

# 2009 Minerals Yearbook

# STATISTICAL SUMMARY [ADVANCE RELEASE]

# **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 production<sup>1</sup> 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 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 2009 decreased to \$59.0 billion, which was a 17% decrease compared with that of 2008; metals decreased to \$21.9 billion, which was a decrease of 20%; and industrial minerals decreased to \$37.1 billion, a decrease of 16%.

In 2009, the value of nonfuel mineral commodity production for the following 12 mined commodities, in descending order of production value, was greater than \$1 billion: stone (crushed), gold, sand and gravel (construction), copper, cement (portland), phosphate rock (marketable), molybdenum concentrates, iron ore (usable shipped), salt, lime, soda ash, and zinc. They accounted for 88% of the U.S. total production value (table 1).

In 2009, the value of nonfuel mineral commodity production in the following 17 States, in descending order of production value, was greater than \$1 billion: Nevada, Arizona, Florida, Utah, California, Texas, Alaska, Minnesota, Missouri, Wyoming, Michigan, Pennsylvania, Colorado, Georgia, New York, Ohio, and Alabama. They accounted for 73% of the U.S. total production value (table 3).

<sup>&</sup>lt;sup>1</sup>The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 2009 U.S. Geological Survey (USGS) mineral production data published in this chapter are as of July 2011. 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.

#### TABLE 1

# NONFUEL MINERAL PRODUCTION IN THE UNITED STATES $^{\rm 1,\,2,\,3}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200		2008		2009		
Mineral	Quantity	Value	Quantity	Value	Quantity	Value	
Metals:							
Beryllium concentrates <sup>4</sup> metric tons	3,810	NA	4,410	NA	3,030	NA	
Cadmium <sup>e, 5</sup> do.	3,070	23,400	2,990	17,700	2,840	8,140	
Copper <sup>6</sup>	1,170	8,450,000	1,310	9,200,000	1,180	6,280,000	
Gold <sup>6</sup> kilograms	238,000	5,350,000	233,000	6,550,000	223,000	7,000,000	
Iron ore, usable shipped	50,900	3,040,000	53,600 r	3,770,000	27,600	2,560,000	
Lead <sup>6</sup> metric tons	434,000	1,180,000	399,000	1,060,000	395,000	757,000	
Molybdenum concentrates <sup>7</sup> do.	57,000	3,530,000	55,900	3,830,000	47,800	2,870,000	
Palladium <sup>6</sup> kilograms	12,800	148,000	11,900 <sup>r</sup>	136,000	12,700	108,000	
Platinum <sup>6</sup> do.	3,860	162,000	3,580 <sup>r</sup>	182,000	3,830	149,000	
Silver <sup>6</sup> do.	1,280,000	554,000	1,250,000	600,000	1,250,000	588,000	
Zinc <sup>6</sup> metric tons	769,000	2,620,000	748,000	1,470,000	710,000	1,220,000	
Combined values of magnesium metal, titanium							
concentrates, tungsten, zirconium concentrates	XX	308,000 <sup>r</sup>	XX	518,000 <sup>r</sup>	XX	345,000	
Total	XX	25,400,000	XX	27,300,000	XX	21,900,000	
Industrial minerals, excluding fuels: <sup>8</sup>							
Barite	455	20,600	648	30,900	383	19,900	
Cement: <sup>9</sup>							
Masonry	4,320	614,000 <sup>e</sup>	3,030	428,000 <sup>e</sup>	1,970	269,000 <sup>e</sup>	
Portland	91,100	9,230,000 <sup>e</sup>	83,300	8,390,000 <sup>e</sup>	62,000	5,960,000 °	
Clays:							
Ball	1,070	49,000	968	44,300	831	37,700	
Bentonite	4,820	252,000	4,910 <sup>r</sup>	267,000 r	3,650	207,000	
Common	20,600	216,000	17,500	202,000	12,500	156,000	
Fire	565	23,800	296 <sup>r</sup>	11,800 <sup>r</sup>	320	12,000	
Fuller's earth	2,600	247,000	2,340 <sup>r, 10</sup>	230,000 <sup>r, 10</sup>	2,010 10	206,000	
Kaolin	7,110	959,000	6,740	900,000	5,290	714,000	
Diatomite	687	163,000	764	171,000	575	147,000	
Feldspar <sup>9</sup>	730 11	43,800	650 <sup>11</sup>	40,000 <sup>r</sup>	550 <sup>11</sup>	35,600	
Garnet, industrial <sup>9</sup> metric tons	61,400	11,300	62,900	13,600	45,600	6,850	
Gemstones, natural <sup>9</sup>	NA	11,900	NA	11,500	NA	8,410	
Gypsum, crude <sup>9</sup>	15.700 r	95,000 <sup>r</sup>	12,300 r	91,200 <sup>r</sup>	10,400	77,400	
Helium:	15,700	75,000	12,500	)1,200	10,400	77,400	
Crude million cubic meters	40	68,900	42	90,100	40	85,700	
Grade–A do.	138	497,000	130	630,000	117	572,000	
Kyanite do.	118	29,100	97	25,500	71	20,000	
				1,830,000			
Lime Mica, crude metric tons	20,200	1,760,000 14,400	19,800	1,830,000 r 12,000 r	15,800	1,650,000	
	96,600		84,000		50,100	7,040	
Peat Peat	694	17,800	647 424 000	17,100	644	15,000	
Perlite, crude metric tons	409,000	18,500	434,000	20,800	348,000	17,100	
Phosphate rock, marketable <sup>9</sup>	29,700	1,520,000	30,200	2,320,000	26,400	3,360,000	
Potash, gross weight <sup>11</sup>	2,600	480,000	2,400	740,000	1,500	500,000	
Pumice and pumicite metric tons	1,270,000	28,900	791,000	15,900	410,000	12,300	
Salt	45,500	1,520,000	47,400 <sup>r</sup>	1,690,000 <sup>r</sup>	43,100	1,750,000	
Sand and gravel:		0.000.0000		<b>-</b> 000 000	0.0		
Construction	1,250,000 r	8,820,000 r	1,060,000 r	7,900,000 r	836,000	6,330,000	
Industrial	30,100	832,000	30,400	940,000 r	24,600	783,000	
Silica stone <sup>12</sup> metric tons	231	1,020	(13)	W	(13)	W	
Soda ash <sup>9</sup>	11,100	1,260,000	11,300	1,520,000	9,310	1,330,000	

# TABLE 1—Continued NONFUEL MINERAL PRODUCTION IN THE UNITED STATES<sup>1, 2, 3</sup>

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200	7	200	8	2009	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
ndustrial minerals, excluding fuels-Continued:						
Stone:						
Crushed <sup>14</sup>	1,650,000	14,100,000	1,460,000 <sup>r</sup>	13,600,000 <sup>r</sup>	1,170,000	11,300,000
Dimension	1,920	346,000	1,800	326,000 r	1,620	328,000
Talc, crude <sup>9</sup>	769	24,400	706	21,800	511	14,600
Tripoli <sup>9</sup> metric tons	96,400	17,400	132,000	17,100	79,700	16,400
Vermiculite, concentrate <sup>e</sup>	100 15	W	100 15	W	100 15	W
Combined values of andalusite, boron minerals, bromine,						
brucite (2007-08), 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),						
staurolite, wollastonite, zeolites, and values indicated						
by symbol W	XX	1,340,000 <sup>r</sup>	XX	1,380,000	XX	1,120,000
Total	XX	44,700,000 <sup>r</sup>	XX	44,000,000 <sup>r</sup>	XX	37,100,000
Grand total	XX	70,000,000	XX	71,300,000 <sup>r</sup>	XX	59,000,000

<sup>e</sup>Estimated. <sup>r</sup>Revised. do. Ditto. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined values." XX Not applicable.

<sup>1</sup>Table includes data available through July 26, 2011.

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

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

<sup>4</sup>Shipments.

<sup>5</sup>Byproduct from zinc concentrates.

<sup>6</sup>Recoverable content of ores, etc.

<sup>7</sup>Content of ore and concentrate.

<sup>8</sup>Sold or used unless otherwise specified.

<sup>9</sup>Production.

<sup>10</sup>Excludes attapulgite; included in "Combined values."

<sup>11</sup>Data are rounded to two significant digits.

<sup>12</sup>Includes grindstones, pulpstones, and sharpening stones; excludes mill liners and grinding pebbles.

<sup>13</sup>Withheld to avoid disclosing company proprietary data.

<sup>14</sup>Excludes abrasive stone and bituminous limestone and sandstone; all included elsewhere in table.

<sup>15</sup>Data are rounded to one significant digit.

#### TABLE 2

#### NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN $2009^1$

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

#### NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN $2009^1$

#### (Principal States based upon quantity unless otherwise noted)

Mineral	Principal States	Other States (alphabetical order)
Sand and gravel:		
Construction	CA, TX, AZ, MI, UT	All other States.
Industrial	IL, WI, TX, OK, MN	All other States, except AK, CT, DE, HI, KY, MA, MD, ME, MT, NH, NM, OR, SD, UT, VT, WY.
Silica stone <sup>4</sup>	AR	
Silver <sup>2</sup>	AK, NV, ID, UT, AZ	CA, CO, MO, MT, NM, SD.
Soda ash	WY and CA	
Staurolite	FL	
Stone:		
Crushed	TX, PA, MO, IL, FL	All other States.
Dimension	TX, WI, IN, GA, VT	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 <sup>2</sup>	AK, MO, ID, WA, MT	TN.
Zirconium concentrates	FL and VA	

<sup>1</sup>Table includes data available through July 26, 2011.

<sup>2</sup>Content of ores, etc.

<sup>3</sup>Principal States based on value.

<sup>4</sup>Grindstones, 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 2009<sup>1, 2</sup>

<b>G</b> :	Value	<b>D</b> 1	Percentage	
State	(thousands)	Rank	of U.S. total	Principal minerals, in order of value
Alabama	\$1,020,000	17	1.73	Stone (crushed), cement (portland), lime, sand and gravel (construction), cement (masonry).
Alaska	2,620,000	7	4.45	Zinc, gold, lead, silver, sand and gravel (construction).
Arizona	5,180,000	2	8.79	Copper, molybdenum concentrates, sand and gravel (construction), cement (portland), stone (crushed).
Arkansas	636,000	30	1.08	Stone (crushed), bromine, cement (portland), sand and gravel (construction), lime.
California	3,070,000	5	5.20	Sand and gravel (construction), cement (portland), boron minerals, stone (crushed), gold.
Colorado	1,420,000	13	2.40	Molybdenum concentrates, sand and gravel (construction), gold, cement (portland), stone (crushed).
Connecticut <sup>3</sup>	162,000	43	0.27	Stone (crushed), sand and gravel (construction), clays (common), stone (dimension), gemstones (natural).
Delaware <sup>3</sup>	24,500	50	0.04	Magnesium compounds, sand and gravel (construction), stone (crushed), gemstones (natural).
Florida	4,250,000	3	7.20	Phosphate rock, stone (crushed), cement (portland), sand and gravel (construction), zirconium concentrates.
Georgia	1,410,000	14	2.39	Clays (kaolin), stone (crushed), clays (fuller's earth), cement (portland), sand and gravel (construction).
Hawaii	116,000	46	0.20	Stone (crushed), sand and gravel (construction), gemstones (natural).
Idaho	935,000	21	1.59	Molybdenum concentrates, phosphate rock, silver, sand and gravel (construction), lead.
Illinois	929,000	22	1.57	Stone (crushed), sand and gravel (construction), cement (portland), sand and gravel (industrial), tripoli.
Indiana	806,000	25	1.37	Stone (crushed), cement (portland), sand and gravel (construction), lime, stone (dimension).
Iowa	596,000	31	1.01	Stone (crushed), cement (portland), sand and gravel (construction), lime, gypsum (crude).
Kansas	953,000	20	1.62	Helium (Grade-A), salt, cement (portland), stone (crushed), helium (crude).
Kentucky	668,000	27	1.13	Stone (crushed), lime, cement (portland), sand and gravel (construction), clays (common).
Louisiana	568,000	32	0.96	Salt, sand and gravel (construction), stone (crushed), sand and gravel (industrial), clays (common).
Maine	125,000	44	0.21	Sand and gravel (construction), stone (crushed), cement (portland), stone (dimension), peat.
Maryland	497,000	34	0.84	Stone (crushed), cement (portland), sand and gravel (construction), cement (masonry), stone (dimension).
Massachusetts <sup>3</sup>	214,000	41	0.36	Stone (crushed), sand and gravel (construction), lime, stone (dimension), clays (common).
Michigan	1,760,000	11	2.99	Iron ore (usable shipped), cement (portland), sand and gravel (construction), salt, stone (crushed).
Minnesota	2,150,000	8	3.65	Iron ore (usable shipped), sand and gravel (construction), stone (crushed), sand and gravel (industrial), stone (dimension).
Mississippi	208,000	42	0.35	Sand and gravel (construction), stone (crushed), clays (fuller's earth), clays (ball), cement (portland).
Missouri	1,810,000	9	3.07	Stone (crushed), cement (portland), lead, lime, sand and gravel (construction).
Montana	982,000	18	1.67	Molybdenum concentrates, copper, platinum metal, palladium metal, sand and gravel (construction).
Nebraska	248,000	38	0.42	Cement (portland), sand and gravel (construction), stone (crushed), sand and gravel (industrial), lime.
Nevada	6,020,000	1	10.21	Gold, copper, sand and gravel (construction), lime, silver.
New Hampshire	108,000	47	0.18	Sand and gravel (construction), stone (crushed), stone (dimension), gemstones (natural).
New Jersey <sup>3</sup>	270,000	37	0.46	Stone (crushed), sand and gravel (construction), sand and gravel (industrial), greensand marl, peat.
New Mexico	886,000	23	1.50	Potash, copper, sand and gravel (construction), stone (crushed), cement (portland).
New York	1,370,000	15	2.32	Salt, stone (crushed), sand and gravel (construction), cement (portland), clays (common).
North Carolina	846,000	24	1.44	Stone (crushed), phosphate rock, sand and gravel (construction), sand and gravel (industrial), stone (dimension).
North Dakota <sup>3</sup>	51,000	48	0.09	Sand and gravel (construction), lime, stone (crushed), clays (common), sand and gravel (industrial).
Ohio	1,130,000	16	1.92	Stone (crushed), salt, sand and gravel (construction), lime, cement (portland).
Oklahoma	667,000	28	1.13	Stone (crushed), cement (portland), sand and gravel (construction), iodine, sand and gravel (industrial).
Oregon	314,000	36	0.53	Stone (crushed), sand and gravel (construction), cement (portland), diatomite, perlite (crude).
Pennsylvania <sup>3</sup>	1,620,000	12	2.75	Stone (crushed), cement (portland), lime, sand and gravel (construction), cement (masonry).
Rhode Island <sup>3</sup>	43,400	49	0.07	Sand and gravel (construction), stone (crushed), sand and gravel (industrial), gemstones (natural).
South Carolina <sup>3</sup>	449,000	35	0.76	Stone (crushed), cement (portland), sand and gravel (construction), cement (masonry), sand and gravel (industrial).
South Dakota	230,000	39	0.39	Gold, cement (portland), sand and gravel (construction), stone (crushed), stone (dimension).
Tennessee	675,000	26	1.14	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), lime.
Texas	2,650,000	6	4.49	Cement (portland), stone (crushed), sand and gravel (construction), salt, lime.
Utah	3,900,000	4	6.62	Copper, molybdenum concentrates, gold, magnesium metal, sand and gravel (construction).
Vermont <sup>3</sup>	122,000	45	0.21	Stone (crushed), sand and gravel (construction), stone (dimension), talc (crude), gemstones (natural).

#### VALUE OF NONFUEL MINERAL PRODUCTION IN THE UNITED STATES AND PRINCIPAL NONFUEL MINERALS PRODUCED IN 2009<sup>1, 2</sup>

	Value		Percentage	
State	(thousands)	Rank	of U.S. total	Principal minerals, in order of value
Virginia	\$955,000	19	1.62	Stone (crushed), sand and gravel (construction), cement (portland), lime, zirconium (concentrates).
Washington	650,000	29	1.10	Sand and gravel (construction), gold, stone (crushed), cement (portland), lime.
West Virginia	215,000	40	0.37	Stone (crushed), cement (portland), lime, sand and gravel (industrial), cement (masonry).
Wisconsin	546,000	33	0.93	Stone (crushed), sand and gravel (construction), sand and gravel (industrial), lime, stone (dimension).
Wyoming	1,800,000	10	3.05	Soda ash, helium (Grade-A), clays (bentonite), sand and gravel (construction), stone (crushed).
Undistributed	89,500	XX	0.15	
Total	59,000,000	XX	100.00	_

XX Not applicable.

<sup>1</sup>Table includes data available through July 26, 2011.

 $^2\mbox{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Partial 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 2009 BY STATE $^{1,\,2}$

	Land area (square	Population	Total value	Per ca	pita	Per square kilometer		
State	kilometers)	(thousands)	(thousands)	Dollars	Rank	Dollars	Rank	
Alabama	131,000	4,710	\$1,020,000	\$216	16	\$7,750	19	
Alaska	1,480,000	698	2,620,000	3,750	1	1,770	44	
Arizona	294,000	6,600	5,180,000	785	6	17,600	5	
Arkansas	135,000	2,890	636,000	220	15	4,720	32	
California	404,000	37,000	3,070,000	83	39	7,590	20	
Colorado	269,000	5,030	1,420,000	282	13	5,270	28	
Connecticut	12,500	3,520	162,000 <sup>3</sup>	46	46	12,900	9	
Delaware	5,060	885	24,500 <sup>3</sup>	28	50	4,840	31	
Florida	140,000	18,500	4,250,000	229	14	30,400	1	
Georgia	150,000	9,830	1,410,000	144	22	9,420	16	
Hawaii	16,600	1,300	116,000	89	37	6,950	22	
Idaho	214,000	1,550	935,000	605	7	4,360	35	
Illinois	144,000	12,900	929,000	72	43	6,450	25	
Indiana	92,900	6,420	806,000	125	26	8,670	18	
Iowa	145,000	3,010	596,000	198	17	4,120	36	
Kansas	212,000	2,820	953,000	338	10	4,500	34	
Kentucky	103,000	4,310	668,000	155	21	6,490	24	
Louisiana	113,000	4,490	568,000	126	25	5,030	30	
Maine	79,900	1,320	125,000	95	35	1,570	46	
Maryland	25,300	5,700	497,000	87	38	19,600	3	
Massachusetts	20,300	6,590	214,000 3	32	48	10,500	13	
Michigan	147,000	9,970	1,760,000	177	20	12,000	10	
Minnesota	206,000	5,270	2,150,000	408	9	10,400	14	
Mississippi	121,000	2,950	208,000	70	44	1,710	45	
Missouri	178,000	5,990	1,810,000	302	11	10,100	15	
Montana	377,000	975	982,000	1,010	5	2,610	43	
Nebraska	199,000	1,800	248,000	138	23	1,250	48	
Nevada	284,000	2,640	6,020,000	2,280	3	21,200	2	
New Hampshire	23,200	1,330	108,000	81	41	4,630	33	
New Jersey	19,200	8,710	270,000 <sup>3</sup>	31	49	14,100	7	
New Mexico	314,000	2,010	886,000	441	8	2,820	42	
New York	122,000	19,500	1,370,000	70	45	11,200	11	
North Carolina	126,000	9,380	846,000	90	36	6,710	23	
North Dakota	179,000	647	51,000 <sup>3</sup>	79	42	285	50	
Ohio	106,000	11,500	1,130,000	98	32	10,700	12	
Oklahoma	178,000	3,690	667,000	181	19	3,750	40	
Oregon	249,000	3,830	314,000	82	40	1,260	47	
Pennsylvania	116,000	12,600	1,620,000 3	129	24	14,000	8	
Rhode Island	2,710	1,050	43,400 <sup>3</sup>	41	47	16,100	6	
South Carolina	78,000	4,560	449,000 <sup>3</sup>	98	31	5,760	27	
South Dakota	197,000	812	230,000	283	12	1,170	49	
Tennessee	107,000	6,300	675,000	107	29	6,320	26	
Texas	678,000	24,800	2,650,000	107	30	3,910	37	
Utah	213,000	2,790	3,900,000	1,400	4	18,400	4	
Vermont	24,000	622	122,000 <sup>3</sup>	196	18	5,080	29	
Virginia	103,000	7,880	955,000	121	27	9,320	17	
Washington	172,000	6,660	650,000	97	33	3,770	39	
West Virginia	62,400	1,820	215,000	118	28	3,460	41	
Wisconsin	141,000	5,660	546,000	97	34	3,880	38	
Wyoming	251,000	544	1,800,000	3,310	2	7,160	21	
Undistributed	XX	XX	89,500	XX	XX	XX	XX	
Total or average	9,160,000 4	306,000 4	59,000,000	192	XX	6,440	XX	

#### VALUE OF NONFUEL MINERAL PRODUCTION PER CAPITA AND PER SQUARE KILOMETER IN 2009 BY STATE<sup>1, 2</sup>

#### XX Not applicable.

<sup>1</sup>Table includes data available through July 26, 2011.

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

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

<sup>4</sup>Excludes Washington, DC (which has no mineral production), with an area of 179 square kilometers and a population of 600,000.

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

#### TABLE 5

### NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE<sup>1, 2, 3</sup>

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200		200		2009		
Mineral	Quantity	Value	Quantity	Value	Quantity	Value	
Alabama:							
Cement:							
Masonry	450	59,300 °	303	38,000 <sup>e</sup>	208	25,600	
Portland	5,060	486,000 °	4,640	450,000 <sup>e</sup>	3,420	307,000	
Clays, common	2,240	42,300	1,970	34,400	1,340	25,300	
Gemstones, natural	NA	398	NA	398	NA	143	
Lime	2,480	234,000	2,320	239,000	1,960	225,000	
Sand and gravel:							
Construction	16,700	96,500	13,800 <sup>r</sup>	87,300 <sup>r</sup>	10,000	64,800	
Industrial	459	9,810	619	14,600	370	11,200	
Stone:							
Crushed	55,600	382,000	50,000	370,000 <sup>r</sup>	36,400	332,000	
Dimension, marble, sandstone	(4)	W	7	3,720	4	1,460	
Combined values of clays (bentonite, kaolin),							
iron oxide pigments (crude), mica [crude (2008-09)],							
salt, and value indicated by symbol W	XX	24,300	XX	26,700 <sup>r</sup>	XX	26,500	
Total	XX	1,330,000	XX	1,260,000 <sup>r</sup>	XX	1,020,000	
Alaska:							
Gemstones, natural	NA	13	NA	69	NA	69	
Sand and gravel, construction	13,400 <sup>r</sup>	78,000 <sup>r</sup>	11,400 <sup>r</sup>	84,800 r	7,320	55,500	
Stone, crushed	1,750	20,000	1,990 <sup>r</sup>	31,400 <sup>r</sup>	1,940	34,800	
Combined values of cadmium (byproduct from zinc							
concentrates), gold, lead, silver, zinc	XX	3,440,000	XX	2,540,000	XX	2,530,000	
Total	XX	3,540,000	XX	2,650,000 r	XX	2,620,000	
Arizona:							
Clays, bentonite	30	1,520	23	1,220	17	913	
Copper <sup>5</sup>	731	5,290,000	836	5,880,000	711	3,780,000	
Gemstones, natural	NA	1,950	NA	1,960	NA	1,540	
Gypsum, crude	292	1,770	247	1,840	213	1,740	
Sand and gravel, construction	86,500 <sup>r</sup>	657,000 <sup>r</sup>	67,200 <sup>r</sup>	562,000 r	40,200	357,000	
Stone:							
Crushed	17,100	157,000	15,300 <sup>r</sup>	153,000 <sup>r</sup>	9,120	80,000	
Dimension, sandstone	(4)	W	123	16,400	94	13,800	
Combined values of cement, clays (common), gold,							
lime, molybdenum concentrates, perlite (crude),							
pumice and pumicite, salt, sand and gravel (industrial),							
silver, zeolites, and value indicated by symbol W	XX	1,170,000 <sup>r</sup>	XX	1,230,000 r	XX	942,000	
Total	XX	7,280,000	XX	7,850,000 <sup>r</sup>	XX	5,180,000	
Arkansas:							
Clays, common	1,120	4,520	796	10,700	539	7,630	
Gemstones, natural	NA	601	NA	607	NA	410	
Sand and gravel, construction	9,080	66,300	8,800	65,100	8,980	69,800	
Silica stone <sup>6</sup> metric tons	231	1,020	(4)	W	(4)	W	
Stone:							
Crushed	33,000	237,000	32,200	241,000 <sup>r</sup>	30,000	217,000	
Dimension	(4)	W	21	2,740	18	2,360	
Combined values of bromine, cement, clays (kaolin),						,	
gypsum (crude), lime, sand and gravel (industrial),							
tripoli, and values indicated by symbol W	XX	467,000 <sup>r</sup>	XX	390,000 <sup>r</sup>	XX	339,000	
						,	

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

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200		200		2009		
Mineral	Quantity	Value	Quantity	Value	Quantity	Value	
California:							
Cement:							
Masonry	522	68,900 <sup>e</sup>	337	43,600 e	236	28,100	
Portland	10,800	1,180,000 <sup>e</sup>	9,880	1,030,000 <sup>e</sup>	7,150	646,000	
Clays:							
Bentonite	29	3,090	30	3,360	22	2,310	
Common	549	3,390	469	3,570	318	2,370	
Fire	(4)	W	118	W	(4)	W	
Gemstones, natural	NA	818	NA	732	NA	727	
Gypsum, crude	1,150	6,980	861	6,390	825	5,850	
Sand and gravel:							
Construction	142,000 <sup>r</sup>	1,530,000 <sup>r</sup>	111,000 <sup>r</sup>	1,260,000 <sup>r</sup>	79,200	912,000	
Industrial	1,850	43,400	1,500	42,300	1,300	35,800	
Stone:	1,000	10,100	1,000	12,000	1,000	22,000	
Crushed	51,000	533,000	51,400 <sup>r</sup>	572,000 <sup>r</sup>	41,400	378,000	
Dimension	39	12,300	26	7,320	25	6,100	
Combined values of boron minerals, clays (fuller's earth,	57	12,500	20	7,520	25	0,100	
kaolin), diatomite, feldspar, gold, iron ore (usable							
shipped), lime, magnesium compounds, perlite (crude),							
pumice and pumicite, pyrophyllite (2009), salt, silver,							
soda ash, talc [crude (2007–08)], tungsten, zeolites,	3737	1 020 000 1	3737	1 2 40 000 1	3737	1 050 000	
and values indicated by symbol W	XX	1,030,000 r	XX	1,240,000 r	XX	1,050,000	
Total	XX	4,420,000	XX	4,200,000	XX	3,070,000	
Colorado:							
Clays:							
Bentonite	(4)	W	2	40	1	30	
Common	174	1,100	141	644	60	405	
Gemstones, natural	NA	261	NA	419	NA	426	
Sand and gravel, construction	47,200 <sup>r</sup>	373,000 <sup>r</sup>	37,800 <sup>r</sup>	299,000 r	29,300	217,000	
Stone:							
Crushed	10,300	76,700	9,590 <sup>r</sup>	71,300 <sup>r</sup>	6,970	63,200	
Dimension	21	3,870	27	4,510	11	3,110	
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	1,590,000	XX	1,680,000	XX	1,130,000	
Total	XX	2,050,000 r	XX	2,060,000 r	XX	1,420,000	
Connecticut:							
Clays, common	36	(7)	(4)	(7)	20	224	
Gemstones, natural	NA	6	NA	7	NA	7	
Sand and gravel, construction	8,340 <sup>r</sup>	73,800 <sup>r</sup>	7,350 <sup>r</sup>	69,600 <sup>r</sup>	5,680	60,800	
Stone:	0,010	, 2,000	1,000	0,000	5,000	00,000	
Crushed	10,400	119,000	9.640 <sup>r</sup>	106,000 <sup>r</sup>	8,030	101,000	
Dimension	(4)	(7)	(4)	(7)	(4)		
Total	XX	192,000	XX	175,000 r	XX	(7)	
Delaware:	ΛΛ	172,000	ΛΛ	173,000	ΔΔ	102,000	
	NT A	1	NT A	1	NT A	1	
Gemstones, natural	NA	1	NA	1	NA	1	
Magnesium compounds	(4)	(7)	(4)	(7)	(4)	(7)	
Sand and gravel, construction	3,520	26,400	2,550	20,600	2,080	24,500	
Stone, crushed	(4)	(7)	(4)	(7)	(4)	(7)	
Total	XX	26,400	XX	20,600	XX	24,500	

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

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	2007	7	2008	<u> </u>	2009	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
Florida:						
Cement:						
Masonry	524	86,100 <sup>e</sup>	310	47,000 <sup>e</sup>	123	18,700
Portland	5,510	557,000 <sup>e</sup>	4,980	518,000 <sup>e</sup>	3,150	307,000
Clays:						
Common	3	W	2	W	(4)	W
Kaolin	21	2,770	19	2,520	18	3,000
Gemstones, natural	NA	1	NA	1	NA	1
Peat	501	9,800	488	9,760	527	10,100
Sand and gravel:						
Construction	30,400 <sup>r</sup>	232,000 r	28,200 r	219,000	15,600	125,000
Industrial	441	8,110	573	7,480	431	8,270
Stone, crushed	96,400	1,150,000	68,400 <sup>r</sup>	894,000 <sup>r</sup>	48,600	643,000
Combined values of clays (fuller's earth), lime,						
magnesium compounds, phosphate rock, staurolite,						
titanium concentrates, zirconium concentrates, and						
values indicated by symbol W	XX	1,360,000	XX	2,040,000	XX	3,130,000
Total	XX	3,410,000	XX	3,730,000	XX	4,250,000
Georgia:						
Barite	(4)	W	7	1,350	7	1,350
Clays:						
Common	1,350	8,110	952	6,020	631	3,870
Fuller's earth	758	67,700	646 <sup>r, 8</sup>	51,800 <sup>r, 8</sup>	(4)	W
Kaolin	6,570	924,000	6,290	872,000	4,970	693,000
Gemstones, natural	NA	9	NA	74	NA	74
Sand and gravel:						
Construction	10,200	63,800	7,360 <sup>r</sup>	40,300 <sup>r</sup>	5,260	31,100
Industrial	1,040	18,100	841	20,700	775	19,300
Stone:						
Crushed	80,100	815,000	61,900	666,000	45,100	518,000
Dimension	162	18,900	169	18,200	153	16,900
Combined values of cement, clays [fuller's earth (2008)],						
feldspar, iron oxide pigments (crude), lime, mica						
(crude), and values indicated by symbol W	XX	148,000	XX	114,000	XX	128,000
Total	XX	2,060,000	XX	1,790,000 <sup>r</sup>	XX	1,410,000
Hawaii:						
Gemstones, natural	NA	151	NA	151	NA	151
Sand and gravel, construction	1,850 <sup>r</sup>	24,100 <sup>r</sup>	1,640 <sup>r</sup>	29,800 <sup>r</sup>	1,130	14,300
Stone, crushed	8,800	141,000	7,410 <sup>r</sup>	134,000 <sup>r</sup>	5,920	101,000
Total	XX	165,000 <sup>r</sup>	XX	164,000 <sup>r</sup>	XX	116,000
daho:						
Gemstones, natural	NA	339	NA	430	NA	491
Sand and gravel, construction	24,200 <sup>r</sup>	127,000 <sup>r</sup>	18,800 <sup>r</sup>	107,000 <sup>r</sup>	12,900	75,000
Stone:						
Crushed	6,170	37,500	5,950 <sup>r</sup>	38,800 r	4,410	30,800
Dimension, quartzite, sandstone	34	4,200	34	4,130	25	3,370
See footnotes at end of table.						

# NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE $^{\rm 1,\,2,\,3}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200		2008		2009	
Mineral	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	612,000	XX	921,000	XX	826,000
Total	XX	781,000 <sup>r</sup>	XX	1,070,000	XX	935,000
Illinois:						
Cement, portland	3,120	309,000 <sup>e</sup>	2,660	263,000 e	1,490	141,000
Clays, fuller's earth	(4)	W	112	W	(4)	W
Gemstones, natural	NA	34	NA	10	NA	9
Sand and gravel:						
Construction	32,100 <sup>r</sup>	177,000 <sup>r</sup>	27,000 <sup>r</sup>	168,000 <sup>r</sup>	22,500	144,000
Industrial	4,090	86,800	3,980	108,000	3,440	104,000
Stone, crushed	78,400	614,000	67,600 <sup>r</sup>	613,000 <sup>r</sup>	56,500	513,000
Combined values of clays (common), lime (2007–08),						
peat, stone, (dimension dolomite), tripoli, and values						
indicated by symbol W	XX	61,100	XX	60,900	XX	26,900
Total	XX	1,250,000	XX	1,210,000 r	XX	929,000
Indiana:						
Cement, portland	2,980	263,000 e	2,590	226,000 e	2,690	233,000
Clays, common	624	8,980	667	8,080	413	6,610
Gemstones, natural	NA	4	NA	4	NA	4
Sand and gravel, construction	28,300	154,000 <sup>r</sup>	23,300 <sup>r</sup>	139,000 <sup>r</sup>	18,800	100,000
Stone:	,	,	*	*	,	,
Crushed	57,800	383,000	51,800 <sup>r</sup>	352,000 r	44,100	290,000
Dimension	236	37,800	203	35,600	206	41,500
Combined values of cement (masonry), clays (ball),		,				,
gypsum (crude), lime, peat, sand and gravel						
(industrial)	XX	140,000 <sup>r</sup>	XX	131,000 <sup>r</sup>	XX	134,000
Total	XX	986,000 r	XX	892,000 r	XX	806,000
Iowa:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		0,2,000		000,000
Clays, common	331	2,630	269	1,140	184	828
Gemstones, natural	NA	3	NA	3	NA	3
Gypsum, crude	1,490	9,050	1,250	9,230	1,780	14,800
Sand and gravel, construction	17,100	94,100 <sup>r</sup>	15,800 <sup>r</sup>	89,500 <sup>r</sup>	13,600	87,600
Stone, crushed	35,500	286,000	38,700 <sup>r</sup>	312,000 r	32,600	297,000
Combined values of cement, lime, peat, sand and gravel	55,500	200,000	56,700	512,000	52,000	297,000
(industrial)	XX	289,000 <sup>r</sup>	XX	268,000 r	XX	196,000
Total	XX	681,000 r	XX	680,000	XX	596,000
		081,000	ΛΛ	080,000	ΛΛ	390,000
Cement, portland	2,760	282,000 <sup>e</sup>	2,400	246,000 <sup>e</sup>	1,670	170,000
*		· · · · · · · · · · · · · · · · · · ·				
Clays, common	563 NA	3,830	548 NA	2,840	381 NA	2,430
Gemstones, natural	NA	1	NA 70	1	NA	222.000
Helium, Grade–A million cubic meters	88	316,000	79	384,000	68	332,000
Salt	2,870	158,000	3,010	178,000	2,710	188,000
Sand and gravel, construction	11,200 <sup>r</sup>	52,100 <sup>r</sup>	10,500 <sup>r</sup>	51,600 r	8,580	43,300
Stone:	22.100	100.000	<b>00</b> 100 F	100.000	15 200	142.000
Crushed	23,400	199,000	23,100 r	180,000	17,200	143,000
Dimension	14	1,990	20	2,560	29	4,650

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

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200		2008		2009	
Mineral	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	62,200 <sup>r</sup>	XX	77,500 <sup>r</sup>	XX	69,200
Total	XX	1,070,000 <sup>r</sup>	XX	1,120,000	XX	953,000
Kentucky:	_					
Clays, common	598	3,720	419	8,170	288	5,980
Gemstones, natural	NA	48	NA	173	NA	37
Sand and gravel, construction	9,070	48,300	7,620 <sup>r</sup>	41,700 <sup>r</sup>	7,260	39,800
Stone, crushed	56,000	432,000	52,700 <sup>r</sup>	422,000 r	44,300	389,000
Combined values of cement, clays (ball), lime	XX	307,000	XX	324,000 r	XX	233,000
Total	XX	791,000	XX	796,000 <sup>r</sup>	XX	668,000
Louisiana:						
Clays, common	552	13,800	509	12,900	353	9,120
Gemstones, natural	NA	7	NA	7	NA	,
Salt	13,900	180,000	14,600	231,000	13,200	229,000
Sand and gravel:						
Construction	26,200 <sup>r</sup>	240,000 r	22,900 <sup>r</sup>	231,000 <sup>r</sup>	20,600	205,000
Industrial	635	21,200	748	23,100	682	25,90
Combined values of gypsum (crude), lime, stone						
(crushed limestone and sandstone)	XX	106,000 r	XX	123,000 <sup>r</sup>	XX	99,50
Total	XX	561,000 r	XX	620,000 <sup>r</sup>	XX	568,00
Maine:						
Gemstones, natural	NA	277	NA	282	NA	352
Sand and gravel, construction	11,300 <sup>r</sup>	85,900 r	10,200 <sup>r</sup>	69,100 <sup>r</sup>	9,090	59,300
Stone:						
Crushed	4,680	37,700	4,020 r	33,900 r	3,600	31,600
Dimension	6	1,580	7	1,720	6	1,300
Combined values of cement, clays (common), peat	XX	53,900	XX	56,000	XX	32,600
Total	XX	179,000 <sup>r</sup>	XX	161,000 <sup>r</sup>	XX	125,000
Maryland:						
Cement, portland	3,000	265,000 <sup>e</sup>	(4)	W	(4)	V
Clays, common	173	W	(4)	W	(4)	V
Gemstones, natural	NA	1	NA	1	NA	
Sand and gravel:						
Construction	12,400	123,000	12,000	126,000	7,980	99,200
Industrial			(4)	W		, í
Stone:						
Crushed	31,100	282,000	26,100 <sup>r</sup>	237,000 <sup>r</sup>	22,300	200,000
Dimension	17	2,680	(4)	W	(4)	V
Combined values of cement (masonry), and values		2,000	~ /			
indicated by symbol W	XX	(7)	XX	279,000	XX	198,000
Total		672,000	XX	642,000 r	XX	497,000
Massachusetts:		072,000	71/1	012,000	2121	177,00
Clays, common	31	(7)	24	(7)	(4)	(
Gemstones, natural	NA	(7)	NA	(7)	NA	()
Lime	(4)	1 (7)	(4)	1 (7)	(4)	(7
	_	141,000	(4) 11,300 <sup>r</sup>	(7) 110,000 r		
Sand and gravel, construction	15,800	141,000	11,500	110,000	9,460	85,60

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

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200		200		200	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
Massachusetts—Continued:						
Stone:						
Crushed	12,300	140,000	11,200 <sup>r</sup>	130,000 r	10,500	122,000
Dimension	98	12,000	53	7,140	44	6,130
Total	XX	293,000	XX	246,000 r	XX	214,000
Michigan:						
Cement:						
Masonry	149	20,200 <sup>e</sup>	99	12,000 <sup>e</sup>	80	9,800 °
Portland	5,490	537,000 <sup>e</sup>	4,930	502,000 <sup>e</sup>	3,550	350,000
Clays, common	533	2,250	365	1,730	318	1,310
Gemstones, natural	NA	2	NA	2	NA	2
Gypsum, crude	841 <sup>r</sup>	5,100 <sup>r</sup>	603 <sup>r</sup>	4,490 <sup>r</sup>	372	3,110
Iron ore, usable shipped	12,200	W	12,500 <sup>r</sup>	W	8,870	W
Sand and gravel:						
Construction	57,100 <sup>r</sup>	231.000 <sup>r</sup>	45,100 <sup>r</sup>	211,000 <sup>r</sup>	34,600	176,000
Industrial	1,360	30,000	1,500	26,800	1,330	27,700
Stone, crushed	26,800	130,000	26,100 <sup>r</sup>	136,000 <sup>r</sup>	20,400	115,000
Combined values of lime, magnesium compounds, peat,	20,000	120,000	20,100	100,000	20,100	110,000
potash, salt, stone (dimension dolomite sandstone),						
and values indicated by symbol W	XX	1,010,000	XX	1,130,000	XX	1,080,000
Total	XX	1,970,000	XX	2,020,000 r	XX	1,760,000
Minnesota:	ΔΛ	1,970,000	ΛΛ	2,020,000	ΛΛ	1,700,000
	NT A	6	NT A	7	NT A	7
Gemstones, natural	NA	6	NA	7	NA	7
Iron ore, usable shipped	38,800	W	41,100	W	18,700	W
Peat	41	4,350	48	4,540	44	2,850
Sand and gravel, construction	47,000 <sup>r</sup>	242,000 r	34,700 r	227,000 r	30,800	188,000
Stone:					=	
Crushed	10,400	111,000	10,300 r	122,000 r	8,670	110,000
Dimension	28	14,400	31	17,200	25	16,700
Combined values of clays [common (2007-08)], lime,						
sand and gravel (industrial), and values indicated by						
symbol W	XX	2,410,000	XX	3,090,000	XX	1,830,000
Total	XX	2,790,000 r	XX	3,460,000 r	XX	2,150,000
Mississippi:						
Clays:						
Bentonite	67	4,610	53	3,690	(4)	W
Common	508	2,980	433	2,340	263	1,540
Fuller's earth	(4)	W	384	W	(4)	W
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	15,000	102,000	12,800 <sup>r</sup>	91,400 <sup>r</sup>	12,700	101,000
Stone, crushed	3,120	58,900	4,380	88,800	3,130	63,400
Combined values of cement (portland), clays (ball),	-,		.,		-,	,
lime (2007), sand and gravel (industrial), and values						
indicated by symbol W	XX	76,900	XX	77,200	XX	42,200
Total	XX	245,000	XX	263,000 r	XX	208,000
Missouri:		243,000	7171	205,000	7171	200,000
	5 220	515 000 °	4 650	451.000 °	4 420	424 000 9
Claus common	5,230	515,000 °	4,650	451,000 °	4,420	434,000
Clays, common	426	2,880	496	3,470	421	3,020
Sand and gravel:	11000 *	<b>70 500 5</b>	10 100 *	<b>B</b> <	11 500	<b>51</b> 000
Construction	14,300 r	78,500 r	12,400 r	76,200 r	11,500	71,900
Industrial See footnotes at end of table.	642	19,400	648	21,400	763	28,900

### NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE<sup>1, 2, 3</sup>

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200	-	200	8	200	19
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
Missouri—Continued:						
Stone, crushed	83,900	630,000	76,400 <sup>r</sup>	614,000 <sup>r</sup>	67,700	598,000
Combined values of cadmium (byproduct from zinc						
concentrates), cement (masonry), clays (fire, fuller's						
earth), copper, gemstones (natural), lead, lime, silver,						
stone (dimension granite), zinc	XX	1,040,000	XX	892,000 r	XX	672,000
Total	XX	2,280,000	XX	2,060,000	XX	1,810,000
Montana:						
Gemstones, natural	NA	386	NA	380	NA	378
Palladium <sup>5</sup> kilograms	12,800	148,000	11,900	136,000	12,700	108,000
Platinum <sup>5</sup> do.	3,860	162,000	3,580	182,000	3,830	149,000
Sand and gravel, construction	16,000 <sup>r</sup>	135,000 <sup>r</sup>	13,400 <sup>r</sup>	110,000 <sup>r</sup>	11,200	85,500
Stone, crushed	1,810	9,800	1,980 <sup>r</sup>	14,000 <sup>r</sup>	1,990	20,400
Combined values of cadmium (byproduct from zinc						
concentrates), cement, clays (bentonite, common),						
copper, garnet (industrial), gold, lead, lime,						
molybdenum concentrates, silver, stone (dimension),						
talc (crude), zinc	XX	910,000	XX	924,000 <sup>r</sup>	XX	619,000
Total	XX	1,370,000 r	XX	1,370,000 <sup>r</sup>	XX	982,000
Nebraska:						
Clays, common	135 <sup>e</sup>	W	109 <sup>e</sup>	W	(4)	W
Gemstones, natural	NA	4	NA	4	NA	4
Sand and gravel, construction	13,500 <sup>r</sup>	71,100 <sup>r</sup>	14,000 <sup>r</sup>	75,400 <sup>r</sup>	12,900	75,500
Stone, crushed	7,690	75,600	7,960	78,100	6,340	59,700
Combined values of cement, lime, sand and gravel						
[(industrial (2009)], and values indicated by symbol W	XX	(7)	XX	(7)	XX	113,000
Total	XX	147,000 r	XX	153,000 r	XX	248,000
Nevada:		,		,		,
Barite	(4)	W	641	29,500	377	18,500
Gold <sup>5</sup> kilograms	186,000	4,170,000	178,000	5,000,000	161,000	5,040,000
Sand and gravel, construction	34,800 <sup>r</sup>	180,000	29,500 <sup>r</sup>	163,000 <sup>r</sup>	21,400	138,000
Silver <sup>5</sup> kilograms	243,000	105,000	235,000	113,000	203,000	95,900
Stone, crushed	12,700	111,000	10,200 r	95,100 <sup>r</sup>	8,290	90,500
Combined values of brucite (2007), cement (portland),	,	,	,		-,_, -,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
clays (bentonite, fuller's earth, kaolin), 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 value indicated by symbol W	XX	831,000 <sup>r</sup>	XX	893,000 <sup>r</sup>	XX	639,000
Total	XX	5,400,000 r	XX	6,290,000 r	XX	6,020,000
New Hampshire:		5,100,000	7111	0,290,000		0,020,000
Gemstones, natural	NA	6	NA	7	NA	7
Sand and gravel, construction	8,150 <sup>r</sup>	50,300 <sup>r</sup>	8,150 <sup>r</sup>	51,200 <sup>r</sup>	6,930	55,600
Stone:	0,150	50,500	0,150	51,200	0,750	55,000
Crushed	6,550	67,800	5,170	50,900	4,680	47,000
Dimension, granite	0,330 37	5,570	3,170	4,900	4,080	47,000
Total	XX	124,000 r	XX	4,900 <sup>r</sup>	XX	108,000
Total See footnotes at end of table	ΛΛ	124,000	ΛΛ	107,000	ΛΛ	106,000

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

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	2007		2008		2009	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
New Jersey:						
Clays, common	65	W				
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	15,700 <sup>r</sup>	145,000	13,600 <sup>r</sup>	153,000 <sup>r</sup>	11,100	116,000
Industrial	1,090	33,200	1,010	31,800	906	30,200
Stone, crushed	20,000	162,000	17,900	155,000	14,500	124,000
Combined values of greensand marl, peat, and value						
indicated by symbol W	XX	3,220	XX	(7)	XX	(7
Total	XX	343,000	XX	339,000 r	XX	270,000
New Mexico:						
Clays, common	28	269	14	120	10	90
Copper <sup>5</sup>	108	783,000	104	734,000	56	300,000
Gemstones, natural	NA	24	NA	21	NA	21
Sand and gravel:						
Construction	18,400 <sup>r</sup>	158,000 <sup>r</sup>	14,600 <sup>r</sup>	127,000 <sup>r</sup>	14,700	118,000
Industrial	(4)	W	(4)	W		
Stone:		**	()	**		
Crushed	7,590	56,700	7,020 <sup>r</sup>	43,400 <sup>r</sup>	6,130	40,200
Dimension	(4)	50,700 W	27	43,400 939	32	40,200
Combined values of cement, gold, gypsum (crude),	(4)	**	27	939	52	200
helium (Grade-A), lime (2007-08), molybdenum						
concentrates, perlite (crude), potash, pumice and						
pumicite, salt, silver, zeolites, and values indicated						
by symbol W	XX	582,000 r	XX	720,000	XX	427,000
Total	XX	1,580,000	XX	1,630,000 <sup>r</sup>	XX	886,000
New York:						
Clays, common	699	28,500	745	28,200	605	30,200
Gemstones, natural	NA	96	NA	96	NA	97
Salt	7,990	400,000	7,660	431,000	6,240	426,000
Sand and gravel, construction	34,300 r	286,000 r	34,400 <sup>r</sup>	260,000 r	31,100	266,000
Stone:						
Crushed	47,300	432,000	41,000 <sup>r</sup>	384,000 r	96,900	410,000
Dimension	70	12,000	57	16,000	97	28,200
Combined values of cadmium [byproduct from zinc						
concentrates (2007–08)], cement, garnet (industrial).						
concentrates (2007–08)], cement, garnet (industrial),						
peat, sand and gravel (industrial), talc [crude	XX	393 000	XX	354 000	XX	207.000
peat, sand and gravel (industrial), talc [crude (2007–08)], wollastonite, zinc (2007–08)	XX XX	393,000	XX	354,000	XX	
peat, sand and gravel (industrial), talc [crude (2007–08)], wollastonite, zinc (2007–08) Total	XX XX	393,000 1,550,000	XX XX	354,000 1,470,000 r	XX XX	
peat, sand and gravel (industrial), talc [crude (2007–08)], wollastonite, zinc (2007–08) Total North Carolina:	-					
peat, sand and gravel (industrial), talc [crude (2007–08)], wollastonite, zinc (2007–08) Total North Carolina: Clays:	XX	1,550,000	XX	1,470,000 <sup>r</sup>	XX	1,370,000
peat, sand and gravel (industrial), talc [crude (2007–08)], wollastonite, zinc (2007–08) Total North Carolina: Clays: Common	XX 1,720	1,550,000 19,500	XX 1,260	1,470,000 <sup>r</sup> 12,900	XX 828	1,370,000
peat, sand and gravel (industrial), talc [crude (2007–08)], wollastonite, zinc (2007–08) Total North Carolina: Clays: Common Kaolin	XX 1,720 20	1,550,000 19,500 792	XX 1,260 15	1,470,000 <sup>r</sup> 12,900 W	XX 828 9	1,370,000 4,980 W
peat, sand and gravel (industrial), talc [crude (2007–08)], wollastonite, zinc (2007–08) Total North Carolina: Clays: Common Kaolin Gemstones, natural	XX 1,720 20 NA	1,550,000 19,500 792 384	XX 1,260 15 NA	1,470,000 <sup>r</sup> 12,900 W 659	XX 828 9 NA	1,370,000 4,980 W 360
peat, sand and gravel (industrial), talc [crude (2007–08)], wollastonite, zinc (2007–08) Total North Carolina: Clays: Common Kaolin Gemstones, natural Mica, crude	XX 1,720 20	1,550,000 19,500 792	XX 1,260 15	1,470,000 <sup>r</sup> 12,900 W	XX 828 9	1,370,000 4,980 W 360
peat, sand and gravel (industrial), talc [crude (2007–08)], wollastonite, zinc (2007–08) Total North Carolina: Clays: Common Kaolin Gemstones, natural Mica, crude Sand and gravel:	XX 1,720 20 NA 43	1,550,000 19,500 792 384 10,300	XX 1,260 15 NA 22	1,470,000 <sup>r</sup> 12,900 W 659 4,580	XX 828 9 NA 16	207,000 1,370,000 4,980 W 360 4,430
peat, sand and gravel (industrial), talc [crude (2007–08)], wollastonite, zinc (2007–08) Total North Carolina: Clays: Common Kaolin Gemstones, natural Mica, crude	XX 1,720 20 NA	1,550,000 19,500 792 384	XX 1,260 15 NA	1,470,000 <sup>r</sup> 12,900 W 659	XX 828 9 NA	1,370,000 4,980 W 360

# NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE<sup>1, 2, 3</sup>

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200	7	2008		2009	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
North Carolina—Continued:						
Stone:						
Crushed	70,200	898,000	57,500	806,000	38,500	584,000
Dimension	48	20,400	58	25,200	62	22,300
Combined values of andalusite, feldspar, olivine,						
phosphate rock, pyrophyllite (crude), and values						
indicated by symbol W	XX	131,000	XX	150,000 <sup>r</sup>	XX	160,000
Total	XX	1,170,000	XX	1,090,000	XX	846,000
North Dakota:						
Clays, common	(4)	(7)	84	549	(4)	(7)
Gemstones, natural	NA	4	NA	4	NA	4
Lime	(4)	(7)	(4)	(7)	(4)	(7)
Sand and gravel:						
Construction	15,000 <sup>r</sup>	49,400 <sup>r</sup>	12,100 <sup>r</sup>	39,200 <sup>r</sup>	14,400	47,000
Industrial	(4)	(7)	(4)	(7)	(4)	(7)
Stone, crushed	274	1,270	26	133	985	3,980
Total	XX	50,600 r	XX	39.800 r	XX	51,000
Ohio:	АА	50,000	7474	57,000	7171	51,000
Cement, portland	916	92.000 <sup>e</sup>	762	74,000 <sup>e</sup>	550	53,000
	1,190	- ,	983	15,900	530 770	<i>,</i>
Clays, common		16,500		13,900		13,400
Gemstones, natural	NA	4	NA		NA	120,000
Lime	1,690	159,000	1,670	166,000	1,130	129,000
Sand and gravel:	41 000 F	272 000 F	22 000 r	<b>2</b> 4 4 000 F	27.200	241.000
Construction	41,000 r	272,000 r	33,800 r	244,000 r	27,200	241,000
Industrial	1,080	33,000	1,010	34,300	849	26,300
Stone:						
Crushed	68,000	448,000	54,100 <sup>r</sup>	446,000 r	42,700	388,000
Dimension	37	6,050	29 <sup>r</sup>	3,660 r	26	4,790
Combined values of cement (masonry), clays (fire), peat,						
salt	XX	254,000	XX	262,000 r	XX	277,000
Total	XX	1,280,000	XX	1,250,000 r	XX	1,130,000
Oklahoma:						
Clays, common	1,050	5,170	756	3,900	572	2,800
Gemstones, natural	NA	106	NA	4	NA	4
Gypsum, crude	2,820 r	17,100 <sup>r</sup>	2,180 <sup>r</sup>	16,200 <sup>r</sup>	2,180	15,900
Sand and gravel:						
Construction	16,200	94,200 <sup>r</sup>	14,700 <sup>r</sup>	95,500 <sup>r</sup>	11,600	68,200
Industrial	1,710	44,600	2,040	63,700	1,410	40,300
Stone:						
Crushed	45,800	298,000	47,200 <sup>r</sup>	345,000 <sup>r</sup>	36,800	308,000
Dimension	65	11,700	53	8,750	35	4,330
Tripoli metric tons	40,600	1,600	86,000	1,800	(4)	W
Combined values of cement, feldspar, helium (Grade-A),						
iodine (crude), lime, salt, and value indicated by						
symbol W	XX	261,000	XX	285,000	XX	228,000
Total	XX	734,000 r	XX	820,000 r	XX	667,000
Oregon:		,				,
Gemstones, natural	NA	2,150	NA	1,620	NA	1,220
Sand and gravel, construction	21,200	164,000 <sup>r</sup>	14,900 <sup>r</sup>	121,000 <sup>r</sup>	12,200	102,000
Stone, crushed	30,600	211,000	23,500 <sup>r</sup>	174,000 <sup>r</sup>	15,800	119,000
	20,000	211,000	23,500	17 7,000	15,000	117,000

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

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200		2008		2009	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
Oregon—Continued:						
Combine values of cement (portland), clays [bentonite,						
common (2007–08)], diatomite, emery (2008–09), lime,						
perlite (crude), pumice and pumicite	XX	128,000	XX	106,000	XX	91,500
Total	XX	506,000 r	XX	402,000 r	XX	314,000
Pennsylvania:						
Cement:						
Masonry	304	40,500 <sup>e</sup>	254	34,000 e	176	23,700
Portland	5,660	568,000 <sup>e</sup>	5,150	510,000 <sup>e</sup>	3,740	356,000
Clays, common	683	4,890	640	4,840	451	3,040
Gemstones, natural	NA	1	NA	1	NA	1
Lime	1,100	112,000	1,130	126,000	985	126,000
Peat	2	79	2	62	3	90
Sand and gravel:						
Construction	18,300	143,000	16,100 <sup>r</sup>	132,000 <sup>r</sup>	13,900	114,000
Industrial	685	15,800	677	16,300	618	15,600
Stone:						
Crushed	111,000	960,000	101,000 <sup>r</sup>	1,140,000	83,000	975,000
Dimension	59	16,200	42	11,100	39	9,670
Tripoli	(4)	(7)	(4)	(7)	(4)	(7)
Total	XX	1,860,000	XX	1,970,000	XX	1,620,000
Rhode Island:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	2,410	31,200	2,000 r	27,400 <sup>r</sup>	1,820	23,300
Industrial	(4)	(7)	(4)	(7)	(4)	(7)
Stone, crushed	2,240	21,200	1,840 <sup>r</sup>	17,900 <sup>r</sup>	1,820	20,200
Total	XX	52,400	XX	45,300 r	XX	43,400
South Carolina:		,		,		,
Cement:						
Masonry	491	60,100 <sup>e</sup>	323	41,600 <sup>e</sup>	174	22,000
Portland	3,680	355,000 °	2,930	284,000 °	1,870	169,000
Clays:	3,000	555,000	2,,,50	201,000	1,070	109,000
Common	826	3,990	461	2,130	311	1,300
Fire	37	83	29	66		1,500
Kaolin	297	17,600	199	11,300	144	8,590
Gemstones, natural	NA	17,000	NA	11,500	NA	8,590 1
Mica, crude	(4)	(7)	(4)	(7)	INA.	1
	(4)	(7)	(4)	(7)		
Sand and gravel: Construction	10,500 <sup>r</sup>	57,700 <sup>r</sup>	9,660 <sup>r</sup>	46,500 <sup>r</sup>	5,900	22,000
				· · · · · ·		32,900
Industrial	837	22,000	679	21,100	441	14,000
Stone:	20, 100	200.000	22 500	225 000	10.200	201.000
Crushed	30,400	290,000	22,500	235,000	18,200	201,000
Dimension	9	850	4	472	3	401
Vermiculite	(4)	(7)	(4)	(7)	(4)	(7)
Total	XX	808,000 r	XX	642,000 <sup>r</sup>	XX	449,000
South Dakota:						
Clays, common	151	W	155	W	(4)	W
Sand and gravel, construction	14,300 <sup>r</sup>	52,000 r	12,500 <sup>r</sup>	48,000 <sup>r</sup>	10,500	37,900
Silver kilograms					8,570	4,040
Stone, crushed	5,430	36,600	5,390	34,300	4,450	29,300

# NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE<sup>1, 2, 3</sup>

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200	7	2008	2008		2009	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value	
South Dakota—Continued:							
Combined values of cement (portland), feldspar,							
gemstones (natural), gold, gypsum (crude), iron ore							
(usable shipped), lime, mica (crude), stone							
(dimension granite), and values indicated by symbol W	XX	175,000	XX	165,000 <sup>r</sup>	XX	159,000	
Total	XX	263,000 r	XX	247,000 r	XX	230,000	
Tennessee:							
Clays:							
Ball	677	30,600	568	25,900	511	22,800	
Common	199	1,360	155	1,090	133	816	
Sand and gravel:							
Construction	7,640 <sup>r</sup>	54,500 <sup>r</sup>	7,180 <sup>r</sup>	56,200 <sup>r</sup>	5,360	42,800	
Industrial	1,070	32,400	983 <sup>r</sup>	32,800	783	27,100	
Stone, crushed	63,400	559,000	46,200	461,000	40,100	431,000	
Combined values of cadmium (byproduct from zinc							
concentrates), cement, clays (fuller's earth), gemstones							
(natural), lime, salt, stone (dimension marble), zinc	XX	315,000	XX	281,000 <sup>r</sup>	XX	150,000	
Total	XX	992,000 <sup>r</sup>	XX	859,000 <sup>r</sup>	XX	675,000	
Fexas:							
Cement:							
Masonry	368	52,100 <sup>e</sup>	274	40,300 <sup>e</sup>	202	28,300	
Portland	10,900	1,060,000 <sup>e</sup>	11,100	1,110,000 e	8,350	815,000	
Clays:							
Bentonite	64	3,730	73	12,000	54	8,610	
Common	1,950	12,600	2,070	13,700	1,800	13,000	
Gemstones, natural	NA	202	NA	202	NA	202	
Gypsum, crude	2,520 <sup>r</sup>	15,300 <sup>r</sup>	1,870 <sup>r</sup>	13,900 r	1,310	9,330	
Lime	1,620	132,000	1,500	128,000	1,040	105,000	
Salt	8,950	143,000	9,080	157,000	8,910	164,000	
Sand and gravel:							
Construction	96,100 <sup>r</sup>	656,000 <sup>r</sup>	88,300 <sup>r</sup>	631,000 <sup>r</sup>	70,000	528,000	
Industrial	3,280	123,000	3,590 <sup>r</sup>	139,000	2,130	84,400	
Stone:							
Crushed	153,000	1,020,000	150,000 <sup>r</sup>	1,100,000 <sup>r</sup>	110,000	782,000	
Dimension	243	31,600	269	27,700	236	42,000	
Combined values of brucite (2007–08), clays [ball,							
fire (2009), fuller's earth, kaolin], helium, talc (crude),							
zeolites	XX	72,100	XX	77,700	XX	69,700	
Total	XX	3,320,000 r	XX	3,450,000 r	XX	2,650,000	
Utah:		- , ,		-, -,		,,	
Beryllium concentrates metric tons	3,810	NA	4,410	NA	3,030	NA	
Clays, common	531	10,400	479	10,200	342	7,230	
Gemstones, natural	NA	240	NA	781	NA	783	
Salt	2,470	135,000	2,150	139,000	2,000	152,000	
Sand and gravel, construction	45,700 <sup>r</sup>	265,000 <sup>r</sup>	38,900 <sup>r</sup>	222,000 <sup>r</sup>	32,400	190,000	
Stone:	.2,700	_00,000	20,200	,000	22,100	1,0,000	
Crushed	13,200	97,800	8,950 <sup>r</sup>	72,700 <sup>r</sup>	4,830	39,400	
Dimension, sandstone	8	619	9	707	4,050	844	
See footnotes at end of table.	0	017	)	101	1	044	

# NONFUEL MINERAL PRODUCTION IN THE UNITED STATES, BY STATE $^{\rm 1,\,2,\,3}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

-	200		200		200	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
Utah—Continued:						
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	3,370,000	XX	3,730,000	XX	3,510,000
Total	XX	3,880,000	XX	4,170,000 <sup>r</sup>	XX	3,900,000
Vermont:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel, construction	5,310 <sup>r</sup>	35,300 r	4,960 r	33,600 r	4,470	36,700
Stone:						
Crushed	6,460	46,200	5,690 <sup>r</sup>	47,500 <sup>r</sup>	5,430	54,900
Dimension	110	35,700	112	35,900	108	30,000
Talc, crude	(4)	(7)	(4)	(7)	(4)	(7)
Total	XX	117,000 <sup>r</sup>	XX	117,000 <sup>r</sup>	XX	122,000
Virginia:						
Clays, common	725	7,840	766	8,540	505	5,830
Kyanite	118	29,100	97	25,500	71	20,000
Mica, crude	(9)	1				
Sand and gravel, construction	12,400 <sup>r</sup>	116,000 <sup>r</sup>	10,400 <sup>r</sup>	111,000 <sup>r</sup>	8,180	93,100
Stone, crushed	62,600	713,000	57,400 <sup>r</sup>	712,000 <sup>r</sup>	42,200	577,000
Combined values of cement, clays (fuller's earth),						
feldspar, gemstones (natural), iron oxide pigments						
(crude), lime, salt, sand and gravel (industrial), stone						
(dimension), titanium concentrates (ilmenite),						
vermiculite (crude), zirconium concentrates	XX	310,000	XX	318,000 <sup>r</sup>	XX	260,000
Total	XX	1,180,000	XX	1,170,000 r	XX	955,000
Washington:		1,100,000		1,170,000		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Clays, common	84	170	88	360	(4)	W
Gemstones, natural	NA	49	NA	50	NA	65
Peat	(4)	66	(4)	75	(4)	W
Sand and gravel, construction	45,700 <sup>r</sup>	325,000 r	39,600 r	326,000 r	29,900	230,000
Stone, crushed	43,700 18,000		17,500 <sup>r</sup>	168,000 <sup>r</sup>	29,900 14,700	
	18,000	166,000	17,300	108,000	14,700	131,000
Combined values of cadmium (byproduct from zinc						
concentrates), cement (portland), clays [fire (2009)],						
diatomite, gold (2008–09), lead, lime, olivine, sand and						
gravel (industrial), stone (dimension miscellaneous),						
zinc, and values indicated by symbol W	XX	258,000	XX	228,000	XX	289,000
Total	XX	749,000 <sup>r</sup>	XX	722,000 <sup>r</sup>	XX	650,000
West Virginia:						
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	675	5,620	426	3,840	410	3,480
Industrial	345	17,600	338	17,200	241	14,700
Stone, crushed	14,600	115,000	15,200 <sup>r</sup>	127,000 <sup>r</sup>	12,500	126,000
Combined values of cement, clays (common), lime, peat						
(2007), salt, stone (dimension sandstone)	XX	87,400	XX	85,300 r	XX	71,600
Total	XX	226,000	XX	234,000 r	XX	215,000

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

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200	7	2008		2009	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
Wisconsin:						
Gemstones, natural	NA	6	NA	7	NA	7
Lime	959	78,000	852	71,500	751	70,100
Peat	(4)	26	(4)	26		
Sand and gravel:						
Construction	39,000 r	189,000 <sup>r</sup>	36,200 <sup>r</sup>	190,000 <sup>r</sup>	29,100	143,000
Industrial	2,650	90,100	3,290	120,000	2,730	105,000
Stone:						
Crushed	32,800	191,000	25,900	238,000 r	22,900	198,000
Dimension	307	35,900	250	33,300	207	29,800
Total	XX	585,000 <sup>r</sup>	XX	652,000 <sup>r</sup>	XX	546,000
Wyoming:						
Clays:						
Bentonite	4,250	227,000	4,400 <sup>r</sup>	233,000 <sup>r</sup>	3,230	172,000
Common	59	226	37	89	41	104
Gemstones, natural	NA	15	NA	14	NA	14
Sand and gravel, construction	19,500 <sup>r</sup>	98,300 <sup>r</sup>	17,500 <sup>r</sup>	103,000 <sup>r</sup>	17,200	92,200
Stone, crushed	12,500	61,400	12,100	57,100	16,000	75,400
Combined values of cement (portland), gypsum (crude),						
helium (Grade-A), lime, soda ash, stone [dimension						
(2008–09)], zeolites (2007)	XX	1,370,000	XX	1,640,000	XX	1,460,000
Total	XX	1,760,000	XX	2,030,000 r	XX	1,800,000
Undistributed:						
Connecticut, Delaware, Maryland (2007), Massachusetts,						
Nebraska (2007-08), New Jersey (2008-09), North						
Dakota, Pennsylvania, Rhode Island, South Carolina,						
Vermont, Undistributed	XX	190,000	XX	167,000 <sup>r</sup>	XX	89,500

<sup>e</sup>Estimated. <sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; included in "Combined values" data for each State. XX Not applicable. -- Zero.

<sup>1</sup>Table includes data available through July 26, 2011.

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

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

<sup>4</sup>Withheld to avoid disclosing company proprietary data.

<sup>5</sup>Recoverable content of ores, etc.

<sup>6</sup>Grindstones, pulpstones, and sharpening stones; excludes mill liners and grinding pebbles.

<sup>7</sup>Withheld to avoid disclosing company proprietary data; value included in "Undistributed."

<sup>8</sup>Excludes attapulgite; included in "Combined values."

<sup>9</sup>Less than <sup>1</sup>/<sub>2</sub> unit.

# TABLE 6 NONFUEL RAW MINERAL PRODUCTION IN THE COMMONWEALTH OF PUERTO RICO AND ISLANDS ADMINISTERED BY THE UNITED STATES $^{\rm 1.2,3}$

	200	7	2008	3	200	9
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
Puerto Rico:						
Cement, portland	1,390	W	1,300	W	936	W
Clays, common	96	547	75	437	54	328
Lime <sup>e</sup>	11	2,250	11	998	11	1,750
Salt	45	1,500	45	1,500	45	1,500
Stone, crushed	13,400	100,000	11,000 <sup>r</sup>	96,000 <sup>r</sup>	8,370	68,700
Total	XX	105,000	XX	98,900 <sup>r</sup>	XX	72,300
Administered Islands:						
American Samoa, stone, crushed	W	W	W	W	W	W
Guam, stone, crushed	329	3,760	325	3,780	296	3,380
Virgin Islands, stone, crushed	W	W	W	W	W	W
Total	XX	3,760	XX	3,780	XX	3,380

#### (Thousand metric tons and thousand dollars)

eEstimated. Revised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

<sup>1</sup>Table includes data available through July 26, 2011.

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

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

#### TABLE 7

#### U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS $^{\rm 1,\,2}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200		200	
Mineral or product	Quantity	Value	Quantity	Value
Metals:				
Aluminum:				
Crude and semicrude metric tons	3,280,000	9,020,000	2,710,000	5,910,00
Manufactures do.	150,000	683,000	122,000	479,00
Antimony:				
Metal, alloys, waste and scrap do.	366	1,360 <sup>r</sup>	385	2,00
Oxide, antimony content do.	1,830	10,200	1,710	9,66
Arsenic metal, arsenic content do.	1,050	2,110	354	79
Bauxite and alumina:				
Alumina, calcined equivalent	1,150	684,000	946	488,00
Bauxite:				
Calcined, refractory and other grade	10	1,600	21	10,9
Crude and dried	14	4,000 <sup>r</sup>	20	5,5
Specialty aluminum compounds, sulfate, chloride, fluoride-based metric tons	41,600	50,400	28,500	32,5
Beryllium, unwrought, and waste and scrap, other including articles not				
elsewhere specified, beryllium content kilograms	113,000	16,500	22,900	11,7
Bismuth, metal, alloys, waste and scrap, bismuth content do.	375,000	6,730	397,000	5,8
Cadmium:				
Metal do.	126,000	901	249,000	5
Sulfide, gross weight do.	241,000	125	16,200	
Unwrought and powder do.	295,000	1,370	276,000	1,2
Waste and scrap do.			137,000	3
Chromium:				
Ores and concentrate metric tons	7,000	4,370	2,500	1,6
Metals and alloys:	,	*	*	· · · · ·
Metal, unwrought powders, waste and scrap, other do.	998	20,400	411	13,30
Ferroalloys, high-carbon, low-carbon, ferrochromium-silicon do.	24,500	43,100	4,780	6,82
Chemicals:	,	- ,	y	- ) -
Oxide, trioxide, other do.	21,000	38,900	12,000	27,9
Sulfates do.	52	362	16	1
Salts of oxometallic or peroxometallic acids, zinc and lead chromate, sodium	02	002	10	-
dichromate, potassium dichromate, other do.	32,800	31,200	20,500	23,1
Pigments and preparations     do.	1,230	10,600	1,220	13,8
Cobalt:	1,230	10,000	1,220	15,0
Acetates and chlorides do.	346	6,320	658	8,3
	540	19,400	225	5,5
Oxides and hydroxides     do.       Metal:	551	19,400	223	5,5.
Unwrought, powders, waste and scrap, mattes, other intermediate products of				
	2 2 9 0	112,000	2 1 2 0	77.20
metallurgy do.	2,380	112,000	2,120	77,30
Wrought and cobalt articles do.	1,370	104,000	NA	N
Copper:				
Unmanufactured, does not include unalloyed scrap, copper content do.	407,000	1,920,000	299,000	1,280,0
Semimanufactures do.	222,000	1,870,000	194,000	1,140,00
Scrap, alloyed and unalloyed do.	908,000	2,960,000	843,000	2,010,0
Ferroalloys not listed elsewhere:	-			
Ferrophosphorous do.	2,350	4,590	1,130	2,0
Other do.	9,360	16,300	3,130	6,8
Gold:				
Ores and concentrates kilograms	2,430	52,300	2,160	48,6
Dore and precipitates do.	106,000	3,000,000	97,400	3,000,0
Bullion, refined do.	459,000 r	13,100,000	281,000	8,760,0
Waste and scrap do.	886,000	1,970,000	728,000	1,750,0

# U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS $^{\rm l,\,2}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	20		200	
Mineral or product	Quantity	Value	Quantity	Value
Metals—Continued:				
Gold—Continued:				
Metal powder kilograms	1,210	25,300	329	8,46
Compounds do.	2,920,000	67,900	2,680,000	64,60
Iron and steel:				
Steel mill products	12,200	NA	8,420	NA
Fabricated steel products	1,900	NA	1,560	NA
Cast iron and steel products	304	NA	238	NA
Iron and steel scrap:				
Ferrous, includes tinplate and terneplate, excludes used rails for rerolling and other uses				
and ships, boats, and other vessels for scrapping	21,500	10,400,000	22,400	7,120,00
Pig iron, all grades	51	11,400	11	4,20
Direct-reduced iron, steelmaking grade metric tons	804	97	271	3
Ships, boats, and other vessels for scrapping	4	354	4	77
Used rails for rerolling and other uses, includes mixed (used plus new) rails	76	54,900	59	38,70
Iron ore	11,100	1,240,000	3,920	356,00
Lead:				
Base bullion, lead content metric tons	614	2,040	34	11
Ore and concentrates, lead content do.	277,000	243,000	287,000	275,00
Unwrought and alloys, lead content do.	68,100	119,000	77,600	80,10
Wrought and alloys, lead content do.	6,150	9,880	4,310	8,28
Scrap, gross weight do.	175,000	92,800	140,000	72,00
Magnesium:				
Waste and scrap, magnesium content do.	2,600	5,420	2,280	5,20
Metal, magnesium content do.	3,100	9,770	6,120	20,50
Alloys, gross weight do.	6,760	29,900	9,190	40,40
Powder, sheets, tubing, ribbons, wire, other forms, gross weight do.	1,950	30,200	2,050	30,50
Manganese, gross weight:				
Ores and concentrates with 20% or more manganese do.	48,300	10,700	15,300	3,83
Ferromanganese, all grades do.	23,400	20,600	24,200	27,90
Silicomanganese do.	7,140	9,020	18,800	17,50
Metal, including alloys and waste and scrap do.	4,580	11,600	3,470	9,04
Dioxide do.	11,000	14,600	8,420	13,40
Mercury:				
Metal do.	732	10,100	753	10,30
Amalgams of precious metals whether or not chemically defined do.	925	564,000	154	238,00
Molybdenum:				
Ore and concentrates, including roasted and other, molybdenum content do.	32,700	1,810,000	29,600	631,00
Chemicals:				
Oxides and hydroxides, gross weight do.	16,700	428,000	10,600	159,00
Molybdates, all, gross weight do.	1,540	46,700	1,500	18,00
Ferromolybdenum, molybdenum content do.	1,290	62,400	827	22,40
Other, includes powders, unwrought, bars and rods, waste and scrap, wire, other,				
gross weight do.	2,190	192,000	1,790	112,00
Nickel, nickel content:			-	
Primary, unwrought and chemicals do.	11,600	345,000	7,020	313,00
Secondary, stainless steel scrap and waste and scrap do.	94,600	1,340,000	90,000	814,00
Wrought, not alloyed, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes         do.	1,700	45,500	975	24,20
Alloyed, unwrought ingot, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes	-,, 00		2.0	1.,20
other alloyed articles, gross weight do.	42,100	1,730,000	30,700	1,120,00
See footnotes at end of table	.2,100	-,,	20,700	1,120,00

### U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS $^{\rm 1,\,2}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200	08	200	19
Mineral or product	Quantity	Value	Quantity	Value
Ietals—Continued:	-			
Niobium (columbium) and tantalum:	-			
Niobium:	-			
Ores and concentrates kilograms	62,800	2,010	17,000	95
Ferroniobium do.	1,130,000	12,500	240,000	2,74
Tantalum:	_			
Ores and concentrates, includes synthetic do.	277,000	2,790	318,000	2,90
Unwrought powders, waste and scrap, unwrought alloys and metal do.	462,000	89,800	179,000	50,10
Wrought do.	104,000	49,300	52,200	26,90
Platinum-group metals:	_			
Palladium, palladium content do.	26,400	197,000	30,300	229,00
Platinum, includes waste and scrap and metal, platinum content do.	70,300	1,760,000	47,100	1,040,00
Iridium, osmium, ruthenium, gross weight do.	6,450	80,600	4,020	34,40
Rhodium, rhodium content do.	1,980	302,000	1,220	48,40
Rare earths, estimated rare-earth oxide content:	-			
Cerium compounds do.	1,380,000	12,200	840,000	8,04
Compounds, inorganic and organic do.	663,000	7,610	455,000	6,2
Metals, including scandium and yttrium do.	1,390,000	18,600	4,920,000	15,70
Ferrocerium and other pyrophoric alloys do.	4,490,000	21,200	2,970,000	28,0
Selenium and tellurium:		,	,- · · , - · ·	- , -
Selenium, selenium content do.	545,000	8,920	613,000	10,3
Tellurium, tellurium content do.	50,000	3,030	8,130	1,2
Silicon, gross weight:		2,020	0,120	-,-
Ferrosilicon metric tons	17,700	29,500 r	14,200	16,9
Metal do.	35,400	2,260,000	37,900	2,070,0
Silver:		2,200,000	57,900	2,070,00
Bullion, silver content kilograms	413,000	203,000	167,000	93.6
Dore, silver content     do.	94,800	36,200	130,000	72,7
Metal powder, gross weight do.	890,000	473,000	834,000	434,0
Nitrate, gross weight do.	34,900	3,260	27,900	434,0
Ores and concentrates, silver content     do.	130,000	50,300	122,000	2,0 55,4
	720,000	199,000	525,000	252,0
Semimanufactured forms containing 99.5% or more by weight of silver, gross weight do.	-			
Waste and scrap, gross weight     do.	2,570,000	4,290,000	2,480,000	4,300,0
Unwrought, other, gross weight do.	47,700	15,700	59,000	21,2
Thorium:	-		10.000	
Ore, monazite concentrate do.			18,000	2
Thorium and thorium-bearing materials, compounds do.	12,700	1,250	4,730	3
Tin:	-			
Ingots and pigs metric tons	9,800	62,000	3,170	22,2
Tin scrap and other tin bearing material, except tinplate scrap, includes rods, profiles,				
wire, powders, flakes, tubes, pipes do.	14,500	65,600	11,600	46,2
Tinplate and terneplate do.	247,000	192,000	224,000	175,0
Titanium:	_			
Metal, waste and scrap, unwrought, wrought products and castings, ferrotitanium				
and ferrosilicon titanium do.	34,600	1,290,000	23,300	799,0
Ores and concentrates do.	14,900	8,590	14,800	8,2
Pigment, dioxide and oxide do.	733,000	1,470,000	649,000	1,310,0
Tungsten, tungsten content:				
Ammonium paratungstate do.	621	10,100	375	5,9
Carbide powder do.	1,340	53,300	469	19,6
	-	57,100	361 <sup>e</sup>	25,5

# U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS $^{\rm l,\,2}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

		200		200	
Mineral or product		Quantity	Value	Quantity	Value
Metals—Continued:					
Tungsten, tungsten content—Continued:					
Miscellaneous tungsten-bearing materials, ferrotungsten, ferrosilicon tungste					
unwrought, waste and scrap, wrought, compounds	metric tons	2,540	84,200	1,520	48,60
Ores and concentrates	do.	496 <sup>e</sup>	14,500	38 <sup>e</sup>	1,08
Vanadium:					
Aluminum-vanadium master alloy, gross weight	kilograms	21,900,000	76,200	11,200,000	27,80
Ferrovanadium, vanadium content	do.	281,000	12,600	672,000	15,00
Metal, including waste and scrap, gross weight	do.	57,100	3,740	22,700	1,04
Pentoxide, anhydride, vanadium content	do.	249,000	5,650	401,000	4,97
Other oxides and hydroxides, vanadium content	do.	1,040,000	11,300	506,000	5,27
Zinc:					
Compounds, chloride, chromates of zinc or of lead, compounds n.s.p.f. <sup>3</sup> , lith	nopone,				
oxide, sulfate, sulfide, gross weight	metric tons	49,500	76,500	25,400	47,50
Ores and concentrates, zinc content	do.	725,000	598,000	785,000	656,00
Rolled	do.	4,970	20,900	6,160	17,70
Slab	do.	3,250	3,260	2,960	3,07
Zirconium:		- ,	-,	y	- ,
Ferrozirconium	do.	316	574	566	1,14
Ores and concentrates	do.	42,100 r	51,100	39,600	36,30
Oxide, includes germanium oxides and zirconium dioxides	do.	2,970	42,400	3,050	31,40
Unwrought powders	do.	344	10,400	165	7,66
Waste and scrap	do.	2,330	180,000	2,140	192,00
Total	u0.	 XX	69,300,000 r	2,140 XX	49,100,00
Industrial Minerals:			09,300,000	ΛΛ	49,100,00
Abrasives, manufactured:					
Aluminum oxide, crude	matria tana	21,900	50.000	12,300	32,00
	metric tons		59,000	,	
Metallic abrasives	do.	34,400	48,500	25,900	32,20
Silicon carbide, crude, ground and refined	do.	17,000	46,600	20,700	37,70
Asbestos, includes reexports:		DT 4	22.200	DT A	24.50
Manufactured		NA	33,200	NA	24,50
Unmanufactured	metric tons	368	345	59	6
Barite, natural barium sulfate	do.	61,600	10,500	49,300	10,20
Boron minerals and compounds:					
Boric acid, includes orthoboric and anhydrous		303	165,000	171	109,00
Sodium borates		519	192,000	417	176,00
Bromine:					
Compounds, includes methyl bromine and ethylene dibromide, bromine	metric tons	3,500 <sup>r</sup>	9,120 <sup>r</sup>	2,310	6,51
content					
Elemental, gross weight	do.	6,140	7,100	3,810	5,93
Cement, hydraulic and clinker <sup>4</sup>		823	102,000	884	107,00
Clays:					
Ball		65	4,580	35	2,43
Bentonite		1,090	161,000	709	100,00
Fire		393	49,600	328	42,80
Fuller's earth		127	44,000 r	90	28,50
Kaolin		2,960	606,000	2,290	459,00
Other, n.e.c. <sup>5</sup> , includes chamotte or dinas earth, activated clays and earths, a	rtificially	2,700	,	2,270	100,00
other, n.e.c., includes chamotte or dinas earth, activated clays and earths, a activated clays	utilicially	466 <sup>r</sup>	72,700 <sup>r</sup>	374	69,50
Diamond:		+00	12,100	574	07,30
	housand seret-	24.000	14 700 000	25 200	0.040.00
Gemstones, natural, including reexports t	housand carats	34,000	14,700,000	25,200	9,940,00

### U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS $^{\rm 1,\,2}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

		200	-	2009	
Mineral or product		Quantity	Value	Quantity	Value
industrial minerals—Continued:					
Diamond—Continued:					
Industrial including exports and reexports:					
Unworked	thousand carats	1,280	28,000	947	17,500
Powder, dust and grit, natural and synthetic	do.	125,000	61,700	76,900	37,60
Diatomite		151	67,700	88	41,10
Feldspar	metric tons	14,600	2,390	7,520	1,150
Fluorspar	do.	18,800	3,340	14,100	2,23
Garnet, industrial	do.	12,500	9,050	13,200	10,70
Graphite, natural and artificial	do.	62,800	182,000	46,400	130,00
Gypsum and gypsum products:					
Crude		149	20,500	156	16,000
Plasters		135	47,400	155	37,80
Boards		98	133,000	665	120,000
Other		XX	55,400	XX	50,200
Helium, Grade-A	million cubic meters	70	152,000	71	160,00
Iodine:					
Crude, resublimed	metric tons	950	17,400	1,160	22,90
Potassium iodide	do.	568	11,300	126	2,720
Iron oxide pigments and hydroxides:					
Pigment grade	do.	4,740	12,100	5,640	15,50
Other grade	do.	46,900	31,800	11,300	18,500
Kyanite, andalusite, sillimanite <sup>e</sup>		36	10,400	26	7,510
Lime		174	27,100	108	18,500
Lithium chemicals:					
Carbonate	metric tons	2,720	15,800 r	1,030	7,130
Hydroxide	do.	5,680	40,700 <sup>r</sup>	4,400	31,60
Magnesium compounds:					
Compounds, chlorides, hydroxide and peroxide, sulfates	do.	38,000	29,100	10,600	28,30
Magnesite, crude and processed:					
Caustic-calcined magnesia	do.	890	779	503	290
Dead-burned and fused magnesia	do.	22,100	13,100	8,390	5,950
Other magnesia	do.	18,100	18,900	12,700	13,500
Crude	do.	21,000	3,350	10,500	1,480
Mica:					
Scrap and flake:					
Powder	metric tons	6,630	7,810	5,940	8,850
Waste	do.	2,430	731	2,090	1,600
Sheet:		,			· · ·
Unworked	do.	105	238	96	43'
Worked	do.	1,920	18,600	1,020	15,300
Nitrogen, major compounds, gross weight		9,370	NA	9,280	NA
Peat		186	17,800	77	8,570
Perlite, crude <sup>e</sup>	metric tons	37,000	NA	33,000	NA
Potash:	metre tons	27,000	1111	22,000	141
Potassium chloride	do.	104,000	NA	342,000	NA
Potassium enforme Potassium sulfates, all grades	do.	585,000	NA	355,000	N/
Potassium istrates, an grades	do.	5,090	6,050	8,450	6,250
Pumice and pumicite	d0.	3,090 15	7,220	8,430 11	
					5,100 74,100
Salt		1,030	65,900	1,450	74,10

### U.S. EXPORTS OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS<sup>1, 2</sup>

#### (Thousand metric tons and thousand dollars unless otherwise specified)

		200	)8	20	09
Mineral or product		Quantity	Value	Quantity	Value
Industrial minerals—Continued:					
Sand and gravel:					
Construction:					
Sand		98	18,000	79	19,000
Gravel		294	4,380	360	4,050
Industrial		3,100	260,000	2,150	175,000
Silica, special stone products		NA	8,730 <sup>r</sup>	NA	7,640
Soda ash		5,370	939,000	4,410	838,000
Stone:					
Crushed		1,240	61,600	1,260	58,300
Dimension		XX	65,700	XX	48,300
Strontium compounds:					
Carbonate, precipitated	kilograms	118,000	114	160,000	107
Oxide, hydroxide, peroxide	do.	749,000 <sup>r</sup>	641 <sup>r</sup>	615,000	358
Sulfur:					
Elemental		953 <sup>r</sup>	272,000	1,430	82,200
Sulfuric acid, 100% H <sub>2</sub> SO <sub>4</sub>	metric tons	262,000	42,700	254,000	23,900
Talc, excludes powders-talcum (in package), face, compact		244	46,000	188	37,600
Vermiculite <sup>e</sup>		5	985	3	610
Wollastonite <sup>e</sup>	metric tons	30,000	9,000	35,000	10,700
Zeolites <sup>e</sup>	do.	200	46	200	47
Total		XX	19,100,000 <sup>r</sup>	XX	13,400,000
Grand total		XX	88,400,000 r	XX	62,500,000

<sup>e</sup>Estimated. <sup>r</sup>Revised. do. Ditto. NA Not available. XX Not applicable. -- Zero.

<sup>1</sup>Table includes data available through July 26, 2011.

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

<sup>3</sup>Not specifically provided for.

<sup>4</sup>Excludes Puerto Rico.

<sup>5</sup>Not elsewhere classified.

#### TABLE 8

# U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS $^{\rm 1,\,2}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

		200	-	2009	
Mineral or product		Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>
Metals:					
Aluminum:					
Crude and semicrude	metric tons	4,200,000	12,500,000	4,110,000	7,980,000
Manufactures	do.	325,000	1,210,000	264,000	732,000
Antimony:					
Metal	do.	7,050	29,700	4,750	19,600
Ore and concentrate, antimony content	do.	164	828	167	1,010
Oxide, antimony content	do.	21,800	124,000	15,200	81,000
Arsenic:					
Acid	do.	115	682	3	11
Metal	do.	376	2,610	438	1,890
Sulfide	do.	(4)	11	77	334
Trioxide	do.	6,320	2,920	6,130	2,740
Bauxite and alumina:					
Alumina, calcined equivalent		2,530	1,100,000	1,860	613,000
Bauxite:					
Calcined, refractory and other grade		1,110	178,000	461	91,800
Crude and dried		10,500	277,000	6,970	208,000
Specialty aluminum compounds, sulfate, chloride, fluoride-based	metric tons	62,000	72,400	30,700	30,600
Beryllium, ore, concentrates, oxide, hydroxide, unwrought including powders,					
waste and scrap, other, beryllium-copper master alloys, beryllium-copper pla	tes,				
sheets, strip, beryllium content	kilograms	77,600 <sup>r</sup>	20,500	23,800	5,720
Bismuth, metallic	do.	1,930,000	44,700	1,250,000	20,600
Cadmium:					
Metal	do.	44,000	565	4,940	371
Sulfide, gross weight	do.	439,000	3,040	135,000	2,430
Unwrought and powder	do.	153,000	5,090	117,000	1,110
Chromium:					
Chromite ore	metric tons	197,000	44,800	77,200	17,500
Metals and alloys:					
Ferroalloys, high-carbon, low-carbon, ferrochromium-silicon	do.	533,000	1,170,000	248,000	294,000
Metal, unwrought powders, waste and scrap, other	do.	13,100	145,000	7,570	74,900
Chemicals:					
Oxides, hydroxides, trioxide and other	do.	11,400	32,300	9,100	28,000
Sulfates	do.	56	92	71	88
Salts of oxometallic or peroxometallic acids, zinc and lead chromate, sodiu	ım				
dichromate, potassium dichromate, other	do.	33,600	30,800	15,300	18,100
Carbide	do.	129	2,460	165	3,060
Pigments and preparations based on chromium	do.	2,100	10,700	1,700	8,650
Cobalt:		,	- ,	,	- ,
Metal:					
Alloys, unwrought, waste and scrap, wrought, cobalt articles	do.	1,570	59,400	NA	NA
Unwrought, excluding alloys and waste and scrap, includes cathode and m		-,- , -			
powder, may include intermediate products of cobalt metallurgy	do.	8,430	618,000	5,870	198,000
Oxide and hydroxides	do.	1,110	63,400	1,460	37,50
Other forms, includes acetates, carbonates, chlorides, sulfates	do.	4,710	49,900	2,130	27,30
Copper:	<u>uo.</u>	7,710	77,700	2,150	21,50
Unmanufactured, does not include unalloyed scrap, copper content	do.	848,000	6,210,000	733,000	3,510,00
Semimanufactures		348,000 301,000	2,090,000 <sup>r</sup>	225,000	1,050,00
	do.	106,000 <sup>r</sup>			
Scrap, alloyed and unalloyed	do.	100,000	485,000	71,800	237,00

### U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS<sup>1, 2</sup>

#### (Thousand metric tons and thousand dollars unless otherwise specified)

		200		2009	
Mineral or product		Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>
Ietals—Continued:					
Ferroalloys not listed elsewhere:					
Ferrophosphorus	metric tons	10,200	7,530	138	61
Other	do.	12,900	36,700	4,710	13,90
Gallium:					
Unwrought and waste and scrap	kilograms	41,100	18,500	35,900	12,60
Gallium arsenide wafers, doped and undoped	do.	166,000	155,000	145,000	131,00
Germanium, wrought, unwrought, waste and scrap, gross weight	do.	40,200	39,600		
Gold:					
Ores and concentrates	kilograms	27,500	15,700	46,600	33,10
Dore and precipitates	do.	85,100	1,830,000	146,000	4,260,00
Bullion, refined	do.	118,000	3,190,000	127,000	3,580,00
Waste and scrap	do.	36,500	485,000	43,400	589,00
Metal powder	do.	324	6,620	476	8,76
Compounds	do.	102,000	2,210	64,300	1,43
Indium, unwrought metal	do.	144,000	69,500	105,000	35,20
Iron and steel:					
Steel mill products		29,000	NA	14,700	Ν
Fabricated steel products		5,220 <sup>r</sup>	NA	3,530	Ν
Cast iron and steel products		777	NA	464	Ν
Stainless steel	metric tons	586,000	NA	345,000	Ν
Iron and steel scrap:					
Ferrous, includes tinplate and terneplate, excludes used rails for rerolling and	other uses				
and ships, boats, and other vessels for scrapping		3,600	1,450,000	2,990	814,00
Pig iron, all grades		4,980	2,800,000	2,420	877,00
Direct-reduced iron, steelmaking grade		2,340	971,000	1,020	304,00
Ships, boats, and other vessels for scrapping		(4) <sup>r</sup>	18	(4)	7
Used rails for rerolling and other uses, includes mixed (used plus new) rails		151	80,600	57	17,70
Iron ore		9,250	918,000	3,870	376,00
Lead:					
Pigs and bars, lead content	metric tons	309,000	660,000	251,000	480,00
Pigments and compounds, lead content	do.	26,200	62,400	28,100	46,80
Scrap, reclaimed, includes ash and residues, lead content	do.	1,290	2,040	1,330	2,62
Wrought, all forms, including wire and powders, gross weight	do.	3,250	14,000	1,340	5,95
Magnesium:					
Waste and scrap, gross weight	do.	24,100	58,800	20,900	40,30
Metal, gross weight	do.	44,300	190,000	21,400	86,80
Alloys, magnesium content	do.	13,000	74,100	4,790	29,80
Powder, sheets, tubing, ribbons, wire, other forms, magnesium content	do.	1,970	14,700	205	4,17
Manganese:					
Ores and concentrates with 20% or more manganese, manganese content	do.	289,000	154,000	154,000	82,60
Ferromanganese, all grades, manganese content	do.	351,000	1,130,000	121,000	215,00
Silicomanganese, manganese content	do.	245,000	682,000	83,500	135,00
Metal, unwrought, other wrought, waste and scrap, gross weight	do.	31,700	116,000	23,000	57,80
Chemicals, manganese dioxide and potassium permanganate, gross weight	do.	23,600	39,600	18,600	45,80
		·	,	*	,
Mercury:					
Mercury: Metal	do.	155	1,700	206	1,35

# U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS $^{\rm 1,\,2}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

		200		200	
Mineral or product		Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>
Aetals—Continued:					
Molybdenum:		10.000	510 000		1 50 000
Ores and concentrates, including roasted and other, molybdenum content metric	tons	10,200	512,000	7,520	150,000
Chemicals, gross weight:					
Oxides and hydroxides	do.	335	12,900	209	3,33
Molybdates, all, molybdenum content	do.	235 <sup>r</sup>	15,300	657	20,50
Orange	do.	373	3,110	269	2,17
Ferromolybdenum, molybdenum content	do.	2,320	166,000	2,030	50,10
Other, includes powders, unwrought, bars and rods, waste and scrap, wire, other,					
gross weight	do.	1,420	105,000	970	43,00
Nickel, nickel content:					
Primary, chemicals and unwrought	do.	129,000	3,200,000	99,900	1,480,00
Secondary, stainless steel scrap and waste and scrap	do.	20,100	427,000	17,700	249,00
Wrought, not alloyed, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes	do.	947 <sup>r</sup>	33,800 r	409	14,00
Alloyed, unwrought ingot, bars, rods, profiles, wire, sheets, strip, foil, tubes, pipes,					
other alloyed articles	do.	23,700 <sup>r</sup>	748,000 <sup>r</sup>	17,300	439,00
Niobium (columbium) and tantalum:					
Niobium:					
Ores and concentrates kilog	rams	15,600	87	4,960	36
Oxide	do.	1,220,000	31,300	1,060,000	29,00
Ferroniobium	do.	11,000,000	245,000	4,490,000	109,00
Unwrought and powder	do.	1,130,000	47,500	699,000	24,10
Tantalum:					
Ores and concentrates, includes synthetic concentrates	do.	1,170,000	63,100	357,000	13,60
Unwrought powders, waste and scrap, unwrought alloys and metal	do.	833,000	113,000	613,000	92,80
Wrought	do.	101,000	23,200	75,600	20,80
Platinum-group metals, metal content:		,	,	,	,
Platinum, grains and nuggets, sponge, other unwrought, other, waste and					
scrap, coins	do.	150,000	3,420,000	183,000	2,080,00
Palladium, unwrought and other	do.	120,000	1,350,000	69,700	631,00
Iridium, unwrought and other forms	do.	2,550	36,600	1,520	20,80
Osmium, unwrought	do.	2,550	101	68	55
Ruthenium, unwrought	do.	49,800	426,000	21,200	55,70
Rhodium, unwrought and other forms	do.	49,800		11,200	530,00
	u0.	12,000	2,470,000	11,200	550,00
Rare earths, estimated equivalent rare-earth oxide (REO) content:	do	2 080 000	12 800	1 500 000	9.07
Cerium compounds, including oxides, hydroxides, nitrates, sulfate chlorides, oxalates	d0.	2,080,000	12,800	1,500,000	9,07
Yttrium compounds content by weight greater than 19% but less than 85%	1	0.020	6 770	6.020	5 6 5 00
oxide equivalent	do.	9,920	6,770	6,920	565,00
Compounds, including oxides, hydroxides, nitrates, other compounds except					
chlorides	do.	8,810,000	119,000	5,120,000	67,50
Mixtures of REOs except cerium oxide	do.	2,390,000	22,600	4,750,000	23,50
Metals, whether intermixed or alloyed	do.	679,000	4,940	226,000	4,87
Mixtures of rare-earth chlorides, except cerium chloride	do.	1,310,000	17,600	411,000	4,93
Ferrocerium and other pyrophoric alloys	do.	125,000	2,380	102,000	2,62
Rhenium:					
Metal	do.	35,900	72,800	21,500	53,10
Ammonium perrhenate	do.	11,200 <sup>r</sup>	24,200	14,300	13,70
Selenium and tellurium:					
Selenium, selenium content:					
Selenium	do.	508,000	26,400	260,000	12,70
Dioxide	do.	11,000	958	3,420	21
Tellurium, tellurium content	do.	102,000	17,700	84,000	11,30

### U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS $^{\rm 1,\,2}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

	200	-	2009		
Mineral or product	Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>	
Aetals—Continued:					
Silicon, gross weight:					
Ferrosilicon metric tons	281,000	395,000	103,000	126,00	
Metal do.	172,000	678,000	116,000	477,00	
Silver:					
Ash and residues, silver content kilograms	4,850	1,290 <sup>r</sup>	505	15	
Bullion, silver content do.	3,860,000	1,850,000	2,800,000	1,310,00	
Dore, silver content do.	574,000	717,000	653,000	439,00	
Metal powder, gross weight do.	61,000	8,870	247,000	36,40	
Nitrate, gross weight do.	10,700	4,280	835	24	
Ores and concentrates, silver content do.	32	31 <sup>r</sup>	87		
Semimanufactured forms containing 99.5% or more by weight of silver, gross weight do.	418,000	134,000	476,000	176,00	
Waste and scrap, gross weight do.	5,190,000	681,000	4,760,000	372,00	
Unwrought, other, gross weight do.	245,000	88,000	135,000	56,10	
Thallium, unwrought powders, waste and scrap, other do.	1,770	311	2,030	31	
Thorium:					
Ore, monazite concentrate			26,000	2	
Thorium and thorium-bearing materials, compounds do.	692	121	2,250	27	
Tin, gross weight:			y		
Compounds metric tons	800	15,800	601	8,18	
Dross, skimmings, scrap, residues, alloys, n.s.p.f. <sup>5</sup> do.	24,200	33,300	81,300	23,40	
Metal, unwrought do.	36,300	636,000	33,000	404,00	
Miscellaneous, includes tinfoil, tin powder, flitters, metallics, manufactures, n.s.p.f. <sup>5</sup> do.	XX	71,100	XX	36,20	
Tinplate and terneplate, gross weight do.	292,000	271,000	295,000	366,00	
Tinplate scrap, gross weight     do.	25,900	7,040	27,100	5,19	
Titanium:	25,900	7,040	27,100	5,17	
Concentrate:					
Ilmenite do.	433,000	68,600	250,000	21,80	
Rutile, natural and synthetic do.	433,000	232,000	279,000	141,00	
Metal:	487,000	232,000	279,000	141,00	
Waste and scrap     do.	10,400	68,900	4,770	17,60	
	23,900	278,000	4,770	17,00	
Unwrought do.					
Ingots do.	1,340	36,800	531	13,30	
Powder do.	134	7,710	24	2,39	
Other do.	59	1,570	18	1,22	
Wrought products and castings, includes bar, castings, foil, pipe, plate, profile,					
rod, sheet, strip, tube, wire, other do.	8,350	349,000	6,930	292,00	
Ferrotitanium and ferrosilicon titanium do.	2,830	14,900	2,540	6,75	
Pigment, dioxide and oxide do.	183,000	393,000	175,000	385,00	
Titaniferous iron ore do.	140,000	44,600	10,000	53	
Titaniferous slag do.	461,000	187,000	414,000	168,00	
Tungsten, tungsten content:					
Ammonium paratungstate do.	2,510	66,700	2,540	52,60	
Ferrotungsten and ferrosilicon tungsten do.	309	10,500	46	1,26	
Miscellaneous tungsten-bearing materials, metal powders, carbide powder,					
unwrought, waste and scrap, wrought, oxides, calcium tungstate, other tungstates,					
other compounds do.	6,230	242,000	3,830	135,00	
Ores and concentrates do.	3,990	95,900	3,590	72,90	

### U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS $^{\rm 1,\,2}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

		200		20	
Mineral or product		Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>
Metals—Continued:					
Vanadium:					
Aluminum-vanadium master alloy, gross weight	kilograms	618,000	2,760	282,000	97
Ferrovanadium, vanadium content	do.	2,720,000 r	158,000	353,000	12,60
Metal, including waste and scrap, gross weight	do.	4,600	409	21,700	94
Miscellaneous chemicals, sulfates and vanadates, vanadium content	do.	189,000	4,350	231,000	3,57
Pentoxide, anhydride, vanadium content	do.	3,700,000	115,000	1,120,000	16,50
Vanadium-bearing ash and residues from the manufacture of iron and stee	el,				
vanadium oxide content	do.	1,040,000 r	18,000 <sup>r</sup>	791,000	12,30
Other oxides and hydroxides, vanadium content	do.	144,000	4,320	25,200	55
Zinc:					
Compounds, chloride, chromates of zinc or of lead, compounds n.s.p.f. <sup>5</sup> , 1	ithopone.				
oxide, sulfate, sulfide, gross weight	metric tons	161,000	248,000	104,000	127,00
Ores and concentrates, zinc content	do.	63,200	73,200	74,200	68,30
Rolled	do.	3,330	17,100	3,010	13,50
Slab, refined	do.	752,000	1,480,000	686,000	1,080,00
Zirconium and hafnium:	40.	152,000	1,100,000	000,000	1,000,00
Hafnium, unwrought, including powders	do.	12	3,850	5	2,08
Zirconium:	<u>uo.</u>	12	5,050	5	2,00
Ferrozirconium	do.	129	594	(4)	
Ores and concentrates	do.	34,400	30,200	14,400	17,10
Oxide, includes germanium oxides and zirconium oxides	do.	5,060	50,200 77,400	2,810	43,80
Unwrought powder	do.	5,000 94	2,790	2,810	43,80
		939	59,200	955	58,40
Waste and scrap Total	do.	XX		933 XX	
		ΛΛ	65,700,000	ΛΛ	41,200,00
Industrial minerals:					
Abrasives, manufactured:		295.000	175.000	(1 200	52 70
Aluminum oxide, crude, ground and refined	do.	285,000	175,000	64,200	53,70
Metallic abrasives	do.	36,600	28,300	15,800	12,10
Silicon carbide, crude, ground and refined	do.	127,000	149,000	78,000	74,50
Asbestos:					
Chrysotile and other unspecified type	metric tons	1,460	1,090	869	68
Products with basis of asbestos, cellulose, or other minerals		NA	19,500	NA	13,30
Barite:					
Chloride, oxide, hydroxide, peroxide, precipitated carbonate	metric tons	9,950	12,600	4,170	6,25
Crude	do.	1,920,000	160,000	572,000	30,00
Ground	do.	688,000	35,000	851,000	58,10
Other sulfates	do.	13,900	12,900	10,600	10,90
Boron minerals and compounds:					
Borax		1	566	(4)	37
Boric acid		50	26,200	36	26,10
Colemanite		30	8,880	31	8,63
Ulexite		75	22,600	28	11,30
Bromine:					
Compounds, contained bromine	metric tons	39,300 <sup>r</sup>	95,100 <sup>r</sup>	32,800	80,30
Elemental	do.	1,950	2,280	1,390	3,02
Cement, hydraulic and clinker <sup>6</sup>		11,400	779,000	6,770	502,00
See footnotes at end of table.					

# U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS $^{\rm 1,\,2}$

#### (Thousand metric tons and thousand dollars unless otherwise specified)

		200	-	2009	
Mineral or product		Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>
ndustrial minerals—Continued:					
Clays:					
China clay or kaolin		194	46,100	281	68,700
Fire clay		(4) <sup>r</sup>	79 <sup>r</sup>	(4)	133
Decolorizing earths and fuller's earth		1	100	1	96
Bentonite		7	2,670 <sup>r</sup>	8	2,460
Other clay		5 <sup>r</sup>	3,230	8	3,940
Chamotte or dina's earth		(4) <sup>r</sup>	42 <sup>r</sup>	(4)	165
Artificially activated clay and activated earth		30 <sup>r</sup>	34,400 r	27	28,800
Diamond, industrial:					
Diamond stones, natural and miners'	thousand carats	3,220	41,500	1,400	18,700
Powder, dust and grit, natural and synthetic	do.	492,000	75,400	246,000	40,800
Diatomite, siliceous fossil meals	metric tons	2,890	1,140	1,260	1,080
Feldspar and nepheline syenite:					
Feldspar	do.	2,030	646	2,120	646
Nepheline syenite	do.	321,000	35,000	308,000	36,800
Fluorspar:					
Aluminum fluoride	do.	47,600	69,400	18,700	26,800
Cryolite	do.	7,650	8,180	2,830	3,630
Fluorspar	do.	572,000	133,000	475,000	105,000
Hydrofluoric acid	do.	133,000	172,000	114,000	161,000
Garnet, industrial	do.	49,200	11,500	37,900	8,890
Gemstones		XX	20,900,000	XX	13,300,000
Graphite:					
Natural	metric tons	58,300	48,100	33,100	29,700
Electric furnace electrodes	do.	98,100	303,000	50,600	190,000
Gypsum:					
Crude		7,330	93,400	4,220	52,900
Plasters		13	7,240	15	6,800
Boards		306	50,600	236	38,500
Other		XX	43,400	XX	30,300
Iodine:					
Crude	metric tons	6,300	144,000	5,190	133,000
Potassium iodide	do.	564	12,100	259	6,000
Iron oxide pigments:			,		- ,
Natural	do.	4,700	2,640	1,900	1,070
Synthetic	do.	151,000	161,000	105,000	126,000
Kyanite, andalusite, sillimanite	do.	5,580	1,930	4,880	2,060
Lime		307	39,400	422	53,200
Lithium chemicals:			,		,
Carbonate	metric tons	15,800	70,100	9,250	41,900
Hydroxide	do.	1,160	7,400	932	5,580
Magnesium compounds:		1,100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<i>,</i> ,,	0,000
Compounds, chlorides, hydroxide, peroxide, sulfates	do.	162,000	48,700 <sup>r</sup>	133,000	38,500
Magnesite, crude and processed:		102,000	10,700	155,000	50,500
Caustic-calcined magnesia	do.	167,000	40,400	126,000	37,700
Dead-burned and fused magnesia	do.	386,000	190,000	120,000	72,200
Other magnesia	do.	13,900	14,000	8,740	8,750

### U.S. IMPORTS FOR CONSUMPTION OF PRINCIPAL MINERALS AND PRODUCTS, EXCLUDING MINERAL FUELS<sup>1, 2</sup>

#### (Thousand metric tons and thousand dollars unless otherwise specified)

		200		2009	
Mineral or product		Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>
Industrial minerals—Continued:					
Mica:					
Scrap and flake:					
Powder	metric tons	23,400	12,300	16,900	9,540
Waste	do.	3,560	1,470	2,990	1,670
Sheet:					
Unworked	do.	130	465	23	142
Worked	do.	1,750	17,900	1,020	14,400
Nitrogen, major compounds, gross weight		21,500	8,810,000	12,600	3,570,000
Peat moss	metric tons	936,000	228,000	906,000	230,000
Perlite, processed crude	do.	187,000	24,700	153,000	15,900
Phosphate rock and phosphatic materials		4,860	692,000	92	348,000
Potash, chloride, sulfate, nitrate, sodium nitrate mixtures	metric tons	9,560,000	3,080,000 <sup>r</sup>	3,670,000	1,780,000
Pumice:					
Crude or unmanufactured	do.	65,000	2,890	26,000	784
Wholly or partially manufactured	do.	436	1,890	258	832
Salt		13,800	282,000	14,700	337,000
Sand and gravel:					
Construction		5,430	114,000 7	2,980	66,100
Industrial		355	23,500	95	8,080
Silica, special stone products		NA	9,320 <sup>r</sup>	NA	8,320
Soda ash		13	3,820	6	2,350
Stone:					
Crushed, chips, calcium carbonate fines, excludes precipitated carbonates		20,900	232,000 7	12,200	174,000
Dimension		XX	2,150,000	XX	1,350,000
Strontium:					
Carbonate	kilograms	12,700,000	8,560	7,820,000	5,090
Celestite	do.	4,620,000	295	14,600,000	690
Metal	do.	170,000	791	70,100	564
Nitrate	do.	3,890,000	4,430	2,770,000	2,770
Oxide, hydroxide, peroxide	do.	106,000	152	6,720	51
Sulfur:					
Elemental		3,000 e	753,000	1,700 <sup>e</sup>	54,100
Sulfuric acid, 100% H <sub>2</sub> SO <sub>4</sub>	metric tons	5,180,000 <sup>r</sup>	468,000 r	1,260,000	146,000
Talc, unmanufactured		193	56,400	120	47,900
Vermiculite <sup>e</sup>		73	12,600	39	7,100
	metric tons	5,000	650	4,000	530
Zeolites <sup>e</sup>	do.	200	42	300	64
Total		XX	41,300,000 <sup>r</sup>	XX	23,800,000
Grand total		XX	107,000,000	XX	65,000,000

<sup>e</sup>Estimated. <sup>r</sup>Revised. do. Ditto. NA Not available. XX Not applicable. -- Zero.

<sup>1</sup>Table includes data available through July 26, 2011.

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

<sup>3</sup>Customs value unless otherwise specified.

<sup>4</sup>Less than <sup>1</sup>/<sub>2</sub> unit.

<sup>5</sup>Not specifically provided for.

<sup>6</sup>Excludes Puerto Rico.

<sup>7</sup>Cost, insurance, and freight value.

# TABLE 9 WORLD AND U.S. PRODUCTION OF SELECTED NONFUEL MINERAL COMMODITIES $^{\rm 1}$

#### (Thousand metric tons unless otherwise specified)

							United	
				<b>XX</b> 7 11, 11				Percentage
Mineral or product		2005	2006	World total 2007	2008	2009	2009	of world tota
Metals:		2003	2000	2007	2008	2009	2009	world tota
Alumina		65,000 <sup>r</sup>	72.300 <sup>r</sup>	77,700 <sup>r</sup>	82,600 r	76,400	3,060	4.0
Aluminum <sup>2</sup>		33,900 r	38,000 r	39,600 r	36,900 r	40,800	1,730	4.2
Antimony	metric tons	172,000	173,000 r	180,000	182,000 r	155,000		
Arsenic trioxide <sup>3</sup>	do.	60,000	61,100	55,700	53,600 r	54,400		
Bauxite <sup>3, 4, 5</sup>	dor	178,000 r	193,000 r	204,000 r	211,000 r	199,000	NA	NA
Beryl <sup>3</sup>	metric tons	3,450	4,360	4,360	4,940 r	3,590	3,030	84.3
Bismuth, refinery	do.	13,900	15,300	15,500	15,400	15,100	5,050	
Cadmium, refinery	do.	20.100	19,900	19,400	20,100 r	18,800	633	3.4
Chromite <sup>3</sup>	u0.	6,900 r	7,300 r	8,400 r	8,100 r	7,000		
Cobalt, Co content:		0,700	7,500	8,400	8,100	7,000		
Mine	metric tons	65,200 <sup>r</sup>	68,900 <sup>r</sup>	71,500 <sup>r</sup>	76,300 <sup>r</sup>	72,300		
Refinery	do.	54,100	53,800	53,300	57,200 r	59,800		-
Copper:	u0.	54,100	55,000	55,500	57,200	57,000		
Mine		15,000	15,100 <sup>r</sup>	15,500	15,400	15,900	1,180	7.4
Smelter		13,500 r	13,100 r 14,100 r	14,300	14,700	14,500	597	4.1
Refinery		16,600 r	17,300	17,900 r	14,700 r 18,300 r	14,500	1,160	6.3
Gold	kilograms	2,470,000	2,370,000	2,360,000 r	2,290,000 r	2,450,000	223,000	9.1
Indium, refinery	do.	607,000 r	636,000 r	620,000 r	601,000 r	546,000		-
Iron ore <sup>3</sup>		1,550,000	1,840,000	2,040,000	2,210,000 r	2,240,000	26,700	1.2
Iron and steel:		1,550,000	1,010,000	2,010,000	2,210,000	2,210,000	20,700	1.2
Direct-reduced iron <sup>2</sup>		56,300	58,800 r	64,700 <sup>r</sup>	66,500 <sup>r</sup>	64,500		_
Pig iron <sup>2</sup>		802,000	881,000	955,000 r	931,000 r	935,000	19,000	2.0
Raw steel		1,140,000	1,250,000	1,350,000	1,330,000	1,240,000	59,400	4.8
Lead:		1,110,000	1,250,000	1,550,000	1,550,000	1,210,000	57,100	
Mine, Pb content	metric tons	3,470,000 r	3,590,000 r	3,690,000 r	3,860,000 r	3,860,000	406,000	10.5
Refinery	do.	7,660,000 <sup>r</sup>	7,970,000 <sup>r</sup>	8,250,000 r	8,700,000 r	8,820,000	1,210,000	13.8
Magnesium <sup>5</sup>		622	675	751	670 r	608	W	NA
Manganese ore <sup>3</sup>		31,000	33,200 r	35,100 r	38,100 r	33,600		
Marganese ore	metric tons	1,520	1,150	1,200	1,320	1,920	NA <sup>6</sup>	NA
Molybdenum, Mo content	do.	186,000 r	186,000	213,000	218,000 r	221,000	47,800 7	21.6
Nickel, Ni content:	<b>u</b> 0.	100,000	100,000	215,000	210,000	221,000	17,000	21.0
Mine	do.	1,460,000 <sup>r</sup>	1,570,000 r	1.670.000 r	1,560,000 <sup>r</sup>	1,400,000		
Refinery	do.	1,310,000 r	1,350,000	1,440,000 r	1,400,000 r	1,380,000		
Niobium (columbium)-tantalum	doi	1,010,000	1,000,000	1,110,000	1,100,000	1,200,000		
concentrates <sup>3</sup>	do.	264,000 r	223,000 <sup>r</sup>	263,000 <sup>r</sup>	264,000 <sup>r</sup>	263,000		
Platinum-group metals	kilograms	504,000 r	514,000	507,000 r	460,000 r	445,000	16,500	3.7
Rhenium	do.	47,300 r	46,700	47,500 r	54,900 r	46,200	5,580	12.1
Selenium <sup>2, 5</sup>	do.	2,020,000 r		2,250,000 r			W	NA
Silver	metric tons	20,800	20,300	21,000 r	21,300	21,800	1,250	5.7
Tellurium <sup>2, 5</sup>	kilograms	112,000 r	116,000 r	124,000 r	121,000 r	118,000	W	NA
Tin:	kilogiullis	112,000	110,000	121,000	121,000	110,000		117
Mine	metric tons	296,000 r	291,000 r	301,000 <sup>r</sup>	257,000 r	260,000		_
Smelter <sup>8</sup>	do.	344,000	339,000	346,000 r	322,000 r	342,000	11,100	3.2
Tungsten, W content	do.	59,500 <sup>r</sup>	56,000 r	54,100	62,200 r	61,300	W	NA
Vanadium	do.	56,400	57,900	58,500	56,400 r	54,100		-
Zinc:	<b>u</b> 0.	23,100	27,700	20,200	20,100	2 1,100		
Mine. Zn content of concentrate								
Mine, Zn content of concentrate and direct shipping ore	2	10,000 <sup>r</sup>	10,300	11,000	11,600 <sup>r</sup>	11,200	736	6.6

# TABLE 9—Continued WORLD AND U.S. PRODUCTION OF SELECTED NONFUEL MINERAL COMMODITIES $^{\rm 1}$

#### (Thousand metric tons unless otherwise specified)

							United	States
								Percentag
				World total				of
Mineral or produc	et	2005	2006	2007	2008	2009	2009	world tota
ndustrial minerals:								
Asbestos	metric tons	2,210,000 r		2,240,000 r				
Barite	do.	7,870,000 r	7,960,000 <sup>r</sup>	7,730,000 r	8,200,000 r	6,130,000	383,000 9	6
Boron minerals	do.	4,950,000	3,760,000	4,200,000 r	3,850,000 r	3,510,000	W	N
Bromine	do.	654,000 <sup>r</sup>	669,000 <sup>r</sup>	408,000 r	412,000 <sup>r</sup>	375,000	W <sup>9</sup>	N
Celesite	do.	509,000	524,000 r	518,000 r	656,000 <sup>r</sup>	402,000		
Cement, hydraulic		2,350,000	2,610,000	2,810,000	2,850,000 r	3,040,000	64,900 10	2
Clays:								
Bentonite		11,200 <sup>r</sup>	11,400 <sup>r</sup>	11,300 <sup>r</sup>	11,600 <sup>r</sup>	9,700	3,650	37
Fuller's earth	metric tons	3,980,000	3,700,000	3,720,000	3,510,000 <sup>r</sup>	3,210,000	2,010,000	62
Kaolin		39,100 <sup>r</sup>	38,900 <sup>r</sup>	36,700 <sup>r</sup>	36,100	33,000	5,290	16
Diamond:								
	thousand carats	183,000	175,000 <sup>r</sup>	170,000 <sup>r</sup>	154,000 <sup>r</sup>	129,000		
Synthetic	do.	4,220,000 r	4,320,000 r	4,420,000 r	4,420,000 r	4,380,000	91,000	2
Diatomite	metric tons	1,960,000 <sup>r</sup>	2,150,000 r	1,970,000 <sup>r</sup>	2,070,000 r	1,870,000	575,000 <sup>9</sup>	30
Feldspar		16,800 <sup>r</sup>	20,500	21,500 r	22,800 r	19,800	550	2
Fluorspar	metric tons	5,360,000 r	5,660,000 <sup>r</sup>	5,720,000 r	5,990,000 r	5,460,000		
Graphite, natural	do.	1,030,000	1,020,000	1,110,000 <sup>r</sup>	1,120,000	1,090,000		
Gypsum		147,000 r	160,000 <sup>r</sup>	166,000 <sup>r</sup>	155,000 r	149,000	10,400	7
Iodine, crude	metric tons	26,500	26,700	26,300	26,500	28,500	W	Ν
Iron oxide pigments	do.	1,070,000 <sup>r</sup>	1,020,000 <sup>r</sup>	1,070,000 <sup>r</sup>	1,050,000 <sup>r</sup>	890,000	W	Ν
Kyanite and related minerals	do.	462,000 r	456,000 r	516,000	448,000 r	416,000	111,000 11	26
Lime		270,000 r	284,000 r	296,000 r	307,000 <sup>r</sup>	299,000	15,800 9,10	) 5
Lithium	metric tons	344,000	394,000	381,000	387,000 r	301,000	W	Ν
Magnesite, crude <sup>5</sup>		15,600 <sup>r</sup>	15,600 <sup>r</sup>	16,700 <sup>r</sup>	18,400 <sup>r</sup>	19,000	W	Ν
Mica, including scrap and flak	e <sup>12</sup> metric tons	359,000 <sup>r</sup>	385,000 <sup>r</sup>	387,000 <sup>r</sup>	379,000 <sup>r</sup>	315,000	50,100	15
Monazite <sup>13</sup>	do.	6,280 <sup>r</sup>	6,850 <sup>r</sup>	6,860 <sup>r</sup>	6,900	6,800		
Nitrogen, N content of ammon	nia	122,000 r	126,000 r	131,000 r	130,000 r	130,000	7,700 14	4
Peat		26,000 r	25,700 r	25,600 r	24,900 r	25,000	609 <sup>15</sup>	2
Perlite	metric tons	1,790,000	1,800,000 r	1,750,000	1,790,000	1,650,000	348,000 9	21
Phosphate rock <sup>3</sup>	metrie tons	152,000 r	151,000 r	160,000 r	165,000 r	166,000	26,400	15
Potash, K <sub>2</sub> O equivalent		33,800	30,400 r	35,700 r	34,500 r	20,800	720	3
Pumice		18,300 r	20,400 r	20,700	18,900 r	17,200	410 9	2
					18,900 r 128,000 r		410	4
Rare earths	metric tons	122,000 249,000 r	137,000	124,000	,	132,000	46,100 10	17
Salt		249,000 <sup>r</sup>	259,000 r 116,000 r	259,000 r 120,000 r	264,000 r 122,000 r	276,000	24,600 9	16
Sand and gravel, industrial, sil		,	,	,	,	106,000		23
Soda ash, natural and manufac	ctured	41,000 r	42,600	44,900	45,600 r	44,100	9,310 <sup>16</sup>	21
Sulfur, all forms		68,200 r	67,500 r	68,200 r	68,700 r	67,500	8,940	13
Talc and pyrophyllite <sup>17</sup>	metric tons	7,950,000 <sup>r</sup>	7,770,000 <sup>r</sup>	7,700,000 <sup>r</sup>	7,580,000 <sup>r</sup>	7,430,000	511,000	6
Titanium concentrates: <sup>3</sup>								
Ilmenite and leucoxene	metric tons	6,050,000	6,850,000 <sup>r</sup>	7,120,000 <sup>r</sup>	6,870,000 <sup>r</sup>	6,180,000	300,000 18	4
Rutile <sup>5</sup>	do.	377,000 r	515,000 r	604,000 <sup>r</sup>	628,000 <sup>r</sup>	577,000	(19)	Ν
Vermiculite	do.	521,000	513,000	502,000 r	517,000 r	505,000	100,000 20	19
Zirconium	do.	1,060,000	1,210,000	1,380,000	1,270,000 r	1,160,000	W	N

<sup>r</sup>Revised. do. Ditto. NA Not available. W Withheld to avoid disclosing company proprietary data; not included in "World total." -- Zero. <sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Primary.

<sup>3</sup>Gross weight.

<sup>4</sup>Individual country figures that are included in the world total represent dried bauxite equivalent of crude ore, but for some countries available data are insufficient to permit this adjustment.

 $^{5}\ensuremath{\text{``World total''}}$  for years listed does not include U.S. production.

<sup>6</sup>U.S. production of mercury is byproduct only.

<sup>7</sup>Listed in Molybdenum chapter (table 1) as production.

<sup>8</sup>Includes tin content of alloys made directly from ore.

# TABLE 9—Continued WORLD AND U.S. PRODUCTION OF SELECTED NONFUEL MINERAL COMMODITIES $^{\rm 1}$

<sup>9</sup>Quantity sold or used by producers.

<sup>10</sup>Includes Puerto Rico.

<sup>11</sup>Includes synthetic mullite.

<sup>12</sup>Excludes, if any, U.S. production of low-quality sericite and sheet mica.

<sup>13</sup>Monazite totals are rounded to two significant digits.

<sup>14</sup>Synthetic anhydrous ammonia; excludes coke oven byproduct ammonia.

<sup>15</sup>Horticultural use.

<sup>16</sup>U.S. production is natural only.

<sup>17</sup>Data for the United States exclude proprietary pyrophyllite production.

<sup>18</sup>Includes rutile to avoid disclosing company proprietary data. Rounded to one significant digit.

<sup>19</sup>Included with ilmenite to avoid disclosing company proprietary data; not included in "Total."

<sup>20</sup>Rounded to one significant digit.