



2010 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.

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

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 2010 U.S. Geological Survey (USGS) mineral production data published in this chapter are as of June 2012. 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>.

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 2010 increased to \$66.4 billion, which was a 13% increase compared with that of 2009; metals increased to \$30.4 billion, which was an increase of 39%; and industrial minerals decreased to \$36.0 billion, a decrease of 2%.

In 2010, the value of nonfuel mineral commodity production for the following 13 mined commodities, in descending order of production value, was greater than \$1 billion: stone (crushed), gold, copper, cement (portland), sand and gravel (construction), iron ore (usable shipped), molybdenum concentrates, phosphate rock (marketable), lime, salt, zinc, soda ash, and sand and gravel (industrial). They accounted for 88% of the U.S. total production value (table 1).

In 2010, 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, Utah, Minnesota, Alaska, California, Texas, Florida, Michigan, Missouri, Wyoming, Colorado, Pennsylvania, Georgia, New York, Idaho, Ohio, Montana, Kansas, Virginia, and New Mexico. They accounted for 81% 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	2008		2009		2010		
	Quantity	Value	Quantity	Value	Quantity	Value	
Metals:							
Beryllium concentrates ⁴	metric tons	4,410	NA	3,030	NA	4,460	NA
Cadmium ^{e,5}	do.	2,990	17,700	2,840	8,140	2,890	11,300
Copper ⁶		1,310	9,200,000	1,180	6,280,000	1,110	8,520,000
Gold ⁶	kilograms	233,000	6,550,000	223,000	7,000,000	231,000	9,130,000
Iron ore, usable shipped		53,600	3,770,000	27,600	2,560,000	50,600	5,000,000
Lead ⁶	metric tons	399,000	1,060,000	395,000	757,000	356,000	854,000
Molybdenum concentrates ⁷	do.	55,900	3,830,000	47,800	2,870,000	59,400	3,580,000
Palladium ⁶	kilograms	11,900	136,000	12,700	108,000	11,600	199,000
Platinum ⁶	do.	3,580	182,000	3,830	149,000	3,450	179,000
Silver ⁶	do.	1,250,000	600,000	1,250,000	588,000	1,280,000	829,000
Zinc ⁶	metric tons	748,000	1,470,000	710,000	1,220,000	723,000	1,620,000
Combined values of magnesium metal, titanium concentrates, tungsten, zirconium concentrates		XX	518,000	XX	345,000	XX	451,000
Total		XX	27,300,000	XX	21,900,000	XX	30,400,000
Industrial minerals, excluding fuels:⁸							
Barite		648	30,900	383	19,900	662	37,200
Cement: ⁹							
Masonry		3,030	428,000 ^e	1,970	269,000 ^e	1,900	251,000 ^e
Portland		83,300	8,390,000 ^e	61,900 ^r	5,950,000 ^{r,e}	64,500	5,870,000 ^e
Clays:							
Ball		968	44,300	831	37,700	912	41,300
Bentonite		4,910	267,000	3,650	207,000	4,630	261,000
Common		17,500	202,000	12,500	156,000	12,100	148,000
Fire		296	11,800	320	12,000	216	6,120
Fuller's earth		2,340 ¹⁰	230,000 ¹⁰	2,010 ¹⁰	206,000 ¹⁰	2,050 ¹⁰	201,000 ¹⁰
Kaolin		6,740	900,000	5,290	714,000	5,420	788,000
Diatomite		764	171,000	575	147,000	595	178,000
Feldspar ⁹		650 ¹¹	40,000	550 ¹¹	35,600	550 ¹¹	33,500
Garnet, industrial ⁹	metric tons	62,900	13,600	45,600	6,850	52,600	7,910
Gemstones, natural ⁹		NA	11,500	NA	9,310 ^r	NA	10,000
Gypsum, crude ⁹		12,300	91,200	10,400	77,400	8,840	60,900
Helium:							
Crude	million cubic meters	42	90,100	40	85,700	49	115,000
Grade-A	do.	130	630,000	118 ^r	572,000	129	697,000
Kyanite		97	25,500	71	21,000 ^r	93	28,000
Lime		19,800	1,830,000	15,800	1,650,000	18,300	1,920,000
Mica, crude	metric tons	85,200 ^r	10,200 ^r	51,100 ^r	6,530 ^r	52,800	7,240
Peat		647	17,100	644	15,000	605	14,800
Perlite, crude	metric tons	434,000	20,800	348,000	17,100	414,000	21,600
Phosphate rock, marketable ⁹		30,200	2,320,000	26,400	3,360,000	25,800	1,980,000
Potash, gross weight ¹¹		2,400	740,000	1,500	500,000	2,400	660,000
Pumice and pumicite	metric tons	791,000	15,900	410,000	12,300	390,000	7,810
Salt		47,400	1,690,000	43,100	1,750,000	43,500	1,690,000
Sand and gravel:							
Construction		1,060,000	7,890,000 ^r	831,000 ^r	6,240,000 ^r	795,000	5,810,000
Industrial		30,400	937,000 ^r	24,600	783,000	29,900	1,030,000
Soda ash ⁹		11,300	1,520,000	9,310	1,330,000	10,600	1,360,000
Stone:							
Crushed ¹²		1,460,000	13,600,000	1,160,000 ^r	11,300,000	1,160,000	11,200,000
Dimension		1,800	326,000	1,620	328,000	1,670	323,000
Talc, crude ⁹		706	21,800	511	14,600	604	19,100

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Industrial minerals, excluding fuels ⁸ —Continued:						
Tripoli ⁹ metric tons	132,000	17,100	79,700	16,400	108,000	20,000
Vermiculite, concentrate ^c	100 ¹³	W	100 ¹³	W	100 ¹³	W
Combined values of andalusite, boron minerals, bromine, brucite (2008), clays [fuller's earth (2008–09)], emery (2008–09), greensand marl, iodine (crude), iron oxide pigments (crude), lithium carbonate, magnesite, magnesium compounds, olivine, pyrophyllite (crude), silica stone, staurolite, wollastonite, zeolites, and values indicated by symbol W	XX	1,380,000	XX	963,000 ^r	XX	1,220,000
Total	XX	44,000,000	XX	36,800,000 ^r	XX	36,000,000
Grand total	XX	71,300,000	XX	58,700,000 ^r	XX	66,400,000

^cEstimated. ^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 June 6, 2012.

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.

⁹Production.

¹⁰Excludes attapulgitic; included in “Combined values.”

¹¹Data are rounded to two significant digits.

¹²Excludes abrasive stone and bituminous limestone and sandstone; all included elsewhere in table.

¹³Data are rounded to one significant digit.

TABLE 2
NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 2010¹

(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, TX, FL, AL, CA	AR, AZ, CO, GA, IA, KS, KY, MD, ME, MI, MO, MT, NE, NM, NY, OH, OK, PA, SC, TN, VA, WV.
Portland	TX, CA, MO, MI, PA	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, OH, GA	All other States, except AK, DE, HI, ID, MN, NH, NJ, NV, OR, RI, VT, WI.
Fire	MO, WA, TX, OH	
Fuller's earth	GA, MO, VA, MS, CA	FL, IL, KS, NV, TN, TX.
Kaolin	GA, SC, AL, TX, AR	CA, FL, NC, NV.
Copper ²	AZ, UT, NV, NM, MT	ID and MO.
Diatomite	CA, NV, OR, WA	
Emery	OR	
Feldspar	NC, VA, OK, CA, ID	GA and SD.
Garnet, industrial	NY, MT, ID	
Gemstones, natural ³	NC, AZ, OR, UT, CA	All other States.
Gold ²	NV, AK, UT, CO, WA	AZ, CA, ID, SD.
Greensand marl	NJ	
Gypsum, crude	OK, TX, IA, NV, CA	AR, AZ, CO, IN, KS, KY, LA, MI, NM, SD, UT, WA, WV, WY.
Helium:		
Crude	KS and TX	
Grade-A	KS, WY, TX, OK, CO	UT.
Iodine, crude	OK	
Iron ore, usable	MN, MI, SD, CA	
Iron oxide pigments, crude	GA, AL	
Kyanite	VA	
Lead ²	AK, MO, ID	
Lime	MO, AL, KY, OH, TX	All other States, except AK, CT, DE, HI, IL, KS, MD, ME, MS, NC, NH, NJ, NY, RI, SC, VT.
Lithium carbonate	NV	
Magnesite	NV	
Magnesium compounds	MI, UT, FL, DE, CA	
Magnesium metal	UT	
Mica, crude	NC, GA, SD, AL	
Molybdenum, concentrates	CO, UT, AZ, ID, MT	NM and NV.
Olivine	NC and WA	
Palladium ²	MT	
Peat	FL, MN, ME, IL, IN	IA, MI, NJ, NY, OH, PA, WA, WI.
Perlite, crude	NM, OR, AZ, ID, NV	CA.
Phosphate rock	FL, NC, ID, UT	
Platinum ²	MT	
Potash	NM, UT, MI	
Pumice and pumicite	NV, OR, ID, AZ, CA	NM and KS.
Pyrophyllite, crude	NC and CA	
Salt	LA, TX, NY, OH, KS	AL, AZ, CA, MI, NM, NV, OK, TN, UT, VA, WV.
Sand and gravel:		
Construction	CA, TX, AZ, MI, MN	All other States.
Industrial	IL, TX, WI, MN, OK	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	

See footnotes at end of table.

TABLE 2—Continued
NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 2010¹

(Principal States based on quantity unless otherwise noted)

Mineral	Principal States	Other States (alphabetical order)
Silver ²	AK, NV, ID, UT, AZ	CA, CO, MO, MT, SD.
Soda ash	WY and CA	
Staurolite	FL	
Stone:		
Crushed	TX, PA, MO, IL, KY	All other States.
Dimension	GA, TX, IN, SD, WI	All other States, except AK, DE, FL, HI, IA, KY, LA, MS, ND, NE, NJ, OR, RI.
Talc, crude	MT, TX, VT	
Titanium concentrates, ilmenite	VA and FL	
Tripoli	IL, OK, AR, PA	
Tungsten	CA	
Vermiculite, crude	SC and VA	
Wollastonite	NY	
Zeolites	NM, ID, TX, AZ, CA	NV.
Zinc ²	AK, TN, MO, ID	
Zirconium concentrates	VA and FL	

¹Table includes data available through June 6, 2012.

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 2010^{1,2}

State	Value (thousands)	Rank	Percentage of U.S. total	Principal minerals, in order of value
Alabama	969,000	22	1.46	Stone (crushed), cement (portland), lime, sand and gravel (construction), cement (masonry).
Alaska	3,400,000	5	5.13	Zinc, gold, lead, silver, sand and gravel (construction).
Arizona	6,790,000	2	10.24	Copper, molybdenum concentrates, sand and gravel (construction), cement (portland), stone (crushed).
Arkansas	709,000	29	1.07	Bromine, stone (crushed), cement (portland), sand and gravel (construction), lime.
California	2,890,000	6	4.36	Sand and gravel (construction), boron minerals, cement (portland), stone (crushed), gold.
Colorado	1,850,000	12	2.79	Molybdenum concentrates, gold, sand and gravel (construction), cement (portland), stone (crushed).
Connecticut ³	148,000	43	0.22	Stone (crushed), sand and gravel (construction), clays (common), stone (dimension), gemstones (natural).
Delaware ³	12,300	50	0.02	Magnesium compounds, sand and gravel (construction), stone (crushed), gemstones (natural).
Florida	2,680,000	8	4.03	Phosphate rock, stone (crushed), cement (portland), sand and gravel (construction), zirconium concentrates.
Georgia	1,430,000	14	2.16	Clays (kaolin), stone (crushed), clays (fuller's earth), cement (portland), sand and gravel (construction).
Hawaii	106,000	46	0.16	Stone (crushed), sand and gravel (construction), gemstones (natural).
Idaho	1,180,000	16	1.78	Molybdenum concentrates, phosphate rock, silver, sand and gravel (construction), lead.
Illinois	924,000	23	1.39	Stone (crushed), sand and gravel (industrial), cement (portland), sand and gravel (construction), tripoli.
Indiana	782,000	26	1.18	Stone (crushed), cement (portland), sand and gravel (construction), lime, stone (dimension).
Iowa	583,000	31	0.88	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), lime.
Kansas	1,090,000	19	1.65	Helium (Grade-A), salt, cement (portland), stone (crushed), helium (crude).
Kentucky	762,000	27	1.15	Stone (crushed), lime, cement (portland), sand and gravel (construction), clays (common).
Louisiana	549,000	32	0.83	Salt, sand and gravel (construction), stone (crushed), sand and gravel (industrial), lime.
Maine	110,000	45	0.17	Sand and gravel (construction), cement (portland), stone (crushed), peat, stone (dimension).
Maryland ³	305,000	36	0.46	Stone (crushed), cement (portland), sand and gravel (construction), cement (masonry), stone (dimension).
Massachusetts ³	233,000	41	0.35	Stone (crushed), sand and gravel (construction), stone (dimension), lime, clays (common).
Michigan	2,190,000	9	3.30	Iron ore (usable shipped), cement (portland), sand and gravel (construction), salt, stone (crushed).
Minnesota ³	4,180,000	4	6.30	Iron ore (usable shipped), sand and gravel (construction), sand and gravel (industrial), stone (crushed), stone (dimension).
Mississippi	198,000	42	0.30	Sand and gravel (construction), stone (crushed), clays (fuller's earth), clays (ball), clays (bentonite).
Missouri	2,010,000	10	3.03	Stone (crushed), cement (portland), lead, lime, sand and gravel (construction).
Montana	1,140,000	18	1.71	Copper, molybdenum concentrates, palladium metal, platinum metal, sand and gravel (construction).
Nebraska	234,000	40	0.35	Sand and gravel (construction), cement (portland), stone (crushed), sand and gravel (industrial), lime.
Nevada	7,700,000	1	11.61	Gold, copper, silver, lime, sand and gravel (construction).
New Hampshire ³	93,800	47	0.14	Sand and gravel (construction), stone (crushed), stone (dimension), gemstones (natural).
New Jersey ³	258,000	39	0.39	Stone (crushed), sand and gravel (construction), sand and gravel (industrial), greensand marl, peat.
New Mexico	1,020,000	21	1.54	Potash, copper, sand and gravel (construction), stone (crushed), cement (portland).
New York	1,310,000	15	1.97	Salt, stone (crushed), sand and gravel (construction), cement (portland), clays (common).
North Carolina	880,000	24	1.33	Stone (crushed), phosphate rock, sand and gravel (construction), sand and gravel (industrial), stone (dimension).
North Dakota ³	69,900	48	0.11	Sand and gravel (construction), lime, stone (crushed), clays (common), sand and gravel (industrial).
Ohio	1,170,000	17	1.76	Stone (crushed), salt, sand and gravel (construction), lime, cement (portland).
Oklahoma	702,000	30	1.06	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), iodine.
Oregon	312,000	35	0.47	Stone (crushed), sand and gravel (construction), cement (portland), diatomite, perlite (crude).
Pennsylvania ³	1,670,000	13	2.52	Stone (crushed), cement (portland), lime, sand and gravel (construction), cement (masonry).
Rhode Island ³	32,900	49	0.05	Sand and gravel (construction), stone (crushed), sand and gravel (industrial), gemstones (natural).
South Carolina ³	468,000	34	0.71	Stone (crushed), cement (portland), sand and gravel (construction), cement (masonry), sand and gravel (industrial).
South Dakota	258,000	38	0.39	Gold, cement (portland), sand and gravel (construction), stone (crushed), lime.
Tennessee	831,000	25	1.25	Stone (crushed), zinc, cement (portland), sand and gravel (construction), sand and gravel (industrial).
Texas	2,780,000	7	4.19	Stone (crushed), cement (portland), sand and gravel (construction), salt, sand and gravel (industrial).
Utah	4,380,000	3	6.60	Copper, molybdenum concentrates, gold, magnesium metal, potash.
Vermont ³	121,000	44	0.18	Stone (crushed), sand and gravel (construction), stone (dimension), talc (crude), gemstones (natural).
Virginia	1,040,000	20	1.57	Stone (crushed), sand and gravel (construction), zirconium (concentrates), cement (portland), lime.
Washington	712,000	28	1.07	Gold, sand and gravel (construction), stone (crushed), cement (portland), diatomite.

See footnotes at end of table.

TABLE 3—Continued

VALUE OF NONFUEL MINERAL PRODUCTION IN THE UNITED STATES AND PRINCIPAL NONFUEL MINERALS PRODUCED IN 2010^{1,2}

State	Value (thousands)	Rank	Percentage of U.S. total	Principal minerals, in order of value
West Virginia	272,000	37	0.41	Stone (crushed), cement (portland), lime, sand and gravel (industrial), cement (masonry).
Wisconsin ³	509,000	33	0.77	Sand and gravel (industrial), sand and gravel (construction), stone (crushed), lime, stone (dimension).
Wyoming	1,860,000	11	2.81	Soda ash, clays (bentonite), helium (Grade-A), sand and gravel (construction), cement (portland).
Undistributed	424,000	XX	0.64	
Total	66,400,000	XX	100.00	

XX Not applicable.

¹Table includes data available through June 6, 2012.

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 2010 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	4,780	\$969,000	\$203	16	\$7,370	22
Alaska	1,480,000	710	3,400,000	4,790	1	2,300	44
Arizona	294,000	6,390	6,790,000	1,060	6	23,100	2
Arkansas	135,000	2,920	709,000	243	14	5,260	30
California	404,000	37,300	2,890,000	78	40	7,170	23
Colorado	269,000	5,030	1,850,000	369	11	6,900	25
Connecticut	12,500	3,570	148,000 ³	41	46	11,800	11
Delaware	5,060	898	12,300 ³	14	50	2,430	43
Florida	140,000	18,800	2,680,000	142	23	19,200	5
Georgia	150,000	9,690	1,430,000	148	21	9,550	17
Hawaii	16,600	1,360	106,000	78	39	6,390	27
Idaho	214,000	1,570	1,180,000	755	8	5,520	29
Illinois	144,000	12,800	924,000	72	41	6,420	26
Indiana	92,900	6,480	782,000	121	29	8,420	18
Iowa	145,000	3,050	583,000	191	18	4,030	38
Kansas	212,000	2,850	1,090,000	383	10	5,160	31
Kentucky	103,000	4,340	762,000	176	20	7,410	21
Louisiana	113,000	4,530	549,000	121	28	4,860	33
Maine	79,900	1,330	110,000	83	37	1,370	46
Maryland	25,300	5,770	305,000 ³	53	45	12,000	10
Massachusetts	20,300	6,550	233,000 ³	36	47	11,500	12
Michigan	147,000	9,880	2,190,000	222	15	14,900	6
Minnesota	206,000	5,300	4,180,000 ³	788	7	20,300	4
Mississippi	121,000	2,970	198,000	67	44	1,630	45
Missouri	178,000	5,990	2,010,000	336	12	11,300	13
Montana	377,000	989	1,140,000	1,150	5	3,010	42
Nebraska	199,000	1,830	234,000	128	27	1,170	49
Nevada	284,000	2,700	7,700,000	2,850	3	27,100	1
New Hampshire	23,200	1,320	93,800 ³	71	42	4,040	37
New Jersey	19,200	8,790	258,000 ³	29	49	13,400	8
New Mexico	314,000	2,060	1,020,000	496	9	3,250	41
New York	122,000	19,400	1,310,000	67	43	10,700	15
North Carolina	126,000	9,540	880,000	92	35	6,980	24
North Dakota	179,000	673	69,900 ³	104	32	391	50
Ohio	106,000	11,500	1,170,000	101	33	11,000	14
Oklahoma	178,000	3,750	702,000	187	19	3,950	39
Oregon	249,000	3,830	312,000	82	38	1,260	48
Pennsylvania	116,000	12,700	1,670,000 ³	132	24	14,400	7
Rhode Island	2,710	1,050	32,900 ³	31	48	12,200	9
South Carolina	78,000	4,630	468,000 ³	101	34	6,000	28
South Dakota	197,000	814	258,000	317	13	1,310	47
Tennessee	107,000	6,350	831,000	131	25	7,790	19
Texas	678,000	25,100	2,780,000	111	30	4,100	36
Utah	213,000	2,760	4,380,000	1,580	4	20,600	3
Vermont	24,000	626	121,000 ³	194	17	5,060	32
Virginia	103,000	8,000	1,040,000	130	26	10,200	16
Washington	172,000	6,730	712,000	106	31	4,130	35
West Virginia	62,400	1,850	272,000	147	22	4,360	34
Wisconsin	141,000	5,690	509,000 ³	90	36	3,620	40
Wyoming	251,000	564	1,860,000	3,310	2	7,410	20
Undistributed	XX	XX	424,000	XX	XX	XX	XX
Total or average	9,160,000 ⁴	308,000 ⁴	66,400,000	215	XX	7,240	XX

See footnotes at end of table.

TABLE 4—Continued

VALUE OF NONFUEL MINERAL PRODUCTION PER CAPITA AND PER SQUARE KILOMETER IN 2010 BY STATE^{1,2}

XX Not applicable.

¹Table includes data available through June 6, 2012.

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 601,000.

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Alabama:						
Cement:						
Masonry	303	38,000 ^e	208	25,600 ^e	191	24,300 ^e
Portland	4,640	450,000 ^e	3,420	307,000 ^e	3,290	273,000 ^e
Clays:						
Common	1,970	34,400	1,340	25,300	1,300	21,500
Kaolin	(4)	W	(4)	W	69	W
Gemstones, natural	NA	398	NA	142 ^r	NA	7
Lime	2,320	239,000	1,960	226,000 ^r	2,150	239,000
Sand and gravel:						
Construction	13,800	87,300	10,100 ^r	65,800 ^r	10,100	56,200
Industrial	619	14,600	370	11,200	386	10,400
Stone:						
Crushed	50,000	370,000	35,700 ^r	327,000 ^r	35,400	331,000
Dimension, marble, sandstone	7	3,720	4	1,460	(4)	W
Combined values of clays (bentonite), iron oxide pigments (crude), mica (crude), salt, and values indicated by symbol W	XX	26,700	XX	26,500	XX	13,800
Total	XX	1,260,000	XX	1,020,000	XX	969,000
Alaska:						
Gemstones, natural	NA	69	NA	69	NA	70
Gold ⁵ kilograms	(4)	W	(4)	W	28,100	1,110,000
Sand and gravel, construction	11,400	84,800	7,320	55,500	6,340	52,300
Stone, crushed	1,990	31,400	1,940	34,700 ^r	1,510	22,600
Combined values of cadmium (byproduct from zinc concentrates), lead, silver, zinc, and values indicated by symbol W	XX	2,540,000	XX	2,530,000	XX	2,220,000
Total	XX	2,650,000	XX	2,620,000	XX	3,400,000
Arizona:						
Clays, bentonite	23	1,220	17	913	(4)	W
Copper ⁵	836	5,880,000	711	3,780,000	703	5,400,000
Gemstones, natural	NA	1,960	NA	1,540	NA	1,550
Sand and gravel, construction	67,200	562,000	40,200	357,000	35,200	291,000
Stone:						
Crushed	15,300	153,000	9,520 ^r	88,700 ^r	8,280	80,300
Dimension, sandstone	123	16,400	94	13,800	81	11,700
Combined values of cement, clays (common), gold, gypsum (crude), lime, molybdenum concentrates, perlite (crude), pumice and pumicite, salt, sand gravel (industrial), silver, zeolites, and value indicated by symbol W	XX	1,230,000	XX	946,000 ^r	XX	1,010,000
Total	XX	7,850,000	XX	5,190,000^r	XX	6,790,000
Arkansas:						
Clays, common	796	10,700	539	7,630	534	7,580
Gemstones, natural	NA	607	NA	410	NA	424
Sand and gravel, construction	8,800	65,100	7,780 ^r	60,000 ^r	9,050	76,800
Stone:						
Crushed	32,200	241,000	29,400 ^r	215,000 ^r	31,000	238,000
Dimension	21	2,740	18	2,360	11	1,570

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Arkansas—Continued:						
Combined values of bromine, cement, clays (kaolin), gypsum (crude), lime, sand and gravel (industrial), silica stone, tripoli	XX	390,000	XX	336,000 ^r	XX	385,000
Total	XX	710,000	XX	621,000 ^r	XX	709,000
California:						
Cement:						
Masonry	337	43,600 ^e	236	28,100 ^e	178	19,500 ^e
Portland	9,880	1,030,000 ^e	7,150	646,000 ^e	6,950	549,000 ^e
Clays:						
Bentonite	30	3,360	22	2,310	23	2,700
Common	469	3,570	318	2,370	355	5,000
Fire	118	W	(4)	W	--	--
Kaolin	(4)	W	(4)	W	7	W
Gemstones, natural	NA	732	NA	727	NA	754
Gypsum, crude	(4)	W	1,210 ^r	8,980 ^r	(4)	W
Sand and gravel:						
Construction	111,000	1,260,000	79,200	912,000	74,700	809,000
Industrial	1,500	42,300	1,300	35,800	1,320	39,400
Stone:						
Crushed	51,400	572,000	39,800 ^r	377,000 ^r	31,700	313,000
Dimension	26	7,320	24 ^r	6,100	26	6,940
Combined values of boron minerals, clays (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, talc [crude (2008)], tungsten, zeolites, and values indicated by symbol W	XX	1,250,000 ^r	XX	888,000 ^r	XX	1,150,000
Total	XX	4,200,000	XX	2,910,000 ^r	XX	2,890,000
Colorado:						
Clays:						
Bentonite	2	40	1	30	(4)	W
Common	141	644	60	405	109	342
Gemstones, natural	NA	419	NA	426	NA	431
Sand and gravel, construction	37,800	299,000	29,300	217,000	28,900	209,000
Stone:						
Crushed	9,590	71,300	6,800 ^r	62,200 ^r	7,320	58,400
Dimension	27	4,510	11	3,110	8	1,740
Combined values of cement, clays [fire (2009)], gold, gypsum (crude), helium (Grade–A), lime, molybdenum concentrates, sand and gravel (industrial), silver, and value indicated by symbol W	XX	1,680,000	XX	1,130,000	XX	1,580,000
Total	XX	2,060,000	XX	1,420,000	XX	1,850,000
Connecticut:						
Clays, common	(4)	(6)	20	224	(4)	(6)
Gemstones, natural	NA	7	NA	7	NA	7
Sand and gravel, construction	7,350	69,600	5,680	60,800	5,910	55,300
Stone:						
Crushed	9,640	106,000	8,160 ^r	102,000 ^r	7,250	92,700
Dimension	(4)	(6)	(4)	(6)	(4)	(6)
Total	XX	175,000	XX	163,000 ^r	XX	148,000

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Delaware:						
Gemstones, natural	NA	1	NA	1	NA	1
Magnesium compounds	(4)	(6)	(4)	(6)	(4)	(6)
Sand and gravel, construction	2,550	20,600	2,080	24,500	1,620	12,300
Stone, crushed	(4)	(6)	(4)	(6)	(4)	(6)
Total	XX	20,600	XX	24,500	XX	12,300
Florida:						
Cement:						
Masonry	310	47,000 ^e	123	18,700 ^e	198	26,100 ^e
Portland	4,980	518,000 ^e	3,150	307,000 ^e	3,350	304,000 ^e
Clays:						
Common	2	W	(4)	W	2	W
Kaolin	19	2,520	18	3,000	15	W
Gemstones, natural	NA	1	NA	2 ^r	NA	1
Peat	488	9,760	527	10,100	480	9,710
Sand and gravel:						
Construction	28,200	219,000	15,500 ^r	124,000 ^r	12,500	98,900
Industrial	573	7,480	431	8,270	173	3,980
Stone, crushed	68,400	894,000	41,200 ^r	558,000 ^r	42,800	548,000
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	2,040,000	XX	3,130,000	XX	1,690,000
Total	XX	3,730,000	XX	4,160,000 ^r	XX	2,680,000
Georgia:						
Barite	7	1,350	7	1,350	7	1,350
Clays:						
Common	952	6,020	631	3,870	657	3,910
Fuller's earth	646 ⁷	51,800 ⁷	(4)	W	(4)	W
Kaolin	6,290	872,000	4,970	693,000	5,050	757,000
Gemstones, natural	NA	74	NA	74	NA	75
Sand and gravel:						
Construction	7,360	40,300	5,260	31,100	5,120	28,400
Industrial	841	20,700	775	19,300	670	17,800
Stone:						
Crushed	61,900	666,000	44,500 ^r	510,000 ^r	42,900	466,000
Dimension	169	18,200	153	16,900	264	25,500
Combined values of cement, feldspar, iron oxide pigments (crude), lime, mica (crude), and values indicated by symbol W	XX	112,000 ^r	XX	129,000 ^r	XX	132,000
Total	XX	1,790,000	XX	1,400,000 ^r	XX	1,430,000
Hawaii:						
Gemstones, natural	NA	151	NA	151	NA	151
Sand and gravel, construction	1,640	29,800	1,130	14,300	932	14,200
Stone, crushed	7,410	134,000	5,800 ^r	101,000	4,750	91,900
Total	XX	164,000	XX	115,000 ^r	XX	106,000
Idaho:						
Gemstones, natural	NA	430	NA	492 ^r	NA	430
Sand and gravel, construction	18,800	107,000	12,900	74,800 ^r	13,700	78,200
Stone:						
Crushed	5,950	38,800	3,880 ^r	26,600 ^r	4,030	23,900
Dimension, quartzite, sandstone	34	4,130	25	3,370	25	3,520

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Idaho—Continued:						
Combined values of cadmium (byproduct from zinc concentrates), cement (portland), copper, feldspar, garnet (industrial), gold, lead, lime, molybdenum concentrates, perlite (crude), phosphate rock, pumice and pumicite, sand and gravel (industrial), silver, zeolites, zinc	XX	921,000	XX	825,000 ^r	XX	1,080,000
Total	XX	1,070,000	XX	931,000 ^r	XX	1,180,000
Illinois:						
Cement, portland	2,660	263,000 ^e	1,490	141,000 ^e	1,620	144,000 ^e
Clays, fuller's earth	112	W	(4)	W	(4)	W
Gemstones, natural	NA	10	NA	10 ^r	NA	10
Sand and gravel:						
Construction	27,000	168,000	22,500	144,000	19,400	128,000
Industrial	3,980	108,000	3,440	104,000	4,370	148,000
Stone, crushed	67,200 ^r	610,000 ^r	56,900 ^r	514,000 ^r	53,100	477,000
Combined values of clays (common), lime (2008), peat, stone (dimension dolomite), tripoli, and values indicated by symbol W	XX	60,900	XX	26,900	XX	27,400
Total	XX	1,210,000	XX	930,000 ^r	XX	924,000
Indiana:						
Cement, portland	2,590	226,000 ^e	2,690	233,000 ^e	2,470	199,000 ^e
Clays, common	667	8,080	413	6,610	358	7,110
Gemstones, natural	NA	4	NA	4	NA	4
Sand and gravel, construction	23,400 ^r	141,000 ^r	18,800	100,000	18,600	115,000
Stone:						
Crushed	51,800	352,000	44,200 ^r	290,000	44,300	291,000
Dimension	203	35,600	206	41,500	173	31,400
Combined values of cement (masonry), clays (ball), gypsum (crude), lime, peat, sand and gravel (industrial)	XX	131,000	XX	133,000 ^r	XX	139,000
Total	XX	894,000 ^r	XX	804,000 ^r	XX	782,000
Iowa:						
Clays, common	269	1,140	184	828	201	828
Gemstones, natural	NA	3	NA	3	NA	3
Gypsum, crude	1,250	9,230	(4)	W	(4)	W
Sand and gravel, construction	15,800	89,500	13,600	87,800 ^r	13,800	84,800
Stone, crushed	38,700	312,000	32,700 ^r	298,000 ^r	31,800	292,000
Combined values of cement, lime, peat, sand and gravel (industrial), and values indicated by symbol W	XX	268,000	XX	205,000 ^r	XX	205,000
Total	XX	680,000	XX	592,000 ^r	XX	583,000
Kansas:						
Cement, portland	2,400	246,000 ^e	1,670	170,000 ^e	1,820	178,000 ^e
Clays, common	548	2,840	381	2,430	353	1,850
Gemstones, natural	NA	1	NA	1	NA	1
Helium, Grade-A million cubic meters	79	384,000	68	332,000	78	421,000
Salt	3,010	178,000	2,710	188,000	3,080	194,000
Sand and gravel, construction	10,500	51,600	8,580	43,300	9,610	50,300
Stone:						
Crushed	23,100	180,000	16,900 ^r	142,000 ^r	16,800	143,000
Dimension	20	2,560	29	4,650	47	4,720

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Kansas—Continued:						
Combined values of cement (masonry), clays (fuller's earth), gypsum (crude), helium (crude), pumice and pumicite, sand and gravel (industrial)	XX	77,500	XX	68,600 ^r	XX	100,000
Total	XX	1,120,000	XX	950,000 ^r	XX	1,090,000
Kentucky:						
Clays, common	419	8,170	288	5,980	284	5,780
Gemstones, natural	NA	173	NA	37	NA	12
Sand and gravel, construction	7,620	41,700	6,770 ^r	36,000 ^r	5,740	30,000
Stone, crushed	52,700	422,000	47,000 ^r	415,000 ^r	49,200	425,000
Combined values of cement, clays (ball), gypsum [crude (2009–10)], lime	XX	324,000	XX	245,000 ^r	XX	301,000
Total	XX	796,000	XX	702,000 ^r	XX	762,000
Louisiana:						
Clays, common	509	12,900	353	9,120	151	1,340
Gemstones, natural	NA	7	NA	7	NA	7
Salt	14,600	231,000	13,200	229,000	14,100	234,000
Sand and gravel:						
Construction	22,900	231,000	20,600	205,000	20,800	190,000
Industrial	748	23,100	682	25,900	629	25,600
Combined values of gypsum (crude), lime, stone (crushed limestone and sandstone)	XX	123,000	XX	102,000 ^r	XX	97,600
Total	XX	620,000	XX	570,000 ^r	XX	549,000
Maine:						
Gemstones, natural	NA	282	NA	353 ^r	NA	347
Sand and gravel, construction	10,200	69,400 ^r	9,090	59,300	7,840	45,100
Stone:						
Crushed	4,020	33,900	3,600	31,600	3,430	30,200
Dimension	7	1,720	6	1,300	8	1,250
Combined values of cement, clays (common), peat	XX	56,000	XX	32,600	XX	32,900
Total	XX	161,000	XX	125,000	XX	110,000
Maryland:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	12,000	125,000 ^r	7,980	99,200	8,120	82,700
Stone:						
Crushed	26,100	237,000	23,300 ^r	208,000 ^r	21,700	221,000
Dimension	(4)	W	(4)	W	8	1,630
Combined values of cement, clays (common), sand and gravel [industrial (2008)], and values indicated by symbol W	XX	279,000	XX	198,000	XX	(6)
Total	XX	641,000 ^r	XX	505,000 ^r	XX	305,000
Massachusetts:						
Clays, common	24	(6)	(4)	(6)	17	(6)
Gemstones, natural	NA	1	NA	1	NA	1
Lime	(4)	(6)	(4)	(6)	(4)	(6)
Sand and gravel, construction	10,800 ^r	103,000 ^r	9,460	85,600	9,700	91,400
Stone:						
Crushed	11,200	130,000	11,200 ^r	130,000 ^r	10,400	120,000
Dimension	53	7,140	44	6,130	73	21,700
Total	XX	240,000 ^r	XX	221,000 ^r	XX	233,000

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Michigan:						
Cement:						
Masonry	99	12,000 ^e	80	9,800 ^e	83	10,200 ^e
Portland	4,930	502,000 ^e	3,550	350,000 ^e	3,480	350,000 ^e
Clays, common	365	1,730	318	1,310	312	1,280
Gemstones, natural	NA	2	NA	2	NA	2
Gypsum, crude	603	4,490	420 ^r	3,130 ^r	(4)	W
Iron ore, usable shipped	12,500	W	8,870	W	11,900	W
Peat	(4)	W	(4)	W	4	W
Sand and gravel:						
Construction	45,100	211,000	34,600	176,000	33,600	192,000
Industrial	1,500	26,800	1,330	27,700	1,260	27,300
Stone, crushed	26,100	136,000	20,400	116,000 ^r	21,900	122,000
Combined values of lime, magnesium compounds, potash, salt, stone (dimension dolomite sandstone), and values indicated by symbol W	XX	1,130,000	XX	1,080,000	XX	1,490,000
Total	XX	2,020,000	XX	1,760,000	XX	2,190,000
Minnesota:						
Gemstones, natural	NA	7	NA	7	NA	7
Iron ore, usable shipped	41,100	W	18,700	W	38,800	3,810,000
Peat	48	4,540	44	2,850	41	2,500
Sand and gravel:						
Construction	34,700	227,000	31,300 ^r	191,000 ^r	32,300	158,000
Industrial	(4)	W	(4)	W	1,940	100,000
Stone:						
Crushed	10,300	122,000	7,440 ^r	92,300 ^r	7,350	90,200
Dimension	31	17,200	25	16,700	35	15,400
Combined values of clays [common (2008)], lime, and values indicated by symbol W	XX	3,090,000	XX	1,830,000	XX	(6)
Total	XX	3,460,000	XX	2,140,000^r	XX	4,180,000
Mississippi:						
Clays:						
Bentonite	53	3,690	(4)	W	(4)	W
Common	433	2,340	263	1,540	259	1,540
Fuller's earth	384	W	(4)	W	(4)	W
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	12,800	91,400	12,700	101,000	12,500	97,100
Stone, crushed	4,380	88,800	3,130	63,400	2,910	65,500
Combined values of cement (portland), clays (ball), sand and gravel [industrial (2008–09)], and values indicated by symbol W	XX	77,200	XX	42,200	XX	34,100
Total	XX	263,000	XX	208,000	XX	198,000
Missouri:						
Cement, portland	4,650	451,000 ^e	4,420	434,000 ^e	6,470	534,000 ^e
Clays, common	496	3,470	421	3,020	412	3,060
Sand and gravel:						
Construction	12,400	76,200	11,500	71,900	11,800	73,200
Industrial	648	21,400	763	28,900	608	20,000
Stone, crushed	76,400	614,000	72,800 ^r	639,000 ^r	70,200	595,000

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Missouri—Continued:						
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), zinc	XX	892,000	XX	661,000 ^r	XX	785,000
Total	XX	2,060,000	XX	1,840,000 ^r	XX	2,010,000
Montana:						
Gemstones, natural	NA	380	NA	378	NA	515
Palladium ⁵ kilograms	11,900	136,000	12,700	108,000	11,600	199,000
Platinum ⁵ do.	3,580	182,000	3,830	149,000	3,450	179,000
Sand and gravel, construction	13,400	110,000	11,200	86,000 ^r	10,100	81,800
Stone:						
Crushed	1,990 ^r	14,000	1,990	20,400	2,020	21,200
Dimension	(4)	W	(4)	W	11	2,950
Combined values of cadmium [byproduct from zinc concentrates (2008–09)], cement, clays (bentonite, common), copper, garnet (industrial), gold (2008–09), lead (2008–09), lime, molybdenum concentrates, silver, talc (crude), zinc (2008–09), and values indicated by symbol W	XX	924,000	XX	619,000	XX	652,000
Total	XX	1,370,000	XX	983,000 ^r	XX	1,140,000
Nebraska:						
Clays, common	109	W	(4)	W	(4)	W
Gemstones, natural	NA	4	NA	4	NA	4
Sand and gravel, construction	14,000	75,400	12,900	75,500	12,500	79,900
Stone, crushed	7,960	78,100	6,200 ^r	59,200 ^r	6,760	70,100
Combined values of cement, lime, sand and gravel [industrial (2009–10)], and values indicated by symbol W	XX	(6)	XX	113,000	XX	83,600
Total	XX	153,000	XX	248,000	XX	234,000
Nevada:						
Barite	641	29,500	377	18,500	656	35,900
Clays, kaolin	(4)	W	(4)	W	19	W
Gold ⁵ kilograms	178,000	5,000,000	161,000	5,040,000	166,000	6,560,000
Sand and gravel, construction	29,500	163,000	19,800 ^r	124,000 ^r	15,100	87,500
Silver ⁵ kilograms	235,000	113,000	203,000	95,900	224,000	145,000
Stone, crushed	10,200	95,100	7,380 ^r	81,300 ^r	6,970	80,800
Combined values of cement (portland), clays (bentonite, fuller's earth), 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, and values indicated by symbol W	XX	893,000	XX	641,000 ^r	XX	791,000
Total	XX	6,290,000	XX	6,000,000 ^r	XX	7,700,000
New Hampshire:						
Gemstones, natural	NA	7	NA	7	NA	7
Sand and gravel, construction	8,150	51,200	6,930	55,600	6,390	54,300
Stone:						
Crushed	5,170	50,900	4,800 ^r	47,600 ^r	4,320	39,500
Dimension, granite	34	4,900	35	4,880	(4)	(6)
Total	XX	107,000	XX	108,000	XX	93,800

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	2008		2009		2010	
	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	13,600	153,000	11,100	116,000	10,000	105,000
Industrial	1,010	31,800	906	30,200	918	33,600
Stone, crushed	17,900	155,000	14,500	124,000	14,400	119,000
Total	XX	339,000	XX	270,000	XX	258,000
New Mexico:						
Clays, common	14	120	10	90	13	116
Copper ⁵	104	734,000	56	300,000	53	405,000
Gemstones, natural	NA	21	NA	21	NA	15
Sand and gravel, construction	14,600	127,000	14,100 ^r	111,000 ^r	11,600	84,400
Stone:						
Crushed	7,020	43,400	6,000 ^r	39,400 ^r	4,280	34,100
Dimension	27	939	32	986	(4)	W
Combined values of cement, gold (2008–09), gypsum (crude), helium [Grade–A (2008–09)], lime (2008, 2010), molybdenum concentrates, perlite (crude), potash, pumice and pumicite, salt, sand and gravel [industrial (2008)], silver (2008–09), zeolites, and value indicated by symbol W						
Total	XX	720,000	XX	428,000 ^r	XX	498,000
Total	XX	1,630,000	XX	879,000 ^r	XX	1,020,000
New York:						
Clays, common	745	28,200	605	30,200	595	30,000
Gemstones, natural	NA	96	NA	97	NA	97
Salt	7,660	431,000	6,240	426,000	6,460	442,000
Sand and gravel, construction	34,400	260,000	31,100	266,000	30,600	248,000
Stone:						
Crushed	41,000	384,000	38,000 ^r	431,000 ^r	33,000	367,000
Dimension	57	16,000	97	28,200	96	26,000
Combined values of cadmium [byproduct from zinc concentrates (2008)], cement, garnet (industrial), peat, sand and gravel (industrial), talc [crude (2008)], wollastonite, zinc (2008)						
Total	XX	354,000	XX	207,000	XX	193,000
Total	XX	1,470,000	XX	1,390,000 ^r	XX	1,310,000
North Carolina:						
Clays:						
Common	1,260	12,900	828	4,980	846	4,890
Kaolin	15	W	(4)	W	10	W
Gemstones, natural	NA	659	NA	1,260 ^r	NA	1,950
Mica, crude	22	4,460 ^r	(4)	W	(4)	W
Sand and gravel:						
Construction	9,770	58,800	7,570	43,000	8,130	45,700
Industrial	1,510	29,400	1,300	28,000	1,400	30,900
Stone:						
Crushed	57,500	806,000	38,700 ^r	587,000 ^r	40,500	591,000
Dimension	58	25,200	62	22,300	63	21,800

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
North Carolina—Continued:						
Combined values of andalusite, feldspar, olivine, phosphate rock, pyrophyllite (crude), and values indicated by symbol W	XX	150,000	XX	163,000 ^r	XX	183,000
Total	XX	1,090,000	XX	850,000 ^r	XX	880,000
North Dakota:						
Clays, common	84	549	(4)	(6)	(4)	(6)
Gemstones, natural	NA	4	NA	4	NA	4
Lime	(4)	(6)	(4)	(6)	(4)	(6)
Sand and gravel:						
Construction	12,100	39,200	14,300 ^r	46,500 ^r	17,000	66,100
Industrial	(4)	(6)	(4)	(6)	(4)	(6)
Stone, crushed	26	133	985	3,980	835	3,770
Total	XX	39,800	XX	50,400 ^r	XX	69,900
Ohio:						
Cement, portland	762	74,000 ^e	550	53,000 ^e	627	57,800 ^e
Clays, common	983	15,900	770	13,400	815	14,600
Gemstones, natural	NA	4	NA	4	NA	4
Lime	1,670	166,000	1,130	129,000	1,610	164,000
Sand and gravel:						
Construction	33,800	244,000	27,200	199,000 ^r	29,900	232,000
Industrial	1,010	34,300	849	26,300	821	27,800
Stone:						
Crushed	54,100	446,000	43,300 ^r	395,000 ^r	47,200	394,000
Dimension	29	3,660	26	4,790	25	4,440
Combined values of cement (masonry), clays (fire), peat, salt	XX	262,000	XX	277,000	XX	274,000
Total	XX	1,250,000	XX	1,100,000 ^r	XX	1,170,000
Oklahoma:						
Clays, common	756	3,900	572	2,800	554	2,600
Gemstones, natural	NA	4	NA	4	NA	4
Gypsum, crude	2,180	16,200	(4)	W	(4)	W
Sand and gravel:						
Construction	14,700	95,500	11,600	68,200	10,000	60,500
Industrial	2,040	63,700	1,410	40,300	1,900	57,200
Stone:						
Crushed	46,800 ^r	342,000 ^r	36,100 ^r	301,000 ^r	39,000	343,000
Dimension	53	8,750	35	4,330	30	2,750
Combined values of cement, feldspar, helium (Grade-A), iodine (crude), lime, salt, tripoli (2008–09), and values indicated by symbol W	XX	287,000 ^r	XX	240,000 ^r	XX	236,000
Total	XX	817,000 ^r	XX	657,000 ^r	XX	702,000
Oregon:						
Gemstones, natural	NA	1,620	NA	1,220	NA	1,050
Sand and gravel, construction	14,900	121,000	12,200	102,000	11,400	93,000
Stone, crushed	23,500	174,000	15,500 ^r	118,000 ^r	16,300	122,000
Combine values of cement (portland), clays [bentonite, common (2008)], diatomite, emery, lime, perlite (crude), pumice and pumicite	XX	106,000	XX	91,500	XX	96,400
Total	XX	402,000	XX	313,000 ^r	XX	312,000

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Pennsylvania:						
Cement:						
Masonry	254	34,000 ^e	176	23,700 ^e	147	17,700 ^e
Portland	5,150	510,000 ^e	3,720 ^r	354,000 ^{r, e}	3,380	321,000 ^e
Clays, common	640	4,840	451	3,040	344	2,490
Gemstones, natural	NA	1	NA	1	NA	1
Lime	1,130	126,000	985	126,000	1,110	145,000
Peat	2	62	3	90	2	58
Sand and gravel:						
Construction	16,100	132,000	14,000 ^r	115,000 ^r	13,400	118,000
Industrial	677	16,300	618	15,600	524	13,400
Stone:						
Crushed	101,000	1,140,000	81,500 ^r	1,000,000 ^r	85,500	1,050,000
Dimension	42	11,100	39	9,670	25	5,860
Tripoli	(4)	(6)	(4)	(6)	(4)	(6)
Total	XX	1,970,000	XX	1,650,000 ^r	XX	1,670,000
Rhode Island:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	2,000	27,400	1,820	23,300	1,450	17,100
Industrial	(4)	(6)	(4)	(6)	(4)	(6)
Stone, crushed	1,840	17,900	1,820	20,200	1,440	15,800
Total	XX	45,300	XX	43,400	XX	32,900
South Carolina:						
Cement:						
Masonry	323	41,600 ^e	174	22,000 ^e	152	18,300 ^e
Portland	2,930	284,000 ^e	1,870	169,000 ^e	2,050	178,000 ^e
Clays:						
Common	461	2,130	311	1,300	267	1,190
Fire	29	66	--	--	--	--
Kaolin	199	11,300	144	8,590	158	10,500
Gemstones, natural	NA	1	NA	1	NA	1
Mica, crude	(4)	(6)	--	--	--	--
Sand and gravel:						
Construction	9,660	46,500	5,900	32,900	7,100	30,200
Industrial	679	21,100	441	14,000	530	14,700
Stone:						
Crushed	22,500	235,000	18,200	201,000	19,200	215,000
Dimension	4	472	3	401	(4)	(6)
Vermiculite	(4)	(6)	(4)	(6)	(4)	(6)
Total	XX	642,000	XX	449,000	XX	468,000
South Dakota:						
Clays, common	155	W	(4)	W	(4)	W
Sand and gravel, construction	12,500	48,000	10,600 ^r	38,000 ^r	10,500	44,300
Stone, crushed	5,390	34,300	4,540 ^r	29,900 ^r	4,890	32,200
Combined values of cement (portland), feldspar, gemstones (natural), gold, gypsum (crude), iron ore (usable shipped), lime, mica (crude), silver (2009–10), stone (dimension granite), and values indicated by symbol W	XX	165,000	XX	163,000 ^r	XX	182,000
Total	XX	247,000	XX	231,000 ^r	XX	258,000

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	2008		2009		2010		
	Quantity	Value	Quantity	Value	Quantity	Value	
Tennessee:							
Clays:							
Ball	568	25,900	511	22,800	570	25,600	
Common	155	1,090	113 ^r	816	113	817	
Sand and gravel:							
Construction	7,180	56,200	5,360	42,800	5,900	47,000	
Industrial	983	32,800	783	27,100	907	30,500	
Stone, crushed	46,200	461,000	40,300 ^r	453,000 ^r	40,900	464,000	
Combined values of cadmium (byproduct from zinc concentrates), cement, clays (fuller's earth), gemstones (natural), lime, salt, stone (dimension marble), zinc	XX	281,000	XX	150,000	XX	263,000	
Total	XX	859,000	XX	697,000 ^r	XX	831,000	
Texas:							
Cement:							
Masonry	274	40,300 ^e	202	28,300 ^e	199	26,800 ^e	
Portland	11,100	1,110,000 ^e	8,350	815,000 ^e	8,870	785,000 ^e	
Clays:							
Bentonite	73	12,000	54	8,610	64	9,900	
Common	2,070	13,700	1,800	13,000	1,740	14,000	
Kaolin	(4)	W	(4)	W	47	13,900	
Gemstones, natural	NA	202	NA	202	NA	203	
Gypsum, crude	1,870	13,900	(4)	W	(4)	W	
Lime	1,500	128,000	1,040	105,000	1,280	136,000	
Salt	9,080	157,000	8,910	164,000	9,130	173,000	
Sand and gravel:							
Construction	88,200 ^r	632,000 ^r	70,000	527,000 ^r	69,500	525,000	
Industrial	3,590	139,000	2,130	84,400	3,610	162,000	
Stone:							
Crushed	150,000	1,100,000	110,000	788,000 ^r	114,000	807,000	
Dimension	269	27,700	236	42,000	195	57,000	
Combined values of brucite (2008), clays [ball, fire (2009–10)], fuller's earth], helium, talc (crude), zeolites, and values indicated by symbol W	XX	77,700	XX	78,400 ^r	XX	72,100	
Total	XX	3,450,000	XX	2,650,000	XX	2,780,000	
Utah:							
Beryllium concentrates	metric tons	4,410	NA	3,030	NA	4,460	NA
Clays, common		479	10,200	342	7,230	322	7,020
Gemstones, natural		NA	781	NA	783	NA	786
Salt		2,150	139,000	2,000	152,000	1,940	100,000
Sand and gravel, construction		38,900	222,000	32,400	190,000	25,700	148,000
Stone:							
Crushed		8,950	72,700	4,790 ^r	39,100 ^r	5,840	43,800
Dimension, sandstone		9	707	9	844	9	674
Combined values of cement (portland), clays (bentonite), copper, gold, gypsum (crude), helium (Grade-A), lime, magnesium compounds, magnesium metal, molybdenum concentrates, phosphate rock, potash, silver		XX	3,730,000	XX	3,520,000 ^r	XX	4,080,000
Total		XX	4,170,000	XX	3,910,000 ^r	XX	4,380,000
Vermont:							
Gemstones, natural		NA	1	NA	1	NA	1
Sand and gravel, construction		4,960	33,600	4,470	36,700	4,770	35,200

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Vermont—Continued:						
Stone:						
Crushed	5,690	47,500	5,480 ^r	55,900 ^r	6,080	64,100
Dimension	112	35,900	108	30,000	68	21,900
Talc, crude	(4)	(6)	(4)	(6)	(4)	(6)
Total	XX	117,000	XX	123,000 ^r	XX	121,000
Virginia:						
Clays, common	766	8,540	505	5,830	503	6,010
Kyanite	97	25,500	71	21,000 ^r	93	28,000
Sand and gravel, construction	10,400	111,000	7,230 ^r	82,200 ^r	7,690	88,200
Stone:						
Crushed	57,400	712,000	42,300 ^r	580,000 ^r	44,100	613,000
Dimension	(4)	W	(4)	W	14	3,920
Combined values of cement, clays (fuller's earth), feldspar, gemstones (natural), iron oxide pigments [crude (2008–09)], lime, salt, sand and gravel (industrial), titanium concentrates (ilmenite), vermiculite (crude), zirconium concentrates, and values indicated by symbol W	XX	318,000	XX	260,000	XX	303,000
Total	XX	1,170,000	XX	949,000 ^r	XX	1,040,000
Washington:						
Clays, common	88	360	(4)	W	(4)	W
Gemstones, natural	NA	50	NA	65	NA	64
Gypsum, crude	--	--	101	757	(4)	W
Peat	(4)	75	(4)	W	(4)	W
Sand and gravel, construction	39,500 ^r	325,000 ^r	29,900	230,000	27,200	188,000
Stone, crushed	17,500	168,000	14,800 ^r	132,000 ^r	14,800	133,000
Combined values of cadmium [byproduct from zinc concentrates (2008–09)], cement (portland), clays [fire (2009–10)], diatomite, gold, lead (2008–09), lime, olivine, sand and gravel (industrial), stone (dimension miscellaneous), zinc (2008–09), and values indicated by symbol W	XX	228,000	XX	289,000	XX	391,000
Total	XX	722,000	XX	651,000 ^r	XX	712,000
West Virginia:						
Clays, common	(4)	W	(4)	W	138	200
Gemstones, natural	NA	1	NA	1	NA	1
Gypsum, crude	--	--	119	889	(4)	W
Sand and gravel:						
Construction	426	3,840	410	3,480	448	3,740
Industrial	338	17,200	241	14,700	277	17,300
Stone, crushed	15,200	127,000	12,300 ^r	112,000 ^r	14,700	141,000
Combined values of cement, lime, salt, stone (dimension sandstone), and values indicated by symbol W	XX	85,300	XX	71,600	XX	109,000
Total	XX	234,000	XX	202,000 ^r	XX	272,000
Wisconsin:						
Gemstones, natural	NA	7	NA	7	NA	7
Lime	852	71,500	750 ^r	70,000 ^r	867	81,200
Peat	(4)	26	--	--	(4)	W

See footnotes at end of table.

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

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Wisconsin—Continued:						
Sand and gravel:						
Construction	36,200	190,000	28,300 ^r	139,000 ^r	26,000	133,000
Industrial	3,290	120,000	2,730	105,000	3,390	142,000
Stone:						
Crushed	25,900	238,000	23,100 ^r	179,000 ^r	22,600	130,000
Dimension	250	33,300	207	29,800	144	23,200
Total	XX	652,000	XX	523,000 ^r	XX	509,000
Wyoming:						
Clays:						
Bentonite	4,400	233,000	3,230	172,000	4,150	225,000
Common	37	89	41	104	12	33
Gemstones, natural	NA	14	NA	14	NA	14
Sand and gravel, construction	17,500	103,000	17,200	92,200	14,300	71,500
Stone, crushed	12,100	57,100	16,000	75,400	8,910	40,300
Combined values of cement (portland), gypsum (crude), helium (Grade-A), lime, soda ash, stone (dimension)	XX	1,640,000	XX	1,460,000	XX	1,530,000
Total	XX	2,030,000	XX	1,800,000	XX	1,860,000
Undistributed:						
Connecticut, Delaware, Maryland (2010), Massachusetts, Minnesota (2010), Nebraska (2008), New Hampshire (2010), New Jersey, North Dakota, Pennsylvania, Rhode Island, South Carolina, Vermont, Wisconsin (2008, 2010), Undistributed	XX	167,000	XX	89,500	XX	424,000

⁶Estimated. ^rRevised. 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 June 6, 2012.

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."

⁷Excludes attapulgitic; included in "Combined values."

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	2008		2009		2010	
	Quantity	Value	Quantity	Value	Quantity	Value
Puerto Rico:						
Cement, portland	1,300	W	936	W	755	W
Clays, common	75	437	54	328	54	328
Lime ^c	11	998	11	1,750	12	3,660
Salt ^c	45	1,500	45	1,500	45	1,500
Stone, crushed	11,000	87,100 ^r	9,450 ^r	72,400 ^r	8,060	68,200
Total	XX	90,000 ^r	XX	76,000 ^r	XX	73,700
Administered Islands:						
American Samoa, stone, crushed	W	W	W	W	W	W
Guam, stone, crushed	325	3,430 ^r	296	3,060 ^r	114	1,180
Virgin Islands, stone, crushed	W	W	W	W	W	W
Total	XX	3,430 ^r	XX	3,060 ^r	XX	1,180

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

¹Table includes data available through June 6, 2012.

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	2009		2010		
	Quantity	Value	Quantity	Value	
Metals:					
Aluminum:					
Crude and semicrude	metric tons	2,710,000	5,910,000	3,040,000	7,650,000
Manufactures	do.	122,000	479,000	128,000	570,000
Antimony:					
Metal, alloys, waste and scrap	do.	385	2,000	427	2,230
Oxide, antimony content	do.	1,710	9,660	2,120	12,000
Arsenic metal, arsenic content	do.	354	793	481	1,020
Bauxite and alumina:					
Alumina, calcined equivalent		946	488,000	1,520	724,000
Bauxite:					
Calcined, refractory and other grade		21	10,900	19	7,400
Crude and dried		9 ^r	268 ^r	21	618
Specialty aluminum compounds, sulfate, chloride, fluoride-based	metric tons	28,500	32,500	37,600	37,600
Beryllium, unwrought, and waste and scrap, other including articles not elsewhere specified, beryllium content	kilograms	22,900	11,700	38,700	24,300
Bismuth, metal, alloys, waste and scrap, bismuth content	do.	397,000	5,820	704,000	8,140
Cadmium:					
Metal	do.	249,000	537	231,000	945
Sulfide, gross weight	do.	16,200	8	46,900	24
Unwrought and powder	do.	276,000	1,270	75,300	571
Waste and scrap	do.	137,000	319	--	--
Chromium:					
Ores and concentrate	metric tons	2,500	1,610	4,420	2,620
Metals and alloys:					
Metal, unwrought powders, waste and scrap, other	do.	411	13,300	597	18,400
Ferroalloys, high-carbon, low-carbon, ferrochromium-silicon	do.	4,780	6,820	9,130	12,900
Chemicals:					
Oxides, trioxide, other	do.	12,000	27,900	19,900	56,700
Sulfates	do.	16	114	60	306
Salts of oxometallic or peroxometallic acids, zinc and lead chromate, sodium dichromate, potassium dichromate, other	do.	20,500	23,100	30,500	31,500
Pigments and preparations	do.	1,220	13,800	2,540	8,640
Cobalt:					
Acetates	do.	648	8,210	406	5,860
Chlorides	do.	10	163	30	650
Oxides and hydroxides	do.	225	5,550	258	2,380
Metal:					
Unwrought, powders, waste and scrap, mattes, other intermediate products of metallurgy	do.	2,120	77,300	2,350	75,000
Copper:					
Unmanufactured, does not include unalloyed scrap, copper content	do.	299,000	1,280,000	276,000	1,630,000
Semimanufactures	do.	194,000	1,140,000	238,000	1,740,000
Scrap, alloyed and unalloyed	do.	843,000	2,010,000	1,030,000	3,550,000
Ferroalloys not listed elsewhere:					
Ferrophosphorous	do.	1,130	2,080	1,030	2,000
Other	do.	3,130	6,840	4,570	9,210
Gold:					
Ores and concentrates	kilograms	2,160	48,600	3,460	102,000
Dore and precipitates	do.	97,400	3,000,000	84,400	3,160,000
Bullion, refined	do.	281,000	8,760,000	295,000	11,400,000
Waste and scrap	do.	728,000	1,750,000	660,000	2,180,000

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	2009		2010	
	Quantity	Value	Quantity	Value
Metals—Continued:				
Gold—Continued:				
Metal powder kilograms	329	8,460	2,340	74,700
Compounds do.	2,680,000	64,600	4,270,000	107,000
Iron and steel:				
Steel mill products	8,420	NA	11,000	NA
Fabricated steel products	1,560	NA	2,010	NA
Cast iron and steel products	238	NA	287	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	22,400	7,120,000	20,500	8,380,000
Pig iron, all grades	11	4,200	2,220	13,400
Direct-reduced iron, steelmaking grade metric tons	271	38	974	115
Ships, boats, and other vessels for scrapping	4	773	4	743
Used rails for rerolling and other uses, includes mixed (used plus new) rails	59	38,700	49	41,000
Iron ore	3,920	356,000	9,950	1,090,000
Lead:				
Base bullion, lead content metric tons	34	113	199	757
Ore and concentrates, lead content do.	287,000	275,000	299,000	472,000
Unwrought and alloys, lead content do.	77,600	80,100	77,700	84,100
Wrought and alloys, lead content do.	4,310	8,280	5,590	9,170
Scrap, gross weight do.	140,000	72,000	43,500	33,800
Magnesium:				
Waste and scrap, magnesium content do.	2,280	5,200	481	802
Metal, magnesium content do.	6,120	20,500	5,300	19,800
Alloys, gross weight do.	9,190	40,400	6,940	30,900
Powder, sheets, tubing, ribbons, wire, other forms, gross weight do.	2,050	30,500	2,070	36,600
Manganese, gross weight:				
Ores and concentrates with 20% or more manganese do.	15,300	3,830	13,900	5,990
Ferromanganese, all grades do.	24,200	27,900	19,100	27,800
Silicomanganese do.	18,800	17,500	9,360	13,100
Metal, including alloys and waste and scrap do.	3,150 ^r	8,090 ^r	3,660	10,300
Dioxide do.	8,420	13,400	8,990	14,700
Mercury:				
Metal do.	753	10,300	459	6,830
Amalgams of precious metals whether or not chemically defined do.	154	238,000	203	274,000
Molybdenum:				
Ore and concentrates, including roasted and other, molybdenum content do.	29,600	631,000	40,600	1,050,000
Chemicals:				
Oxides and hydroxides, gross weight do.	10,600	159,000	6,040	99,300
Molybdates, all, gross weight do.	1,500	18,000	1,680	26,200
Ferromolybdenum, molybdenum content do.	827	22,400	978	33,100
Other, includes powders, unwrought, bars and rods, waste and scrap, wire, other, gross weight do.	1,790	112,000	2,540	153,000
Nickel, nickel content:				
Primary, unwrought and chemicals do.	7,020	313,000	12,600	345,000
Secondary, stainless steel scrap and waste and scrap do.	90,000	814,000	80,300	1,030,000
Wrought, not alloyed, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes do.	975	24,200	1,900	35,400
Alloyed, unwrought ingot, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes, other alloyed articles, gross weight do.	30,700	1,120,000	34,500	1,320,000

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	2009		2010		
	Quantity	Value	Quantity	Value	
Metals—Continued:					
Niobium (columbium) and tantalum:					
Niobium:					
Ores and concentrates	kilograms	17,000	954	24,900	228
Ferriobium	do.	240,000	2,740	395,000	4,190
Tantalum:					
Ores and concentrates, includes synthetic	do.	318,000	2,900	172,000	3,100
Unwrought powders, waste and scrap, unwrought alloys and metal	do.	179,000	50,100	315,000	79,000
Wrought	do.	52,200	26,900	65,200	35,900
Platinum-group metals:					
Palladium, palladium content	do.	30,300	229,000	38,100	419,000
Platinum, includes waste and scrap and metal, platinum content	do.	47,100	1,040,000	55,100	1,880,000
Iridium, osmium, ruthenium, gross weight	do.	4,020	34,400	3,720	36,800
Rhodium, rhodium content	do.	1,220	48,400	2,320	136,000
Rare earths, estimated rare-earth oxide content:					
Cerium compounds	do.	840,000	8,040	1,350,000	14,300
Ferrocerium and other pyrophoric alloys	do.	2,970,000	28,000	3,460,000	19,000
Compounds, inorganic and organic	do.	455,000	6,210	1,690,000	27,200
Metals, including scandium and yttrium	do.	4,920,000	15,700	1,380,000	27,500
Selenium and tellurium:					
Selenium, selenium content	do.	618,000 ^r	10,400 ^r	919,000	16,000
Tellurium, tellurium content	do.	8,130	1,210	59,000	5,400
Silicon, gross weight:					
Ferrosilicon	metric tons	14,200	16,900	25,400	29,600
Metal	do.	37,900	2,070,000	65,900	2,700,000
Silver:					
Bullion, silver content	kilograms	167,000	93,600	523,000	326,000
Dore, silver content	do.	130,000	72,700	104,000	45,900
Metal powder, gross weight	do.	834,000	434,000	1,280,000	874,000
Nitrate, gross weight	do.	27,900	2,690	53,500	4,540
Ores and concentrates, silver content	do.	122,000	55,400	82,100	47,700
Semimanufactured forms containing 99.5% or more by weight of silver, gross weight	do.	525,000	252,000	617,000	353,000
Waste and scrap, gross weight	do.	2,480,000	4,300,000	3,760,000	5,990,000
Unwrought, other, gross weight	do.	59,000	21,200	87,300	49,800
Thorium:					
Ore, monazite concentrate	do.	18,000	269 ^e	(3)	15
Thorium and thorium-bearing materials, compounds	do.	4,730	379	1,500	605
Tin:					
Ingots and pigs	metric tons	3,170	22,200	5,630	35,900
Tin scrap and other tin bearing material, except tinplate scrap, includes rods, profiles, wire, powders, flakes, tubes, pipes	do.	11,600	46,200	15,600	70,300
Tinplate and terneplate	do.	224,000	175,000	209,000	171,000
Titanium:					
Metal, waste and scrap, unwrought, wrought products and castings, ferrotitanium and ferrosilicon titanium	do.	23,300	799,000	24,100	868,000
Ores and concentrates	do.	14,800	8,230	18,900	11,800
Pigment, dioxide and oxide	do.	649,000	1,310,000	758,000	1,690,000
Tungsten, tungsten content:					
Ammonium paratungstate	do.	375	5,990	538	8,840
Carbide powder	do.	468 ^{r,e}	19,600	1,220 ^e	43,600
Metal powders	do.	360 ^{r,e}	25,500	803 ^e	39,600

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	2009		2010		
	Quantity	Value	Quantity	Value	
Metals—Continued:					
Tungsten, tungsten content—Continued:					
Miscellaneous tungsten-bearing materials, ferrotungsten, ferrosilicon tungsten, unwrought, waste and scrap, wrought, compounds	metric tons	1,520	48,600	1,790	60,200
Ores and concentrates	do.	38 ^e	1,080	276 ^e	6,450
Vanadium:					
Aluminum-vanadium master alloy, gross weight	kilograms	11,200,000	27,800	11,900,000	33,300
Ferrovandium, vanadium content	do.	672,000	15,000	611,000	18,100
Metal, including waste and scrap, gross weight	do.	22,700	1,040	21,200	671
Pentoxide, anhydride, vanadium content	do.	401,000	4,970	140,000	2,140
Other oxides and hydroxides, vanadium content	do.	506,000	5,270	1,100,000	10,600
Zinc:					
Compounds, chloride, chromates of zinc or of lead, compounds n.s.p.f. ⁴ , lithopone, oxide, sulfate, sulfide, gross weight	metric tons	25,400	47,500	26,800	53,700
Ores and concentrates, zinc content	do.	785,000	656,000	752,000	903,000
Rolled	do.	6,160	17,700	7,380	NA
Slab	do.	2,960	3,070	4,200	NA
Zirconium:					
Ferrozirconium	do.	566	1,140	569	1,200
Ores and concentrates	do.	39,600	36,300	47,400	51,100
Oxide, includes germanium oxides and zirconium dioxides	do.	3,050	31,400	5,630	59,000
Unwrought powders	do.	165	7,660	438	16,400
Waste and scrap	do.	2,140	192,000	1,620	147,000
Total		XX	49,100,000	XX	65,300,000
Industrial minerals:					
Abrasives, manufactured:					
Aluminum oxide, crude	metric tons	12,300	32,000	20,000	67,900
Metallic abrasives	do.	25,900	32,200	30,800	41,300
Silicon carbide, crude, ground and refined	do.	20,700	37,700	23,100	56,000
Asbestos, includes reexports:					
Manufactured		NA	24,500	NA	27,000
Unmanufactured	metric tons	59	69	171	121
Barite, natural barium sulfate	do.	49,300	10,200	109,000	17,800
Boron minerals and compounds:					
Boric acid, includes orthoboric and anhydrous		171	109,000	264	170,000
Sodium borates		417	176,000	423	218,000
Bromine:					
Compounds, includes methyl bromine and ethylene dibromide, bromine content	metric tons	2,310	6,510	3,620	14,300
Elemental, gross weight	do.	3,810	5,930	4,530	7,970
Cement, hydraulic and clinker ⁵		884	107,000	1,180	168,000
Clays:					
Ball		35	2,430	45	3,300
Bentonite		709	100,000	953	143,000
Fire		328	42,800	404	61,500
Fuller's earth		90	28,500	100	35,400
Kaolin		2,290	459,000	2,470	537,000
Other, n.e.c. ⁶ , includes chamotte or dinas earth, activated clays and earths, artificially activated clays		374	69,500	383	82,600
Diamond:					
Gemstones, natural, including reexports	thousand carats	25,200	9,940,000	23,700	14,100,000

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	2009		2010		
	Quantity	Value	Quantity	Value	
Industrial minerals—Continued:					
Diamond—Continued:					
Industrial including exports and reexports:					
Unworked	thousand carats	948 ^r	17,500	1,080	23,400
Powder, dust and grit, natural and synthetic	do.	76,900	37,600	131,000	61,500
Diatomite		88	41,100	86	44,500
Feldspar	metric tons	7,520	1,150	16,800	2,280
Fluorspar	do.	14,100	2,230	17,900	2,740
Garnet, industrial	do.	13,200	10,700	11,700	14,400
Graphite, natural and artificial	do.	46,400	130,000	45,600	152,000
Gypsum and gypsum products:					
Crude		156	16,000	360	19,300
Plasters		155	37,800	190	42,200
Boards		665	120,000	729	129,000
Other		XX	50,200	XX	66,200
Helium, Grade-A	million cubic meters	71	160,000	77	179,000
Iodine:					
Crude, resublimed	metric tons	1,160	22,900	1,070	22,300
Potassium iodide	do.	128 ^r	2,720	442	9,330
Iron oxide pigments and hydroxides:					
Pigment grade	do.	5,640	15,500	9,490	17,000
Other grade	do.	11,300	18,500	44,700	34,400
Kyanite, andalusite, sillimanite ^c		26	7,510	38	11,300
Lime		108	18,500	215	36,200
Lithium chemicals:					
Carbonate	metric tons	1,030	7,040 ^r	1,370	7,910
Hydroxide	do.	4,400	31,600	6,960	43,600
Magnesium compounds:					
Compounds, chlorides, hydroxide and peroxide, sulfates	do.	37,800	28,300	34,900	25,100
Magnesite, crude and processed:					
Caustic-calcined magnesia	do.	503	296	278	165
Dead-burned and fused magnesia	do.	8,390	5,950	8,650	6,550
Other magnesia	do.	12,700	13,500	18,100	20,300
Crude	do.	10,500	1,480	8,920	1,310
Mica:					
Scrap and flake:					
Powder	do.	5,940	8,850	5,550	8,190
Waste	do.	2,090	1,600	935	468
Sheet:					
Unworked	do.	96	437	53	163
Worked	do.	1,020	15,300	879	15,900
Nitrogen, major compounds, gross weight		9,280	NA	7,910	NA
Peat		77	8,570	69	7,230
Perlite, crude ^c	metric tons	33,000	NA	42,000	NA
Phosphate rock:					
Diammonium phosphate		5,530	1,820,000	4,090	1,710,000
Elemental phosphorus		17	66,000	18	56,600
Monoammonium phosphate		2,110	717,000	2,330	1,000,000
Phosphoric acid		535	142,000	673	235,000
Potash:					
Potassium chloride	metric tons	342,000	NA	248,000	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	2009		2010		
	Quantity	Value	Quantity	Value	
Industrial minerals—Continued:					
Potash—Continued:					
Potassium sulfates, all grades	do.	355,000	NA	555,000	NA
Potassium nitrate	do.	8,450	6,250	9,990	9,070
Pumice and pumicite		11	5,130 ^r	13	5,970
Salt		1,450	74,100	595	69,300
Sand and gravel:					
Construction:					
Sand		79	19,000	59	16,600
Gravel		360	4,050	322	6,010
Industrial		2,150	175,000	3,950	323,000
Silica, special stone products		NA	7,640	NA	11,300
Soda ash		4,410	838,000	5,390	886,000
Stone:					
Crushed		1,260	58,300	1,210	52,100
Dimension		XX	48,300	XX	54,500
Strontium compounds:					
Carbonate, precipitated	kilograms	159,000 ^r	107	121,000	105
Oxide, hydroxide, peroxide	do.	614,000 ^r	355 ^r	707,000	395
Sulfur:					
Elemental		1,430	82,200	1,450	171,000
Sulfuric acid, 100% H ₂ SO ₄		254	23,900	215	26,400
Talc, excludes powders-talcum (in package), face, compact		188	37,600	224	47,200
Vermiculite ^e		3	610	2	575
Wollastonite ^e	metric tons	10,000 ^r	3,060 ^r	10,000	3,120
Zeolites ^e	do.	200	47	400	94
Total		XX	16,200,000 ^r	XX	21,500,000
Grand total		XX	65,300,000 ^r	XX	86,800,000

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

¹Table includes data available through June 6, 2012.

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

³Less than ½ unit.

⁴Not specifically provided for.

⁵Excludes Puerto Rico.

⁶Not 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	2009		2010		
	Quantity	Value ³	Quantity	Value ³	
Metals:					
Aluminum:					
Crude and semicrude	metric tons	4,110,000	7,980,000	4,120,000	10,300,000
Manufactures	do.	264,000	732,000	281,000	930,000
Antimony:					
Metal	do.	4,750	19,600	5,360	39,100
Ore and concentrate, antimony content	do.	167	1,010	181	1,840
Oxide, antimony content	do.	15,200	81,000	20,600	144,000
Arsenic:					
Acid	do.	3	11	60	43
Metal	do.	438	1,890	769	2,440
Sulfide	do.	77	334	13	35
Trioxide	do.	6,130	2,740	5,920	2,830
Bauxite and alumina:					
Alumina, calcined equivalent		1,860	613,000	1,720	711,000
Bauxite:					
Calcined, refractory and other grade		461	91,600 ^r	691	146,000
Crude and dried		6,970	355,000 ^{r,4}	8,120	411,000 ⁴
Specialty aluminum compounds, sulfate, chloride, fluoride-based	metric tons	30,700	30,600	50,200	53,300
Beryllium, ore, concentrates, oxide, hydroxide, unwrought including powders, waste and scrap, other, beryllium-copper master alloys, beryllium-copper plates, sheets, strip, beryllium content	kilograms	23,800	5,720	271,000	20,600
Bismuth, metallic	do.	1,250,000	20,600	1,620,000	30,100
Cadmium:					
Metal	do.	4,940	371	4,910	509
Sulfide, gross weight	do.	135,000	2,430	255,000	3,400
Unwrought and powder	do.	117,000	1,110	216,000	2,400
Waste and scrap		--	--	59	6
Chromium:					
Chromite ore	metric tons	77,200	17,500	139,000	29,600
Metals and alloys:					
Ferroalloys, high-carbon, low-carbon, ferrochromium-silicon	do.	248,000	294,000	524,000	791,000
Metal, unwrought powders, waste and scrap, other	do.	7,570	74,900	13,000	148,000
Chemicals:					
Oxides, hydroxides, trioxide and other	do.	9,100	28,000	8,240	27,900
Sulfates	do.	71	88	325	351
Salts of oxometallic or peroxometallic acids, zinc and lead chromate, sodium dichromate, potassium dichromate, other	do.	15,300	18,100	769	2,730
Carbide	do.	165	3,060	242	4,370
Pigments and preparations based on chromium	do.	1,700	8,650	2,280	11,600
Cobalt:					
Metal:					
Unwrought, excluding alloys and waste and scrap, includes cathode and metal powder, may include intermediate products of cobalt metallurgy	do.	5,870	198,000	8,750	350,000
Oxide and hydroxides, content	do.	1,050 ^r	37,500	1,450	60,700
Other forms, includes acetates, carbonates, chlorides, sulfates, content	do.	751 ^r	27,300	854	28,900
Copper:					
Unmanufactured, does not include unalloyed scrap, copper content	do.	733,000	3,510,000	634,000	4,680,000
Semimanufactures	do.	225,000	1,050,000	234,000	1,630,000
Scrap, alloyed and unalloyed	do.	71,800	237,000	95,800	403,000
Ferroalloys not listed elsewhere:					
Ferrophosphorus	metric tons	138	617	7,650	4,180

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	2009		2010	
	Quantity	Value ³	Quantity	Value ³
Metals—Continued:				
Ferroalloys not listed elsewhere—Continued:				
Other do.	4,710	13,900	8,730	27,900
Gallium:				
Unwrought and waste and scrap kilograms	35,900	12,600	59,200	19,200
Gallium arsenide wafers, doped and undoped do.	145,000	131,000	229,000	191,000
Germanium, wrought, unwrought, waste and scrap, gross weight do.	29,400	39,100	27,000	25,900
Gold:				
Ores and concentrates kilograms	46,600	33,100	257,000	58,000
Dore and precipitates do.	146,000	4,260,000	148,000	4,520,000
Bullion, refined do.	127,000	3,580,000	199,000	7,020,000
Waste and scrap do.	43,400	600,000 ^r	46,100	722,000
Metal powder do.	476	8,760	652	11,500
Compounds do.	64,300	1,430	43,500	1,480
Indium, unwrought metal do.	105,000	35,200	117,000	58,700
Iron and steel:				
Steel mill products	14,700	NA	21,700	NA
Fabricated steel products	3,530	NA	4,110	NA
Cast iron and steel products	464	NA	605	NA
Stainless steel metric tons	515,000 ^r	NA	813,000	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	2,990	831,000 ^r	3,780	1,420,000
Pig iron, all grades	2,420	877,000	3,780	1,540,000
Direct-reduced iron, steelmaking grade	1,020	304,000	1,640	607,000
Ships, boats, and other vessels for scrapping	(5)	79	(5)	226
Used rails for rerolling and other uses, includes mixed (used plus new) rails	57	17,700	53	23,700
Iron ore	3,870	376,000	6,420	703,000
Lead:				
Pigs and bars, lead content metric tons	251,000	408,000 ^r	271,000	559,000
Pigments and compounds, lead content do.	28,100	46,800	28,600	61,000
Scrap, reclaimed, includes ash and residues, lead content do.	1,330	2,620	3,730	8,880
Wrought, all forms, including wire and powders, gross weight do.	1,340	5,490 ^r	1,290	6,270
Magnesium:				
Waste and scrap, gross weight do.	20,900	40,300	22,100	56,500
Metal, gross weight do.	21,400	86,800	18,200	83,500
Alloys, magnesium content do.	4,790	29,800	11,600	54,400
Powder, sheets, tubing, ribbons, wire, other forms, magnesium content do.	205	4,170	788	9,160
Manganese:				
Ores and concentrates with 20% or more manganese, manganese content do.	154,000	82,600	255,000	133,000
Ferromanganese, all grades, manganese content do.	121,000	215,000	257,000	493,000
Silicomanganese, manganese content do.	83,500	135,000	197,000	373,000
Metal, unwrought, other wrought, waste and scrap, gross weight do.	23,000	57,800	36,000	95,400
Chemicals, manganese dioxide and potassium permanganate, gross weight do.	18,600	45,800	23,000	58,400
Mercury:				
Metal do.	206	1,350	294	1,290
Amalgams of precious metals whether or not chemically defined do.	14	31,300	23	70,000
Molybdenum:				
Ores and concentrates, including roasted and other, molybdenum content metric tons	7,520	150,000	12,900	314,000
Chemicals, gross weight:				
Oxides and hydroxides do.	209	3,330	508	12,200
Molybdates, all, molybdenum content do.	657	20,500	928	30,100

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	2009		2010		
	Quantity	Value ³	Quantity	Value ³	
Metals—Continued:					
Molybdenum—Continued:					
Chemicals, gross weight—Continued:					
Orange	do.	269	2,170	350	2,730
Ferromolybdenum, molybdenum content	do.	2,030	50,100	3,560	130,000
Other, includes powders, unwrought, bars and rods, waste and scrap, wire, other, gross weight	do.	970	43,000	1,840	87,800
Nickel, nickel content:					
Primary, unwrought and chemicals	do.	99,900	1,480,000	129,000	2,790,000
Secondary, stainless steel scrap and waste and scrap	do.	17,700	249,000	23,800	472,000
Wrought, not alloyed, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes	do.	409	14,000	677	21,100
Alloyed, unwrought ingot, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes, other alloyed articles	do.	17,300	439,000	21,500	565,000
Niobium (columbium) and tantalum:					
Niobium:					
Ores and concentrates	kilograms	4,960	360	11,600	494
Oxide	do.	1,060,000	29,000	1,180,000	35,800
Ferri niobium	do.	4,490,000	109,000	9,660,000	237,000
Unwrought powders	do.	699,000	24,100	1,380,000	56,900
Tantalum:					
Ores and concentrates, includes synthetic concentrates	do.	357,000	13,600	19,800	2,520
Unwrought powders, waste and scrap, unwrought alloys and metal	do.	613,000	92,800	1,470,000	140,000
Wrought	do.	75,600	20,800	114,000	31,500
Platinum-group metals, metal content:					
Platinum, grains and nuggets, sponge, other unwrought, other, waste and scrap, coins	do.	183,000	2,080,000	152,000	2,510,000
Palladium, unwrought and other	do.	69,700	631,000	70,700	1,110,000
Iridium, unwrought and other forms	do.	1,520	20,800	3,530	65,900
Osmium, unwrought	do.	68	551	76	612
Ruthenium, unwrought	do.	21,200	55,700	14,100	82,500
Rhodium, unwrought and other forms	do.	11,200	530,000	12,800	914,000
Rare earths, estimated equivalent rare-earth oxide (REO) content:					
Cerium compounds, including oxides, hydroxides, nitrates, sulfate chlorides, oxalates	do.	1,500,000	9,070	1,770,000	22,600
Ferrocerium and other pyrophoric alloys	do.	102,000	2,620	131,000	3,110
Mixtures of rare-earth chlorides, except cerium chloride	do.	411,000	4,930	956,000	12,000
Mixtures of REOs except cerium oxide	do.	4,750,000	23,500	5,480,000	38,300
Compounds, including oxides, hydroxides, nitrates, other compounds except chlorides	do.	5,080,000 ^r	67,500	3,980,000	96,300
Metals, whether intermixed or alloyed	do.	226,000	4,870	525,000	14,700
Yttrium compounds content by weight greater than 19% but less than 85% oxide equivalent	do.	6,920	565 ^r	73,500	2,060
Rhenium:					
Metal	do.	21,500	53,100	23,100	52,800
Ammonium perrhenate	do.	14,300	13,700	25,500	17,900
Selenium and tellurium:					
Selenium, selenium content:					
Selenium	do.	260,000	12,700	491,000	34,100
Dioxide	do.	3,420	210	9,170	626
Tellurium, tellurium content	do.	84,000	11,300	41,600	9,040
Silicon, gross weight:					
Ferrosilicon	metric tons	103,000	126,000	229,000	342,000
Metal	do.	116,000	477,000	175,000	748,000

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	2009		2010		
	Quantity	Value ³	Quantity	Value ³	
Metals—Continued:					
Silver:					
Ash and residues, silver content	kilograms	505	151	316	77
Bullion, silver content	do.	2,800,000	1,310,000	4,330,000	2,890,000
Dore, silver content	do.	653,000	439,000	738,000	708,000
Metal powder, gross weight	do.	247,000	36,400	788,000	170,000
Nitrate, gross weight	do.	835	241	1,430	390
Ores and concentrates, silver content	do.	87	9	3,230	1,750
Semimanufactured forms containing 99.5% or more by weight of silver, gross weight	do.	476,000	176,000	638,000	354,000
Waste and scrap, gross weight	do.	4,760,000	372,000	6,510,000	435,000
Unwrought, other, gross weight	do.	135,000	56,100	316,000	142,000
Thallium, unwrought powders, waste and scrap, other	do.	2,030	312	783	204
Thorium:					
Ore, monazite concentrate	do.	26,000	20	--	--
Thorium and thorium-bearing materials, compounds	do.	2,250	275	3,030	208
Tin, gross weight:					
Compounds	metric tons	601	8,180	753	13,300
Dross, skimmings, scrap, residues, alloys, n.s.p.f. ⁶	do.	81,300	23,400	58,000	30,700
Metal, unwrought	do.	33,000	404,000	35,300	658,000
Miscellaneous, includes tin foil, tin powder, flitters, metallics, manufactures, n.s.p.f. ⁶	do.	XX	36,200	XX	53,200
Tinplate and terneplate, gross weight	do.	295,000	366,000	464,000	500,000
Tinplate scrap, gross weight	do.	27,100	5,190	68,000	14,300
Titanium:					
Concentrate:					
Ilmenite	do.	250,000	21,800	377,000	37,600
Rutile, natural and synthetic	do.	279,000	141,000	351,000	198,000
Metal:					
Waste and scrap	do.	4,770	17,600	10,700	75,500
Unwrought	do.	16,600	178,000	20,500	196,000
Ingots	do.	531	13,300	237	3,880
Powder	do.	24	2,390	119	5,420
Other	do.	18	1,220	88	3,980
Wrought products and castings, includes bar, castings, foil, pipe, plate, profile, rod, sheet, strip, tube, wire, other	do.	6,930	292,000	8,710	299,000
Ferrotitanium and ferrosilicon titanium	do.	2,540	6,750	2,740	11,500
Pigment, dioxide and oxide	do.	175,000	385,000	204,000	462,000
Titaniferous iron ore	do.	10,000	532	83,100	6,760
Titaniferous slag	do.	414,000	168,000	475,000	200,000
Tungsten, tungsten content:					
Ammonium paratungstate	do.	2,540	52,600	2,510	56,400
Ferrotungsten and ferrosilicon tungsten	do.	46	1,260	357	11,000
Miscellaneous tungsten-bearing materials, metal powders, carbide powder, unwrought, waste and scrap, wrought, oxides, calcium tungstate, other tungstates, other compounds	do.	3,820 ^r	135,000	6,820	237,000
Ores and concentrates	do.	3,590	72,900	2,740	60,000
Vanadium:					
Aluminum-vanadium master alloy, gross weight	kilograms	282,000	979	9,200,000	27,800
Ferrovandium, vanadium content	do.	353,000	12,600	1,340,000	41,100
Metal, including waste and scrap, gross weight	do.	21,700	940	9,660	434
Miscellaneous chemicals, sulfates and vanadates, vanadium content	do.	231,000	3,570	205,000	4,620
Pentoxide, anhydride, vanadium content	do.	1,120,000	16,500	4,000,000	55,700

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	2009		2010		
	Quantity	Value ³	Quantity	Value ³	
Metals—Continued:					
Vanadium—Continued:					
Vanadium-bearing ash and residues from the manufacture of iron and steel, vanadium oxide content	do.	791,000	12,300	521,000	5,570
Other oxides and hydroxides, vanadium content	do.	25,200	551	167,000	3,330
Zinc:					
Compounds, chloride, chromates of zinc or of lead, compounds n.s.p.f. ⁶ , lithopone, oxide, sulfate, sulfide, gross weight	metric tons	104,000	127,000	136,000	226,000
Ores and concentrates, zinc content	do.	74,200	68,300	32,200	NA
Rolled	do.	3,010	13,500	3,440	NA
Slab, refined	do.	686,000	1,080,000	671,000	NA
Zirconium and hafnium:					
Hafnium, unwrought, including powders	do.	5	2,080	8	3,390
Zirconium:					
Ferrozirconium	do.	(5)	7	45	246
Ores and concentrates	do.	14,400	17,100	22,900	27,500
Oxide, includes germanium oxides and zirconium oxides	do.	2,810	43,800	2,920	52,700
Unwrought powder	do.	22	1,890	31	2,330
Waste and scrap	do.	955	58,400	1,130	70,700
Total		XX	41,400,000 ^r	XX	61,400,000
Industrial minerals:					
Abrasives, manufactured:					
Aluminum oxide, crude, ground and refined	do.	64,200	53,700	185,000	136,000
Metallic abrasives	do.	15,800	12,100	43,400	25,300
Silicon carbide, crude, ground and refined	do.	78,000	74,500	143,000	165,000
Asbestos:					
Chrysotile and other unspecified type	metric tons	869	684	1,040	821
Products with basis of asbestos, cellulose, or other minerals		NA	13,300	NA	5,790
Barite:					
Chloride, oxide, hydroxide, peroxide, precipitated carbonate	metric tons	4,170	6,250	7,430	7,900
Crude	do.	572,000	60,000 ^r	873,000	87,300
Ground	do.	851,000	58,100	1,220,000	91,500
Other sulfates	do.	10,600	10,900	14,700	17,000
Boron minerals and compounds:					
Borax		(5)	376	(5)	183
Boric acid		36	26,100	50	30,100
Colemanite		31	8,630	50	18,400
Ulexite		28	11,300	1	238
Bromine:					
Compounds, contained bromine	metric tons	33,600 ^r	80,300	43,900	85,400
Elemental	do.	1,390	3,020	1,040	2,620
Cement, hydraulic and clinker ⁷		6,770	502,000	6,630	490,000
Clays:					
China clay or kaolin		281	68,700	239	56,300
Fire clay		(5)	133	(5)	179
Decolorizing earths and fuller's earth		1	96	2	160
Bentonite		8	2,460	16	4,670
Common blue clay and other ball clay		--	--	1	138
Other clay		8	3,940	7	4,560
Chamotte or dina's earth		(5)	165	(5)	110
Artificially activated clay and activated earth		27	28,800	19	25,800

See footnotes at end of table.

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

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral or product	2009		2010		
	Quantity	Value ³	Quantity	Value ³	
Industrial minerals—Continued:					
Diamond, industrial:					
Diamond stones, natural and miners'	thousand carats	1,400	18,700	1,720	32,300
Powder, dust and grit, natural and synthetic	do.	246,000	41,000 ^r	596,000	86,500
Diatomite, siliceous fossil meals	metric tons	1,260	1,080	1,030	894
Feldspar and nepheline syenite:					
Feldspar	do.	2,120	646	2,050	503
Nepheline syenite	do.	308,000	36,800	368,000	52,400
Fluorspar:					
Aluminum fluoride	do.	18,700	26,800	38,000	49,200
Cryolite	do.	2,830	3,630	5,320	6,510
Fluorspar	do.	475,000	105,000	539,000	103,000
Hydrofluoric acid	do.	114,000	161,000	135,000	199,000
Garnet, industrial	do.	37,900	8,890	42,500	11,100
Gemstones	thousand carats	1,200,000	13,500,000 ^r	1,520,000	19,600,000
Graphite:					
Natural	metric tons	33,100	29,700	65,400	52,100
Electric furnace electrodes	do.	50,600	190,000	88,200	342,000
Gypsum:					
Crude		4,220	52,900	3,330	41,800
Plasters		15	6,800	15	7,180
Boards		236	38,500	244	32,400
Other		XX	30,300	XX	29,600
Iodine:					
Crude	metric tons	5,190	133,000	5,710	141,000
Potassium iodide	do.	259	6,000	423	9,770
Iron oxide pigments:					
Natural	do.	1,900	1,070	3,360	2,390
Synthetic	do.	105,000	126,000	148,000	164,000
Kyanite, andalusite, sillimanite	do.	4,880	2,060	2,180	938
Lime		422	53,200	445	61,500
Lithium chemicals:					
Carbonate	metric tons	9,250	41,900	9,500	41,300
Hydroxide	do.	932	5,580	1,070	5,300
Magnesium compounds:					
Compounds, chlorides, hydroxide, peroxide, sulfates	do.	133,000	38,500	122,000	49,000
Magnesite, crude and processed:					
Caustic-calcined magnesia	do.	126,000	37,700	127,000	40,300
Dead-burned and fused magnesia	do.	151,000	72,200	323,000	161,000
Other magnesia	do.	8,740	8,750	12,000	14,500
Crude	do.	6,270	3,830	22,400	8,420
Mica:					
Scrap and flake:					
Powder	metric tons	16,900	9,540	22,000	16,900
Waste	do.	2,990	1,670	4,400	2,390
Sheet:					
Unworked	do.	23	142	51	180
Worked	do.	1,480 ^r	14,400	1,930	16,200
Nitrogen, major compounds, gross weight		12,600	3,570,000	9,640	5,930,000
Peat moss	metric tons	906,000	230,000	947,000	225,000
Perlite, processed crude	do.	153,000	15,900	174,000	17,700

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	2009		2010	
	Quantity	Value ³	Quantity	Value ³
Industrial minerals—Continued:				
Phosphate rock and phosphatic materials:				
Phosphate rock:				
Unground	988	83,100 ⁴	1,280	117,000 ⁴
Ground	379	26,900 ⁴	605	48,900 ⁴
Dicalcium phosphate	6	11,200 ⁴	7	9,990 ⁴
Elemental phosphorus	4	15,600 ⁴	7	23,500 ⁴
Normal superphosphate	(5)	114 ⁴	4	1,400 ⁴
Triple superphosphate	38	9,340 ⁴	189	66,900 ⁴
Diammonium phosphate	22	9,710 ⁴	190	101,000 ⁴
Monoammonium phosphate	62	38,800 ⁴	269	151,000 ⁴
Fertilizer containing nitrates and phosphates	1	492 ⁴	(5)	182 ⁴
Phosphoric acid	31	30,600 ⁴	31	20,600 ⁴
Potash, chloride, sulfate, nitrate, sodium nitrate mixtures	3,670	1,720,000 ^r	7,840	2,620,000
Pumice:				
Crude or unmanufactured	do.	26,000	34,100	758
Wholly or partially manufactured	do.	258	1,140	1,430
Salt	14,700	337,000	12,900	322,000
Sand and gravel:				
Construction	2,980	66,100 ⁴	2,670	95,900 ⁴
Industrial	95	8,080	131	19,700
Silica, special stone products ⁸	NA	8,320	NA	8,990
Soda ash	6	2,350	20	5,770
Stone:				
Crushed, chips, calcium carbonate fines, excludes precipitated carbonates	12,200	174,000 ⁴	14,500	185,000 ⁴
Dimension	XX	1,350,000	XX	2,430,000
Strontium:				
Carbonate	kilograms	7,820,000	5,090	11,700,000
Celestite	do.	14,600,000	690	5,400,000
Metal	do.	70,100	564	118,000
Nitrate	do.	2,770,000	2,770	3,580,000
Oxide, hydroxide, peroxide	do.	6,720	51	129,000
Sulfur:				
Elemental		1,700 ^e	54,100	2,950 ^e
Sulfuric acid, 100% H ₂ SO ₄		1,270 ^r	146,000	2,110
Talc, unmanufactured		134 ^r	47,900	242
Vermiculite ^e		39	7,100	29
Wollastonite ^e	metric tons	4,000	530	4,000
Zeolites ^e	do.	300	64	150
Total		XX	23,900,000 ^r	XX
Grand total		XX	65,200,000 ^r	XX

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

¹Table includes data available through June 6, 2012.

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 COMMODITIES ¹

(Thousand metric tons unless otherwise specified)

Mineral or product	World total					United States	
	2006	2007	2008	2009	2010	2010	Percentage of world total
Metals:							
Alumina	72,400 ^r	77,900 ^r	82,500 ^r	76,700 ^r	85,300	3,910	4.6
Aluminum ²	33,900 ^r	38,000 ^r	39,600 ^r	36,900 ^r	40,800	1,730	4.2
Antimony	metric tons 173,000 ^r	180,000 ^r	182,000 ^r	154,000 ^r	167,000	--	--
Arsenic trioxide ³	do. 60,900 ^r	55,400 ^r	53,400 ^r	54,100 ^r	52,800	--	--
Bauxite ^{3,4,5}	193,000 ^r	204,000 ^r	211,000 ^r	196,000 ^r	212,000	NA	NA
Beryl ³	metric tons 4,360	4,360	4,940	3,590	5,080	4,460	87.9
Bismuth, refinery	do. 15,300	15,500	16,600 ^r	15,400 ^r	16,000	--	--
Cadmium, refinery	do. 19,900	19,400	22,800 ^r	20,800 ^r	21,100	637	3.0
Chromite ³	19,700 ^r	22,800 ^r	24,000 ^r	19,500 ^r	23,700	--	--
Cobalt, Co content:							
Mine	metric tons 70,000 ^r	71,700 ^r	76,400 ^r	72,100 ^r	89,500	--	--
Refinery	do. 53,800	53,300	57,300 ^r	59,700 ^r	76,400	--	--
Copper:							
Mine	15,100 ^r	15,500 ^r	15,600 ^r	15,900 ^r	16,000	1,110	6.9
Smelter	14,100 ^r	14,300 ^r	14,700 ^r	14,900 ^r	15,600	601	3.8
Refinery	17,300 ^r	17,900 ^r	18,300 ^r	18,400 ^r	19,100	1,090	5.7
Gold	metric tons 2,370 ^r	2,350 ^r	2,280 ^r	2,460 ^r	2,560	231	9.0
Indium, refinery	kilograms 638,000 ^r	631,000 ^r	613,000 ^r	583,000 ^r	659,000	--	--
Iron ore ³	1,830,000 ^r	2,040,000 ^r	2,210,000 ^r	2,230,000 ^r	2,590,000	49,900	1.9
Iron and steel:							
Direct-reduced iron ²	58,700 ^r	64,100 ^r	66,700 ^r	65,700 ^r	68,700	--	--
Pig iron ²	881,000 ^r	956,000 ^r	931,000 ^r	920,000 ^r	1,026,000	26,800	2.6
Raw steel	1,250,000 ^r	1,350,000 ^r	1,330,000 ^r	1,240,000 ^r	1,420,000	80,500	5.7
Lead:							
Mine, Pb content	3,630 ^r	3,720 ^r	3,880 ^r	3,900 ^r	4,140	369	8.9
Refinery	8,100 ^r	8,300 ^r	8,770 ^r	8,890 ^r	9,490	1,250	13.2
Magnesium ⁵	metric tons 675,000	751,000	670,000	598,000 ^r	757,000	W	NA
Manganese ore ³	33,100 ^r	35,100 ^r	38,300 ^r	33,800 ^r	42,700	--	--
Mercury ³	metric tons 1,150	1,200	1,820 ^r	1,960 ^r	2,250	NA ⁶	NA
Molybdenum, Mo content	do. 186,000 ^r	212,000 ^r	218,000 ^r	221,000 ^r	242,000	59,400 ⁷	24.6
Nickel, Ni content:							
Mine	1,570 ^r	1,650 ^r	1,580 ^r	1,410 ^r	1,620	--	--
Refinery	1,350 ^r	1,440 ^r	1,390 ^r	1,400 ^r	1,470	--	--
Niobium (columbium)-tantalum concentrates³							
metric tons	223,000	263,000	264,000 ^r	263,000 ^r	261,000	--	--
Platinum-group metals	kilograms 515,000 ^r	511,000 ^r	468,000 ^r	449,000 ^r	467,000	15,100	3.2
Rhenium	do. 46,700 ^r	47,500 ^r	54,900 ^r	45,400 ^r	47,200	W	NA
Selenium ^{2,5}	metric tons 2,090 ^r	2,200 ^r	2,180 ^r	2,190 ^r	2,120	W	NA
Silver	do. 20,000 ^r	20,800 ^r	21,400 ^r	22,000 ^r	23,100	1,280	5.5
Tellurium ^{2,5}	kilograms 116,000	124,000	128,000 ^r	129,000 ^r	123,000	W	NA
Tin:							
Mine	metric tons 293,000 ^r	303,000 ^r	257,000 ^r	264,000 ^r	265,000	--	--
Smelter ⁸	do. 339,000 ^r	346,000 ^r	333,000 ^r	340,000 ^r	350,000	10,900	3.1
Tungsten, W content	do. 56,600 ^r	53,500 ^r	62,300 ^r	61,000 ^r	68,800	W	NA
Vanadium	do. 57,900	58,500	56,400	51,400 ^r	57,600	--	--
Zinc:							
Mine, Zn content of concentrate and direct shipping ore	10,300 ^r	11,000 ^r	11,700 ^r	11,400 ^r	12,000	748	6.2
Smelter	10,800 ^r	11,400 ^r	11,700 ^r	11,300 ^r	12,700	249	2.0

See footnotes at end of table.

TABLE 9—Continued
 WORLD AND U.S. PRODUCTION OF SELECTED NONFUEL MINERAL COMMODITIES ¹

(Thousand metric tons unless otherwise specified)

Mineral or product	World total					United States	
	2006	2007	2008	2009	2010	2010	Percentage of world total
Industrial minerals:							
Asbestos	2,150 ^r	2,250 ^r	2,110 ^r	2,130 ^r	2,010	--	--
Barite	7,910 ^r	7,790 ^r	8,570 ^r	6,430 ^r	7,850	662 ⁹	8.4
Boron minerals	3,620 ^r	4,200 ^r	4,480 ^r	3,760 ^r	4,080	W	NA
Bromine	metric tons 671,000 ^r	415,000 ^r	415,000 ^r	378,000 ^r	450,000	W ⁹	NA
Celesite	do. 524,000 ^r	518,000 ^r	656,000 ^r	400,000 ^r	405,000	--	--
Cement, hydraulic	2,620,000 ^r	2,810,000 ^r	2,850,000 ^r	3,030,000 ^r	3,310,000	67,200 ¹⁰	2.0
Clays:							
Bentonite	11,500 ^r	12,200 ^r	12,500 ^r	9,300 ^r	10,700	4,630	43.1
Fuller's earth	3,700 ^r	3,720 ^r	3,500 ^r	3,210 ^r	3,360	2,050	60.9
Kaolin	39,200 ^r	37,300 ^r	36,900 ^r	33,500 ^r	33,200	5,420	16.3
Diamond:							
Natural	thousand carats 175,000 ^r	170,000 ^r	154,000 ^r	131,000 ^r	144,000	--	--
Synthetic	do. 4,320,000 ^r	4,420,000 ^r	4,420,000 ^r	4,380,000 ^r	4,380,000	93,000 ^e	2.1
Diatomite	2,150 ^r	1,970 ^r	2,150 ^r	1,860 ^r	1,820	595 ⁹	32.6
Feldspar	20,600 ^r	21,500 ^r	22,700 ^r	19,600 ^r	20,500	550 ¹¹	2.7
Fluorspar	5,660 ^r	5,730 ^r	6,000 ^r	5,550 ^r	6,010	--	--
Graphite, natural	1,020 ^r	1,110 ^r	960 ^r	760 ^r	930	--	--
Gypsum	160,000 ^r	167,000 ^r	156,000 ^r	150,000 ^r	147,000	8,840	6.0
Iodine, crude	metric tons 26,700 ^r	26,300 ^r	26,500 ^r	28,500 ^r	28,700	W	NA
Iron oxide pigments	do. 998,000 ^r	1,055,000 ^r	1,031,000 ^r	873,000 ^r	902,000	W	NA
Kyanite and related minerals	do. 455,000 ^r	515,000 ^r	448,000 ^r	396,000 ^r	469,000	133,000 ¹²	28.4
Lime	285,000 ^r	296,000 ^r	307,000 ^r	297,000 ^r	311,000	18,300 ^{9,10}	5.9
Lithium	metric tons 394,000	381,000	387,000	299,000 ^r	421,000	W	NA
Magnesite, crude ⁵	14,400 ^r	20,300 ^r	21,500 ^r	18,200 ^r	19,900	W	NA
Mica, including scrap and flake ¹³	1,090 ^r	1,120 ^r	1,140 ^r	1,020 ^r	1,070	53	4.9
Monazite concentrates	metric tons 6,850	6,860	6,430 ^r	6,230 ^r	6,230	--	--
Nitrogen, N content of ammonia	125,000 ^r	131,000 ^r	130,000 ^r	127,000 ^r	131,000	8,290 ¹⁴	6.3
Peat	27,600 ^r	28,100 ^r	25,100 ^r	23,900 ^r	23,400	628 ¹⁵	2.7
Perlite	1,800 ^r	1,760 ^r	1,780 ^r	1,650 ^r	1,670	410 ⁹	24.8
Phosphate rock ³	151,000	160,000	165,000	161,000 ^r	181,000	25,800	14.2
Potash, K ₂ O equivalent	30,400 ^r	34,900 ^r	33,700 ^r	20,600 ^r	33,700	930	2.8
Pumice	19,900 ^r	20,700 ^r	18,400 ^r	17,800 ^r	17,300	390 ⁹	2.3
Rare earths	metric tons 137,000 ^r	124,000 ^r	128,000 ^r	132,000 ^r	124,000	--	--
Salt	261,000 ^r	266,000 ^r	276,000 ^r	279,000 ^r	280,000	43,300 ¹⁰	15.5
Sand and gravel, industrial, silica	118,000 ^r	128,000 ^r	123,000 ^r	114,000 ^r	121,000	29,900 ⁹	24.7
Soda ash, natural and manufactured	43,700 ^r	45,900 ^r	46,700 ^r	44,300 ^r	47,500	10,600 ¹⁶	22.3
Sulfur, all forms	67,000 ^r	67,600 ^r	68,100 ^r	66,600 ^r	68,100	9,070	13.3
Talc and pyrophyllite ¹⁷	7,770 ^r	7,730 ^r	7,590 ^r	7,230 ^r	7,210	604	8.4
Titanium concentrates:³							
Ilmenite and leucoxene	6,860 ^r	7,140 ^r	6,970 ^r	6,090 ^r	6,870	400 ^{e,18}	5.8
Rutile ⁵	metric tons 516,000 ^r	607,000 ^r	634,000 ^r	571,000 ^r	710,000	(19)	NA
Vermiculite	do. 512,000 ^r	510,000 ^r	525,000 ^r	509,000 ^r	536,000	100,000 ^e	18.7
Zirconium concentrates	1,240 ^r	1,410 ^r	1,310 ^r	1,180 ^r	1,250	W	NA

^eEstimated. ^rRevised. 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 insufficient to permit this adjustment.

TABLE 9—Continued
WORLD AND U.S. PRODUCTION OF SELECTED NONFUEL MINERAL COMMODITIES ¹

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.

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.

¹⁷Data for the United States exclude proprietary pyrophyllite production.

¹⁸Includes rutile to avoid disclosing company proprietary data. Rounded to one significant digit.

¹⁹Included with ilmenite to avoid disclosing company proprietary data; not included in “Total.”