



2005 Minerals Yearbook

GOLD

GOLD

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In 2005, domestic mine production of gold fell to 256,000 kilograms (kg), slightly down compared with that of 2004 (table 2). The reduction was a result of closure of one mine in Washington and lower output from older mines. The recent price increases have spurred exploration and development of new gold projects. However, since new mines take years to open, there was a lag in new mines to open to replace older mines. Stronger global gold prices offset the reduction in gold production, resulting in an increase in gold value for 2005 by 8% compared with that of 2004. The United States remained the world's third ranked gold producer, behind South Africa and Australia. Nevada accounted for almost 83% of domestic production in 2005. The remaining output came from Utah, Alaska, Colorado, Montana, Washington, South Dakota, California, New Mexico, Arizona, and Idaho, in descending order. Gold was produced at lode mines, a dozen large placer mines in Alaska, and numerous small placer mines, mostly in Alaska and the Western States. In addition, a small amount of domestic gold was produced as a byproduct of processing base metals, principally copper. In the United States, 30 mines yielded 99% of gold produced.

The 2005 domestic exploration budget increased to \$396 million, a 39% increase compared with that of 2004. Much of the increase in exploration was caused by the increase in exploration in Alaska and Nevada and was concentrated on gold projects. Worldwide gold exploration expenditures rose by 28% compared with those of 2004 to \$2.3 billion and represented 47% of the worldwide exploration budget for all minerals (Lowery, 2005; Wilburn, 2006).

Commercial-grade refined gold came from about two dozen domestic producers. Of several thousand companies and artisans, a few dozen companies dominated the fabrication of gold into commercial products. U.S. jewelry manufacturing was heavily concentrated in the New York City, NY, and Providence, RI, areas, with other manufacturers in California, Florida, and Texas. In 2005, the estimated percentages for end use of gold were jewelry and arts, 84%; dental and other, 10%; and electrical and electronics, 6%.

Trade in refined bullion comprised 31% of U.S. gold imports and 56% of exports; the United States became a net exporter of 76,300 kg bullion in 2005. Canada provided almost 59% of the refined bullion imported, and the United Kingdom and Switzerland were the destinations for 35% and 32%, respectively, of the refined bullion exported (tables 4, 6).

The dollar price for gold rose throughout 2005; however, the increase was less than in the previous 3 years. Engelhard Corp.'s daily price of gold ranged from a low of nearly \$412 per troy ounce on February 8 to a high of about \$538 per troy ounce on December 12. The average annual price of \$446.20 per troy ounce, 9% above the average gold price in 2004, was the highest average annual price since 1987.

In 2005, there were five gold exchange traded funds (ETFs)—the two Gold Bullion Securities listed on the Australian and London [United Kingdom] Stock Exchanges, iShares COMEX Gold Trust, NewGold Gold Debentures listed on the Johannesburg [South Africa] Stock Exchange, and streetTRACKS gold shares, listed on the New York Stock Exchange. In 2005, gold in global ETFs increased by 203 metric tons (t). In total, the gold in ETFs in the United States increased by 190 t, with streetTRACKS accounting for 168 t of the increase, and iShares accounting for 22 t. Gold ETFs are essentially paper gold products, with each share representing a physical allotment of gold that is held in trust. Gold ETFs follow the gold prices, with a fee structure to cover administrative and storage costs. ETFs provided an easily accessible investment (Klapwijk and others, 2006, p. 26).

Total world mine production of gold was about 1% higher than that of 2004. South Africa decreased its annual output for the third year in a row because of higher costs and lower rand-based gold prices; however, South Africa remained the leading producer among more than 80 gold-mining nations, followed by Australia, the United States, China, and Peru (table 8).

Barrick Gold Corporation (Toronto, Ontario, Canada) agreed to acquire Placer Dome Inc. (Vancouver, British Columbia, Canada) to become the world's leading gold producer with an estimated annual production of 261,000 kg (reported as 8.4 million troy ounces) of gold, or 8% of the world's gold production (Austen, 2005; Barrick Gold Corporation, 2006, p. 2). The new company will control 6 of the 20 leading domestic gold mines, or 40% of domestic gold production (table 3).

It is estimated that 15% of all gold ever mined was employed in dissipative industrial uses or was unaccounted for or unrecoverable (Thomas and Boyle, 1986, p. 6). Therefore, of an estimated 151,000 t of gold mined historically through 2005, 128,000 t of gold remains in circulation, with 29,000 t held by central banks as official stocks and 99,000 t held privately as bullion, coin, and jewelry.

Production

In this report, domestic lode mine production data for gold were derived by the U.S. Geological Survey from two separate voluntary surveys of U.S. operations—one for monthly production of copper, gold, lead, silver, and zinc from lode mines and the other for production data surveyed annually. In 2005, one respondent reported that its mine closed. 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. For purposes of ranking in this report, Newmont Mining Corporation's (Denver, CO) eastern Nevada mines are treated as a single operation.

Alaska.—The State's Division of Geology and Geophysical Surveys reported that gold output decreased to 13,200 kg (reported as 423,000 troy ounces) worth \$188 million in 2005 from 14,200 kg (reported as 457,000 troy ounces) worth \$192 million in 2004, or a decrease in production of 7% and a decrease in value of 2%. Placer production, which is included in the numbers above, fell to 658 kg (reported as 21,200 troy ounces) from 767 kg (reported as 24,700 troy ounces) of gold (Szumigala and Hughes, 2006, p. 15).

The underground Fort Knox gold mine operated by Kinross Fairbanks Gold Mining Incorporated near Fairbanks began to produce gold in 1997. The mine produced about 10,200 kg (reported as 329,000 troy ounces) of gold in 2005, making it the country's ninth ranked gold mine (Kinross Gold Corporation, 2006, p. 13). The Greens Creek Mine on Admiralty Island near Juneau completed its ninth year at full production. Ore from the underground trackless mine was milled at the mine site. The smelter produced gold and silver dore, lead, zinc, and bulk concentrates. Hecla Mining Company reported that the mine produced 2,270 kg (reported as 72,800 troy ounces) of gold in 2005. Greens Creek is a joint venture between Kennecott Greens Creek Mining Co. (70.27%) and Hecla Mining Company (29.73%) (Hecla Mining Company, 2006, p. 6).

Coeur d'Alene Mines Corp. (Coeur d'Alene, ID), the world's leading silver producer, had received the final supplemental environmental impact statement and record of decision from the U.S. Forest Service in 2004 for the underground Kensington gold project, located 72 kilometers (km) north of Juneau. However, construction was delayed by lawsuits. All permits have since been obtained, construction commenced, and the mine was projected to begin production by yearend 2007, once the final lawsuit has been resolved. The project has an estimated 31,000 kg (reported as 1,050 thousand troy ounces) of gold reserves (Coeur d'Alene Mines Corp., 2006, p. 5).

In 2005, there were 16 exploration projects that had a budget of \$1 million or greater. Northern Dynasty Minerals Ltd.'s (Vancouver, British Columbia, Canada) Pebble property near Iliamna was estimated to have 1,700 t (reported as 54.8 million troy ounces) of gold resources (Szumigala and Hughes, 2006, p. 2-3).

Arizona.—American Bonanza Gold Corp. (Vancouver) announced a preliminary resource estimate of more than 10,000 kg of gold in the Copperstone underground gold project in La Paz County (American Bonanza Gold Corp., 2006).

California.—California had four gold producing mines in 2005. These were, in decreasing order of gold production, Western Gold Fields Inc.'s Mesquite Mine, Glamis Rand Mining Co.'s Rand Mine, Canyon Resources Corp.'s Briggs Mine, and Quest Capital Corp.'s and MK Resources Co.'s joint-venture Castle Mountain Mine. These mines had ceased operations but were still processing stockpiled ore and mine waste in 2005.

Two of the four mines in California may restart in 2006. Western Gold Fields Inc. announced plans to resume open pit mining at its Mesquite Mine in an expanded area and explore high-grade ore extensions at depth. There are plans to also re-treat the existing heaps for additional gold recovery. Canyon Resources began an exploration study to determine the feasibility of restarting the Briggs Mine, which ceased mining in April 2004. The other two mines are under reclamation and there are no plans to restart them (Kohler, 2006).

Sutter Gold Mining Inc. (Riverton, WY) announced that it received the wastewater-discharge permit from the California Regional Water Quality Control Board in October for the Sutter gold project. The proposed underground gold mine includes the historic Lincoln Gold Mine located along California's Mother Load belt. Idaho Maryland Mine Corporation (Grass Valley, CA) submitted a mining permit application in October to re-open the historic Idaho Maryland Gold Mine. This project is still in the early phases of permitting, and the earliest it could open is late 2007. Other operations produced gold as a secondary product in 2005, mainly from alluvial sand and gravel mines and several small underground mines that primarily produced specimen gold products (Kohler, 2006).

Colorado.—Colorado was the fourth ranked gold-producing state in the country, according to the Colorado Geological Survey, producing 11,000 kg in 2005 (Keller and others, 2006). The Nation's eighth ranked gold mine, the Cresson Mine [owned by Cripple Creek & Victor Gold Mining Company (CC&V), to which AngloGold Ashanti Limited holds a 67%] reported that its open pit operation produced 10,300 kg of gold in 2005, up slightly compared with that of 2004 (AngloGold Ashanti Limited, 2006, p. 46). LKA International, Inc.'s Golden Wonder Mine in the San Juan Mountains produced 794 kg of gold in 2005, a 78% increase compared with that of 2004. The small, high-grade underground mine near Lake City began its operations in 1998. LKA announced plans to permit and develop a new section of the mine, which could significantly increase the production level. Calais Resources Ltd. continued work on its Consolidated Caribou project located within the northeast-trending Colorado mineral belt (Keller and others, 2006).

Idaho.—Although Idaho had limited gold production in 2005, several new mines were in various stages of development. New Jersey Mining Company (Kellogg, ID) had no less than six projects in development in 2005. Many of these were silver or gold-silver deposits in the Coeur d'Alene region in northern Idaho. Aside from New Jersey Mining, there were eight other companies with gold projects in early development stages in 2005 (Gillerman and others, 2006).

Montana.—Apollo Gold Corporation (Greenwood Village, CO) briefly resumed production at its Montana Tunnels Mine near Helena and produced 1,390 kg (reported as 44,100 troy ounces) of gold in 2005. Open pit mining activity was suspended on October 21 owing to pit stability issues. Apollo announced plans to sell Montana Tunnels in order to focus on the Black Fox project in Ontario, Canada, and the Huizopa project in Chihuahua, Mexico (Apollo Gold Corporation, 2006, p. 1-8).

Production at Placer Dome Inc.'s Golden Sunlight Mine was resumed in early 2005. The company announced plans to open the underground mine in 2006 and mine from both the open pit and underground for 3 years (McCulloch, 2005).

Nevada.—Gold production fell slightly to 212,000 kg, but Nevada still kept its longstanding position as the Nation's dominant gold-producing State and trailed only South Africa and Australia when compared with world production figures in 2005. Of the Nation's top 30 gold-producing mines, more than one-half were in Nevada.

Newmont produced 71,500 kg (reported as 2.3 million troy ounces) of gold from 12 open pit operations and 5 underground

mines in Elko, Eureka, Humboldt, and Lander Counties (Driesner and Coyner, 2006, p. 5-12).

Newmont has two new gold projects that began operations in 2005. The Phoenix project in Lander County began processing ore and could have the potential to produce 11,000 to 13,000 kilograms per year (kg/yr) (reported as 350,000 to 420,000 troy ounces per year) of gold. The Leeville project in Eureka County produced 497 kg (reported as 16,000 troy ounces) in 2005 and has an estimated full production of 17,300 kg/yr (reported as 555,000 troy ounces per year) (Newmont Mining Corporation, 2006a, p. 16). Newmont announced the completion of the permitting process for a proposed 200-megawatt coal-fired powerplant in Elko County. Once completed in the late 2007, the powerplant will provide long-term, reliable electricity to the majority of Newmont's Nevada operations. The current plans call for utilization of 75% of the power generated and sale of 25% to local power companies (Newmont Mining Corporation, 2006b).

Barrick was the Nation's leading gold mining company in 2005, when Placer Dome production was included, reported recovering 90,200 kg (reported as 2.9 million troy ounces) of gold with the majority coming from mines in Elko, Eureka, Humboldt, Lander, and White Pine Counties (Barrick Gold Corporation, 2006, p. 18-19).

On November 18, Apollo sold its Nevada assets, which included the Florida Canyon Mine, the Standard Mine, and four other exploration properties, to Jinpangu, Inc (Tokyo Japan) for \$14 million (Apollo Gold Corporation, 2006, p. 13). In 2005, the Standard Gold Mine near Winnemucca, produced about 653 kg (reported as 21,000 troy ounces) of gold, and the Florida Canyon Mine produced 908 kg (reported as 29,200 troy ounces) of gold (Driesner and Coyner, 2006, p. 5-12).

Exploration continued to increase in the State as companies searched for high-grade veins in and around old districts. In 2005, the State of Nevada had almost 167,000 mining claims, a 14% increase compared with 2004. At least 60 projects were drilled by 38 junior companies, and 50 projects developed by major or mid-tier companies were recorded in 2005, a 63% increase compared with that of 2004 (Muntean and Castor, 2006).

New Mexico.—Gold production in New Mexico is a byproduct of copper production at Phelps Dodge's Ivanhoe concentrator. In 2005, gold production was 231 kg (Lucas Kamat, S.A., 2006).

South Dakota.—Goldcorp Inc. (Toronto, Ontario, Canada) owned and Wharf Resources Inc. operated the Wharf open pit gold mine near Lead, which produced about 1,940 kg (reported as 62,500 troy ounces) of gold (Goldcorp Inc., 2006, p. 8).

Utah.—Rio Tinto plc's Bingham Canyon Mine [which was operated by Kennecott Utah Copper Corp. (Magna, Utah)] produced 12,500 kg of gold as a byproduct of its copper mining operations near Salt Lake City. Long ranked as one of the Nation's principal gold producing mines, Bingham Canyon was the sixth ranked gold producer and leading mine outside Nevada in 2005. Kennecott also operated the nearby Barney's Canyon Mine, an open pit and heap-leaching operation that produced 498 kg of gold (Rio Tinto plc, 2006, p. 10).

Washington.—The Kettle River Gold Mine, Ferry County, the only gold mine in Washington State, was closed, and its workers were dismissed. The owner, Kinross Gold (Toronto,

Ontario, Canada), announced that the mine was out of ore, and retrenchment was started (Platts Metals Week, 2005a).

World Industry Structure

World gold mine production in 2005 was 1% higher than that in 2004. Increased mine production in Australia, China, Mali, Mexico, and Peru more than offset the reductions in production from Canada, Botswana, South Africa, and Zimbabwe. In 2005, the top 10 gold producing countries—South Africa, Australia, United States, China, Peru, Russia, Indonesia, Canada, Uzbekistan and Papua New Guinea (in descending order)—accounted for almost 75% of global production. The next 10 leading gold producing countries accounted for another 15%, while the remaining 70 countries made up the last 10% of global gold production in 2005.

According to its annual review of world gold supply and demand, Gold Fields Mineral Services Limited (GFMS) calculated that the total global supply of gold in 2005 was 4,040 t compared with the previous year's total supply of 3,850 t. GFMS also reported increases in official sector sales (40%) and mine production (2%), no net producer hedging, and no implied net disinvestment for sales of bars and coins by private investors. Old gold scrap levels increased by less than 2% in 2005 compared with 2004 old scrap production (Klapwijk and others, 2006, p. 7).

On the consumption side, GFMS reported that total fabrication, including the use of scrap, was 117,000 kg more than its 2004 level. Jewelry fabrication increased by 99,000 kg owing to higher demand, particularly in East Asia and India. Coin fabrication was down by 3%, and increases from Canada and Turkey were offset by reductions in the United States and other countries. The amount of gold used in electronics rose by 5% to a 5-year high, which reflected a strong growth across all electronic applications in Japan and the United States. Gold used in dentistry declined in 2005 owing to a reduction in use in Germany. Other industrial and decorative uses increased by 3%. Gold used in medals and for imitation coins, increased by 41% because of the popularity of inexpensive gold pieces in India (Klapwijk and others, 2006, p. 78-107).

World Review

Australia.—Australian gold production in 2005 grew to 262,000 kg, an increase of 3,000 kg compared with that of 2004. With more than a dozen new mines in Australia expecting to produce in 2006 and more mines in the exploration phase, Australia could soon become the leading gold-producing country in the world (Forster, 2006).

Canada.—Canada ranked eighth in world gold production, as its output dropped by more than 8% to 119,000 kg, the lowest level since 1987 (table 8). Additional production from new mines failed to replace production reductions from mine closures in Quebec and Nunavut (Chevalier, 2006^{§1}).

China.—China has become a popular location for gold exploration in recent years, and more than 60 non-Chinese companies are exploring for gold in China (Beijing Antaike Information Development Co., Ltd., 2006). China's production

¹References that include a section mark (§) are found in the Internet References Cited section.

of gold increased by 5% in 2005 to 225,000 kg compared with 2004 gold production.

Indonesia.—Gold output increased to about 140,000 kg in 2005. Most of the gold was byproduct of copper mining at the Grasberg Mine. Grasberg regained its title as the world's leading gold-producing mine and yielded 107,000 kg, a 123% increase compared with production in 2004. This increase in gold production from the Grasberg Mine was a result of a full recovery after multiple landslides in 2003 (Klapwijk and others, 2006, p. 44).

Philippines.—The first gold bar was poured from gold mined at the polymetallic Rapu Rapu Mine in the Philippines on July 19. The mine owner, Lafayette Mining Limited (Melbourne, Victoria, Australia), projected that the mine would produce 1,600 kilograms per year (kg/yr) of gold (Platts Metals Week, 2005b).

The Philippine Supreme Court approved construction of the nation's first large-scale gold operation funded completely by foreign investors. Australian mining company Climax Mining Limited planned to start construction of the Dinkidi gold and copper project in 2006, with production starting by the end of the first-half of 2007 (Mining Engineering, 2005).

Papua New Guinea.—On October 9, a landslide caused two deaths and shut down the Lihir Gold Limited (Papua New Guinea) operations on Lihir Island. Full production resumed in early November. Lihir Gold estimated production in 2005 to be 19,000 kg of gold, with a loss of more than 5,000 kg in the third quarter owing to the landslide (Lihir Gold Limited, 2005).

Peru.—In 2005, production of gold in Peru increased by 20% compared with production in 2004, and Peru was the fifth ranked gold producer in the world. Gold production rose to 208,000 kg in 2005 from 9,000 kg in 1990. The 2,211% increase was owing to the promining stance of the Government and the discovery of several large deposits.

The Newmont and Compañía de Minas Buenaventura (Lima, Peru) jointly owned Yanacocha Mine in the Cajamarca district was the world's second ranked gold-producing mine. In 2005, Yanacocha produced an all-time record 104,000 kg (reported as 3,333,088 troy ounces). The total reserves for Yanacocha were estimated to be 1,010 t (reported as 32.6 million troy ounces) (Compañía de Minas Buenaventura, 2006, p. 12) Barrick's Laguna Norte entered into production in the second quarter and produced 17,100 kg (reported as 550,000 troy ounces) of gold in 2005 (Barrick Gold Corporation, 2006, p. 20).

Russia.—In 2005, Russian gold production rose to 169,000 kg, up by 4% from 2004 gold production of 163,000 kg. The Russian gold industry has more than 900 entities producing gold, of which the top 10 gold producers control nearly 50% of the gold mining. The leading gold producer in Russia in 2005 was Polyus Gold Mining Company (Moscow, Russia), with 32,300 kg of gold production in 2005. As of December 31, 2005, Polyus's gold reserves were 781,000 kg (reported as 25.1 million troy ounces) (Zemek, 2005; Polyus Gold Mining Company, 2006§).

South Africa.—In 2005, South Africa's gold production of 295,000 kg (a 13% drop compared with gold production in 2004) dropped to its lowest level since 1923. The decrease was attributed to the higher cost of production; in 2005, the total cost of gold production was R89.130 per kilogram compared with R85.200 per kilogram in 2004. The cost increase was partially

attributed to the weak rand-based price of gold in 2005 (CRU Week in the News, 2006§).

Venezuela.—The Venezuelan Government announced a review of gold and diamond mining concessions and contracts to determine if they are idle. If the Government determines that the foreign-operated mines are not being fully exploited, the mines will be seized and turned over to small scale miners or the new National Mining Company (Platts Metals Week, 2006).

Outlook

Worldwide consolidation will continue in the gold industry as gold producers seek to secure their assets, increase gold reserves, cut costs, and exploit gold's higher prices. Several new mines are expected to open and older mines to reopen or expand production in 2006. Domestic and world exploration spending for new gold resources is expected to continue to increase and focus on areas of historical gold production.

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TABLE 1
SALIENT GOLD STATISTICS¹

		2001	2002	2003	2004	2005
United States:						
Production:						
Mine:						
Quantity	kilograms	335,000	298,000	277,000	258,000	256,000
Value	thousands	\$2,940,000	\$2,980,000	\$3,250,000	\$3,400,000	\$3,670,000
Gold recovered by cyanidation:						
Extracted in vats, tanks, closed containers ²	kilograms	117,000	99,600	89,000	9,940	W
Leached in open heaps or dumps ³	do.	195,000	177,000	174,000	234,000	234,000
Refinery:						
Concentrates and dore	do.	191,000	196,000	194,000	222,000	163,000
Recycled materials (new and old scrap)	do.	82,700	78,100	89,100	91,700	75,600
Exports, refined	do.	395,000	185,000	220,000	114,000	182,000
Imports for consumption, refined	do.	161,000	172,000	152,000	139,000	105,000
Net deliveries from foreign stocks in Federal Reserve Bank of						
New York	do.	259,000	40,000	55,000	3,000	--
Stocks, December 31:						
Industry ⁴	do.	3,670	3,490	3,590	1,080	2,040
Gold exchange traded funds holdings, United States only	metric tons	--	--	--	95	285
Commodity Exchange (COMEX) ⁵	kilograms	38,000	63,900	97,100	180,000	211,000
U.S. Department of the Treasury	metric tons	8,120	8,140	8,140	8,140	8,140
U.S. Gold Futures Trading ⁶	do.	21,100	28,000	38,000	46,500	49,400
Consumption:						
U.S. Department of the Treasury: ⁷						
American Eagle gold coin	kilograms	10,700	12,500	16,200	15,100	15,100
Other numismatic gold coins	do.	250	370	422	16	17
In industry and the arts	do.	179,000	163,000	183,000	185,000	183,000
Price, average ⁸	dollars per troy ounce	272.22	311.33	364.80	410.52	446.20
Employment, mine and mill only ⁹		9,500	7,600	7,300	7,550	7,910
World:						
Production, mine	kilograms	2,560,000	2,550,000	2,560,000 ^r	2,440,000 ^r	2,470,000
Official bullion reserves ¹⁰	metric tons	33,000	32,200	31,800	31,400	30,800

¹Revised. W Withheld to avoid disclosing company proprietary data. -- Zero.

²Data are rounded to no more than three significant digits, except prices.

³May include small quantities recovered by gravity methods.

⁴May include tailings, waste-ore dumps, and previously mined ore at some inactive mines.

⁵Unfabricated refined gold held by refiners, fabricators, dealers, and the U.S. Department of Defense.

⁶Commodity Exchange (COMEX) Division of the New York Mercantile Exchange.

⁷COMEX only.

⁸Fiscal year bullion disbursements to U.S. Mint coin programs. Fiscal year begins October 1 of year prior to year indicated.

⁹Engelhard Corp. industries quotation.

¹⁰Data from the Mine Safety and Health Administration.

¹¹Held 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	2004	2005
California	3,260	W
Nevada	216,000	212,000
Other States ²	38,800	44,200
Total	258,000	256,000

W Withheld to avoid disclosing company proprietary data; included with "Other States."

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

²Includes Alaska, Arizona, Colorado, Idaho, Montana, New Mexico, South Dakota, Utah, Washington, and data indicated by symbol W.

TABLE 3
LEADING GOLD-PRODUCING MINES IN THE UNITED STATES IN 2005, IN ORDER OF OUTPUT¹

Rank	Mine	County and State	Majority Owner	Quantity (kilograms)
1	Betze-Post	Eureka, NV	Barrick Gold Corp.	47,100
2	Eastern Nevada Operations	do.	Newmont Mining Corporation	43,500
3	Cortez	Lander, NV	Placer Dome Inc.	28,100
4	Smoky Valley Common Operation	Nye, NV	Kinross Gold Corporation	23,300
5	Meikle	Elko, NV	Barrick Gold Corp.	15,800
6	Bingham Canyon ²	Salt Lake, UT	Kennecott Minerals Company	12,500
7	Lone Tree	Humboldt, NV	Newmont Mining Corporation	10,600
8	Cresson	Teller, CO	Cripple Creek & Victor Gold Mining Co.	10,300
9	Fort Knox ³	Fairbanks, AK	Kinross Gold Corporation	10,200
10	Twin Creeks	Humboldt, NV	Newmont Mining Corporation	8,320
11	Turquoise Ridge	do.	Placer Dome Inc.	6,490
12	Marigold	do.	Glamis Gold Ltd	6,390
13	Jerritt Canyon	Elko, NV	Queenstake Resources Ltd.	6,350
14	Midas	do.	Newmont Mining Corporation	5,200
15	Robinson	White Pine, NV	Quadra Mining Ltd.	2,520
16	Golden Sunlight	Jefferson, MT	Placer Dome Inc.	2,510
17	Bald Mountain	White Pine, NV	do.	2,500
18	Greens Creek	Juneau, AK	Kennecott Minerals Company	2,270
19	Coeur Rochester	Pershing, NV	Coeur d'Alene Mining Corporation	2,190
20	Kettle River	Ferry, WA	Kinross Gold Corporation	2,130
21	Wharf	Lawrence, SD	Wharf Resources, Inc.	1,940
22	Mule Canyon ⁴	Lander, NV	Newmont Mining Corporation	1,490
23	Montana Tunnels	Jefferson, MT	Apollo Gold Corp.	1,390
24	Denton-Rawhide	Mineral, NV	Kennecott Minerals Company	1,090
25	Florida Canyon	Pershing, NV	Jipangu Inc.	908
26	Golden Wonder	Hinsdale, CO	LKA International	794
27	Mesquite	Imperial, CA	Western Goldfields, Inc.	778
28	Standard	Pershing, NV	Jipangu Inc.	669
29	Barney's Canyon	Salt Lake, UT	Kennecott Minerals Company	498
30	Briggs	Inyo, CA	Canyon Resources Corp.	289

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 2005.

²Mine production refers to total quantity of gold produced in concentrates.

³Mine production refers to gold equivalent produced.

⁴Prior to 2004, included with "Newmont Nevada Operations."

Sources: Company annual reports, company 10-K reports submitted to the 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}

Year and country	Ores and concentrates ³		Dore and precipitates		Refined bullion ⁴		Total	
	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)
2004	1,150	\$10,200	142,000	\$1,860,000	114,000	\$1,500,000	257,000	\$3,370,000
2005:								
Argentina	--	--	--	--	215	3,080	215	3,080
Armenia	--	--	--	--	54	760	54	760
Aruba	34	380	--	--	--	--	34	380
Australia	1	5	--	--	1,980	29,900	1,980	29,900
Austria	--	--	--	--	(5)	6	(5)	6
Bahamas, The	(5)	3	--	--	--	--	(5)	3
Belgium	--	--	--	--	2	22	2	22
Brazil	--	--	--	--	708	9,680	708	9,680
Canada	2	33	12	165	724	10,200	738	10,400
Cayman Islands	--	--	--	--	(5)	5	(5)	5
China	--	--	1	10	48	708	49	718
Costa Rica	--	--	--	--	305	4,240	305	4,240
Denmark	1	6	--	--	--	--	1	6
Dominican Republic	1,080	10,300	--	--	3	32	1,080	10,300
France	(5)	3	--	--	11	169	11	173
Germany	19	156	5	74	1,920	27,600	1,940	27,800
Guatemala	--	--	--	--	673	9,740	673	9,740
Hong Kong	2	17	--	--	6,260	91,000	6,270	91,000
India	--	--	--	--	2,500	34,400	2,500	34,400
Indonesia	--	--	--	--	219	3,070	219	3,070
Ireland	46	301	--	--	1	9	47	310
Israel	--	--	--	--	431	6,150	431	6,150
Italy	1	10	--	--	3	39	4	49
Japan	--	--	--	--	4,490	63,300	4,490	63,300
Korea, Republic of	(5)	10	1	10	5	83	6	103
Malaysia	--	--	1	10	975	13,400	976	13,400
Mexico	--	--	--	--	5,980	82,700	5,980	82,700
Netherlands Antilles	88	822	--	--	--	--	88	822
Pakistan	--	--	--	--	56	807	56	807
Panama	--	--	--	--	51	720	51	720
Peru	--	--	--	--	265	3,670	265	3,670
Philippines	11	127	--	--	--	--	11	127
Singapore	3	28	--	--	3,510	47,800	3,510	47,900
Switzerland	--	--	139,000	1,990,000	58,200	800,000	197,000	2,790,000
Taiwan	2	14	--	--	1,000	14,000	1,000	14,000
Thailand	--	--	--	--	5,980	84,800	5,980	84,800
Trinidad and Tobago	--	--	--	--	14	204	14	204
Turkey	--	--	--	--	38	520	38	520
United Arab Emirates	--	--	--	--	22,200	305,000	22,200	305,000
United Kingdom	86	1,230	2,010	28,200	62,800	902,000	64,900	931,000
Venezuela	--	--	--	--	14	189	14	189
Vietnam	--	--	--	--	97	1,360	97	1,360
Total	1,380	13,400	141,000	2,020,000	182,000	2,550,000	324,000	4,580,000

-- 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

Year and country	Waste and scrap		Metal powder		Gold compounds	
	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)
2004	725,000	\$815,000	647	\$8,670	1,170,000	\$29,000
2005:						
Argentina	--	--	--	--	210	4
Armenia	--	--	185	2,700	--	--
Australia	--	--	(2)	3	165	3
Austria	28	422	--	--	--	--
Bahamas, The	--	--	--	--	323	6
Belgium	395	5,130	--	--	--	--
Brazil	--	--	--	--	374	9
Canada	127,000	472,000	15	166	291,000	5,240
China	453	92	2	8	17,200	318
Dominican Republic	--	--	--	--	47,900	863
Eritrea	--	--	2	19	--	--
France	--	--	16	160	306	5
Germany	178,000	99,600	3	42	5,600	83
Guatemala	673	4,870	--	--	--	--
Hong Kong	1	11	4	92	14,900	269
India	--	--	52	683	--	--
Ireland	--	--	3	19	12,400	223
Israel	--	--	16	94	42,600	767
Italy	2,710	2,230	--	--	869	16
Japan	721	6,660	35	377	14,600	263
Korea, Republic of	24	57	74	1,020	1,490	27
Malaysia	7	51	6	40	--	--
Mexico	--	--	11	108	5,900	106
Netherlands	--	--	--	--	20,300	366
New Zealand	--	--	--	--	712	14
Panama	--	--	--	--	3,600	65
Singapore	--	--	2	9	772,000	21,100
South Africa	15	257	--	--	--	--
Spain	--	--	(2)	4	--	--
Sweden	118	451	--	--	--	--
Switzerland	490	7,170	3	37	--	--
Taiwan	--	--	--	--	51,300	924
Thailand	15	3	--	--	--	--
Trinidad and Tobago	--	--	--	--	322	6
Turkey	--	--	37	536	--	--
United Kingdom	253,000	71,600	220	3,150	10,200	206
Vietnam	--	--	2	20	--	--
Total	563,000	670,000	687	9,280	1,310,000	30,900

-- 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

Year and country	Ores and concentrates ²		Dore and precipitates		Refined bullion ³		Total	
	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)
2004	1,860	\$19,200	142,000	\$1,590,000	139,000	\$1,830,000	283,000	\$3,440,000
2005:								
Aruba	--	--	--	--	1,300	15,800	1,300	15,800
Australia	35	346	35	526	1,470	23,000	1,540	23,800
Belgium	--	--	--	--	(4)	5	(4)	5
Bolivia	--	--	88	1,070	26	399	114	1,470
Brazil	--	--	--	--	10,700	152,000	10,700	152,000
Canada	1,590	18,600	7	121	62,600	905,000	64,200	924,000
Central African Republic	--	--	--	--	2	26	2	26
Chile	--	--	20,200	138,000	6,050	86,800	26,300	225,000
Colombia	--	--	21,700	276,000	1,680	21,900	23,400	297,000
Costa Rica	--	--	12	145	73	504	85	649
Dominican Republic	--	--	4	50	4	31	8	81
Ecuador	--	--	96	1,250	12	149	108	1,400
El Salvador	--	--	--	--	8	92	8	92
Germany	--	--	--	--	4	61	4	61
Ghana	--	--	--	--	26	404	26	404
Guyana	--	--	--	--	77	928	77	928
Honduras	--	--	2,390	30,100	2,400	34,300	4,790	64,400
Hong Kong	--	--	--	--	1,570	24,400	1,570	24,400
India	--	--	--	--	3	41	3	41
Italy	--	--	--	--	1	7	1	7
Jamaica	--	--	--	--	6	61	6	61
Japan	--	--	--	--	105	1,450	105	1,450
Kenya	--	--	--	--	9	120	9	120
Korea, Republic of	--	--	--	--	4	53	4	53
Lebanon	--	--	--	--	4	57	4	57
Mali	--	--	--	--	3	40	3	40
Mexico	(4)	9	1,640	24,300	16,800	242,000	18,400	267,000
Netherlands Antilles	--	--	75	901	88	1,020	163	1,920
Nicaragua	--	--	2,000	25,200	21	260	2,030	25,400
Panama	--	--	396	5,110	256	2,550	651	7,650
Peru	--	--	185,000	1,560,000	--	--	185,000	1,560,000
Russia	--	--	--	--	26	364	26	364
Sierra Leone	--	--	--	--	1	12	1	12
South Africa	--	--	--	--	47	644	47	644
Switzerland	--	--	(4)	3	4	55	5	58
Taiwan	--	--	--	--	24	333	24	333
Tanzania	--	--	--	--	5	58	5	58
United Kingdom	--	--	--	--	6	69	6	69
Uruguay	--	--	--	--	13	178	13	178
Venezuela	--	--	--	--	11	103	11	103
Zimbabwe	--	--	--	--	5	63	5	63
Total	1,630	18,900	234,000	2,060,000	105,000	1,520,000	341,000	3,590,000

-- 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

Year and country	Waste and scrap		Metal powder		Gold compounds	
	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)
2004	20,500	\$161,000	10,900	\$59,400	60,000	\$1,530
2005:						
Aruba	2	18	--	--	--	--
Australia	(2)	3	--	--	--	--
Belgium	85	700	--	--	--	--
Brazil	1	8	--	--	--	--
Canada	5,360	35,100	51	509	445	15
Chile	440	6,150	1,430	1,790	--	--
China	37	302	--	--	--	--
Colombia	2,100	24,600	--	--	--	--
Costa Rica	1,520	7,540	--	--	--	--
Czech Republic	--	--	--	--	9	7
Dominican Republic	9,850	86,800	123	1,130	--	--
Ecuador	140	1,400	--	--	--	--
El Salvador	342	2,740	--	--	--	--
France	1	7	--	--	--	--
Germany	--	--	3	28	19,000	508
Ghana	15	255	142	810	--	--
Guatemala	51	254	--	--	--	--
Guinea	--	--	2	12	--	--
Honduras	258	2,200	--	--	--	--
Hong Kong	1	5	--	--	--	--
Israel	--	--	87	1,230	707	39
Italy	81	760	2	17	--	--
Japan	--	--	--	--	5,140	236
Korea, Republic of	7	60	--	--	--	--
Malaysia	219	2,190	--	--	--	--
Mali	--	--	3	27	--	--
Mexico	5,670	24,800	101	593	--	--
Netherlands Antilles	112	1,890	--	--	--	--
Nicaragua	188	1,180	8	62	--	--
Panama	592	6,280	--	--	--	--
Philippines	1	21	--	--	--	--
Sierra Leone	--	--	3	26	--	--
Singapore	1	7	--	--	--	--
Spain	25	330	--	--	--	--
Switzerland	--	--	23	299	--	--
Taiwan	13	226	--	--	--	--
Thailand	193	2,380	--	--	--	--
Turkey	4	21	--	--	--	--
United Kingdom	21	369	20	185	4,180	132
Total	27,300	209,000	1,990	6,730	29,500	935

-- 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	2001	2002	2003	2004	2005
Algeria	300	369	365	597	697
Argentina	30,632	32,506	29,749	28,466	30,000 ^e
Armenia	1,900	3,200	1,800	2,100	1,400
Australia	280,100 ^r	266,100 ^r	282,000	259,000	262,000
Belize ^c	1	1	1	1	1
Benin	16	20	20 ^e	20 ^e	20 ^e
Bolivia	12,395	11,256	9,362	6,951	8,906
Botswana	2	8	9 ^{r,e}	162 ^r	2,770
Brazil ^d	42,884	41,662 ^r	40,416 ^r	47,596 ^r	41,154 ^p
Bulgaria ^c	1,540	1,110	2,142 ^{r,3}	2,431 ^{r,3}	2,400
Burkina Faso	229	209	770	1,125	1,397
Burma ^c	200	200	100	100	100
Burundi	415	483	2,855	3,229 ^r	3,905
Cameroon	600 ^r	700	700	1,500 ^e	1,500 ^e
Canada	158,875	151,904	140,861	129,478 ^r	118,528
Central African Republic ^c	34	16	7 ^{r,3}	7 ^{r,3}	7
Chile	42,673	38,688	38,954	39,986 ^r	40,447
China ^c	185,000	192,000	205,000	215,000	225,000
Colombia	21,813	20,823	46,515	37,738 ^r	35,783
Congo (Brazzaville) ^c	10	10	75	60	10
Congo (Kinshasa) ^c	6,100 ^r	7,600 ^r	4,100 ^r	5,700 ^r	5,700
Costa Rica ^c	100	100	110	150	500
Cote d'Ivoire	3,672 ^r	3,570 ^r	1,313 ^r	1,219 ^r	1,638
Cuba ^c	1,000	1,000	500	500	500
Ecuador ⁵	3,005	2,750	3,020	5,158 ^r	5,416
Equatorial Guinea ^c	100 ^r	100 ^r	100 ^r	150 ^r	200
Eritrea	107	--	9	33 ^r	30
Ethiopia ⁶	3,862	3,670	3,875	3,443 ^r	3,900
Fiji	3,858	3,731	3,250	4,200	2,800
Finland	5,552	4,666	5,409 ^r	5,004 ^r	5,000 ^e
France ^c	3,000	2,800	1,700	1,500	1,000
French Guiana	4,062 ^r	3,290 ^r	3,296 ^r	2,564 ^r	2,500 ^e
Gabon ^{c,7}	70	70	70	300 ^r	300
Georgia ^c	2,000	2,000	2,000	2,000	2,000
Ghana	68,341	69,271	70,749 ^r	63,139 ^r	62,100 ^e
Guatemala ^c	4,500	4,500	4,550	-- ^{r,3}	740 ³
Guinea	16,205 ^r	16,815 ^r	16,622 ^r	10,700 ^r	11,000 ^e
Guyana	14,183	13,581	12,170	11,462 ^r	11,400 ^e
Honduras	4,574	4,984	5,000 ^e	5,500 ^e	5,000 ^e
India ⁸	3,700	3,800 ^e	3,200	3,800	3,900 ^e
Indonesia ⁹	166,091	142,238	141,019	92,936	140,000 ^e
Iran	192 ^r	210 ^r	203 ^r	195 ^r	200 ^e
Italy ^c	503 ³	500	100	--	--
Jamaica	214	328	131	20 ^e	--
Japan	7,815	8,615	8,143	8,021	8,318
Kazakhstan ^c	27,100 ³	27,000	30,000	30,000	18,062 ³
Kenya	1,545	1,477	1,543	567 ^r	600
Korea, North ^c	6,600	6,600	6,300	6,000	6,000
Korea, Republic of	24 ^r	310 ^r	166 ^r	233 ^r	266
Kyrgyzstan ^c	24,000	17,000	22,476 ³	22,000	16,700
Laos	--	--	5,368	4,392	6,338
Liberia	57	42	20 ^e	110 ^r	16

See footnotes at end of table.

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

(Kilograms)

Country	2001	2002	2003	2004	2005
Madagascar	-- ^r	-- ^e	10	5 ^r	5 ³
Malaysia	3,965	4,289	4,739	4,221 ^r	4,300 ^e
Mali	42,288	56,043	45,535	37,974 ^r	44,400 ^e
Mexico	23,543	21,324	20,406	21,818 ^r	30,356
Mongolia	13,675	12,097	11,119	18,600 ⁶	19,240
Morocco	1,191	2,747 ^r	1,863	1,200 ^r	1,200 ^e
Mozambique	22	17	63	56	63
Namibia	2,706	2,815 ^r	2,508 ^r	2,205 ^r	2,200 ^e
New Zealand	9,885	9,770	9,300 ^r	10,151 ^r	10,200 ^e
Nicaragua	3,840	3,493	3,029	3,500	3,500
Niger	30	28	30 ^r	684 ^r	700 ^e
Nigeria ^c	37 ³	40	50	30 ^r	40
Oman	603	188	4	-- ^e	-- ^e
Panama ^e	-- ³	--	--	200	200
Papua New Guinea ^c	67,043 ³	63,200 ^r	68,100 ^r	73,500 ^{r,3}	66,700
Peru ¹⁰	138,522 ^r	157,530 ^r	172,619 ^r	173,224 ^r	207,822
Philippines	33,840	35,850 ^r	37,844 ^r	35,464 ^r	37,500
Poland	349	296	356 ^r	527 ^r	500
Romania ^c	500 ^r	500 ^r	500 ^r	500 ^r	500
Russia	152,500	168,411 ¹¹	170,068 ¹¹	163,148 ^{r,11}	169,297 ¹¹
Rwanda ^c	10	10	2 ³	--	--
Saudi Arabia ^c	5,000	4,192 ³	8,769 ³	9,000	9,200
Senegal ^e	550	600	600	600	600
Serbia and Montenegro ^c	1,100	900 ^r	400 ^r	400 ^r	400
Slovakia	157	77	79 ^r	107 ^r	100
Solomon Islands ^c	300	100	100	10 ^{r,3}	10
South Africa	394,800	398,523 ^r	373,300 ^r	340,500 ^r	294,803 ^p
Spain	3,300	5,158	5,362	5,600 ^e	2,500 ^e
Sudan	5,417	5,239	5,106 ^r	5,000 ^e	4,728
Suriname ^e	300	300	300	8,513 ^{r,3}	8,500
Sweden	4,986	4,500	4,300 ^e	5,300	5,100 ^e
Taiwan ^c	2 ³	--	--	--	--
Tajikistan ^c	2,700	2,700	2,700	3,000	3,000
Tanzania	30,088	43,320	48,018	51,010 ^r	54,000
Thailand	320	4,950	4,269	4,500 ^r	4,600 ^e
Turkey ^c	2,000	5,000	6,500	4,500	5,000
Uganda	-- ^r	3	40	1,447 ^r	1,700
United States	335,000	298,000	277,000	258,000	256,000
Uruguay	2,083	2,079	1,550 ^r	1,758 ^r	3,000
Uzbekistan ^c	87,000	90,000 ³	90,000	93,000	90,000
Venezuela	9,076	9,465	7,900 ^e	9,666	10,000 ^e
Vietnam ^c	3,000	2,000	2,000	2,000	3,000
Zimbabwe	18,050	15,469	12,564	21,330	14,023
Total	2,560,000	2,550,000	2,560,000 ^r	2,440,000 ^r	2,470,000

See footnotes at end of table.

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

^cEstimated. ^pPreliminary. ^rRevised. -- Zero.

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

²Table includes data available through August 7, 2006.

³Reported figure.

⁴Officially reported figures are as follows, in kilograms: Major companies: 2001—37,810; 2002—32,912; 2003—26,066; 2004—28,508 (revised); and 2005—32,803 (preliminary). Garimpos: 2001—5,074; 2002—8,750 (revised); 2003—14,350 (revised); 2004—19,088 (revised); and 2005—8,351 (preliminary).

⁵Includes undocumented artisanal production.

⁶Year ending July 7 of that stated.

⁷Undocumented artisanal production.

⁸Refinery output.

⁹Excludes production from so-called people's mines, which may be as much as 18,000 kilograms per year, but includes gold recovered as byproduct of copper mining.

¹⁰Includes documented production from placer artisanal production.

¹¹Mine output including gold recovered as a byproduct, but excludes secondary gold production, which for Russia in 2002-03 was 2,546 kilograms and 6,835 kilograms, respectively.