, unwrought, other wrought, waste and scrap, gross weight	do.	36,000	95,400	35,300	112,000
Chemicals, manganese dioxide and potassium permanganate, gross weight	do.	23,000	58,400	30,100	73,400
Mercury:					
Metal	do.	294	1,290	110	777
Amalgams of precious metals whether or not chemically defined	do.	23	69,800 ^r	34	67,300
Molybdenum:					
Ores and concentrates, including roasted and other, molybdenum content	do.	12,900	314,000	14,700	460,000
Chemicals, gross weight:					
Oxides and hydroxides	do.	508	12,200	146	3,820
Molybdates, all, molybdenum content	do.	928	30,100	588	22,500
Orange	do.	349 ^r	2,730	328	2,790
Ferromolybdenum, molybdenum content	do.	3,560	130,000	3,210	119,000
Other, includes powders, unwrought, bars and rods, waste and scrap, wire, other, gross weight	do.	1,840	87,800	2,520	128,000
Nickel, nickel content:					
Primary, unwrought and chemicals	do.	129,000	2,790,000	138,000	3,370,000
Secondary, stainless steel scrap and waste and scrap	do.	23,800	472,000	21,300	484,000
Wrought, not alloyed, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes	do.	677	21,100	827	31,700
Alloyed, unwrought ingot, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes, other alloyed articles	do.	21,500	565,000	25,800	840,000

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	2010		2011		
	Quantity	Value ³	Quantity	Value ³	
Metals—Continued:					
Niobium (columbium) and tantalum:					
Niobium:					
Ores and concentrates	kilograms	11,600	494	9,090	710
Oxide	do.	1,180,000	35,800	1,610,000	60,600
Ferriobium	do.	9,660,000	237,000	10,600,000	289,000
Unwrought powders	do.	1,380,000	56,900	1,460,000	74,100
Tantalum:					
Ores and concentrates, includes synthetic concentrates	do.	19,800	2,520	190,000	15,300
Unwrought powders, waste and scrap, unwrought alloys and metal	do.	1,470,000	140,000	1,670,000	150,000
Wrought	do.	114,000	31,500	124,000	53,600
Platinum-group metals, metal content:					
Platinum, grains and nuggets, sponge, other unwrought, other, waste and scrap, coins	do.	152,000	2,510,000	129,000	3,290,000
Palladium, unwrought and other	do.	70,700	1,110,000	98,900	2,160,000
Iridium, unwrought and other forms	do.	3,530	65,900	2,880	59,400
Osmium, unwrought	do.	76	612	48	261
Ruthenium, unwrought	do.	14,100	82,500	13,200	69,300
Rhodium, unwrought and other forms	do.	12,800	914,000	13,100	844,000
Rare earths, estimated equivalent rare-earth oxide (REO) content:					
Cerium compounds, including oxides, hydroxides, nitrates, sulfate chlorides, oxalates	do.	1,770,000	22,600	1,120,000	87,100
Ferrocium and other pyrophoric alloys	do.	131,000	3,110	186,000	3,930
Mixtures of rare-earth chlorides, except cerium chloride	do.	956,000	12,000	382,000	51,700
Mixtures of REOs except cerium oxide	do.	5,480,000	38,300	1,830,000	102,000
Compounds, including oxides, hydroxides, nitrates, other compounds except chlorides	do.	3,980,000	96,300	3,770,000	475,000
Metals, whether intermixed or alloyed	do.	525,000	14,700	468,000	70,800
Yttrium compounds content by weight greater than 19% but less than 85% oxide equivalent	do.	73,500	2,060	34,700	11,800
Rhenium:					
Metal	do.	23,100	52,800	23,800	55,800
Ammonium perrhenate	do.	15,100 ^r	34,500 ^r	13,800	26,400
Selenium and tellurium:					
Selenium, selenium content:					
Selenium	do.	471,000 ^r	34,100	589,000	69,700
Dioxide	do.	9,170	626	12,500	758
Tellurium, tellurium content	do.	41,600	9,040	70,800	13,100
Silicon, gross weight:					
Ferrosilicon	metric tons	229,000	342,000	233,000	383,000
Metal	do.	175,000	748,000	190,000	884,000
Silver:					
Ash and residues, silver content	kilograms	316	77	114	27
Bullion, silver content	do.	4,330,000	2,890,000	5,250,000	5,660,000
Dore, silver content	do.	738,000	708,000	1,070,000	1,530,000
Metal powder, gross weight	do.	788,000	170,000	344,000	214,000
Nitrate, gross weight	do.	1,430	390	1,870	727
Ores and concentrates, silver content	do.	3,230	1,750	84,200	31,900
Semimanufactured forms containing 99.5% or more by weight of silver, gross weight	do.	638,000	354,000	690,000	796,000
Waste and scrap, gross weight	do.	6,510,000	436,000 ^r	8,820,000	519,000
Unwrought, other, gross weight	do.	316,000	142,000	217,000	108,000
Thallium, unwrought powders, waste and scrap, other	do.	783	204	203	120
Thorium:					
Ore, monazite concentrate	metric tons	--	--	30	49,800
Thorium and thorium-bearing materials, compounds	do.	3 ^r	208	6	398
Tin, gross weight:					
Compounds	do.	753	13,300	769	20,200
Dross, skimmings, scrap, residues, alloys, n.s.p.f. ⁶	do.	58,000	30,700	58,600	39,400
Metal, unwrought	do.	35,300	658,000	34,200	857,000

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	2010		2011	
	Quantity	Value ³	Quantity	Value ³
Metals—Continued:				
Tin, gross weight—Continued:				
Miscellaneous, includes tinfoil, tin powder, flitters, metallics, manufactures, n.s.p.f. ⁶ metric tons	XX	53,200	XX	60,800
Tinplate and terneplate, gross weight do.	464,000	500,000	367,000	431,000
Tinplate scrap, gross weight do.	68,000	14,300	97,100	28,500
Titanium:				
Concentrate:				
Ilmenite do.	377,000	37,600	377,000	39,600
Rutile, natural and synthetic do.	351,000	198,000	381,000	246,000
Metal:				
Waste and scrap do.	10,700	75,500	13,900	116,000
Unwrought do.	20,500	196,000	33,800	349,000
Ingots do.	237	3,880	655	12,500
Powder do.	119	5,420	51	3,490
Other do.	88	3,980	209	7,500
Wrought products and castings, includes bar, castings, foil, pipe, plate, profile, rod, sheet, strip, tube, wire, other do.	8,710	299,000	6,820	288,000
Ferrotitanium and ferrosilicon titanium do.	2,740	11,500	2,070	11,700
Pigment, dioxide and oxide do.	204,000	462,000	200,000	585,000
Titaniferous iron ore do.	83,100	6,760	96	23
Titaniferous slag do.	475,000	200,000	513,000	235,000
Tungsten, tungsten content:				
Ammonium paratungstate do.	2,510	56,400	2,020	77,700
Ferrotungsten and ferrosilicon tungsten do.	357	11,000	206	7,980
Miscellaneous tungsten-bearing materials, metal powders, carbide powder, unwrought, waste and scrap, wrought, oxides, calcium tungstate, other tungstates, other compounds do.	6,820	237,000	7,370	409,000
Ores and concentrates do.	2,740	60,000	3,640	119,000
Vanadium:				
Aluminum-vanadium master alloy, gross weight kilograms	951,000 ^r	2,180 ^r	278,000	1,210
Ferrovandium, vanadium content do.	1,340,000	41,100	2,220,000	64,600
Metal, including waste and scrap, gross weight do.	9,660	434	43,900	1,930
Miscellaneous chemicals, sulfates and vanadates, vanadium content do.	206,000 ^r	4,650 ^r	345,000	7,400
Pentoxide, anhydride, vanadium content do.	4,000,000	53,700 ^r	2,800,000	45,800
Vanadium-bearing ash and residues from the manufacture of iron and steel, vanadium oxide content do.	521,000	5,570	1,420,000	1,570
Other oxides and hydroxides, vanadium content do.	167,000	3,330	886,000	17,400
Zinc:				
Compounds, chloride, chromates of zinc or of lead, compounds n.s.p.f. ⁶ , lithopone, oxide, sulfate, sulfide, gross weight metric tons	XX	226,000	XX	241,000
Ores and concentrates, zinc content do.	32,200	NA	26,700	NA
Rolled do.	3,440	NA	NA	NA
Slab, refined do.	671,000	NA	716,000	NA
Zirconium and hafnium:				
Hafnium, unwrought, including powders do.	8	3,390	10	4,760
Zirconium:				
Ferrozirconium do.	45	246	88	406
Ores and concentrates do.	22,900	27,500	26,500	57,600
Oxide, includes germanium oxides and zirconium oxides do.	2,920	52,700	3,020	56,700
Unwrought powder do.	31	2,330	52	3,280
Waste and scrap do.	1,130	70,600 ^r	827	56,700
Total	XX	59,300,000^r	XX	75,800,000
Industrial minerals:				
Abrasives, manufactured:				
Aluminum oxide, crude, ground and refined do.	185,000	136,000	223,000	174,000
Metallic abrasives do.	43,400	25,300	49,600	34,700
Silicon carbide, crude, ground and refined do.	143,000	165,000	129,000	201,000

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	2010		2011		
	Quantity	Value ³	Quantity	Value ³	
Industrial minerals—Continued:					
Asbestos:					
Chrysotile and other unspecified type	metric tons	1,040	821	1,180	1,100
Products with basis of asbestos, cellulose, or other minerals		NA	5,790	NA	5,660
Barite:					
Chloride, oxide, hydroxide, peroxide, precipitated carbonate	do.	7,430	7,900	7,210	11,000
Crude	do.	873,000	87,300	850,000	105,000
Ground	do.	1,220,000	91,500	1,450,000	121,000
Other sulfates	do.	14,700	17,000	15,100	18,500
Boron minerals and compounds:					
Borax		(5)	183	(5)	174
Boric acid		50	30,100	57	40,800
Colemanite		50	18,400	20	19,000
Ulexite		1	238	5	858
Bromine:					
Compounds, contained bromine	metric tons	44,300 ^r	86,300 ^r	46,100	101,000
Elemental	do.	1,040	2,620	997	2,200
Cement, hydraulic and clinker ⁷		6,630	490,000	6,420	469,000
Clays:					
China clay or kaolin		510 ^r	51,400 ^r	549	56,200
Fire clay		(5)	195 ^r	2	893
Ball clay		1	138	(5)	148
Bentonite		15 ^r	5,080 ^r	9	7,080
Fuller's earth		1	160	2	142
Chamotte or dina's earth		(5)	110	(5)	121
Artificially activated clay and earth		28 ^r	24,100 ^r	31	32,900
Diamond, industrial:					
Diamond stones, natural and miners ⁷	thousand carats	1,720	32,300	2,460	48,400
Powder, dust and grit, natural and synthetic	do.	596,000	86,500	726,000	97,700
Diatomite, siliceous fossil meals	metric tons	1,030	894	1,880	702
Feldspar and nepheline syenite:					
Feldspar	do.	2,050	503	1,710	476
Nepheline syenite	do.	368,000	52,400	394,000	41,500
Fluorspar:					
Aluminum fluoride	do.	38,000	49,200	41,200	58,400
Cryolite	do.	5,320	6,510	9,560	11,000
Fluorspar	do.	539,000	103,000	727,000	154,000
Hydrofluoric acid	do.	135,000	199,000	132,000	215,000
Garnet, industrial	do.	79,700 ^r	20,800 ^r	116,000	24,500
Gemstones	thousand carats	1,520,000	19,600,000	1,740,000	23,500,000
Graphite:					
Natural	metric tons	65,400	52,100	71,800	81,300
Electric furnace electrodes	do.	88,200	342,000	110,000	372,000
Gypsum:					
Crude		3,330	41,800	3,330	44,000
Plasters		15	7,180	14	7,780
Boards		244	32,400	235	30,800
Other		XX	29,600	XX	34,700
Iodine:					
Crude	metric tons	5,710	139,000 ^r	6,590	251,000
Potassium iodide	do.	423	9,700 ^r	366	5,400
Iron oxide pigments:					
Natural	do.	3,360	2,390	3,310	2,310
Synthetic	do.	148,000	164,000	154,000	186,000

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	2010		2011		
	Quantity	Value ³	Quantity	Value ³	
Industrial minerals—Continued:					
Kyanite, andalusite, sillimanite	metric tons	2,180	938	5,390	2,230
Lime		445	61,500	512	69,900
Lithium chemicals:					
Carbonate	metric tons	9,500	41,300	14,400	55,400
Hydroxide	do.	1,070	5,300	800	8,890
Magnesium compounds:					
Compounds, chlorides, hydroxide, peroxide, sulfates	do.	122,000	49,000	119,000	52,900
Magnesite, crude and processed:					
Caustic-calcined magnesia	do.	127,000	40,300	111,000	40,300
Dead-burned and fused magnesia	do.	323,000	161,000	384,000	234,000
Other magnesia	do.	12,000	14,500	28,700	25,700
Crude	do.	22,400	8,420	11,600	5,790
Mica:					
Scrap and flake:					
Powder	do.	22,000	16,900	24,300	15,100
Waste	do.	4,400	2,390	3,200	1,810
Sheet:					
Unworked	do.	51	180	172	254
Worked	do.	1,930	16,200	2,020	19,700
Nitrogen, major compounds, nitrogen content		9,640	5,930,000	9,780	8,530,000
Peat moss	metric tons	947,000	225,000	982,000	228,000
Perlite, processed crude	do.	174,000	17,700	193,000	22,000
Phosphate rock and phosphatic materials:					
Phosphate rock:					
Unground		1,280	117,000 ⁴	2,450	345,000 ⁴
Ground		605	48,900 ⁴	402	62,800 ⁴
Dicalcium phosphate		7	9,990 ⁴	7	10,800 ⁴
Elemental phosphorus		7	23,500 ⁴	5	18,700 ⁴
Normal superphosphate		4	1,400 ⁴	4	1,580 ⁴
Triple superphosphate		189	66,900 ⁴	207	113,000 ⁴
Diammonium phosphate		190	101,000 ⁴	260	155,000 ⁴
Monoammonium phosphate		269	142,000 ^{r,4}	602	361,000 ⁴
Fertilizer containing nitrates and phosphates		(5)	182 ⁴	2	895 ⁴
Phosphoric acid		31	20,600 ⁴	1	185 ⁴
Potash, chloride, sulfate, nitrate, sodium nitrate mixtures		7,840	2,620,000	8,210	3,450,000
Pumice:					
Crude or unmanufactured	metric tons	34,100	758	22,600	494
Wholly or partially manufactured	do.	1,140	1,430	521	721
Salt					
Sand and gravel:					
Construction		2,670	95,900 ⁴	3,440	64,800 ⁴
Industrial		132 ^r	19,300 ^r	316	87,900
Silica, special stone products ⁸		NA	8,990	NA	11,300
Soda ash		20	5,770	27	5,660
Stone:					
Crushed, chips, calcium carbonate fines, excludes precipitated carbonates		14,600 ^r	185,000 ⁴	15,000	179,000 ⁴
Dimension		XX	1,500,000 ^r	XX	1,590,000
Strontium:					
Carbonate	kilograms	11,700,000	8,310	14,200,000	14,700
Celestite	do.	5,400,000	245	16,700,000	768
Metal	do.	118,000	686	175,000	1,250
Nitrate	do.	3,580,000	4,760	3,250,000	3,660
Oxide, hydroxide, peroxide	do.	129,000	185	37,600	76

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	2010		2011	
	Quantity	Value ³	Quantity	Value ³
Industrial minerals—Continued:				
Sulfur:				
Elemental	2,950	214,000	3,270 ^e	301,000
Sulfuric acid, 100% H ₂ SO ₄	2,110	155,000 ^r	2,670	261,000
Talc, unmanufactured	242	67,100	270	70,300
Vermiculite	29	9,740	53	28,000
Wollastonite ^e metric tons	4,000	540	4,000	540
Zeolites ^e do.	150	32	100	21
Total	XX	34,500,000 ^r	XX	43,400,000
Grand total	XX	93,900,000 ^r	XX	119,000,000

^eEstimated. ^rRevised. do. Ditto. NA Not available. XX Not applicable. -- Zero.

¹Table includes data available through May 9, 2013.

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

³Customs value unless otherwise specified.

⁴Cost, insurance, and freight value.

⁵Less than ½ unit.

⁶Not specifically provided for.

⁷Excludes Puerto Rico.

⁸Hand sharpening or polishing stones.

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	
		2007	2008	2009	2010	2011	2011	Percentage of world total
Metals:								
Alumina		77,700 ^r	82,900 ^r	76,700 ^r	85,100 ^r	91,600 ^e	3,570	3.9
Aluminum ²		37,900 ^r	39,700 ^r	37,100 ^r	41,200 ^r	44,400 ^e	1,990	4.5
Antimony	metric tons	180,000	183,000 ^r	154,000	175,000 ^r	178,000 ^e	--	--
Arsenic trioxide ^{e,3}	do.	53,900 ^r	51,900 ^r	48,100 ^r	46,800 ^r	45,800	--	--
Bauxite ^{3,4,5}		214,000 ^r	226,000 ^r	215,000 ^r	239,000 ^r	262,000 ^e	NA	NA
Beryl ³	metric tons	4,360	4,940	3,590	5,090 ^r	6,530 ^e	5,920	90.6
Bismuth, refinery ^e	do.	15,600 ^r	16,600	14,800 ^r	15,200 ^r	14,700	--	--
Cadmium, refinery	do.	18,700 ^r	21,800 ^r	20,200 ^r	22,800 ^r	22,200 ^e	W	NA
Chromite ³		22,500 ^r	23,800 ^r	19,600 ^r	24,000 ^r	23,300 ^e	--	--
Cobalt, Co content:								
Mine	metric tons	73,700 ^r	79,100 ^r	78,800 ^r	106,000 ^r	109,000 ^e	--	--
Refinery	do.	53,500 ^r	57,500 ^r	62,100 ^r	79,400 ^r	82,200	--	--
Copper:								
Mine		15,500	15,600	16,000 ^r	16,100 ^r	16,100	1,110	6.9
Smelter		14,200 ^r	14,600 ^r	14,900	15,500 ^r	15,700	538	3.4
Refinery		17,900	18,300	18,300 ^r	19,100	19,700	1,030	5.2
Gold	metric tons	2,350	2,280	2,490 ^r	2,570 ^r	2,660	234	8.8
Indium, refinery ^e	kilograms	631,000	613,000	583,000	658,000 ^r	662,000	--	--
Iron ore ³		2,040,000	2,200,000 ^r	2,220,000 ^r	2,590,000	2,940,000 ^e	54,700	1.9
Iron and steel:								
Direct-reduced iron ²		65,000 ^r	66,900 ^r	65,400 ^r	71,000 ^r	76,300	--	--
Pig iron ²		956,000	931,000	921,000 ^r	1,040,000 ^r	1,090,000	30,200	2.8
Raw steel		1,350,000	1,330,000	1,240,000	1,440,000 ^r	1,520,000	86,400	5.7
Lead:								
Mine, Pb content		3,700 ^r	3,870 ^r	3,860 ^r	4,150 ^r	4,690	342	7.1
Refinery		8,320 ^r	8,790 ^r	8,930 ^r	9,610 ^r	10,200	1,250	12.3
Magnesium ^{e,5}	metric tons	751,000	670,000	598,000	755,000 ^r	771,000	W	NA
Manganese ore ³		34,500 ^r	37,900 ^r	33,500 ^r	43,900 ^r	46,600	--	--
Mercury ⁵	metric tons	1,200	1,820	1,960	2,250	2,010 ^e	W ⁶	NA
Molybdenum, Mo content	do.	212,000	218,000	220,000 ^r	244,000 ^r	264,000 ^e	63,700 ⁷	24.1
Nickel, Ni content:								
Mine		1,740 ^r	1,610 ^r	1,450 ^r	1,710 ^r	1,960	--	--
Refinery		1,440	1,390	1,380 ^r	1,440 ^r	1,560	--	--
Niobium (columbium)-tantalum concentrates³								
	metric tons	412,000 ^r	430,000 ^r	426,000 ^r	435,000 ^r	465,000 ^e	--	--
Platinum-group metals	kilograms	509,000 ^r	468,000	447,000 ^r	466,000 ^r	484,000	16,100	3.3
Rhenium ^e	do.	44,800 ^r	50,300 ^r	41,400 ^r	44,700 ^r	50,700	8,610	17.0
Selenium ^{2,5}	metric tons	2,240 ^r	2,240 ^r	2,240 ^r	2,210 ^r	1,980 ^e	W	NA
Silver	do.	20,800	21,400	22,200 ^r	23,800 ^r	23,300	1,120	4.8
Tellurium ^{e,2,5}	kilograms	124,000	128,000	106,000 ^r	89,000 ^r	80,000	W	NA
Tin:								
Mine	metric tons	301,000 ^r	257,000	252,000 ^r	247,000 ^r	244,000 ^e	--	--
Smelter ⁸	do.	346,000	334,000 ^r	335,000 ^r	337,000 ^r	339,000 ^e	11,000	3.2
Tungsten, W content	do.	53,600 ^r	62,000 ^r	60,500 ^r	67,700 ^r	73,100 ^e	W	NA
Vanadium ^e	do.	61,600 ^r	58,800 ^r	71,700 ^r	74,200 ^r	74,300	W	NA
Zinc:								
Mine, Zn content of concentrate and direct shipping ore		11,100 ^r	11,800 ^r	11,500 ^r	12,200 ^r	12,800	769	6.0
Smelter		11,400	11,700	11,400 ^r	12,800 ^r	13,100	248	1.9
Industrial minerals:								
Asbestos		2,250	2,110	2,130	2,040 ^r	2,030	--	--
Barite		7,960 ^r	8,730 ^r	6,670 ^r	8,130 ^r	8,370	710 ⁹	8.5

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	
	2007	2008	2009	2010	2011	2011	Percentage of world total
Industrial minerals—Continued:							
Boron minerals	4,200	4,480	3,710 ^r	4,050 ^r	4,550 ^e	W	NA
Bromine	metric tons 415,000	415,000	367,000 ^r	695,000 ^r	683,000	W ⁹	NA
Celesite	do. 518,000	655,000 ^r	398,000 ^r	404,000 ^r	375,000 ^e	--	--
Cement, hydraulic	2,810,000	2,850,000	3,030,000	3,270,000 ^r	3,610,000	68,600 ¹⁰	1.9
Clays:							
Bentonite	12,000 ^r	12,300 ^r	9,300	10,600 ^r	10,300 ^e	4,810	46.8
Fuller's earth	3,720	3,500	3,210	3,370 ^r	3,210 ^e	1,950	60.6
Kaolin	36,200 ^r	35,700 ^r	33,000 ^r	33,400 ^r	33,900 ^e	5,770	17.0
Diamond:							
Natural	thousand carats 170,000	154,000	131,000	135,000 ^r	135,000	--	--
Synthetic	do. 4,420,000	4,420,000	4,370,000 ^r	4,380,000	4,380,000	98,200	2.2
Diatomite ^e	1,910 ^r	2,090 ^r	1,790 ^r	1,840 ^r	2,060	813 ⁹	39.4
Feldspar	21,600 ^r	22,800 ^r	19,600	21,300 ^r	21,200	650 ¹¹	3.1
Fluorspar	5,720 ^r	6,920 ^r	6,420 ^r	7,180 ^r	7,520	--	--
Graphite, natural ^e	1,120 ^r	970 ^r	740 ^r	1,130 ^r	1,150	--	--
Gypsum	167,000	157,000 ^r	148,000 ^r	147,000	148,000	8,480	5.7
Iodine, crude ^e	metric tons 26,300	26,500	27,200 ^r	26,500 ^r	26,800	W	NA
Iron oxide pigments ^e	do. 1,050,000 ^r	1,030,000 ^r	872,000 ^r	902,000	893,000	W	NA
Kyanite and related minerals ^e	do. 475,000 ^r	408,000 ^r	332,000 ^r	389,000 ^r	434,000	98,000 ^{11,12}	22.6
Lime	302,000 ^r	312,000 ^r	297,000	313,000 ^r	331,000 ^e	19,100 ^{9,10}	5.8
Lithium	metric tons 381,000	428,000 ^r	344,000 ^r	467,000 ^r	610,000	W	NA
Magnesite, crude ⁵	20,300 ^r	21,400 ^r	18,200	20,000 ^r	20,500	W	NA
Mica, including scrap and flake ¹³	1,120	1,130 ^r	1,020	1,080 ^r	1,090 ^e	50 ^e	4.6
Monazite concentrates ^e	metric tons 7,470 ^r	6,970 ^r	6,530 ^r	6,380 ^r	6,410	--	--
Nitrogen, N content of ammonia ^e	130,000 ^r	129,000 ^r	127,000	131,000	135,000	9,350 ¹⁴	6.9
Peat	31,500 ^r	28,200 ^r	25,900 ^r	25,700 ^r	26,300 ^e	568 ¹⁵	2.2
Perlite ^e	metric tons 1,760,000	1,780,000	1,650,000	1,660,000 ^r	1,770,000	420,000 ⁹	23.7
Phosphate rock ³	160,000	166,000 ^r	162,000 ^r	181,000	198,000 ^e	28,100	14.2
Potash, K ₂ O equivalent	34,900	33,700	20,800 ^r	34,100 ^r	36,400 ^e	1,020	2.8
Pumice ^e	20,500 ^r	18,300 ^r	17,700 ^r	16,900 ^r	17,400	489 ⁹	2.8
Rare earths ^e	metric tons 124,000	129,000 ^r	132,000	123,000 ^r	111,000	--	--
Salt	261,000 ^r	267,000 ^r	278,000 ^r	280,000	286,000 ^e	45,000 ¹⁰	15.8
Sand and gravel, industrial, silica	129,000 ^r	124,000 ^r	113,000 ^r	121,000	138,000 ^e	43,700 ⁹	31.7
Soda ash, natural and manufactured ^e	46,200 ^r	47,000 ^r	44,400 ^r	48,100 ^r	51,300	10,700 ¹⁶	20.9
Sulfur, all forms	67,800 ^r	68,300 ^r	67,400 ^r	69,400 ^r	70,500	8,950	12.7
Talc and pyrophyllite ¹⁷	7,730	7,680 ^r	7,350 ^r	7,340 ^r	7,690 ^e	616	8.0
Titanium concentrates:³							
Ilmenite and leucoxene	7,140	7,060 ^r	6,120 ^r	6,220 ^r	6,450	434 ¹⁸	6.7
Rutile ^{5,19}	metric tons 608,000 ^r	634,000	571,000	739,000 ^r	789,000	(20)	NA
Vermiculite	do. 510,000	537,000 ^r	533,000 ^r	544,000 ^r	542,000 ^e	100,000 ^{e,21}	18.4
Zirconium concentrates	1,420 ^r	1,360 ^r	1,190 ^r	1,270 ^r	1,620 ^e	W	NA

^eEstimated. ^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.

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 of mercury is byproduct only.

⁷Listed in molybdenum chapter (table 1) as production.

⁸Includes tin content of alloys made directly from ore.

⁹Quantity sold or used by producers.

¹⁰Includes Puerto Rico.

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

¹¹Datum is rounded to no more than two significant digits.

¹²Includes synthetic mullite.

¹³Excludes, if any, U.S. production of low-quality sericite and sheet mica.

¹⁴Synthetic anhydrous ammonia; excludes coke oven byproduct ammonia.

¹⁵Horticultural use.

¹⁶U.S. production is natural only.

¹⁷Excludes United States proprietary pyrophyllite production.

¹⁸Includes United States rutile production to avoid disclosing company proprietary data.

¹⁹Totals exclude United States proprietary rutile production.

²⁰Included with ilmenite to avoid disclosing company proprietary data; not included in "Total."

²¹Data rounded to one significant digit.