



# 2008 Minerals Yearbook

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## POTASH

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# POTASH

By Stephen M. Jasinski

Domestic survey data and tables were prepared by Linda M. White, statistical assistant, and the world production table was prepared by Lisa D. Miller, international data coordinator.

In 2008, about 2.5 million metric tons (Mt) of minerals was mined to produce 1.1 Mt of potassium oxide ( $K_2O$ ) equivalent.<sup>1</sup> Potash production was slightly higher in 2008 than in 2007, and the total value of sales increased by 54% because the average unit value increased. Trade in potash also increased, as imports for consumption increased by 17% and the customs value increased by 148%; exports were 36% higher in 2008 compared with those of 2007 (table 1).

Potash denotes a variety of mined and manufactured salts, all of which contain the element potassium in water-soluble form. The majority of domestic potash was produced near Carlsbad, NM, with most of the potash coming from the mineral sylvite. The term potash refers to potassic fertilizers, which are potassium chloride (KCl or sylvite), potassium sulfate [ $K_2SO_4$  or sulfate of potash (SOP), usually a manufactured product], and potassium-magnesium sulfate [ $K_2SO_4 \cdot 2MgSO_4$  or langbeinite or double sulfate of potash magnesia (SOPM or K-Mag)]. Muriate of potash (MOP) is an agriculturally acceptable mix of KCl (95% pure or greater) and sodium chloride (halite) for fertilizer use that includes minor amounts of other nontoxic minerals from the mined ore and is neither the crude ore sylvinite nor pure sylvite.

This publication has historically included potassium nitrate [ $KNO_3$  or saltpeter or nitrate of potash (NOP), a mostly manufactured product] and mixed sodium nitrate and potassium nitrate ( $NaNO_3$  and  $KNO_3$  or Chilean saltpeter, a natural product) because these materials function as potassic plus nitrogenous fertilizers. Saltpeter and Chilean saltpeter are still included in the import tables (tables 5, 6).

## Production

Domestic production data were developed by the U.S. Geological Survey (USGS) from a semiannual voluntary canvass of U.S. operations. All of the seven operations canvassed for semiannual production data responded to the surveys.

Three companies produced potash from seven operations in three States. Most domestic production was from southeastern New Mexico, where Intrepid Potash, Inc. operated two mines and The Mosaic Company operated one mine. Mosaic also operated a deep-solution mine in Michigan. The third State with potash production was Utah, where Intrepid produced potash from operations in Moab, and Wendover and Great Salt Lake

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<sup>1</sup>The potash industry has established a common standard of measurement for defining a product's potassium content [or purity] because the potassium content of its common salts varies in terms of equivalent percentages of potassium oxide ( $K_2O$ ). A  $K_2O$  equivalent for muriate of potash is 60%; sulfate of potash, 51%; and double sulfate of potash magnesia products, 22%. All tonnages are reported in metric tons,  $K_2O$  equivalent, unless otherwise specified. All percentages are computed on unrounded  $K_2O$  equivalent values.

Minerals Corp. (GSLM) (a subsidiary of Compass Minerals International, Inc.) operated a facility in Ogden.

Potash companies in the United States produced MOP, SOP, and SOPM. Published production data of all types and grades of potash in the United States are adjusted to avoid disclosing the proprietary data of companies that produce SOP and SOPM, which together are known as sulfates.

Intrepid continued with its plans to reopen the underground HB Mine, which is located near the company's existing mines in Carlsbad, NM, as a solution potash mine. The HB Mine was closed in 1996 by the previous owner. The facility would increase annual production by 200,000 tons per year of MOP. Intrepid expects permitting to take from 18 to 24 months from January 2009, and the mine could open 1 year after receiving all necessary permits (Intrepid Potash, Inc., 2009, p. 7).

GSLM remained on schedule to complete expansion of its SOP annual production capacity by 100,000 tons by 2011, by expanding its evaporation ponds. In 2008, GSLM secured leases on an additional 25,000 hectares (ha) adjacent the company's solar evaporation pond on the Great Salt Lake. The company was in the process of getting permits to develop 28,300 ha along the Great Salt Lake (Compass Minerals International, 2009, p. 8).

In 2008, consumption of  $K_2O$  equivalent was 12% higher compared with that of 2007. The principal use of potash is as an agricultural fertilizer (plant nutrient) because it is a source of soluble potassium, which is one of the three primary plant nutrients required for plant growth and maturation; the others are fixed nitrogen and soluble phosphorus. Potash and phosphorus are mined products, and fixed nitrogen is produced from the atmosphere using industrial processes. Modern agricultural practice uses large amounts of these primary nutrients and additional nutrients, such as boron, calcium, chlorine, copper, iron, magnesium, manganese, molybdenum, sulfur, and zinc, to ensure plant health and proper maturation. The three major plant nutrients have no cost-effective substitutes. Low-nutrient-content alternative potash sources, such as animal manure and guano, bone meal, compost, glauconite, and "tankage" from slaughterhouses, are available, but the cost of transportation per metric ton of nutrient beyond relatively short distances can reduce their desirability. In addition to its use as a fertilizer, potassium chloride is important in industrialized economies, where it is used in aluminum recycling, by the chloralkali industry to produce potassium hydroxide, in metal electroplating, oil-well drilling mud, snow and ice melting, steel heat-treating, and water softening.

Potassium hydroxide is used for industrial water treatment and is the precursor of potassium carbonate, several forms of potassium phosphate, many other potassic chemicals, and soap manufacturing. Potassium carbonate is used to produce animal

feed supplements, cement, fire extinguishers, food products, photographic chemicals, and textiles. It is also used in brewing beer, pharmaceutical preparations, and as a catalyst for synthetic rubber manufacturing. Generally, these nonfertilizer uses have accounted for about 15% of annual potash consumption in the United States.

### Foreign Trade

U.S. exports of potash increased by 36% in 2008 from those of 2007, owing to increased domestic consumption and a slight increase in production of potash. Exports of 694,000 metric tons (t) were reported, of which 49% was SOPM, 29% was MOP, 22% was SOP, and 1% was NOP (table 3). Mexico, Canada, and Japan, in declining order, received 42% of the total exports of potash from the United States (table 4). Of the total quantity of exports by world region, 31% went to North America, 27% went to South America, 18% went to Asia, 5% went to Central America, and the remainder was distributed between the other regions. In term of potash products, exports of MOP to all regions decreased by 43%, SOP exports increased by 84%, SOPM increased by 80%, and NOP increased by 9% (table 4). Total potash exports, reported by  $K_2O$  content, increased by 12% in 2008 compared with those of 2007.

Potash imports into the United States for 2008 increased by 17% to 9.56 Mt compared with 8.19 Mt in 2007 (table 5). The leading source of all potash imports was Canada with 85% of the total. MOP imports were 17% higher at 9.35 Mt of  $K_2O$  and represented 98% of total potash imports (table 6).

### World Industry Structure

Estimated 2008 world potash production decreased by 3% to 34.7 Mt, with decreased output from most of the major producing countries (table 7). Eastern Europe was the leading producing region in the world, with 34% of world production, followed by North America, with 33%. Only 13 countries are notable potash producers, with Belarus, Canada, China, Germany, Israel, Jordan, and Russia accounting for 90% of global production capacity.

### World Review

**Canada.**—Approximately one-third of global potash production capacity is located in Canada, making it the leading world producer. In 2008, 11 potash mines and processing plants operated in Canada, 10 in Saskatchewan and 1 in New Brunswick. Canadian potash producers were, in descending order of capacity, Potash Corp. of Saskatchewan Inc. (PCS), Mosaic, and Agrium Inc. (Stone, 2009).

All three producers announced expansion plans in 2008. PCS had five ongoing projects that would increase its annual production capacity by 4.55 Mt  $K_2O$  by yearend 2012. The projects in Saskatchewan included debottlenecking at the Patience Lake Mine, debottlenecking and expansion at the Cory Mine, expansion at the Allan Mine, and expansion at the Rocanville Mine. In New Brunswick, PCS was planning to open a replacement mine and expand the milling operations. Mosaic planned to expand annual production capacity by 3.1

Mt  $K_2O$  at its mines in Saskatchewan in several phases between 2009 and 2020. Agrium planned a 0.2 million ton-per-year (Mt/yr)- $K_2O$  expansion to its Van Scoy Mine in Saskatchewan for 2011–12 (Fertilizer International, 2008a).

Potash exploration remained active in Saskatchewan in 2008. The Provincial Government issued 11 potash leases for potash production and 174 potash permits for potash exploration in 2008. The potash leases are all held by the three major producers, while the potash permits are held by 21 different companies. There were five significant potash exploration and development projects in progress in 2008 (Stone, 2009).

BHP Billiton submitted a proposal to Provincial authorities to develop the Jansen property, 140 kilometers (km) east of Saskatoon, adjacent to the PCS Lanigan Mine. The company planned to begin production at an underground mine in 2015 and produce at the full capacity of 2.5 Mt/yr in 2016 (BHP Billiton Diamonds, Inc., 2009).

Athabasca Potash Inc. was developing the Burr project 107 km east of Saskatoon. The property has indicated potash resources of 241 Mt, grading 23.3%  $K_2O$  and inferred resources of 183 Mt  $K_2O$ . The company conducted exploration activities in 2008 (Fertilizer International, 2008b).

Potash One Inc. was developing the Legacy Project solution mine 80 km northwest of Regina. The company has reported an estimated resource of 397 Mt, with an average grade of 20%  $K_2O$  (Fertilizer International, 2008b).

Raytec Metals Corp. and Potash North Resource Corp. also conducted exploration activity in Saskatchewan but were in early stages of exploration (Fertilizer International, 2008b).

Western Potash Corp. explored several deposits in western Manitoba. The largest property, Russel-Miniota, has an estimated 1 billion tons of potash (Stone, 2009).

**Congo (Brazzaville).**—MagMinerals Inc. (a subsidiary of MagIndustries Corp.) was granted a 25-year mining license for its Kouiliou Potash Mine, which was to be located 16 km east of the deepwater port of Pointe-Noire. MagMinerals reported the proven reserves to be 17.9 Mt KCl, with probable reserves of 3.1 Mt KCl. Additionally, inferred resources of carnallite are 185.0 Mt KCl equivalent. The mine was to have a production capacity of 1.2 Mt/yr; however, it would initially operate at a rate of 600,000 tons per year (MagIndustries Corp., 2008).

A second company announced plans to develop a potash mine in the same area as MagMinerals. Congo Potash Co., based in Canada, completed a transfer of mining licenses from a Congolese company in September 2008 and planned to start production in 2013 (Kruger, 2008).

### Outlook

In late 2008, the effects of the global economic recession, combined with high potash prices and weak demand, led to a collapse in the world potash market. The weak market conditions that followed the collapse of the potash market continued into 2009. Producers stocks remain high and many buyers were waiting for prices to fall before reentering the market. Early in 2009, most leading world producers announced indefinite reductions in production, which amounted to about one-half of world capacity. The leading consuming countries,

including Brazil, China, India, and the United States, were all projected to have a major decrease in consumption in 2009.

Beginning in 2010, world potash production was expected to increase slightly more than that of 2009, as producer stocks were projected to gradually decrease as demand rebounds. Potash applications will be needed to replenish soil nutrient levels in most regions after the drop in consumption in 2009. According to the International Fertilizer Industry Association (IFA), world potash production was forecast to increase from 37.5 Mt in 2009 to 38.6 Mt in 2010, and demand was forecast to increase from 24.9 Mt in 2009 to 27.8 Mt in 2010 (Heffer and Prud'homme, 2009). Potash capacity expansion plans remained on schedule, with the expected completion of projects in Canada, Chile, Jordan, and Uzbekistan in 2010 and Argentina, Belarus, Brazil, Laos, and Russia by 2013.

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## GENERAL SOURCES OF INFORMATION

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TABLE 1  
SALIENT POTASH STATISTICS<sup>1,2</sup>

(Thousand metric tons and thousand dollars unless otherwise specified)

	2004	2005	2006	2007	2008	
United States:						
Production: <sup>3</sup>						
Gross weight	2,700	2,500	2,400	2,600	2,500	
K <sub>2</sub> O equivalent	1,200	1,200	1,100	1,100	1,100	
Sales by producers:						
Quantity: <sup>3</sup>						
Gross weight	2,700	2,500	2,400	2,600	2,400	
K <sub>2</sub> O equivalent	1,300	1,200	1,100	1,200	1,100	
Value <sup>3,4</sup>	340,000	410,000	410,000	480,000	740,000	
Average value: <sup>5</sup>						
Gross weight	dollars per metric ton	\$125	\$165	\$170	\$185	\$300
K <sub>2</sub> O equivalent	do.	\$270	\$350	\$375	\$400	\$670
Exports:						
Gross weight	640	569	809	510	694	
K <sub>2</sub> O equivalent	233	200	332	199	222	
Imports for consumption: <sup>6,7</sup>						
Quantity:						
Gross weight	8,140	8,110	7,380	8,190	9,560	
K <sub>2</sub> O equivalent	4,920	4,920	4,470	4,970	5,800	
Value, customs	751,000	1,170,000	1,150,000	1,310,000	3,260,000	
Consumption, apparent: <sup>3,8</sup>						
Gross weight	10,000	10,000	9,000	10,000	11,000	
K <sub>2</sub> O equivalent	6,000	5,900	5,200	5,900	6,700	
World, production, marketable K <sub>2</sub> O equivalent	32,200 <sup>r</sup>	33,800	31,200 <sup>r</sup>	35,800 <sup>r</sup>	34,700	

<sup>r</sup>Revised. do. Ditto.

<sup>1</sup>Includes muriate of potash, sulfate of potash, potassium magnesium sulfate, and some parent salts. Excludes other chemical compounds that contain potassium.

<sup>2</sup>Data are rounded to no more than three significant digits unless otherwise specified.

<sup>3</sup>Data are rounded to no more than two significant digits.

<sup>4</sup>Free on board mine.

<sup>5</sup>Rounded to the nearest \$5 to avoid disclosing proprietary data.

<sup>6</sup>Excludes potassium chemicals and mixed fertilizers.

<sup>7</sup>Includes nitrate of potash.

<sup>8</sup>Calculated from sales plus imports minus exports.

TABLE 2  
PRICES OF U.S. POTASH, BY TYPE AND GRADE<sup>1,2</sup>

(Dollars per metric ton of K<sub>2</sub>O equivalent)

Type and grade	2007			2008		
	January– June	July– December	Yearly average	January– June	July– December	Yearly average
Muriate, 60% K <sub>2</sub> O minimum:						
Standard	305	370	320	445	865	640
Granular	290	330	305	440	620	470

<sup>1</sup>Average prices, free on board mine, based on sales.

<sup>2</sup>Data rounded to nearest \$5.

TABLE 3  
U.S. EXPORTS OF POTASH, BY TYPE<sup>1</sup>

	Approximate average K <sub>2</sub> O equivalent content (percentage)	Quantity (metric tons)	
		Gross weight	K <sub>2</sub> O equivalent <sup>e</sup>
2007:			
Potassium chloride, all grades	61	181,000	111,000
Potassium sulfate	51	51,300	26,200
Potassium magnesium sulfate	22	273,000	60,000
Potassium nitrate	45	4,670	2,100
Total	XX	510,000	199,000
2008:			
Potassium chloride, all grades	61	104,000	63,400
Potassium sulfate	51	94,800	48,300
Potassium magnesium sulfate	22	490,000	108,000
Potassium nitrate	45	5,090	2,290
Total	XX	694,000	222,000

<sup>e</sup>Estimated. XX Not applicable.

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

Source: U.S. Census Bureau; adjusted by the U.S. Geological Survey.

TABLE 4  
U.S. EXPORTS OF POTASH, BY COUNTRY<sup>1</sup>

(Metric tons of product)

Country	Potassium chloride		Potassium sulfates, all grades <sup>2</sup>		Potassium nitrate		Total	
	2007	2008	2007	2008	2007	2008	2007	2008
Angola	--	4,730	--	--	--	--	--	4,730
Australia	138	3	1	30,000	--	65	139	30,100
Barbados	69	98	--	7	--	10	69	115
Brazil	106,000	13,000	7,500	9,520	1	--	114,000	22,500
Canada	1,680	6,110	42,900	76,000	502	943	45,100	83,100
Chile	20	--	47,000	62,600	--	--	47,100	62,600
China	21	6	5,490	36,400	72	52	5,590	36,400
Colombia	6	46	14,400	37,700	23	25	14,400	37,700
Costa Rica	--	--	33,000	39,700	6	1	33,000	39,700
Cote D'Ivoire	--	--	--	5,470	--	--	--	5,470
Czech Republic	240	10	--	--	--	--	240	10
Dominican Republic	--	--	1,720	5,800	--	--	1,720	5,800
Ecuador	2	435	6,000	8,640	--	--	6,000	9,070
El Salvador	6,650	--	3,310	6,300	--	13	9,960	6,310
Equatorial Guinea	--	105	--	--	--	--	--	105
Gabon	--	1,460	--	--	--	--	--	1,460
Germany	63	138	--	2	--	1	63	141
Ghana	--	--	11,000	14,400	--	--	11,000	14,400
Guatemala	3,800	12	4,750	7,800	--	--	8,550	7,810
Honduras	--	--	7,300	7,700	--	--	7,300	7,700
India	--	--	7,580	16,700	--	--	7,580	16,700
Indonesia	38	12	230	667	--	--	268	679
Israel	--	--	20	--	42	--	62	--
Japan	6,440	6,660	16,800	64,400	--	--	23,200	71,000
Korea, Republic of	--	2,010	5,430	30	22	45	5,450	2,080
Martinique	6,450	8,810	2,640	2,910	--	--	9,090	11,700
Mexico	48,400	53,000	59,600	79,500	2,440	2,750	110,000	135,000
Morocco	--	--	20	--	--	--	20	--
Netherlands	65	478	--	19	340	366	405	863
New Zealand	--	--	4,000	9,950	63	28	4,060	9,970
Nicaragua	--	36	2,000	4,500	--	--	2,000	4,540
Nigeria	--	5,510	--	--	--	--	--	5,510
Panama	10	--	--	--	--	--	10	--
Peru	160	66	9,550	18,100	10	--	9,720	18,200
Russia	153	206	--	--	--	--	153	206
Saudi Arabia	177	--	--	--	814	--	991	--
Switzerland	78	188	--	--	--	--	78	188
Thailand	--	200	153	2,530	--	12	153	2,740
Trinidad and Tobago	113	590	--	--	--	--	113	590
Venezuela	7	--	31,500	37,200	--	--	31,500	37,200
Other	116 <sup>†</sup>	138	159 <sup>†</sup>	514	336 <sup>†</sup>	781	611 <sup>†</sup>	1,430
Total	181,000	104,000	324,000	585,000	4,670	5,090	510,000	694,000

<sup>†</sup>Revised. -- Zero.

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

<sup>2</sup>Includes potassium magnesium sulfate.

Source: U.S. Census Bureau; adjusted by the U.S. Geological Survey.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF POTASH, BY TYPE<sup>1</sup>

	Approximate average K <sub>2</sub> O equivalent content (percentage)	Quantity (metric tons)		Value (thousands)		
		Gross weight	K <sub>2</sub> O equivalent <sup>e</sup>	Customs	C.i.f. <sup>2</sup>	
2007:						
Potassium chloride <sup>3</sup>	61	7,970,000	4,860,000	\$1,240,000	\$1,290,000	
Potassium sulfate	51	82,100	41,900	24,100	28,100	
Potassium nitrate	45	136,000	61,200	49,900	56,000	
Potassium sodium nitrate mixture	14	296	41	168	174	
Total	XX	8,190,000	4,970,000	1,310,000	1,370,000	
2008:						
Potassium chloride <sup>3</sup>	61	9,350,000	5,700,000	\$3,130,000	\$3,210,000	
Potassium sulfate	51	73,800	37,600	56,600	59,900	
Potassium nitrate	45	133,000	59,700	75,800	80,200	
Potassium sodium nitrate mixture	14	234	33	189	191	
Total	XX	9,560,000	5,800,000	3,260,000	3,350,000	

<sup>e</sup>Estimated. XX Not applicable.

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

<sup>2</sup>Cost, insurance, and freight.

<sup>3</sup>Contains imports listed under Harmonized Tariff Schedule of the United States code 3104.10.0000.

Source: U.S. Census Bureau; adjusted by the U.S. Geological Survey.



TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF POTASH, BY COUNTRY<sup>1</sup>

Country	Total																
	Potassium chloride (metric tons)			Potassium sulfate (metric tons)			Potassium nitrate (metric tons)			Potassium sodium nitrate (metric tons)			Quantity (metric tons)		Value (thousands)		C.i.f. <sup>2</sup>
	2007	2008	2007	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008		
Australia	76	227	--	--	--	--	--	--	--	76	227	\$46	\$22	\$46	\$23		
Belarus	663,000	145,000	--	--	--	--	--	--	--	663,000	145,000	112,000	60,600	127,000	64,100		
Belgium	--	13	34	59	--	--	--	--	--	34	72	28	105	28	115		
Canada	7,270,000	8,130,000	13,000	20,400	--	201	233	7,290,000	8,150,000	8,150,000	1,130,000	1,130,000	2,140,000	1,160,000	2,150,000		
Chile	--	1,740	7,300	293	96,000	86,200	--	103,000	88,200	103,000	40,600	62,500	43,300	65,600			
China	57	2	180	16	45	61	1	282	80	397	117	127	148	104			
Denmark	--	--	--	--	397	--	--	--	--	--	--	--	--	--			
France	--	--	1,810	1,620	22	22	--	1,830	1,640	253	273	299	320	320			
Germany	344	5,500	58,300	51,200	1,710	3,180	--	60,400	59,900	16,900	47,600	20,300	50,600	50,600			
India	6	100	1	28	214	159	--	221	287	84	156	89	183	183			
Ireland	--	--	--	--	--	139	--	--	139	--	49	--	57	57			
Israel	712	19,200	--	--	36,700	32,900	--	37,400	52,100	10,400	13,300	14,000	16,000	16,000			
Italy	--	--	1,250	--	--	--	--	1,250	--	161	--	185	--	--			
Japan	--	--	173	99	1,090	1,790	--	1,260	1,890	481	631	558	704	704			
Jordan	--	291	--	--	--	7,370	95	95	7,660	56	2,200	61	2,490	2,490			
Latvia	--	64,500	--	--	--	--	--	--	64,500	--	49,400	--	50,800	50,800			
Mexico	8	500	30	--	52	14	--	90	514	47	488	50	500	500			
Netherlands	53	--	--	--	--	--	--	53	--	30	--	31	--	--			
Poland	--	--	--	--	65	346	--	65	346	24	102	28	110	110			
Russia	32,500	970,000	--	--	--	--	--	32,500	970,000	5,140	702,000	5,140	745,000	745,000			
Singapore	--	--	--	--	--	1	--	--	1	--	3	--	3	3			
Switzerland	14	13	--	--	--	--	--	14	13	12	10	13	11	11			
United Kingdom	100	1,870	--	--	--	1	--	100	1,870	166	118	170	118	118			
Venezuela	--	11,600	--	--	--	--	--	--	11,600	--	5,780	--	6,280	6,280			
Total	7,970,000	9,350,000	82,100	73,800	136,000	133,000	296	234	8,190,000	9,560,000	1,310,000	3,080,000	1,370,000	3,160,000			

-- Zero.

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

<sup>2</sup>Cost, insurance, and freight.

Source: U.S. Census Bureau; adjusted by the U.S. Geological Survey.

TABLE 7  
MARKETABLE POTASH: WORLD PRODUCTION, BY COUNTRY<sup>1,2</sup>

(Thousand metric tons of K<sub>2</sub>O equivalent)

Country	2004	2005	2006	2007	2008
Belarus	4,600	4,844	4,605	4,972	4,968
Brazil	403	405	403	471 <sup>r</sup>	471 <sup>p</sup>
Canada	10,100	10,140	8,518	11,085 <sup>r</sup>	10,455 <sup>p</sup>
Chile <sup>e</sup>	559	547	496	515 <sup>r,3</sup>	559 <sup>3</sup>
China <sup>e</sup>	770	1,500	1,800	2,600 <sup>r</sup>	2,750
Germany	3,627	3,664	3,625	3,637 <sup>r</sup>	3,280
Israel	2,138 <sup>r</sup>	2,224	2,187 <sup>r</sup>	2,182 <sup>r</sup>	2,300 <sup>e</sup>
Jordan	1,180	1,115	1,036	1,096 <sup>r</sup>	1,223
Russia	6,405	7,131	6,610 <sup>e</sup>	7,275 <sup>r</sup>	6,730
Spain <sup>e</sup>	590	575	435 <sup>r,3</sup>	435 <sup>r</sup>	435 <sup>p</sup>
Ukraine	10	13	8	12	11
United Kingdom	547	439	420	427	427 <sup>e</sup>
United States <sup>4</sup>	1,200 <sup>r</sup>	1,200 <sup>r</sup>	1,100 <sup>r</sup>	1,100 <sup>r</sup>	1,100
Total	32,200 <sup>r</sup>	33,800 <sup>r</sup>	31,200 <sup>r</sup>	35,800 <sup>r</sup>	34,700

<sup>e</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>Table includes data available through May 16, 2009.

<sup>3</sup>Reported figure.

<sup>4</sup>Rounded to no more than two significant digits.