



2012 Minerals Yearbook

GOLD

GOLD

By Micheal W. George

Domestic survey data and tables were prepared by Wanda G. Wooten, statistical assistant, and the world production table was prepared by Glenn J. Wallace, international data coordinator.

In 2012, domestic mine production of gold increased to 235,000 kilograms (kg), slightly more than that in 2011 (tables 1–2). Although production increased for the third consecutive year, it was 36% less than the record-high production in 1998. In 2012, the value of domestic production increased to a record high of \$12.6 billion, 7% more than that in 2011, mainly owing to a 6% increase in the average price of gold. It was the 11th consecutive year that the value of domestic gold production increased. Mines in Nevada and Alaska, the two leading producing States, accounted for about 75% and 12%, respectively, of domestic gold production in 2012. The remaining production came from mines in Utah, Colorado, California, Washington, South Dakota, Montana, Arizona, and New Mexico, in descending order of production. About 5% of domestic gold was produced as a byproduct of processing base metals, primarily copper, and platinum-group metals. The 31 leading operations yielded 99% of domestic gold produced (table 3).

In 2012, the global exploration budget for gold, the leading exploration target, increased by 17% from that in 2011 to \$9.7 billion and accounted for about 47% of the budgeted nonferrous and nonfuel mineral exploration expenditures of \$20.5 billion. Exploration in Australia, Canada, and the United States accounted for 36% of the budgeted global gold exploration expenditure (Lowrey, 2012; Wilburn, 2013, p. 23, 32, 39).

Commercial-grade refined gold was produced by about two dozen domestic companies. Of several thousand companies and artisans, a few dozen companies dominated the fabrication of gold into commercial products. Jewelry manufacturing in the United States was heavily concentrated in the New York, NY, and Providence, RI, areas, with other manufacturers in California, Florida, and Texas. In 2012, the estimated percentages of gold used for commercial products (noninvestment) were jewelry and arts, 75%; dental and medical, 14%; electrical and electronics, 6%; and other, 5%.

In 2012, the five leading global gold producers (in descending order) were Barrick Gold Corp. (Toronto, Ontario, Canada), Newmont Mining Corp. (Denver, CO), AngloGold Ashanti Ltd. (Johannesburg, South Africa), Gold Fields Ltd. (Johannesburg), and Kinross Gold Corp. (Toronto); these producers accounted for more than 25% of world gold production (Meader and others, 2013, p. 51).

Total world mine production of gold in 2012 was 22 metric tons (t) greater than production in 2011. China, where estimated mine production increased by 41 t, remained the leading gold producer. South Africa, where production decreased for the 12th consecutive year, dropped to the sixth leading gold producer. In 2005, South Africa had been the leading gold producing country. In 2012, the five leading producers among

more than 100 gold-mining countries were, in descending order, China, Australia, the United States, Russia, and Peru (table 8).

Through 2012, historical mine production has totaled an estimated 174,000 t of gold. Because nearly 100% of gold has been recycled and is resistant to corrosion and oxidation, much of the gold that has been produced is still available. As of the end of 2012, 30,100 t was held by central banks as official stocks, 34,700 t was held privately as investment, 84,600 t was held privately as jewelry, 21,200 t was in other fabricated products, and the remaining 3,600 t was unaccounted (Meader and others, 2013, p. 59).

Legislation and Government Programs

Gold mining has been identified as a potential source of funding for armed groups engaged in civil unrest in Congo (Kinshasa) (DRC) and surrounding countries. The United States, through the enactment of Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) on July 21, 2010, made it a statutory obligation for all companies registered with the U.S. Securities and Exchange Commission (SEC) to perform due diligence to determine whether the products they manufacture, or the components of the products they manufacture, contain tantalum, tin, tungsten, or gold (3TG) minerals and if so, to determine whether these minerals were sourced from the DRC and (or) its bordering countries. Accordingly, companies must file a specialized disclosure form (SD Form) with the SEC including their findings as to whether 3TG minerals used in their products and components are sourced from the DRC. Companies that determine that their products or components include 3TGs from the DRC are required to trace those minerals back through the supply chain to the mine of origin (U.S. Government Printing Office, 2010, p. 2213–2220). The first deadline for companies required to file an SD Form with the SEC was May 31, 2014.

While the United States was the only country to enact conflict legislation, other groups and international organizations issued guidance such as the World Gold Council's Conflict-Free Standard published on October 18, 2012. Additionally, the Electronic Industries Citizenship Coalition (EICC-GeSI), the London Bullion Market Association (LBMA), the Organisation for Economic Co-operation and Development (OECD), the Public Private Alliance on Responsible Mineral Trade, the Responsible Jewellery Council, and the United Nations, have similar programs in the development stage to assist companies to avoid contributing to regional conflicts (Heymann, 2013).

Production

Domestic hard-rock mine production data for gold were compiled by the U.S. Geological Survey from two separate

voluntary surveys of U.S. mining operations—one for monthly and the other for annual production of copper, gold, lead, silver, and zinc from lode mines. Alaska's placer gold production data, provided by the Alaska Division of Geology & Geophysical Surveys, were included in the domestic production figures. Individual company production and performance data listed in table 3 and cited elsewhere in this report were obtained from published sources, such as company annual reports.

Alaska.—In 2012, Alaska produced 27,700 kg of gold, from both lode and placer production, valued at \$1.49 billion, which was 7% more by weight and 14% more by value than that produced in 2011. Gold was produced at one open pit gold mine, two underground gold mines, one underground zinc-silver mine, one underground development project, and various placer operations. Kinross's open pit Fort Knox Mine near Fairbanks was the State's leading gold producer with 11,200 kg of gold in 2012, 24% more than that in 2011. The increase resulted from a shift to higher grade mined ore from processing lower grade stockpiled ore (Kinross Gold Corp., 2013, p. MDA20).

The underground Pogo Mine, 145 kilometers (km) southeast of Fairbanks, a joint venture between Sumitomo Metal Mining Co., Ltd. (Tokyo, Japan) (85%) and Sumitomo Co. (Tokyo) (15%), produced about 9,820 kg of gold during 2012, a 3% decrease compared with output in 2011 (Athey and others, 2013, p. 45). Coeur d'Alene Mines Corp.'s (Coeur d'Alene, ID) underground Kensington Mine produced 2,550 kg of gold. Production declined only 7% from that in 2011 despite a 50% reduction in throughput from December 2011 to May 2012 to allow for construction of several infrastructure projects (Coeur d'Alene Mines Corp., 2013, p. 25–26).

Other hard-rock gold production was as a byproduct from the Hecla Mining Co.'s (Coeur d'Alene) underground zinc-silver Greens Creek Mine on Admiralty Island near Juneau and the Fire River Gold Corp.'s (Vancouver) Nixon Fork Mine, 56 km northeast of McGrath, which produced 274 kg of gold during its 2011–12 startup phase. Full production was expected by mid-2013 (Fire River Gold Corp., 2013, p. 4).

According to the Alaska Division of Geology and Geophysics Surveys, 3,110 kg of gold was produced at 312 placer operations in 2012, including recreational operations, about 27% more than that produced in 2011. Six of the operations produced more than 78 kilograms per year (kg/yr) of gold and were considered large, and 283 small operations produced less than 20 kg/yr (Athey and others, 2013, p. 40).

Expenditures in Alaska for nonfuel mineral exploration decreased to \$335 million in 2012, down from \$365 million in 2011. The decline was attributed to lower commodity prices, global economic uncertainties, and increased competition for venture capital for mineral exploration. In 2012, there were 31 projects that spent more than \$1 million, and an additional 33 projects spent between \$100,000 and \$1 million on exploration. Porphyry copper-gold deposits accounted for 36.7% of the exploration expenditures, granite/intrusion-related gold deposits accounted for 33.5%, and other various gold-quartz vein deposits accounted for 7.6%. Three advanced exploration projects, Donlin Creek [50-50 joint venture between Barrick and Novogold Resources Inc. (Vancouver)], Livengood [International Tower Hill Mines Ltd. (Vancouver)],

and Pebble [50-50 joint venture between Anglo American plc (London, United Kingdom) and Northern Dynasty Minerals Ltd. (Vancouver)], accounted for about 59% of Alaska's total mineral exploration expenditures (Athey and others, 2013, p. 9–12).

Arizona.—In 2011, most mined gold recovered in Arizona was as a byproduct of copper mining and processing. In 2012, however, American Bonanza Gold Corp. (Vancouver) began the commissioning phase of the Copperstone gold project and produced about 200 kg of gold. The mine did not reach a commercial production level owing to equipment availability and difficulties in accessing higher grade ore (American Bonanza Gold Corp., 2013, p. 4–5).

California.—In 2012, gold was produced at Atna Resources Ltd.'s (Golden, CO) Briggs Mine and New Gold Inc.'s (Vancouver) Mesquite Mine. The Mesquite Mine, 70 km northwest of Yuma, AZ, produced 4,420 kg of gold, which was 10% less than that produced in 2011 owing to processing lower grade ore, because of an increase in mine development (New Gold Inc., 2013, p. 13). The Briggs Mine produced 1,110 kg of gold, which was 18% less than 2011 production because of a reduction in ore mined and processed during a development phase (Atna Resources Ltd., 2013, p. 4–7). Gold was also produced as a byproduct from sand and gravel operations and from several small underground mines that primarily recovered specimen gold products (Clinkenbeard and Smith, 2013).

Colorado.—In 2012, Colorado remained the fourth-ranked gold-producing State in the United States. Cripple Creek & Victor Gold Mining Co. (a wholly owned subsidiary of AngloGold), reported that its open pit Cresson Mine, the country's seventh-ranked gold mine, produced 7,680 kg of gold in 2012. Production decreased 7% from that in 2011 owing to the phasing in of a new leaching facility, lengthening the amount of time from ore placement on the leach pad to recovery of gold (AngloGold Ashanti Ltd., 2013).

Montana.—Barrick's Golden Sunlight Mine, 55 km east of Butte, which resumed production in early 2011 after an extended development period, continued to increase production. In 2012, the mine produced 3,050 kg of gold (Barrick Gold Corp., 2013, p. 39).

Nevada.—Gold production increased by 3% to 175,000 kg in 2012, and Nevada retained its long-standing position as the Nation's leading gold-producing State. At least 126 projects were drilled in 2012, down from 130 projects in 2011. Of the 126 projects, 106 targeted gold and eight targeted copper. The copper targets, however, often have gold as a byproduct (Davis and Muntean, 2014).

In 2012, Barrick produced 97,100 kg of gold from its wholly owned Bald Mountain, Cortez, Goldstrike, Ruby Hill, and Storm Mines; its 75% share of the Turquoise Ridge Mine (a joint venture with Newmont, 25%); its 50% share of Smoky Valley Common Operation (50% owned and operated by Kinross); and its 33.33% share of the Marigold Mine [67.67% owned and operated by Goldcorp Inc. (Toronto)]. This was slightly more than the company's gold production from Nevada in 2011. In 2012, gold production from Goldstrike was 2,670 kg or 8% more than 2011 production owing to operation of an additional mill at the autoclave facility increasing throughput. Production from the Bald Mountain Mine was 2,120 kg or a

73% increase following completion of a high waste-stripping sequence in 2011 and higher recovery rates from the leach pads. In 2012, Barrick recovered about 1,590 kg and 2,680 kg less gold, respectively, from the Cortez and Ruby Hill Mines than in 2011 owing to the processing of lower-grade ores (Barrick Gold Corp., 2013, p. 39–40).

Newmont's operations in Nevada produced 54,400 kg from nine open pits and seven underground mines. The operations were the Eastern Nevada Mine Group (Carlin East, Gold Quarry, Leeville, North Lantern, and Pete Mines) and the Emigrant, Lone Tree, Midas, Mule Canyon, Phoenix, Trenton Canyon, Twin Creeks, and the joint venture Turquoise Ridge (25% share) Mines. In 2012, gold production from Newmont's Nevada operations increased slightly because of higher throughput at Mill 6, Juniper Mill, and the Twin Creeks Autoclave, as well as from the startup of the Emigrant Mine, which more than offset lower production at the Phoenix and Midas Mines owing to lower ore grades (Newmont Mining Corp., 2013, p. 28, 71).

Some of the other mines in Nevada increased gold production in 2012 because of increases in the amount of ore processed. The Veris Gold Corp.'s (Vancouver) [formerly Yukon-Nevada Gold Corp.] Jerritt Canyon Complex produced 3,290 kg of gold, a 56% increase compared with 2011 production (Veris Gold Corp., 2013, p. 2–3). Allied Nevada Gold Corp.'s (Reno) Hycroft Mine produced 4,260 kg of gold, 55% more than in 2011 (Allied Nevada Gold Corp., 2013, p. 31).

Utah.—Rio Tinto plc's (London, United Kingdom) Bingham Canyon Mine near Salt Lake City, which was operated by Kennecott Utah Copper Corp. (Magna), produced 6,220 kg of gold as a byproduct from copper mining. The gold production decreased by 47% compared with that in 2011 because of lower ore grades and lower mill throughput caused by increased hardness of the ore milled (Rio Tinto plc, 2013, p. 49).

Washington.—In 2012, Kinross's underground Kettle River-Buckhorn Mine in the north-central part of the State produced 4,860 kg of gold, 11% less than in 2011 owing to a planned waste-stripping phase that resulted in a decline in the amount of ore mined and processed (Kinross Gold Corp., 2013, p. MDA22).

Consumption

Thomson Reuters Gold Fields Mineral Services Ltd. (GFMS) reported that total global fabrication in 2012, including the use of scrap, was 2,610 t, about 5% lower than that of 2011. Owing to the high and volatile price of gold, jewelry used only 1,890 t of gold, 4% less than in 2011. The six leading jewelry manufacturing countries, by gold contained in jewelry—India (618 t), China (498 t), Italy (86.2 t), Turkey (73.8 t), the United States (53.7 t), and Russia (49.2 t)—accounted for 73% of the world's gold jewelry fabrication. In 2012, only 3 countries had significant (more than 1 t) increases in gold jewelry fabrication—Egypt (8.8 t), Russia (4.1 t), and China (2.8 t)—and 12 countries had significant decreases (more than 1 t) in gold jewelry fabrication, of which India (48.8 t), Italy (7.6 t), and the United States (6.6 t) accounted for the largest decreases. Worldwide new gold jewelry sales in 2012 were 3% less, by contained gold weight, than those of 2011. The main

reason for the decrease was a 66.3 t decline in new gold jewelry sales, by contained gold weight, in India, which was attributed to a dramatic increase in the local price of gold, a decrease in rural income owing to a severe drought, and competition from alternative quasi-investment options. In some regions of the world, especially in India, gold jewelry is purchased as an investment or as a store of wealth (Meader and others, 2013, p. 83–109).

In 2012, consumption of gold for industrial uses declined because of high gold prices, global economic weakness, and substitutions for gold. Global gold consumption for electronics (285 t) and dentistry (38.6 t) decreased by 11% and 10%, respectively. Gold used in other industrial and decorative applications (84.4 t) decreased by 5%, primarily because of a sharp decline in India (Meader and others, 2013, p. 83–109).

Price and Investment

The Engelhard daily price of gold was volatile and approached the \$1,800-per-troy-ounce level several times during 2012. The annual average daily price for 2012 of \$1,672.75 per troy ounce was 6% more than the annual average price in 2011 and was a record-high annual average price. Although the smallest percentage increase in 11 years, 2012 was the 11th consecutive year of annual average price increases.

Global investment in gold in 2012 fell slightly compared with that in 2011, but remained very high because of financial and economic uncertainties that encouraged investment in gold. Net global investment in gold in 2012 was 1,610 t, worth \$86 billion. The bulk of the investment was the purchase of gold bars that total 998 t. Gold held in gold exchange-traded funds (ETFs) and physically backed Canadian funds increased by 279 t to 2,690 t. However, global official coin minting was down by 19% to 200 t, owing to a large decrease in Turkey and weak demand for gold coins in Europe and North America. The U.S. Mint reported that 23,400 kg of American Eagle gold bullion coins and 2,460 kg of American Buffalo gold bullion coins were sold in 2012, a decrease of 25% and 55%, respectively, from quantities sold in 2011 (Meader and others, 2012, p. 21–38).

According to GFMS estimates, in 2012 the official sector (Governments and national banks) purchased a net 532 t of gold, which was a 48-year high. Some of the leading buyers in 2012 were Russia (75 t), the Philippines (34 t), Kazakhstan (33 t), the Republic of Korea (30 t), and Mexico (19 t) (Meader and others, 2013, p. 60–62).

Foreign Trade

On the basis of unrounded data, refined bullion made up 33% of U.S. gold imports and 54% of exports; the United States was a net exporter of 262,000 kg of refined bullion in 2012 (tables 4, 6). In 2012, the imports and exports of gold bullion decreased by 24% and 8%, respectively, from those in 2011. Canada and Mexico provided almost 43% and 34%, respectively, of the refined bullion imported in 2012. The United Kingdom (37%), Hong Kong (35%), Switzerland (12%), and India (8%) were the principal destinations for refined bullion exports.

World Industry Structure

According to its annual review of world gold supply and demand, GFMS calculated that the total global supply of gold in 2012 was 4,480 t compared with the revised 2011 total supply of 4,520 t. It included an estimated 23-t increase in global mine production, no net official sector sales, no net producer hedging, and no implied net disinvestment for sales of bars and coins by private investors. Old scrap production decreased by 53 t because scrap stocks had been depleted and consumers deferred selling scrap during the year in anticipation of even higher gold prices (Meader and others, 2013, p. 8–10).

World Review

World mine output of gold in 2012 from about 100 countries with reported quantities of production was 2,690 t, about 20 t more than that in 2011, and it was the fourth consecutive year that world production increased (table 8). Gold production increased by more than 1 t in 19 countries, with the largest increases taking place in China (41,000 kg); Russia (18,200 kg); Mexico (12,500 kg); and Colombia (10,300 kg). Sudan's gold exports increased by 22,800 kg and, although much of this was from domestic production, some was from imported artisanal production from neighboring countries. These increases were partially offset by decreases in gold production in several countries, the largest of which took place in Indonesia (37,300 kg); South Africa (20,200 kg); the Philippines (15,400 kg); Australia (10,000 kg); Papua New Guinea (8,660 kg); and Kyrgyzstan (8,320 kg).

The 12 leading gold-producing countries—China, Australia, the United States, Russia, Peru, South Africa, Canada, Mexico, Uzbekistan, Ghana, Colombia, and Brazil (in descending order)—accounted for 72% of global production. The next 12 leading gold-producing countries accounted for almost 18% of production.

Australia.—Australia's gold production in 2012 decreased by 4% compared with that in 2011. Production decreases from Newcrest Mining Ltd.'s (Melbourne, Victoria) Cadia Valley and Barrick's Kalgoorlie Mines, owing to lower ore grades, and Xstrata plc's (Zug, Switzerland) Ernest Henry Mine, owing to the completion of mining a low-cost and high-grade area, accounted for most of the decrease (Barrick Gold Corp., 2013, p. 41; Newcrest Mining Ltd., 2013; Xstrata plc, 2013, p. 2). Partially offsetting these decreases were increases in production from a new operation, Regis Resources Ltd.'s (Subiaco, Western Australia) Garden Well Mine and from LionGold Corp. Ltd.'s (Mount Clear, Victoria) Ballarat Mine that was ramping up to full production (Regis Resources Ltd., 2013; LionGold Corp. Ltd., 2014). Barrick's Yilgarn South Mine produced more gold in 2012 owing to increased ore throughput and higher grade, while, Silver Lake Resources Ltd.'s (South Perth, Western Australia) Mount Monger Mine, and Ramelius Resources Ltd.'s (East Perth, Western Australia) Mount Magnet Mine both produced about 1 t more than in 2011 because of higher ore grades (Barrick Gold Corp., 2013, p. 41; Ramelius Resources Ltd., 2013, p. 3; Silver Lake Resources Ltd., 2013, p. 8).

Canada.—Canada ranked seventh in world gold production and its output increased slightly to 104,000 kg. Production

increased owing to the startup of AuRico Gold Inc.'s (Toronto) Young-Davidson Mine and New Gold Inc.'s (Vancouver) New Afton Mine and from increases in production from Osisko Mining Corp.'s (Montreal) Canadian Malartic Mine, which was commissioned in 2011, and from Agnico Eagle Mines Ltd.'s (Toronto) LaRonde and Meadowbank Mines (Agnico Eagle Mines Ltd., 2013, p. 17; AuRico Gold Inc., 2013, p. 5; New Gold Inc., 2013, p. 2; Osisko Mining Corp., 2013, p. 2–3). These increases were partially offset by production decreases at Goldcorp's Red Lake and Agnico's Goldex Mines (Agnico Eagle Mines Ltd., 2013, p. 17; Goldcorp Inc., 2013, p. 41).

China.—China's gold production increased by 11% to 403,000 kg in 2012 and China remained the leading gold-producing country for the sixth consecutive year. Much of the increase was from primary gold mines, which accounted for 85% of China's gold production and where production increased by 13%. Output of gold as a byproduct of nonferrous mining was 61,300 kg or 13% more than 2011 production (Antaiko Precious Metals Monthly, 2013c). In 2012, the top 10 gold enterprises produced about 49% of China's gold. The leading five provinces in terms of gold production, in descending order, were Shandong, Henan, Jiangxi, Yunnan, and Inner Mongolia Autonomous Region, which accounted for more than 60% of the country's total gold production (Antaiko Precious Metals Monthly, 2013a).

China remained one of the leading consumers of gold and in 2012, consumption was reported to be 832,000 kg, an increase of 71,000 kg or 9% from consumption in 2011. Gold bar consumption reached 240,000 kg, which was 12% more than that in 2011. Consumption for gold ornamentation, including jewelry, was 503,000 kg and for gold coins was 25,300 kg, 10% and 22% more, respectively, than 2011 consumption. Gold used for industrial uses, including electronics, was 53,200 kg, and gold consumed for other uses was 16,500 kg, which were, 8% and 7% less, respectively, than 2011 consumption (Antaiko Precious Metals Monthly, 2013b).

Ghana.—Production of gold in 2012 was 86,540 kg, which was 4% more than that of 2011. The increase was primarily from two mines, Endeavour Mining Corp.'s (Vancouver) Nzema Mine and Perseus Mining Ltd.'s (Subiaco) Edikan Gold Mine, that started up in 2011 and had its first full year of production in 2012 (Endeavour Mining Corp., 2013, p. 2; Perseus Mining Ltd., 2013, p. 3–5).

Indonesia.—In 2012, gold production declined to 58,800 kg, a 39% decrease compared with 2011 output and 58% less than the historically high production in 2009. Some of the leading gold producers were copper mines that produced byproduct gold. Freeport-McMoRan Copper & Gold Inc.'s Grasberg Mine and Newmont's Batu Hijau Mine accounted for 46% (26,800 kg) and 4% (2,115 kg), respectively, of Indonesia's gold production in 2012. Production at Grasberg was 32% lower than in 2011 because of a decrease in ore grade owing to geotechnical issues. Also, milling operations were temporarily suspended in the first quarter owing to damage to concentrate and fuel pipelines from civil unrest during a strike. Batu Hijau's production was 78% less than in 2011 owing to the processing of lower grade stockpiled ore because the mine entered into a higher waste-stripping phase (Freeport-McMoRan

Copper & Gold Inc., 2013, p. 39–40; Newmont Mining Corp., 2013, p. 73).

Kyrgyzstan.—In 2012, gold production decreased by 45% to 10,300 kg. Production from Kumtor, the leading producer in Kyrgyzstan, was 42% less than in 2011 owing to a 10-day strike and geotechnical issues caused by glacial movement that limited access to the ore (Centerra Gold Inc., 2013, p. 15, 72).

Mexico.—In 2012, Mexico's gold production reached an all-time high of 96,700 kg, a 15% increase from 2011 production. Production increases from mines that recently opened and were continuing to ramp up production were the principal factors in increased production. Operations that were still ramping up to full production were Agnico-Eagle's Pinos Altos Mine, Goldcorp's Peñasquito Mine, and Yamana Gold Inc.'s (Toronto) Mercedes Mine. The new producers were the Noche Buena Mine [56% Fresnillo plc (Mexico City) and 44% Newmont] and Argonaut Gold Inc.'s (Reno, NV) La Colorada Mine, both located in Sonora. A few operations had production declines, including Goldcorp's El Sauzal Mine, Coeur's Palmarejo Mine, and joint venture Soledad-Dipolos Mine (56% Fresnillo and 44% Newmont), caused by lower ore grades and throughput and lower recovery rates (Agnico-Eagle Mines Ltd., 2013, p. 26; Argonaut Gold Inc., 2013, p. 7; Coeur d'Alene Mines Corp., 2013, p. 19–20; Goldcorp Inc., 2013, p. 49–53; Newmont Mining Corp., 2013, p. 29, 71; Yamana Gold Inc., 2013, p. 20).

Papua New Guinea.—In 2012, gold production from Papua New Guinea's mines decreased by 8,660 kg, a 14% decrease compared with that of 2011. Much of the decrease was from the two leading gold-producing mines, Newcrest's Lihir Island Mine and Barrick's Porgera Mine. The Lihir Island Mine produced 10% less gold than in 2011 because of a combination of lower grade and ore throughput. At the Porgera Mine, output was 13% less than in 2011 owing to pit wall remediation restricting access to higher grade areas, power supply interruptions, labor issues, and a reduction in underground mining. Newcrest's 50%-owned Hidden Valley Mine produced 23% less than in 2011 (Barrick Gold Corp., 2013, p. 6; Newcrest Mining Ltd., 2013). Production at Ok Tedi Mining Ltd.'s (Tabubil) Ok Tedi Mine was 3% less than in 2011 because the mine began closure procedures ahead of its scheduled closure in 2013; however, a feasibility study to extend the mine life was underway (Highland Pacific Ltd., 2013, p. 9).

Peru.—In 2012, gold production was 161,000 kg, 3% less than in 2011. Lower production from Barrick's Pierina Mine and Cia de Minas Buenaventura S.A.A.'s (Lima) La Zanja Mine owing to a lower ore throughput and from Buenaventura's Orcopampa Mine owing to lower grades were the main factors in the decline (Barrick Gold Corp., 2013, p. 40; Cia de Minas Buenaventura S.A.A., 2013, p. 7, 33).

Some mines produced more gold in 2012, such as Rio Alto Mining Ltd.'s (Vancouver) La Arena Mine, which started production in May 2011 and reached full production in January 2012, and produced 6,260 kg of gold (Rio Alto Mining Ltd., 2013, p. 3). The leading gold mine in Peru, Newmont and Buenaventura's jointly owned Yanacocha Mine, produced slightly more gold in 2012 resulting from higher grades and improved recovery (Newmont Mining Corp., 2013, p. 72).

Russia.—In 2012, Russia's gold production was 217,800 kg, 9% more than 2011 production. The leading gold producer, Polyus Gold, produced 52,200 kg, a 12% increase compared with 2011 production because of an increase in recovery rates and processing volumes (Polyus Gold Mining Co., 2013, p. 4–5). Production from Polymetal International plc's (St. Petersburg) operations was 18,300 kg, 33% more than that in 2011. The production increases were from the Albazino and Omolon operations, which both added new mines in 2012 (Polymetal International plc, 2013, p. 29–47). These production increases more than offset the production decline at Kinross's Kupol Mine, which was the result of an increased stripping ratio (Kinross Gold Corp., 2013, p. MDA23).

South Africa.—Mine gold output in South Africa decreased for the 10th consecutive year to the lowest level since 1906. In 2012, South Africa's production of 160,000 kg was an 11% decrease from that in 2011 owing to widespread strikes in the second half of the year, temporary closure of shafts owing to mine accidents, and high costs that curtailed operations (Mining Journal, 2013).

Uzbekistan.—In 2012, gold production increased slightly because of expansion of the mining haul truck fleet and the commissioning of an in-pit conveyor at Navoi Mining and Metallurgical Combinat's Muruntau open pit in 2011. Navoi completed a new bio-oxidation facility to process refractory ores, which was expected to increase gold production in 2013 (Meader and others, 2013, p. 50).

Outlook

Historically, investors have purchased gold as a safe haven, as a hedge against economic failures, as a portfolio diversifier, and as a store of wealth. However, the economic recovery in the United States in the early part of 2013 prompted fears that the U.S. Federal Reserve would change its monetary policy, coinciding with a decrease in investment in gold in various forms, a decline in gold prices, and limited availability of venture capital for gold exploration. With lower gold prices, global gold consumption is expected to increase because jewelry will become more affordable. Worldwide gold production is expected to increase in 2013 owing to new mines starting production, ramping up recently started mines, and high cutoff grades at some mines to increase ore grades and reduce operating costs. In 2013, some of the significant production increases are expected to be in Brazil, Canada, China, the Dominican Republic, and Russia. However, some of the increases will likely be offset by high-cost operations shutting down in light of lower gold prices.

References Cited

- Agnico Eagle Mines Ltd., 2013, Really, it's simple—Annual report—2012: Toronto, Ontario, Canada, Agnico Eagle Mines Ltd., 103 p. (Accessed June 25, 2013, at http://ir.agnicoeagle.com/files/doc_financials/2012/AEM-2012-AnnualReport.pdf.)
- Allied Nevada Gold Corp., 2013, Form 10-K—2012: U.S. Securities and Exchange Commission, 74 p. (Accessed April 24, 2013, at <http://www.alliednevada.com/investors/pdf/2012-q4.pdf>.)
- American Bonanza Gold Corp., 2013, Annual report—2012: Vancouver, British Columbia, Canada, American Bonanza Gold Corp., 51 p. (Accessed April 24, 2013, at <http://www.americanbonanza.com/i/pdf/2012-Annual-Report-Final.pdf>.)

- AngloGold Ashanti Ltd., 2013, 2012—Country fact sheet—United States: Johannesburg, South Africa, AngloGold Ashanti Ltd., 5 p. (Accessed April 30, 2013, at <http://www.aga-reports.com/12/download/AGA-OP12-usa-ccv.pdf>.)
- Antaika Precious Metals Monthly, 2013a, China gold industry operations in 2012: Antaika Precious Metals Monthly, March, no. 10, p. 11–12.
- Antaika Precious Metals Monthly, 2013b, China's gold consumption reached 832.18t in 2012: Antaika Precious Metals Monthly, March, no. 10, p. 9.
- Antaika Precious Metals Monthly, 2013c, China's gold output reached 400t: Antaika Precious Metals Monthly, March, no. 10, p. 9.
- Argonaut Gold Inc., 2013, Management's discussion & analysis for the year ended December 31, 2012: Reno, NV, Argonaut Gold Inc., 18 p. (Accessed April 30, 2013, at http://www.argonautgold.com/_resources/financials/Argonaut_MDA_2013_Q4_Year-End.pdf.)
- Athey, J.E., Harbo, L.A., Lasley, P.S., and Freeman, L.K., 2013, Alaska's mineral industry 2012: Alaska Division of Geology and Geophysics Surveys Special Report 68, 73 p.
- Atna Resources Ltd., 2013, Annual report—2012: Golden, CO, Atna Resources Ltd., 96 p. (Accessed November 20, 2013, at http://www.atna.com/i/pdf/ATNA_2012_AR_FINAL.pdf.)
- AuRico Gold Inc., 2013, Annual report—2012: Toronto, Ontario, Canada, AuRico Gold Inc., 106 p. (Accessed March 29, 2014, at http://www.auricogold.com/files/doc_financials/annual_reports/2012/AuRico_Gold_2012_Annual_Report_v001_v69163.pdf.)
- Barrick Gold Corp., 2013, Barrick reports fourth quarter and full year 2012 results: Toronto, Ontario, Canada, Barrick Gold Corp., February 14, 148 p. (Accessed June 6, 2013, at <http://www.barrick.com/files/quarterly-reports/2012/Barrick-2012-Year-End-Report.pdf>.)
- Centerra Gold Inc., 2013, Management's discussion and analysis for the fiscal year ended December 31, 2012: Toronto, Ontario, Canada, Centerra Gold Inc., 87 p. (Accessed September 17, 2013, at http://www.centerragold.com/sites/default/files/cg-2012_annual_mda_filing.pdf.)
- Cia de Minas Buenaventura S.A.A., 2013, Annual report—2012: Lima, Peru, Cia de Minas Buenaventura S.A.A., 131 p. (Accessed November 20, 2013, via <http://www.buenaventura.com/>.)
- Clinkenbeard, John, and Smith, Joshua, 2013, California non-fuel minerals 2012: California Geological Survey, April 24, 6 p. (Accessed September 23, 2014, at http://http://www.consrv.ca.gov/cgs/minerals/min_prod/Documents/NON-FUEL_2012_Final_4-24-14.pdf.)
- Coeur d'Alene Mines Corp., 2013, Form 10-K—2012: U.S. Securities and Exchange Commission, 112 p. (Accessed April 24, 2013, via http://www.coeur.com/investor-relations/financial-information/sec-sedar-filings#.U4cmv_lDw4l.)
- Davis, D.A., and Muntean, J.L., 2014, Metals, in Nevada Bureau of Mines and Geology, The Nevada mineral industry 2012: Nevada Bureau of Mines and Geology special publication MI-2012, February 11, p. 13–52. (Accessed March 6, 2014, at <http://www.nbmgs.unr.edu/dox/mi/12.pdf>.)
- Endeavour Mining Corp., 2013, Management's discussion and analysis of results of operations and financial condition for the three months and year ended December 31, 2012: Vancouver, British Columbia, Canada, Endeavour Mining Corp., 128 p. (Accessed September 17, 2013, at <http://www.endeavourmining.com/i/pdf/Financials/2012YE.pdf>.)
- Fire River Gold Corp., 2013, Annual management discussion and analysis for Fire River Gold Corp. for 31 October 2012: Vancouver, British Columbia, Canada, Fire River Gold Corp., 16 p. (Accessed June 4, 2013, at <http://www.firerivergold.com/i/pdf/FSQ42012.pdf>.)
- Freeport-McMoRan Copper & Gold Inc., 2013, Annual report—2012: Phoenix, AZ, Freeport-McMoRan Copper & Gold Inc., 114 p. (Accessed June 25, 2013, at http://www.fx.com/ir/AR/2012/FCX_AR_2012.pdf.)
- Goldcorp Inc., 2013, One company thousands of stories—Annual report—2012: Toronto, Ontario, Canada, Goldcorp Inc., 155 p. (Accessed May 9, 2013, at http://www.goldcorp.com/files/doc_financia/Goldcorp_AR12_FINAL.pdf.)
- Heymann, Terry, 2013, A fair-trade gold standard: Mining Journal, April 5, p. 26–27.
- Highland Pacific Ltd., 2013, Annual report—2012: Port Moresby, Papua New Guinea, Highland Pacific Ltd., 82 p. (Accessed June 3, 2013, at http://www.highlandspacific.com/_literature_4907/2012_Annual_Report.pdf.)
- Kinross Gold Corp., 2013, Annual report—2012: Toronto, Ontario, Canada, Kinross Gold Corp., 156 p. (Accessed May 9, 2013, at http://www.kinross.com/media/245138/kinross_gold_annual_report_2012.pdf.)
- LionGold Corp. Ltd., 2014, Castlemaine Goldfields: Sultan Link, Singapore, LionGold Corp. Ltd. (Accessed March 28, 2014, at <http://www.liongoldcorp.com/operations/castlemaine-goldfields/>.)
- Lowrey, Jim, ed., 2012, Trends in worldwide exploration budgets, in Strategic report: Halifax, Nova Scotia, Canada, SNL Metals Economics Group, v. 25, no. 6, November–December, p. 1–10.
- Meader, Neil, Tankard, William, Ryan, Peter, Alexander, Cameron, O'Connell, Rhona, Liang, Junlu, Piggott, Matthew, Szczypka, Marcin, Wiebe, Johanna, Coles, George, Litosh, Saida, Nambiathi, Sudheesh, and Tourney, Janette, 2013, Gold survey 2013: London, United Kingdom, Thomson Reuters GFMS Ltd., April, 126 p.
- Mining Journal, 2013, Keeping the peace: Mining Journal, August 2, p. 19–27.
- New Gold Inc., 2013, 2012 Annual review—Growing together: Vancouver, British Columbia, Canada, New Gold Inc., 28 p. (Accessed November 15, 2013, at http://2012review.newgold.com/docs/New_Gold_2012_Annual_Review.pdf.)
- Newcrest Mining Ltd., 2013, Quarterly report Newcrest Mining Ltd. for the three months ending 31 December 2012: Melbourne, Victoria, Australia, Newcrest Mining Ltd., 10 p. (Accessed May 12, 2013, at http://www.newcrest.com.au/media/quarterly_reports/FINAL_December_Quarterly_Results_240113.pdf.)
- Newmont Mining Corp., 2013, Form 10-K—2012: U.S. Securities and Exchange Commission, 181 p. (Accessed June 6, 2013, at <http://newmont.q4cdn.com/926958e8-a674-4c24-ba2c-dc08a06a337b.pdf?noexit=true>.)
- Osisko Mining Corp., 2013, Management's discussion and analysis—For the year ended December 31, 2012: Montreal, Quebec, Canada, Osisko Mining Corp., 34 p. (Accessed November 12, 2013, at http://www.osisko.com/wp-content/uploads/2013/03/en_mda_2012.pdf.)
- Perseus Mining Ltd., 2013, December 2012 quarterly activity report: Subiaco, Western Australia, Australia, Perseus Mining Ltd., January 21, 19 p. (Accessed May 29, 2014, at http://www.perseusmining.com/aurora/assets/user_content/december_2012_quarterly_activity_report_final.pdf.)
- Polymetal International plc, 2013, Delivering on our promises—Annual report—2012: St. Petersburg, Russia, Polymetal International plc, 170 p. (Accessed November 15, 2013, at http://www.polymetalinternational.com/~media/Files/P/Polymetal/Annual_Reports/Polymetal_AR12_WEB_220513.pdf.)
- Polyus Gold Mining Co., 2013, Delivering growth—Annual report—2012: Moscow, Russia, Polyus Gold Mining Co., 120 p. (Accessed November 15, 2013, at http://www.polyusgold.com/upload/investors/annual_reports/annual_report_2012_final.pdf.)
- Rameli Resources Ltd., 2013, Quarterly report for the period ending 31 December 2012: East Perth, Western Australia, Australia, Rameli Resources Ltd., 16 p. (Accessed March 28, 2014, via <http://www.rameliusresources.com.au>.)
- Regis Resources Ltd., 2013, Quarterly report to December 2012: Subiaco, Western Australia, Australia, Regis Resources Ltd., 19 p. (Accessed March 28, 2014, at <http://www.regisresources.com.au/reports-2/quarterly-reports?download=89>.)
- Rio Alto Mining Ltd., 2013, Amended and restated management discussion and analysis—For the year ended December 31, 2012: Vancouver, British Columbia, Canada, Rio Alto Mining Ltd., 24 p. (Accessed January 15, 2014, at http://www.riotalmining.com/_resources/financials/MDA_Dec_31_2012_April_2_Restatement.pdf.)
- Rio Tinto plc, 2013, Annual report—2012: London, United Kingdom, Rio Tinto plc, 224 p. (Accessed May 24, 2013, at http://www.riotinto.com/documents/Investors/Rio_Tinto_2012_Annual_report.pdf.)
- Silver Lake Resources Ltd., 2013, Quarterly activities report for the quarter ended 31 December 2012: South Perth, Western Australia, Australia, Silver Lake Resources Ltd., 20 p. (Accessed January 15, 2014, at http://www.silverlakeresources.com.au/uploads/pdfs/quarterly-reports/Quarterly_Report_December_2012.pdf.)
- U.S. Government Printing Office, 2010, Public Law 111–203–21, 2010—Dodd-Frank Wall Street Reform and Consumer Protection Act: Washington, DC, U.S. Government Printing Office, July 21, 2223 p.
- Veris Gold Corp., 2013, Management's discussion and analysis for the year ended December 31, 2012: Vancouver, British Columbia, Canada, Veris Gold Corp., 73 p. (Accessed March 5, 2013, at <http://www.verisgold.com/i/pdf/financials/Year-End-2012.pdf>.)
- Wilburn, D.R., 2013, Exploration review: Mining Engineering, v. 65, no. 5, May, p. 22–42.
- Xstrata plc, 2013, Preliminary full year results—2012: Zug, Switzerland, Xstrata plc press release, March 5, 25 p. (Accessed May 28, 2014, at http://www.glencore.com/assets/Uploads/reports_and_results/xstrata/2012/xta-prelim-report-2012.pdf.)

Yamana Gold Inc., 2013, Reliable and predictable—Annual report—2012: Toronto, Ontario, Canada, Yamana Gold Inc., 79 p. (Accessed February 4, 2014, via <http://www.yamana.com/Investors/FinancialCorporateReports/default.aspx>.)

GENERAL SOURCES OF INFORMATION

U.S. Geological Survey Publications

Estimated Water Requirements for Gold Heap-leach Operations. Open-File Report 2012–1085, 2012.

Geology and Resources of Gold in the United States. Bulletin 1857, 1988.

Gold. Ch. in Mineral Commodity Summaries, annual.

Gold. Ch. in United States Mineral Resources, Professional Paper 820, 1973.

Gold. Mineral Industry Surveys, monthly.

Gold (Au). Ch. in Metal Prices in the United States Through 2010, Scientific Investigations Report 2012–5188, 2013.

Gold Recycling in the United States in 1998. Ch. in Flow Studies for Recycling Metal Commodities in the United States, Circular 1196–A–M, 2004.

Historical Statistics for Mineral and Material Commodities in the United States. Data Series 140.

Principal Gold Producing Districts of the United States. Professional Paper 610, 1968.

Review of Selected Global Mineral Industries in 2011 and an Outlook to 2017. Open-File Report 1091, 2013.

Other

Gold. Ch. in Mineral Facts and Problems, U.S. Bureau of Mines Bulletin 675, 1985.

World Gold—A Minerals Availability Appraisal. U.S. Bureau of Mines Special Publication 24, 1994.

TABLE 1
SALIENT GOLD STATISTICS¹

| | | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|------------------------|--------------------------|------------------------|------------------------|------------------------|--------------|
| United States: | | | | | | |
| Production: | | | | | | |
| Mine: | | | | | | |
| Quantity | kilograms | 233,000 | 223,000 | 231,000 | 234,000 | 235,000 |
| Value | thousands | \$6,550,000 | \$7,000,000 | \$9,130,000 | \$11,800,000 | \$12,600,000 |
| Gold recovered by cyanidation: | | | | | | |
| Extracted in vats, tanks, closed containers ² | kilograms | W | W | W | W | W |
| Leached in open heaps or dumps ³ | do. | 197,000 | 185,000 | 193,000 | 201,000 | 217,000 |
| Refinery: | | | | | | |
| Concentrates and dore | do. | 168,000 | 170,000 | 175,000 | 220,000 | 222,000 |
| Recycled materials (new and old scrap) | do. | 181,000 | 189,000 | 198,000 | 263,000 | 215,000 |
| Exports, refined | do. | 459,000 | 281,000 | 295,000 | 403,000 | 371,000 |
| Imports for consumption, refined | do. | 118,000 | 127,000 | 199,000 | 143,000 | 108,000 |
| Net deliveries from foreign stocks in Federal Reserve Bank of New York | do. | 220,000 | -- | -- | 3,670 | -- |
| Stocks, December 31: | | | | | | |
| Industry ⁴ | do. | W | 9,200 | 6,810 | 6,470 | 4,070 |
| Gold exchange traded funds holdings ⁵ | do. | 1,230,000 [†] | 1,840,000 [†] | 2,210,000 [†] | 2,410,000 [†] | 2,690,000 |
| COMEX inventories | do. | 265,000 | 305,000 | 361,000 | 353,000 | 344,000 |
| U.S. Department of the Treasury | do. | 8,140,000 | 8,140,000 | 8,140,000 | 8,140,000 | 8,140,000 |
| U.S. Gold Futures Trading ⁶ | do. | 119,000,000 [†] | 110,000,000 | 139,000,000 | 153,000,000 | 137,000,000 |
| Consumption: | | | | | | |
| American Buffalo gold bullion coin ⁷ | do. | 5,890 | 6,220 | 6,500 | 5,430 | 2,460 |
| American Eagle gold bullion coin ⁷ | do. | 35,600 | 44,300 | 38,000 | 31,100 [†] | 23,400 |
| Jewelry industry and the arts | do. | 175,000 [†] | 173,000 | 180,000 | 168,000 | 147,000 |
| Price, average ⁸ | dollars per troy ounce | 873.50 | 974.68 | 1,230.00 | 1,570.00 | 1,670.00 |
| Employment, mine and mill only ⁹ | | 9,560 | 9,650 | 10,300 | 11,100 [†] | 12,700 |

See footnotes at end of table.

TABLE 1—Continued
SALIENT GOLD STATISTICS¹

| | | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|-----------|------------------------|------------------------|------------------------|------------------------|------------|
| World: | | | | | | |
| Production, mine | kilograms | 2,300,000 ^r | 2,480,000 ^r | 2,580,000 ^r | 2,670,000 ^r | 2,690,000 |
| Official bullion reserves ¹⁰ | do. | 28,700,000 | 30,400,000 | 30,700,000 | 31,100,000 | 31,700,000 |

^rRevised. do. Ditto. W Withheld to avoid disclosing company proprietary data. -- Zero.

¹Data are rounded to no more than three significant digits, except prices.

²May include small quantities recovered by gravity methods.

³May include tailings, waste-ore dumps, and previously mined ore at some inactive mines.

⁴Unfabricated refined gold held by refiners, fabricators, dealers, and the U.S. Department of Defense.

⁵Data from CPM Group.

⁶COMEX only.

⁷Data from U.S. Mint.

⁸Engelhard quotation.

⁹Data from the Mine Safety and Health Administration.

¹⁰Held by central banks, governments, and international monetary organizations. Data from the International Monetary Fund.

TABLE 2
MINE PRODUCTION OF GOLD IN THE UNITED STATES, BY STATE¹

(Kilograms)

| State | 2011 | 2012 |
|---------------------------|---------|---------|
| Alaska | 25,800 | 27,700 |
| Nevada | 172,000 | 175,000 |
| Other States ² | 36,100 | 31,400 |
| Total | 234,000 | 235,000 |

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

²Includes Arizona, California, Colorado, Montana, New Mexico, South Dakota, Utah, and Washington.

TABLE 3
LEADING GOLD-PRODUCING MINES IN THE UNITED STATES IN 2012, IN ORDER OF OUTPUT¹

| Rank | Mine | County and State ² | Majority owner ³ | Quantity (kilograms) |
|------|--------------------------------|---------------------------------------|---|----------------------|
| 1 | Nevada Operations ⁴ | Elko, Eureka, Humboldt and Lander, NV | Newmont Mining Corp. | 52,900 |
| 2 | Cortez ⁵ | Lander, NV | Barrick Gold Corp. | 42,600 |
| 3 | Goldstrike ⁶ | Elko and Eureka, NV | do. | 36,500 |
| 4 | Smoky Valley Common Operation | Nye, NV | Kinross Gold Corp. (50%), Barrick Gold Corp. (50%) | 11,500 |
| 5 | Fort Knox ⁷ | Eastern Interior Region, AK | Kinross Gold Corp. | 11,200 |
| 6 | Pogo | do. | Sumitomo Metal Mining Co. (85%), Sumitomo Corp. (15%) | 9,870 |
| 7 | Cresson | Teller, CO | AngloGold Ashanti Ltd. | 7,680 |
| 8 | Bingham Canyon ⁸ | Salt Lake, UT | Kennecott Utah Copper Corp. ⁹ | 6,220 |
| 9 | Turquoise Ridge | Humboldt, NV | Barrick Gold Corp. (75%), Newmont Mining Corp (25%) | 5,970 |
| 10 | Bald Mountain | White Pine, NV | Barrick Gold Corp. | 5,010 |

See footnotes at end of table.

TABLE 3—Continued
LEADING GOLD-PRODUCING MINES IN THE UNITED STATES IN 2012, IN ORDER OF OUTPUT¹

| Rank | Mine | County and State ² | Majority owner ³ | Quantity (kilograms) |
|-----------------|------------------------------------|-------------------------------|---|-------------------------|
| 11 | Kettle River-Buckhorn ⁷ | Okanogan, WA | Kinross Gold Corp. | 4,860 |
| 12 | Marigold | Humboldt, NV | Goldcorp Inc. (66.7%), Barrick Gold Corp. (33.3%) | 4,510 |
| 13 | Mesquite | Imperial, CA | New Gold Inc. | 4,420 |
| 14 | Hycroft | Humboldt and Pershing, NV | Allied Nevada Gold Corp. | 4,260 |
| 15 | Jerritt Canyon | Elko, NV | Veris Gold Corp. ¹⁰ | 3,290 |
| 16 | Golden Sunlight | Jefferson, MT | Barrick Gold Corp. | 3,050 |
| 17 | Hollister | Elko, NV | Great Basin Gold Ltd. | 2,690 |
| 18 | Kensington | Southeastern Region, AK | Coeur d'Alene Mines Corp. | 2,550 |
| 19 | Wharf | Lawrence, SD | Goldcorp Inc. | 2,120 |
| 20 | Greens Creek | Southeastern Region, AK | Hecla Mining Co. | 1,730 |
| 21 | Ruby Hill | Eureka, NV | Barrick Gold Corp. | 1,280 |
| 22 | Rochester | Pershing, NV | Coeur d'Alene Mines Corp. | 1,180 |
| 23 | Robinson ¹¹ | White Pine, NV | KGHM International Ltd. ¹² | 1,180 |
| 24 | Briggs | Inyo, CA | Atna Resources Ltd. | 1,110 |
| 25 | Mineral Ridge | Esmeralda, NV | Scorpio Gold Corp. | 991 |
| 26 | Drumlummon | Lewis and Clark, MT | U.S. Silver and Gold Inc. | 624 |
| 27 | Stillwater ¹³ | Stillwater, MT | Stillwater Mining Co. | 280 |
| 28 | Nixon Fork | Western Region, AK | Fire River Gold Corp. | 274 |
| ⁽¹⁴⁾ | Borealis | Mineral, NV | Gryphon Gold Corp. | NA |
| ⁽¹⁴⁾ | Denton-Rawhide | do. | Rawhide Mining LLC | NA |
| ⁽¹⁴⁾ | Florida Canyon | Pershing, NV | Jipangu Inc. | NA |

do. Ditto. NA Not available.

¹Data are rounded to no more than three significant digits; the mines on this list accounted for more than 99% of U.S. mine production in 2012.

²For Alaska, mines are located by geographic region, as delineated by the Alaska Division of Geological & Geophysical Surveys in its Special Report 67, Alaska's mineral industry 2011—Exploration activity.

³When multiple owners are listed, the operating owner is listed first, and when only one owner is listed the company has full ownership.

⁴Includes nine open pit operations (Emigrant, Genesis, Gold Quarry, Lantern, Pay Raise, Phoenix, Twin Creeks, and Widge Mines) and seven underground operations (Carlin East, Chukar, Exodus, Leeville, Midas, and Pete Bajo Mines).

⁵Includes Cortez Hills and Cortez Pipeline Mines.

⁶Includes Betze-Post, Meikle, and Storm Mines.

⁷Quantity represents total gold equivalent.

⁸Quantity represents total quantity of gold produced in concentrates.

⁹Wholly owned subsidiary of Rio Tinto plc.

¹⁰Yukon-Nevada Gold Corp. changed its name to Veris Gold Corp. on October 10, 2012.

¹¹Quantity represents total quantity of gold, platinum, and palladium produced in concentrate.

¹²The Robinson Mine was formerly owned by Quadra FNX Mining Ltd., which was purchased by KGHM Polska Miedz SA. on March 5, 2012, and renamed KGHM International Ltd.

¹³Includes East Boulder Mine.

¹⁴The rank order is not shown to avoid disclosing company proprietary data.

Sources: Company annual reports, company 10-K reports submitted to the U.S. Securities and Exchange Commission, company news releases, and Nevada Bureau of Mines and Geology.

TABLE 4
U.S. EXPORTS OF GOLD, BY COUNTRY^{1,2}

(Kilograms, gold content unless otherwise specified)

| Year and country | Ores and concentrates ³ | | Dore and precipitates | | Refined bullion ⁴ | | Total | |
|----------------------|------------------------------------|----------------------|-----------------------|----------------------|------------------------------|----------------------|----------|----------------------|
| | Quantity | Value (thousands) | Quantity | Value (thousands) | Quantity | Value (thousands) | Quantity | Value (thousands) |
| 2011 | 8,400 | \$282,000 | 62,800 | \$2,430,000 | 403,000 | \$19,600,000 | 474,000 | \$22,300,000 |
| 2012: | | | | | | | | |
| Albania | -- | -- | 38 | 1,590 | -- | -- | 38 | 1,590 |
| Australia | -- | -- | -- | -- | 5,140 | 145,000 | 5,140 | 145,000 |
| Austria | 4 | 40 | -- | -- | 100 | 5,650 | 104 | 5,690 |
| Belgium | 12 | 548 | -- | -- | 2 | 87 | 14 | 635 |
| Canada | 176 | 3,320 | 17,100 | 220,000 | 1,150 | 65,200 | 18,400 | 288,000 |
| China | 1,190 | 72,600 | -- | -- | 8 | 442 | 1,200 | 73,000 |
| Colombia | -- | -- | 2 | 116 | -- | -- | 2 | 116 |
| Czech Republic | -- | -- | 25 | 799 | -- | -- | 25 | 799 |
| Dominican Republic | 697 | 26,200 | -- | -- | -- | -- | 697 | 26,200 |
| Germany | 2,070 | 67,100 | -- | -- | 161 | 8,490 | 2,230 | 75,600 |
| Guatemala | -- | -- | 12 | 484 | 9 | 470 | 20 | 954 |
| Honduras | -- | -- | -- | -- | 15 | 760 | 15 | 760 |
| Hong Kong | 1,650 | 10,500 | 1,000 | 51,000 | 131,000 | 7,090,000 | 133,000 | 7,150,000 |
| India | -- | -- | 38,000 | 1,660,000 | 28,900 | 1,240,000 | 66,900 | 2,900,000 |
| Indonesia | -- | -- | 3 | 121 | 3 | 157 | 6 | 278 |
| Ireland | 6 | 170 | -- | -- | 1 | 24 | 6 | 194 |
| Israel | (5) | 14 | 11 | 446 | -- | -- | 11 | 460 |
| Japan | 20 | 195 | -- | -- | 12 | 505 | 32 | 700 |
| Kazakhstan | -- | -- | 19 | 584 | -- | -- | 19 | 584 |
| Laos | -- | -- | -- | -- | 21 | 1,010 | 21 | 1,010 |
| Malaysia | -- | -- | -- | -- | 326 | 17,000 | 326 | 17,000 |
| Mexico | 6,010 | 71,200 | -- | -- | 1,030 | 52,500 | 7,040 | 124,000 |
| New Zealand | -- | -- | (5) | 9 | 4 | 213 | 4 | 221 |
| Oman | -- | -- | -- | -- | 280 | 13,900 | 280 | 13,900 |
| Pakistan | -- | -- | 13 | 498 | 174 | 8,060 | 187 | 8,560 |
| Peru | -- | -- | -- | -- | 19 | 976 | 19 | 976 |
| Poland | -- | -- | -- | -- | 439 | 24,200 | 439 | 24,200 |
| South Africa | -- | -- | -- | -- | 9,260 | 504,000 | 8,260 | 504,000 |
| Swaziland | -- | -- | -- | -- | 3 | 199 | 3 | 199 |
| Switzerland | 7 | 228 | 235,000 | 10,900,000 | 44,600 | 2,270,000 | 280,000 | 13,200,000 |
| Taiwan | -- | -- | -- | -- | 389 | 19,500 | 389 | 19,500 |
| Thailand | 1 | 3 | (5) | 3 | 9,280 | 492,000 | 9,280 | 492,000 |
| Turkey | -- | -- | -- | -- | 35 | 1,520 | 35 | 1,520 |
| United Arab Emirates | -- | -- | 19,300 | 792,000 | 1,890 | 64,200 | 21,200 | 856,000 |
| United Kingdom | 3 | 22 | 27 | 699 | 137,000 | 7,330,000 | 137,000 | 7,330,000 |
| Vietnam | -- | -- | -- | -- | 19 | 740 | 19 | 740 |
| Other | -- | -- | -- | 18 | 1 | 89 | 1 | 107 |
| Total | 11,800 | 252,000 | 311,000 | 13,700,000 | 371,000 | 19,300,000 | 692,000 | 33,300,000 |

-- Zero.

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

²Ash and residues data were zero for listed years.

³Includes base-metal ores, concentrates, and matte destined for refining.

⁴Bullion also moves in both directions between U.S. markets and foreign stocks on deposit in the Federal Reserve Bank. Monetary gold is excluded.

⁵Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF GOLD, BY COUNTRY¹

(Kilograms, gross weight unless otherwise specified)

| Year and country | Waste and scrap | | Metal powder | | Gold compounds | |
|--------------------|-----------------|----------------------|--------------|----------------------|----------------|----------------------|
| | Quantity | Value (thousands) | Quantity | Value (thousands) | Quantity | Value (thousands) |
| 2011 | 626,000 | \$7,510,000 | 670 | \$19,100 | 3,930,000 | \$98,700 |
| 2012: | | | | | | |
| Argentina | -- | -- | -- | -- | 170 | 3 |
| Australia | -- | -- | 1 | 9 | 916 | 17 |
| Belgium | 337 | 2,260 | -- | -- | -- | -- |
| Canada | 48,300 | 1,260,000 | 30 | 483 | 591,000 | 10,600 |
| China | (2) | 14 | 9 | 267 | 268,000 | 13,500 |
| Costa Rica | -- | -- | 11 | 122 | 41,600 | 2,890 |
| Denmark | -- | -- | -- | -- | 203 | 4 |
| Dominican Republic | -- | -- | 2 | 8 | 192,000 | 3,450 |
| Ecuador | -- | -- | -- | -- | 260 | 17 |
| France | -- | -- | 16 | 452 | 2,620 | 47 |
| Germany | 181,000 | 59,500 | 8 | 141 | 7,270 | 131 |
| Honduras | -- | -- | 15 | 217 | -- | -- |
| Hong Kong | 1 | 112 | 27 | 967 | 2,610 | 54 |
| India | 4 | 209 | 18 | 732 | 8,960 | 161 |
| Ireland | -- | -- | 1 | 17 | 15,900 | 494 |
| Italy | 6,530 | 16,700 | -- | -- | 919 | 18 |
| Japan | 172 | 8,160 | 14 | 208 | 2,320 | 57 |
| Korea, Republic of | -- | -- | -- | -- | 72,200 | 1,750 |
| Malaysia | -- | -- | -- | -- | 251,000 | 15,600 |
| Mexico | -- | -- | 28 | 732 | 637,000 | 11,500 |
| Netherlands | -- | -- | -- | -- | 103,000 | 1,860 |
| Panama | -- | -- | -- | -- | 150 | 3 |
| Saudi Arabia | -- | -- | -- | -- | 831 | 15 |
| Singapore | -- | -- | 9 | 81 | 445,000 | 41,100 |
| Sweden | -- | -- | -- | -- | 167 | 3 |
| Switzerland | 16,000 | 823,000 | (2) | 7 | 64,900 | 2,160 |
| Taiwan | -- | -- | 10 | 244 | 76,700 | 1,380 |
| Thailand | -- | -- | -- | -- | 4,000 | 72 |
| Turkey | 4 | 128 | -- | -- | 3,290 | 59 |
| United Kingdom | 13,700 | 136,000 | 85 | 3,440 | 24,900 | 449 |
| Vietnam | -- | -- | 15 | 503 | 439 | 8 |
| Other | -- | 3 | 5 | 75 | -- | -- |
| Total | 266,000 | 2,310,000 | 304 | 8,710 | 2,820,000 | 107,000 |

-- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF GOLD, BY COUNTRY¹

(Kilograms, gold content unless otherwise specified)

| Year and country | Ores and concentrates ² | | Dore and precipitates | | Refined bullion ³ | | Total | |
|----------------------------------|------------------------------------|----------------------|-----------------------|----------------------|------------------------------|----------------------|----------|----------------------|
| | Quantity | Value (thousands) | Quantity | Value (thousands) | Quantity | Value (thousands) | Quantity | Value (thousands) |
| 2011 | 203,000 | \$115,000 | 161,000 | \$6,910,000 | 143,000 | \$6,010,000 | 507,000 | \$13,000,000 |
| 2012: | | | | | | | | |
| Argentina | -- | -- | 6 | 280 | 46 | 2,840 | 51 | 3,120 |
| Australia | 3 | 88 | -- | -- | 2,630 | 118,000 | 2,630 | 118,000 |
| Bahamas, The | -- | -- | 10 | 372 | (4) | 4 | 10 | 376 |
| Barbados | -- | -- | 101 | 2,850 | 42 | 829 | 143 | 3,680 |
| Belgium | -- | -- | -- | -- | 16 | 653 | 16 | 653 |
| Bolivia | -- | -- | 11,900 | 638,000 | 707 | 28,900 | 12,600 | 666,000 |
| Brazil | -- | -- | -- | -- | 1,580 | 79,400 | 1,580 | 79,400 |
| Canada | 113 | 5,700 | 1,480 | 74,500 | 46,200 | 2,470,000 | 47,800 | 2,550,000 |
| Chile | -- | -- | 2,530 | 148,000 | 3,600 | 164,000 | 6,130 | 312,000 |
| China | -- | -- | -- | -- | 7 | 252 | 7 | 252 |
| Colombia | -- | -- | 52,600 | 2,450,000 | 8,610 | 425,000 | 61,200 | 2,870,000 |
| Costa Rica | -- | -- | 3 | 154 | 112 | 3,250 | 115 | 3,400 |
| Curacao | -- | -- | 8,150 | 436,000 | 20 | 1,050 | 8,170 | 437,000 |
| Dominican Republic | 52 | 3,010 | 226 | 7,780 | 288 | 14,100 | 566 | 24,900 |
| Ecuador | -- | -- | 6,480 | 291,000 | 223 | 11,200 | 6,710 | 302,000 |
| El Salvador | -- | -- | 56 | 1,770 | -- | -- | 56 | 1,770 |
| France | -- | -- | -- | -- | 314 | 16,700 | 314 | 16,700 |
| Germany | -- | -- | 56 | 3,090 | 131 | 7,160 | 188 | 10,200 |
| Ghana | -- | -- | 18 | 964 | 19 | 993 | 37 | 1,960 |
| Guatemala | -- | -- | 8,040 | 576,000 | 1 | 51 | 8,040 | 576,000 |
| Guinea | -- | -- | 1 | 44 | 19 | 918 | 21 | 962 |
| Guyana | -- | -- | 7,310 | 393,000 | 25 | 1,420 | 7,340 | 395,000 |
| Honduras | -- | -- | 467 | 22,800 | 1,690 | 85,100 | 2,160 | 108,000 |
| Hong Kong | -- | -- | 11 | 619 | 32 | 1,680 | 43 | 2,300 |
| Jamaica | -- | -- | 70 | 3,130 | 1 | 89 | 71 | 3,220 |
| Japan | -- | -- | 5 | 265 | 38 | 1,910 | 44 | 2,170 |
| Mexico | 563 | 30,300 | 87,200 | 4,070,000 | 36,500 | 1,320,000 | 124,000 | 5,420,000 |
| Netherlands | -- | -- | 58 | 2,910 | -- | -- | 58 | 2,910 |
| New Zealand | -- | -- | 31 | 1,430 | 6 | 177 | 37 | 1,610 |
| Nicaragua | -- | -- | 2,430 | 133,000 | 51 | 2,390 | 2,490 | 136,000 |
| Panama | -- | -- | 168 | 8,210 | 591 | 28,800 | 758 | 37,000 |
| Paraguay | -- | -- | 151 | 8,120 | 1,510 | 79,800 | 1,670 | 87,900 |
| Peru | 4,630 | 6,660 | 24,900 | 1,350,000 | 456 | 24,300 | 29,900 | 1,380,000 |
| Philippines | -- | -- | 9 | 351 | -- | -- | 9 | 351 |
| Sierra Leone | -- | -- | 2 | 83 | 3 | 126 | 5 | 210 |
| South Africa | -- | -- | -- | -- | 138 | 7,580 | 138 | 7,580 |
| Spain | -- | -- | -- | -- | 4 | 111 | 4 | 111 |
| Saint Lucia | -- | -- | 27 | 1,300 | -- | -- | 27 | 1,300 |
| Saint Vincent and the Grenadines | -- | -- | 17 | 894 | -- | -- | 17 | 894 |
| Sweden | -- | -- | -- | -- | 12 | 476 | 12 | 476 |
| Switzerland | -- | -- | 1,490 | 85,600 | 1,890 | 101,000 | 3,380 | 187,000 |
| Tanzania | -- | -- | 218 | 6,490 | 504 | 13,200 | 722 | 19,700 |
| Trinidad and Tobago | -- | -- | 41 | 1,280 | 1 | 43 | 42 | 1,320 |
| Turkey | -- | -- | 6 | 266 | 14 | 714 | 19 | 980 |
| United Arab Emirates | -- | -- | -- | -- | 13 | 690 | 13 | 690 |
| United Kingdom | -- | -- | -- | -- | 307 | 17,100 | 307 | 17,100 |
| Venezuela | -- | -- | 1,750 | 83,600 | -- | -- | 1,750 | 83,600 |
| Zaire | -- | -- | 19 | 600 | -- | -- | 19 | 600 |
| Other | -- | -- | 7 | 302 | 15 | 432 | 22 | 734 |
| Total | 5,370 | 45,700 | 218,000 | 10,800,000 | 108,000 | 5,030,000 | 332,000 | 15,900,000 |

See footnotes at end of table.

TABLE 6—Continued
U.S. IMPORTS FOR CONSUMPTION OF GOLD, BY COUNTRY¹

-- Zero.

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

²Includes base metal ores, concentrates, and matte destined for refining.

³Bullion also moves in both directions between U.S. markets and foreign stocks on deposit in the Federal Reserve Bank. Monetary gold is excluded.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF GOLD, BY COUNTRY¹

(Kilograms, gross weight unless otherwise specified)

| Year and country | Waste and scrap | | Metal powder | | Gold compounds | |
|---------------------|-----------------|----------------------|--------------|----------------------|----------------|----------------------|
| | Quantity | Value (thousands) | Quantity | Value (thousands) | Quantity | Value (thousands) |
| 2011 | 57,400 | \$849,000 | 437 | \$7,570 | 37,600 | \$1,630 |
| 2012: | | | | | | |
| Antigua and Barbuda | 32 | 984 | -- | -- | -- | -- |
| Aruba | 241 | 7,690 | -- | -- | -- | -- |
| Australia | 6 | 314 | 1 | 8 | -- | -- |
| Bahamas, The | 288 | 7,600 | -- | -- | -- | -- |
| Barbados | 114 | 2,420 | -- | -- | -- | -- |
| Belize | 36 | 787 | -- | -- | -- | -- |
| Bermuda | 256 | 5,220 | -- | -- | -- | -- |
| Bolivia | 12,100 | 425,000 | -- | -- | -- | -- |
| Canada | 29,500 | 251,000 | 9 | 63 | -- | -- |
| Chile | 103 | 8,400 | -- | -- | -- | -- |
| China | 116 | 724 | -- | -- | -- | -- |
| Colombia | 2,350 | 2,180 | 10 | 479 | -- | -- |
| Costa Rica | 24,700 | 39,500 | -- | -- | -- | -- |
| Curacao | 172 | 5,410 | -- | -- | -- | -- |
| Dominican Republic | 9,510 | 221,000 | 2 | 20 | -- | -- |
| Ecuador | 349 | 10,800 | -- | -- | -- | -- |
| El Salvador | 2,640 | 58,000 | -- | -- | -- | -- |
| Fiji | 234 | 2,450 | -- | -- | -- | -- |
| French Polynesia | 156 | 3,590 | (2) | 2 | -- | -- |
| Germany | 62 | 2,310 | 114 | 4,620 | 107 | 416 |
| Guadeloupe | 243 | 9,050 | -- | -- | -- | -- |
| Guatemala | 2,320 | 26,600 | -- | -- | -- | -- |
| Guinea | -- | -- | 108 | 1,940 | -- | -- |
| Honduras | 3,590 | 94,900 | (2) | 8 | -- | -- |
| Hong Kong | 21 | 1,040 | -- | -- | -- | -- |
| Israel | 132 | 6,750 | -- | -- | -- | -- |
| Italy | 30 | 578 | 1 | 14 | -- | -- |
| Jamaica | 1,070 | 26,300 | -- | -- | -- | -- |
| Japan | -- | -- | 2 | 27 | 13,200 | 2,790 |
| Korea, Republic of | 620 | 14,200 | (2) | 6 | -- | -- |
| Mali | -- | -- | 5 | 135 | -- | -- |
| Martinique | 144 | 5,270 | -- | -- | -- | -- |
| Mexico | 12,800 | 67,800 | 20 | 61 | -- | -- |
| Netherlands | 546 | 19,700 | -- | -- | 35 | 168 |
| Nicaragua | 1,310 | 36,000 | 2 | 77 | -- | -- |
| Panama | 4,450 | 23,100 | -- | -- | -- | -- |
| Philippines | 491 | 13,100 | -- | -- | -- | -- |
| Sierra Leone | 2 | 61 | 20 | 344 | -- | -- |
| Sint Maarten | 133 | 3,430 | -- | -- | -- | -- |
| South Africa | 83 | 1,030 | -- | -- | -- | -- |
| Switzerland | 20 | 665 | 12 | 423 | -- | -- |
| United Kingdom | 4,820 | 154,000 | 3 | 87 | 31 | 42 |
| Other | 453 | 11,000 | 9 | 178 | 3 | 18 |
| Total | 116,000 | 1,570,000 | 318 | 8,500 | 13,400 | 3,440 |

-- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
GOLD: WORLD MINE PRODUCTION, BY COUNTRY^{1,2}

(Kilograms)

| Country ³ | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------------------------------|-----------------------|-----------------------|------------------------|------------------------|----------------------|
| Algeria | 656 | 1,010 | 723 | 341 | 300 ^c |
| Argentina | 42,046 | 46,588 | 63,138 | 59,140 ^r | 56,100 ^c |
| Armenia | 1,359 | 944 | 974 ^r | 1,266 ^r | 1,300 ^c |
| Australia | 215,000 | 224,000 | 261,000 | 260,000 ^r | 250,000 ^c |
| Azerbaijan | -- | 353 | 1,900 | 1,775 | 1,563 |
| Belize ^c | 5 | 5 | -- | -- | -- |
| Benin ^e | 20 | 20 | 20 | 20 | 20 |
| Bolivia | 8,406 | 7,217 | 6,394 | 6,513 | 6,973 |
| Botswana ^e | 3,300 | 2,000 | 1,774 ⁴ | 1,800 | 1,800 |
| Brazil ⁵ | 54,666 | 60,330 | 62,047 | 65,209 ^r | 65,000 ^c |
| Bulgaria ^c | 4,160 ⁴ | 4,482 ⁴ | 4,000 ^r | 4,600 ^r | 5,000 |
| Burkina Faso | 6,033 | 11,581 | 22,939 | 31,774 | 27,850 |
| Burundi ^c | 500 ^r | 500 ^r | 300 ^r | 300 ^r | 300 |
| Cameroon ^c | 1,500 | 1,600 | 1,600 | 1,600 | 1,800 |
| Canada | 94,909 ^r | 96,573 ^r | 102,147 ^r | 101,975 ^r | 103,713 ^p |
| Central African Republic ^c | 43 | 61 | 59 ^r | 53 ^r | 55 |
| Chile | 39,162 | 40,834 | 39,494 | 45,137 ^r | 49,936 |
| China ⁶ | 285,000 | 320,000 | 345,000 | 362,000 | 403,000 |
| Colombia | 34,321 | 47,837 | 53,605 | 55,908 | 66,178 |
| Congo (Brazzaville) ^c | 100 | 100 | 150 | 150 | 150 |
| Congo (Kinshasa) ^c | 3,300 | 3,500 | 3,500 | 3,500 | 3,500 |
| Costa Rica | 198 ^r | 150 ^r | 300 ^r | 500 ^r | 400 ^c |
| Côte d'Ivoire (Ivory Coast) | 4,205 | 6,947 | 5,310 | 9,871 | 10,400 |
| Denmark ⁶ | 1,665 | 1,117 | -- | 153 ^c | 100 ^c |
| Dominican Republic | 47 | 375 | 494 ^r | 490 ^r | 3,917 |
| Ecuador ⁷ | 4,133 ^r | 5,392 ^r | 4,593 ^r | 4,149 ^r | 3,400 ^c |
| Egypt | -- | 95 | 9,847 ^r | 7,000 ^r | 8,500 |
| Eritrea ^c | 30 | 30 | 500 | 12,000 | 10,000 |
| Ethiopia ⁸ | 3,465 | 6,251 | 5,936 | 10,000 ^{r,c} | 12,000 ^c |
| Fiji | 871 | 1,040 | 1,856 | 1,661 ^r | 1,636 |
| Finland | 4,148 ^r | 5,749 ^r | 7,628 ^r | 8,461 ^r | 10,814 |
| France ^c | 1,500 | 1,500 | 1,500 | 1,500 | -- |
| French Guiana ^c | 2,000 | 2,000 | 1,140 ^r | 1,300 ^r | 1,300 |
| Gabon | -- ^r | -- ^r | -- ^r | -- ^r | 666 |
| Georgia ^c | 2,000 | 2,000 | 2,000 | 2,000 ^r | 1,900 |
| Ghana | 73,819 ^{r,9} | 67,818 ^{r,9} | 72,441 ^{r,10} | 82,919 ^{r,11} | 86,540 |
| Greece | 400 | 500 | 500 | 600 ^c | 800 ^c |
| Guatemala | 7,837 | 8,897 | 9,213 | 11,898 ^r | 6,473 |
| Guinea | 19,945 | 18,091 | 13,206 ^r | 15,695 | 14,479 |
| Guyana | 8,131 | 9,326 ^r | 9,594 | 11,293 ^r | 13,643 |
| Honduras | 2,561 | 2,127 | 2,197 ^r | 1,893 ^r | 1,858 |
| India ^{c,12} | 2,700 ⁴ | 2,800 ⁴ | 2,700 | 2,300 ^r | 1,800 |
| Indonesia ¹³ | 64,390 | 140,488 | 106,316 | 96,100 ^c | 58,800 ^c |
| Iran ^{c,14} | 1,000 ^r | 2,000 ^r | 2,000 ^r | 2,000 ^r | 2,000 |
| Italy ^c | 450 | 450 | 450 | 450 | -- |
| Japan | 6,868 | 7,708 | 8,544 | 8,691 | 7,233 |
| Kazakhstan | 20,825 | 22,839 | 30,272 ^r | 36,846 ^r | 40,006 |
| Kenya | 340 | 1,055 | 2,355 ^r | 1,636 ^r | 1,600 ^c |
| Korea, Republic of | 175 | 274 | 235 ^r | 209 ^r | 200 ^c |
| Kyrgyzstan | 18,132 | 16,950 | 18,300 | 18,648 ^r | 10,333 |
| Laos | 4,333 | 5,033 | 5,061 | 3,984 ^r | 4,000 ^c |
| Liberia | 624 | 524 | 666 | 448 ^r | 641 |

See footnotes at end of table.

TABLE 8—Continued
GOLD: WORLD MINE PRODUCTION, BY COUNTRY^{1,2}

(Kilograms)

| Country ³ | 2008 | 2009 | 2010 | 2011 | 2012 |
|------------------------------|------------------------|------------------------|------------------------|------------------------|----------------------|
| Madagascar ^{c, 15} | 50 ⁴ | 30 ^r | 30 ^r | 40 ^r | 400 |
| Malaysia | 2,489 | 2,794 | 3,766 | 4,219 ^r | 4,624 |
| Mali | 41,160 | 42,364 | 36,360 | 35,728 | 40,000 ^e |
| Mauritania | 6,254 | 8,000 | 8,325 | 8,200 ^e | 7,931 |
| Mexico | 50,365 | 51,393 | 72,596 | 84,118 | 96,650 |
| Mongolia | 15,184 | 9,803 | 6,037 | 5,703 | 5,995 |
| Morocco ^e | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Mozambique | 298 | 511 | 106 | 111 ^r | 110 ^e |
| Myanmar (Burma) ^e | 100 | 100 | 100 | 100 | 100 |
| Namibia | 2,126 | 2,022 | 2,675 | 2,053 | 2,302 |
| New Zealand | 13,402 | 13,442 | 13,494 | 14,324 | 10,164 |
| Nicaragua | 2,965 ^r | 2,590 | 4,900 ^r | 6,395 ^r | 6,980 |
| Niger | 2,314 | 1,985 | 1,596 | 1,453 | 1,600 ^e |
| Nigeria ^e | 100 ^r | 50 ^r | 100 ^r | 100 ^r | 100 |
| North Korea ^e | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Oman | 46 | 28 | 12 | 10 ^e | -- |
| Panama | -- | 800 | 870 ^r | 1,675 ^r | 2,115 |
| Papua New Guinea | 67,463 | 63,600 ^r | 62,900 ^r | 61,760 ^r | 53,100 |
| Peru ¹⁶ | 179,870 | 183,995 ^r | 164,084 | 166,187 ^r | 161,325 |
| Philippines | 35,726 | 37,047 | 40,847 | 31,120 ^r | 15,762 |
| Poland ^e | 500 | 500 | 500 | 500 | 500 |
| Romania ^e | 400 | 400 | 400 | 400 | 400 |
| Russia ¹⁷ | 172,031 | 192,832 | 189,000 | 199,642 | 217,800 |
| Rwanda ¹⁵ | 40 | 30 | 3 | 3 ^{r, e} | 3 ^e |
| Saudi Arabia | 4,527 | 4,857 | 4,476 | 4,611 ^r | 4,285 |
| Senegal | 600 ^e | 5,055 | 4,381 | 4,089 | 6,666 |
| Serbia | 712 | 452 | 356 | 1,032 ^r | 900 |
| Sierra Leone | 196 | 157 | 270 | 164 | 135 |
| Slovakia | 92 | 346 | 340 | 300 ^e | 300 ^e |
| Solomon Islands | -- | -- | -- | 1,700 ^e | 1,800 ^e |
| South Africa | 212,571 | 197,628 | 188,702 ^r | 180,184 ^r | 160,000 ^e |
| Spain ^e | 3,400 ⁴ | 3,450 ⁴ | 3,500 | 3,550 | 3,600 |
| Sudan ¹⁵ | 7,508 | 14,914 | 26,317 | 23,379 | 46,133 |
| Suriname | 9,798 | 12,193 ^r | 10,886 ^r | 11,975 ^r | 11,882 |
| Sweden | 4,953 ^r | 5,542 ^r | 6,285 ^r | 5,994 ^r | 6,000 ^e |
| Tajikistan | 1,672 | 1,361 | 2,049 | 2,240 | 2,401 |
| Tanzania | 36,434 | 39,112 | 39,448 | 44,000 ^e | 44,000 ^e |
| Thailand | 2,721 | 5,400 | 4,215 | 2,372 ^r | 3,000 ^e |
| Togo ¹⁸ | 11,835 | 12,955 | 10,452 | 16,469 | 16,500 ^e |
| Turkey | 11,016 ^r | 14,469 ^r | 16,890 ^r | 24,400 ^r | 29,370 |
| Uganda ^e | 1,500 | 1,600 | 1,600 | 1,500 | 1,600 |
| United Kingdom | 164 | 185 | 171 | 202 | 102 |
| United States | 233,000 | 223,000 | 231,000 | 234,000 | 235,000 |
| Uruguay | 2,182 | 1,690 | 1,740 ^r | 1,736 ^r | 1,725 |
| Uzbekistan ^e | 85,000 | 90,000 | 90,000 | 91,000 | 93,000 |
| Venezuela ^e | 10,100 | 11,880 ^{r, 4} | 12,000 | 12,000 | 12,000 |
| Vietnam ^e | 3,000 | 3,000 | 3,500 | 3,500 | 3,500 |
| Zambia ^e | 1,930 ⁴ | 3,100 ⁴ | 3,400 | 3,500 | 3,600 |
| Zimbabwe | 3,579 | 4,965 | 9,100 | 12,824 | 14,742 |
| Total | 2,300,000 ^r | 2,480,000 ^r | 2,580,000 ^r | 2,670,000 ^r | 2,690,000 |

See footnotes at end of table.

TABLE 8—Continued
GOLD: WORLD MINE PRODUCTION, BY COUNTRY^{1,2}

^eEstimated. ^pPreliminary. ^rRevised. -- Zero.

¹World total, U.S. data, and estimated data are rounded to no more than three significant digits; may not add to totals shown.

²Includes data available through September 16, 2014.

³Chad and Equatorial Guinea may produce gold, but available information is inadequate to estimate output levels.

⁴Reported figure.

⁵Officially reported figures are as follows, in kilograms: Major companies: 2008—46,066; 2009—52,207; 2010—55,292; 2011—56,969 (revised); and 2012—57,000 (estimated). Garimpieros: 2008—8,600; 2009—8,123; 2010—6,455; 2011—8,240 (revised); and 2012—8,000 (estimated).

⁶All production is from Greenland.

⁷Includes undocumented artisanal production.

⁸Year ending July 7 of that stated.

⁹Excludes artisanal and small-scale mining output.

¹⁰Excludes artisanal and small-scale mining output, which in 2010 was estimated to be more than 25,000 kilograms.

¹¹Excludes artisanal and small-scale mining output, which in 2011 was estimated to be more than 30,000 kilograms.

¹²Refinery output.

¹³Excludes production from so-called people's mines, which may be as much as 20,000 kilograms per year, but includes gold recovered as byproduct of copper mining.

¹⁴Includes gold recovered from the Mouteh gold mine and from the Sarcheshmeh copper complex.

¹⁵Reported exports.

¹⁶Includes documented production from placer artisanal production.

¹⁷Mine output including gold recovered as a byproduct, but excludes secondary gold production, which for Russia, in kilograms, was 2008—8,140; 2009—12,404 (revised); 2010—12,600 (revised); 2011—9,334; and 2012—8,500.

¹⁸Includes domestic and imported undocumented artisanal production.