

GOLD

By Errol D. Sehne

Total world gold mine production remained essentially unchanged in 1995 and well within 1% of the all-time high, reached in 1993. Despite a moderate decline in production, South Africa remained the world's largest gold-producing nation, followed by the United States, which has been the second largest producer since 1991 when its production, for the first time in nearly five decades, surpassed that of the former Soviet Union. Nevada alone produced two-thirds of domestic production; the other one-third came from 13 other States. Although most domestic gold mines were surface or open pit operations, conversion to underground methods continued to advance as more near-surface deposits reached depletion. Some of the deeper deposits, accessible only by underground methods, contain higher grade sulfide ores that require more extensive processing than the oxidized ores encountered in most near-surface operations. Along with this shift in ore types and the related maturing of the U.S. gold mining industry, there has also been a trend toward a smaller total number of operating gold mines, but with an associated shift to larger capacity mining operations; i.e., fewer but larger gold mines. Although the majority of the Nation's gold mines were in Western States, several were in operation in two States east of the Mississippi River. Gold also was produced at a dozen or more large placer mines, nearly all in Alaska, and numerous small placer mines, mostly in Alaska and Western States. A minor amount of domestic gold also was produced as a byproduct of processing the ores of base metals, principally copper. Twenty-five mines yielded 80% of the gold produced in the United States. The value of U.S. gold mine production in 1995 was nearly \$4 billion.

Domestic gold exploration activity, which peaked during the late 1980's, continued to decline as mining companies pursued opportunities in other countries. In several Latin American nations, for example, favorable geology, combined with liberalized mining regulations, continued to attract U. S. and other foreign gold exploration and development investment. This focus on overseas exploration and development targets by U.S. companies was also directed toward various areas in the southwestern Pacific, Western Africa, and the newly independent republics of the former Soviet Union.

In addition to newly mined gold, an estimated 150,000 metric tons of secondary gold was reclaimed from new (manufacturing) and old (postconsumer) scrap and waste.

Commercial-grade refined gold was produced by approximately two dozen domestic producers. A few dozen companies, out of several thousand companies and artisans, dominated the fabrication of gold into marketable products. Jewelry accounted for between two-thirds and three-fourths of gold fabricated domestically. Industrial uses, mainly in

electrical/electronics circuitry, accounted for another one-fifth to one-fourth, and the remainder--between 5% and 10%--was used in dental work. Nearly all U.S. jewelry manufacturing was centered in the New York, NY, and Providence, RI, areas; other concentrations of these businesses were in California, Florida, and Texas.

According to the World Gold Council, 1995 marked the fourth consecutive year of sales increases for gold jewelry in the United States.¹ Total U.S. gold jewelry sales reached \$11.8 billion, up 4.4% from that of 1994. Dollar and unit sales reportedly exceeded 1994 levels in every month of 1995.

Trade in refined bullion comprised 80% of U.S. gold imports and 65% of exports; net exports of bullion fell to 166,000 tons, down 30% from the 1994 level. Canada provided more than one-half of the bullion imported, and Switzerland was the destination for nearly one-half of the bullion exported.

The dollar price for gold remained listless throughout the year. The Engelhard Industries' daily price of gold ranged from a low of about \$373 per troy ounce² on January 9 to a high of nearly \$397 on April 19, 1995. The average for the year, to the nearest dollar, was \$386. The previous year's prices ranged from about \$370 to \$398 and averaged \$385.

In November, a shortage of physical gold on financial markets developed that doubled the cost of borrowing the metal, temporarily sending the short-term lease rate for gold to an alltime high of 6%. Typically, lease rates are well below 1%, but in mid-November 1995 they had crept slowly but steadily higher to end the month at the new historical high. It appeared traders had perceived that the supply of gold immediately available to financial markets was severely restricted, at a time when demand for hedging had reached unusually high levels.

Identified world gold resources at yearend 1995 were estimated by the U.S. Geological Survey (USGS) at 75,000 tons, of which 15% to 20% was byproduct resources. The world reserve base was estimated at 61,000 tons and reserves at 44,000 tons. South Africa had approximately one-half of the resources and reserve base and 41% of the reserves. The United States had about 12% of world resources, 10% of the reserve base, and 12% of the reserves.

Of an estimated 119,000 tons of gold mined in historical times through 1995, about 15% is thought to have been lost, used in dissipative industrial uses, or otherwise unaccounted for or unrecoverable. Of the remaining 102,000 tons, about 35,000 tons is official stocks held by central banks and about 67,000 tons is privately held as bullion, coin, and jewelry.

Production

Domestic mine production data for gold are developed by the

USGS from two separate, voluntary surveys of U.S. operations. One of these surveys is the production survey of copper, gold, lead, silver, and zinc lode mines. Of the lode gold producers in operation to which a survey request was sent, 116 responded, representing 94% of the total gold shown in tables 1 and 2. The individual company production and performance data cited in this report were derived from published sources, such as company annual reports.

Of the total gold produced during 1995, 92% was extracted from gold ore while the remainder was derived from base-metal and other precious-metal ores and from placer deposits. By comparison, similar data assembled for 1980 indicated that gold ores provided 63% of the total gold produced and the remainder, 37%, was derived from base-metal and other precious-metal ores and placers. In both years, 1980 and 1995, the contribution from placer mines amounted to less than 2% of the total gold produced.

Alaska.—Gold developments in Alaska during 1995 were summarized in a report on Alaskan mining activity prepared by Alaska's State Division of Geology and Geophysical Surveys (DGGs),³ in cooperation with the Alaska Department of Commerce and Economic Development. The DGGs reported that gold output declined from an estimated 5.7 tons (182,000 ounces) worth \$70.3 million in 1994 to 4.4 tons (142,000 ounces) worth \$56.0 million in 1995, or an approximate decrease in production of 22% and a decline in associated value of 20%. The loss of gold production from several large placer mines and the continuing reduction in the number of placer mining operations Statewide contributed to this decline. Cambior Alaska Inc.'s Valdez Creek Mine, the State's largest gold mine for 12 years, was permanently shut down in September 1995. According to the DGGs, there were approximately 36 fewer placer mines in operation during the year compared with 1994. However, in 1995, the new underground Nixon Fork copper-gold mine near McGrath began to produce gold during the fourth quarter of the year. Nixon Fork Mining Co., the operating subsidiary for Consolidated Nevada Goldfields Co., reported that the project's mill began operations on October 1 and the first doré bar was poured at the mine site on October 22.

Gold exploration, plus the related development and permitting of new gold mines, continued throughout the year at a steady pace. USMX Inc. pursued further development of its heap-leach gold project at Illinois Creek, about 240 kilometers southwest of Galena. The company drilled several water wells for hydrological baseline studies and constructed a new access road linking the planned open pit area with the project's airfield and campsite. In addition, construction work began in March 1995 at Amax Gold's Fort Knox gold project, near Fairbanks, with commercial production expected in late 1996. Reserves at the property reportedly exceed 124 tons (4 million ounces) of contained gold with added potential both laterally and at depth. Projected annual gold output reportedly will average more than 10.9 tons (350,000 ounces) for the first 5 years and more than 9.3 tons (300,000 ounces) annually for the life of the mine. In November 1995, Amax Gold announced completion of a \$250

million senior term loan to be used for Fort Knox development and retirement of certain existing company debt.

In southeastern Alaska, substantial work continued on permitting two major gold projects, Coeur-Alaska's Kensington development property and Echo Bay Mines Alaska Inc.'s Alaska-Juneau Mine, both located near Juneau. Echo Bay sold its 50% interest in the Kensington project to Coeur d'Alene Mines Corp. during 1995, making Coeur the sole owner of the project. In addition, Greens Creek Mining Co., a Kennecott Corp. subsidiary, announced in November that it would invest \$87 million to bring the Greens Creek polymetallic (zinc-silver-gold-lead) mine on Admiralty Island, which was mothballed in 1993, back into production by January 1997.

California.—Gold production in California reportedly experienced about a 2% drop in output from the level attained in 1994. This was apparently due in part to the 1994 closures of Sonora Mining's Jamestown Mine in Tuolumne County and FMC Gold's Royal Mountain King Mine in Calaveras County. Both mines were located in the State's Mother Lode Belt in the western foothills of the Sierra Nevada. California's largest gold mine, the McLaughlin Mine of Homestake Mining Co., processed oxide and sulfide ore mined by open pit methods to recover nearly 7.5 tons (242,000 ounces) of gold in 1995. The State's second largest gold mine, Santa Fe Pacific Gold Corp.'s Mesquite Mine, produced 6.0 tons (193,000 ounces) of gold from open pit operations near Brawley in Imperial County. In eastern Imperial County, Glamis Gold Ltd. continued to produce gold by heap-leaching methods at its Picacho Mine and conducted further exploration work at its nearby Imperial Project. An in-house feasibility report for the mine development project estimated ore reserves, confirmed by an independent third party, at approximately 46.9 tons (1.5 million ounces) of contained gold. Glamis, through its wholly owned Rand Mining Co., also produced gold at its Baltic and Yellow Aster Mines near Randsburg in Kern County. Other major mines producing gold in Imperial and Kern Counties during the year included the American Girl Mine and the Cactus Mine.

In eastern San Bernardino County near the Nevada-California State line, about 95 kilometers southwest of Las Vegas, NV, the Castle Mountain Mine of Viceroy Resource Corp. and MK Gold Co. produced an estimated 5.2 tons (168,000 ounces) of gold in 1995.

Siskon Gold Corp. reportedly commenced gold production from its newly developed San Juan Mine, north of Grass Valley, in Nevada County, in January 1995. The new mine is an underground placer mine employing mechanized loaders to transport blasted gold-bearing gravels to an underground processing plant that then produces a gold concentrate. Gold is recovered from the raw concentrate by gravity-concentration methods at a new surface-level processing plant.

Colorado.—In February 1995, Pikes Peak Mining Co. opened the Cresson Mine in the Cripple Creek District of Teller County. The new open pit mining operation reportedly had proven and probable reserves of 70.3 tons (2.3 million ounces) of contained gold. The company also reported that it had depleted minable gold and silver reserves at its Globe Hill and

Ironclad Mines. Both mines were closed and undergoing reclamation in 1995.

Battle Mountain Gold Co., the operator of the San Luis Mine, Costilla County, reported that the mine produced approximately 2.2 tons (72,000 ounces) of gold in 1995. The San Luis ore reserves reportedly are expected to be exhausted in the second quarter of 1997.

Idaho.—In July 1995, Dakota Mining Corp. received approval to resume mining operations at the company's wholly owned Sibnite Mine, located in Valley County. This enabled Dakota Mining to nearly double its gold production to 1.5 tons (49,000 ounces) from 0.8 ton (26,000 ounces) in 1994. The mine reopened following a 2-year shutdown based on environmental concerns related to the listing of Chinook salmon as an endangered species under the Endangered Species Act in 1993.

In another development, FMC Gold Co.'s Beartrack project, near Salmon, in Lemhi County, came on-stream in late summer after cyanide was first applied to the stacked ore at its heap-leach pads. Two open pits were being mined at the central Idaho mine site.

In late 1995, mining operations at the Grouse Creek gold mine, near Challis, reportedly encountered shortfalls in both ore tonnage and grade at the mine's Sunbeam pit. As a result, Hecla began reevaluating the ore body and started to develop a revised mine plan to optimize the joint-venture project with its partner, Great Lakes Minerals.

Montana.—According to an annual review of mining and mineral developments in the State, prepared by the Montana Bureau of Mines and Geology,⁴ exploration activity remained at high levels throughout the year. Of the mines producing gold in Montana during the year, three were owned and operated by Pegasus Gold Inc. They were the Beal Mountain Mine in Silver Bow County; the Montana Tunnels Mine, a gold, lead, silver, and zinc mine in Jefferson County; and the Zortman Mine in Phillips County, the State's largest gold mine in 1995. Their total gold production during the year amounted to about 8.1 tons (260,000 ounces).

In early February 1995, full production was resumed at Placer Dome's wholly owned Golden Sunlight Mine near Whitehall in Jefferson County following the suspension of milling operations in 1994 because of unstable ground conditions. Production for 1995 amounted to nearly 2.8 tons (89,800 ounces) of gold. The company indicated that 1996 would be the last year in the project's mine plan for processing lower grade ore on the fringe of the Golden Sunlight ore body, and that higher grade ore would be processed from 1997 onward.

In Park County, TVX Gold Inc. continued production at its underground Mineral Hill Mine near Jardine and exploration work at its nearby Crevice Mountain project. In addition, exploration of the newly discovered Ski Slope zone, approximately 500 meters downdip from the Mineral Hill ore zone, added approximately 1.6 tons (50,000 ounces) of gold to the mine's reserves. About 30% of a 4.3-kilometer access tunnel being driven from the Mineral Hill Mine to the Crevice

Mountain deposit had been completed by the end of 1995. The Mineral Hill Mine reportedly produced nearly 1.1 tons (34,900 ounces) of gold for the year. Also in Park County, about 80 kilometers east of Mineral Hill, Crown Butte Resources Ltd. continued to seek permits for its New World project near Cooke City. Current plans for the controversial gold, copper, and silver project north of Yellowstone National Park call for underground mining and ore processing without the use of heap-leaching or cyanide recovery methods.

Mining operations were discontinued at Canyon Resource's Kendall Mine, near Lewistown, when the last tons of new ore were crushed and placed on the leach pad in January 1995. The company's Merrill-Crowe zinc-precipitation gold plant at the mine site was replaced by a carbon-recovery plant during the year to facilitate continued recovery of gold at lower concentrations during the rinse-down phase of gold recovery over the next 2 years.

Nevada.—Nevada continued in its longstanding position as the Nation's dominant gold-producing State. Fifteen of the Nation's top 25 gold-producing mines during 1995 were in the Silver State.

Barrick Gold Corp. was once again the Nation's largest gold mining company and reportedly recovered 63.2 tons (2.03 million ounces) of gold at its Betze-Post Mine in Eureka County. Nearby in Elko County, Barrick continued development of its Meikle Mine, a new underground operation scheduled to begin production during the second half of 1996. These Barrick operations on the Carlin Trend are developed within a 2,800-hectare land holding designated collectively as the Goldstrike Property. In addition, Barrick's wholly owned Bullfrog Mine near Beatty, NV, produced nearly 5.5 tons (176,000 ounces) of gold during the year.

In 1995, Newmont Gold Co. produced 50.8 tons (1.6 million ounces) of gold from its operations centered in Eureka and Elko Counties. It was the seventh straight year that Newmont had produced 46.7 tons (1.5 million ounces) or more from the Carlin Trend in northeastern Nevada. In May, Newmont marked 30 years of production on the Carlin Trend, which it discovered in the mid-1960's, with the pouring of its [498th ton] 16 millionth ounce of gold. The company's extensive operations along the Carlin Trend include seven open pit mines from which nearly 215 million tons of ore and waste was mined during the year, accounting for the bulk of Newmont's Carlin Trend production. The Gold Quarry Mine generated 67% of Newmont's Carlin area production, up from 62% in 1994. Mining reportedly began at two new open pit mines in 1995—Lantern and North Star. In 1996, open pit operations will commence commercial production at three additional deposits—Beast, Bootstrap, and Tara. In addition, four underground mines produced 3.8 tons (123,000 ounces) of gold in 1995, compared with output of just 0.54 ton (17,400 ounces) from two underground mines in 1994.

To recover gold from the widely varying grades and many types of ore it is currently mining along the Carlin Trend, Newmont employs an array of processing methods. In fact, 1995 was the first full year of operation of the company's \$350 million refractory (sulfidic and carbonaceous) ore treatment plant, or

roaster, which is reported to be the largest facility of its kind in the world. It produced 11.0 tons (354,000 ounces) of gold during the year, up from its 1994 output of 1.4 tons (145,000 ounces). All refractory ore from Newmont's underground operations was processed by the new roaster, and this ore accounted for approximately 29% of the facility's feed. Another 48% of the company's roaster feed came from the Gold Quarry pit, with the remaining 23% coming from the Post pit.

Northwest of Elko, in Elko County, Independence Mining Co. and FMC Gold Co. produced about 10.2 tons (328,000 ounces) of gold at their Jerritt Canyon Mine. To the west, in Humboldt County, Santa Fe Pacific Gold Corp. recovered 13.2 tons (424,000 ounces) of gold at its Twin Creeks Mine and about 7.1 tons (228,000 ounces) at its Lone Tree Mine to the south, near Valmy. Both operations are open pit mines where gold was recovered by milling and heap-leaching methods. At the nearby Getchell Mine, FirstMiss Gold Inc. commenced underground production on May 1, as production from the open pit operations ended in July. By yearend, the FirstMiss underground mining operation had reached an average production rate of about 910 tons per day of ore. Other gold mines in Humboldt County include the Hycroft (formerly the Crofoot/Lewis), Marigold, Pinson, and Sleeper Mines. Production from the Sleeper gold mine decreased during the year, with completion of mining scheduled to occur in 1996.

South of and parallel to the Carlin Trend, the Battle Mountain/Eureka Trend runs from southeastern Humboldt County southeast through Eureka in Eureka County. Gold mining operations along this trend include the Battle Mountain Complex of Battle Mountain Gold Co. in Lander County, the McCoy/Cove gold and silver property of Echo Bay Mines Ltd., the Cortez Gold Mine Joint Venture's Cortez Mine, and Alta Gold Co.'s Easy Junior Mine in White Pine County. Considerable exploration activity continued to be focused on the Pipeline, Ruby Hill, and several other recent discoveries along the Battle Mountain/Eureka Trend in Lander and Eureka Counties.

At Round Mountain, approximately 95 kilometers north of Tonopah in north-central Nye County, the Smokey Valley Common Operation at the Round Mountain Mine produced approximately 10.7 tons (344,000 ounces) of gold during the year.

South Dakota.—Homestake Mining Co. 119-year-old Homestake Mine was again the Nation's largest underground gold mine, the largest gold-producing mine in South Dakota, and the fifth largest gold-producing mine in the country. During the year, the mine at Lead, a nearly 2.5-kilometer-deep operation with associated surface mining, yielded about 12.5 tons (403,000 ounces) of gold at a reported cash production cost of \$292 per ounce.

Wharf Resources Ltd. continued to operate two open pit gold mines near Lead (the 100%-owned Wharf Mine and the 60%-owned Golden Reward Mine) in 1995. The Wharf Mine produced approximately 3.0 tons (97,000 ounces) of gold and the Golden Reward Mine about 1.5 tons (48,000 ounces). In December, all of Golden Reward's unpermitted reserves were

written down, owing to uncertainties surrounding the possible mining of these reserves because of their close proximity to sensitive artificial developments. Based on planned production rates, the remaining permitted reserves at the Golden Reward Mine will be depleted by the end of 1996, after which the mine will be kept on a care and maintenance basis until new resources are permitted.

Dakota Mining Corp. continued exploration and permitting work at its Anchor Hill oxide deposit on the Gilt Edge property, near Deadwood. While permitting was under way, the mine began processing stockpiled sulfide ore in July to offset standby costs. A total of about 519,000 tons of sulfide material was crushed and leached, recovering nearly 0.3 ton (10,000 ounces) of gold. Leaching of gold from this ore continued into 1996.

Utah.—Kennecott Corp.'s Bingham Canyon Mine produced 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 third largest gold producer in 1995. Kennecott also operated the nearby Barney's Canyon Mine, an open pit and heap-leaching operation.

Barrick Gold Corp.'s open pit Mercur Mine in Tooele County, Utah's largest primary gold producer, recovered approximately 3.2 tons (102,000 ounces) of gold during 1995. Mercur currently has a 4-year life remaining and is expected to commence closure activities in 1999 following depletion of all open pit reserves and reclamation of tailings from earlier mining operations.

USMX Inc. reported that its Goldstrike Mine in Washington County produced about 0.2 ton (6,270 ounces) of gold. Actual mining at this southwest Utah gold property had been terminated in late 1994. Reclamation of remaining mining disturbances and residual gold production from ore in place on Goldstrike heaps was continued in 1995.

World Review

After 15 consecutive years of growth through 1993, world gold mine production in 1994 and 1995 remained essentially unchanged from 1993's record-high level. Increasing production from mines in developing countries was just enough to offset a continuing sharp decline in gold output from South Africa. According to its annual review of world gold supply and demand, Gold Fields Mineral Services Ltd. (GFMS)⁵ calculated that the total global supply of gold in 1995 was 3,620 tons (116 million ounces) compared with the previous year's total supply of 3,360 tons (108 million ounces). The two principal components of gold supply, mine production and old gold scrap, recorded only minor changes in 1995. However, beyond these areas of slight change were several significant developments within individual components of the supply-demand balance for the year. The most consequential of these developments was the record increase in producer hedging, and forward selling in particular, that occurred in 1995. Australian and North American gold producers were the principal users of these forward sales instruments, but later in the year several South African companies also started using hedging transactions. In

addition, it was the associated demand for borrowed gold that drove the gold leasing rate up to record levels in late November 1995. With mine and scrap supply essentially static, it was once again, as in 1994, the mobilization of official reserves that provided the growth in supply throughout 1995.

On the demand side, Gold Fields reported that the total amount of gold used in the fabrication of marketable products rose by 6% to a record 3,260 tons (105 million ounces) in 1995. Strong demand reportedly occurred in all fabrication markets, with the main increases coming from jewelry, official coins, and electronic products. The total worldwide demand for gold used in the fabrication of jewelry products rose by 5.6%, to 2,750 tons (88 million ounces), in 1995. The second largest fabrication sector, electronic products, rose even more strongly, with a jump of approximately 8% to 209 tons (about 7 million ounces). Worldwide, the use of gold in other demand sectors such as dentistry, medals and imitation coins, and other industrial and decorative applications also recorded gains. The use of gold in the minting of official coins rose by more than 27% on a worldwide basis from the 1994 level. GFMS's data on various facets of the gold investment sector indicated that purchases of physical gold outweighed sales in 1995. This was in contrast to 1994, when investors and speculators disposed of about 181 tons of gold that they had built up in 1993.

With regard to gold exploration, the Metals Economics Group, of Halifax, Nova Scotia, determined from its annual survey of worldwide exploration budgets for 154 companies that the percentage of overall exploration expenditures directed to gold targets rose to 58.5% in 1995, the highest level devoted to gold since 1989.⁶

Australia.—Australian gold production declined slightly in 1995; however, Australia managed to retain its position as the world's third largest gold-producing nation. Of the approximately 254 tons (8.15 million ounces) of gold produced in 1995, Western Australia, Queensland, and the Northern Territory accounted for about 75%, 11%, and 7%, respectively. Western Australia's production was derived principally from mining operations located near Kalgoorlie. Other Australian gold-producing States, in descending order of output, were New South Wales, Victoria, South Australia, and Tasmania.

A number of gold mines were under development or expanding capacity and several new mines began production during the year. In Western Australia, for example, the Resolute Samantha Group and its partners commenced production at the Chalice Mine, and Eagle Mining NL and its associates poured the first gold in late December at the Nimary Mine, near Wiluna in the Yandal greenstone belt. In addition, Great Central Mines NL started operations during late 1995 at its Jundee Mine in Western Australia.

Australian exploration expenditures continued to increase in 1995, confirming the opinion that the Native Title Act had not and would not force the mining industry to abandon Australia, as some financial analysts had previously predicted.

Canada.—In 1995, Canada's gold production managed to rebound slightly, reversing the downward trend of the previous three consecutive years. New mines under development at

yearend 1995 should result in a continuation of this gradual recovery of production to levels seen prior to the decline, according to a review of Canadian gold developments prepared by Natural Resources Canada.⁷ Canada retained its position as the world's fourth largest gold producer. In 1995, gold was produced at about 50 primary gold mines; these accounted for 88.3% of the total gold output. Base metal mines and placer mines accounted for 8.1% and 3.6%, respectively, of the remainder. A total of seven gold mines commenced operation in 1995, while one mine shut down during the year. Canada's principal gold-producing regions, in descending order of output, were the Provinces of Ontario, Quebec, British Columbia, and the Northwest Territories. Gold was also produced in Alberta, Manitoba, New Brunswick, Newfoundland, Saskatchewan, and Yukon Territory.

Latin America.—Gold production in this part of the world rose by 10%, to about 270 tons (8.67 million ounces), in 1995. Interest continued to increase throughout the year in gold exploration opportunities, new mine development projects, and expanded production at existing mines across Latin America. Much of the region's exploration activity was focused in Brazil, Chile, Mexico, Peru, and to a lesser extent Argentina, Ecuador, and Venezuela. A change in Brazil's Constitution relaxing the restrictive rules on foreign ownership within the mining sector contributed to the country's rapid rise in favor as an attractive gold exploration target. In 1995, French Guiana and Venezuela were two countries in the region where gold exploration did not reach the levels of previous years. In the case of Venezuela, a number of unfavorable elements combined to lower the country's appeal with international investors. Central among these factors were an unstable economy, conflicts with small-scale miners, uncertain mining laws, and Government restrictions on gold sales.

Gold production in Brazil, still Latin America's largest gold-producing nation, increased slightly despite a decline in the informal sector output, as easily worked surface and placer deposits were being mined out by independent gold miners or "garimpeiros." In the formal sector, after 161 years, Mineração Morro Velho suspended gold production at its 2,300-meter deep Mina Grande Mine, near Nova Lima in the State of Minas Gerais. During 1995, production by the State-owned Companhia Vale Rio Doce, Brazil's largest gold producer, reached 16.3 tons (524,000 ounces) of gold. Presently, the Igarapé Bahia Mine, located in the Carajás Mineral District, State of Pará, is the company's largest gold mine, with an annual production rate of 10 tons (322,000 ounces) of gold.

The second half of 1995 saw the startup of several significant precious metals mines in Chile, including Dayton Mining's Andacollo gold mine, the gold-silver Fachinal mining operation managed by Coeur d'Alene, and Barrick Gold's Tambo gold mine.

Total gold output dropped in Guyana owing to the temporary closure of the Omai gold mine in August 1995 after the failure of a tailings pond wall, which resulted in the release of several million cubic meters of cyanide-bearing effluent into the nearby Omai and Essequibo Rivers. The mine remained closed

throughout the entire second half of the year and reopened again in February 1996.

In 1995, gold production in Mexico surged more than 5 tons (160,000 ounces) compared to that of 1994. During the year, both Mexican and foreign mining companies increased the pace of exploration for gold in the States of Baja California, Chihuahua, Durango, Guanajuato, Sinaloa, and Sonora.

The dramatic growth in gold output in Peru that has occurred since 1991 continued at a high level in 1995, based primarily on production from the low-cost, heap-leach Yanacocha Mine in northern Peru. Yanacocha's expansion continued, with production exceeding 17 tons (550,000 ounces), making it the largest gold mining operation in Latin America. There was also increased production from Peru's informal sector, particularly from the main gold-producing areas of Madre de Dios and Juliaca-Puno.

Oceania.—Gold production in Papua New Guinea declined for the third consecutive year, reflecting to some extent the mining of lower grade ores at two of that nation's larger gold mines, Placer Pacific Ltd.'s Porgera and Misima Mines. Exploration continued at a number of gold prospects, and in March the Government granted a Special Mining Lease to RTZ that opened the way for construction of the Lihir Island Project off the east coast of New Ireland.

In Indonesia, gold output was estimated to have risen by nearly one-half in 1995 and has nearly quadrupled since 1991. Freeport Indonesia Inc. recovered slightly more than 40 tons (1.31 million ounces) of byproduct gold at its Grasberg/Ertsberg copper-gold mine in West Irian, and PT Kelian Equatorial Mining produced nearly 13.6 tons (437,000 ounces) of gold at the Kelian Mine in East Kalimantan. Gold exploration activities continued to increase, especially in Kalimantan, where Canada's Bre-X Minerals Ltd., of Calgary, reported a major discovery at its Busang Project that could possibly host several hundred metric tons of gold.

Gold output in New Zealand rose in 1995 due to production increases from both the Golden Cross and Macraes gold mines. On Fiji's Island of Viti Levu, gold production was derived entirely from the Emperor gold mine, located at Vatukoula.

Russia and the former Soviet Union.—Of the independent gold-producing countries resulting from the dissolution of the U.S.S.R. in late 1991, Russia is by far the largest producer, both in terms of output and number of operations as well as areal distribution. The majority of Russia's production derives from formerly state-owned enterprises and worker's cooperatives, known as artels, which principally exploit placer deposits scattered throughout Siberia and the Russian Far East.

Foreign business participation in gold exploration, development, and mining activity throughout the former Soviet Union continued to evolve during the year, but at a much slower pace than previously projected by industry analysts. Numerous North American, Australian, and European mining companies continued to pursue joint-venture opportunities in Kazakstan, Kyrgyzstan, Russia, and elsewhere throughout the former Soviet Union. On May 25, 1995, the Zarafshan-Newmont Joint Venture commissioned its \$230 million gold recovery project

near the Muruntau Mine in the remote Kyzylkum Desert of Uzbekistan, and by yearend the facility had produced 1.15 tons (37,000 ounces) of gold. The project employs a four-stage crushing plant, a conveyor stacking system to place finely crushed ore on a heap-leach pad, and a Merrill-Crowe plant for final gold recovery. Feed for the facility is supplied from approximately 218 million tons of low-grade ore stockpiled over the past 26 years by the Muruntau Mine, the largest open pit gold mine in the world.

South Africa.—During the 35 years prior to 1995, gold production in South Africa, the world's largest gold-producing nation, had ranged from a high of 1,000 tons (32 million ounces) in 1970 to a low of 580 tons (18.6 million ounces) in 1994. In 1995, problems related to repeated labor disruptions, escalating costs, and declining ore grades continued to plague South Africa's gold-mining industry and combined to drive gold output down to 524 tons (16.8 million ounces), the lowest level since 1956, when only 494 tons (15.9 million ounces) was produced by South African mines.

The tonnage and grade of ore milled during 1995 by the nearly three dozen mines comprising the membership of the Chamber of Mines of South Africa amounted to nearly 99 million tons bearing a gold grade of 4.87 grams per ton (0.142 ounce per short ton); this compares with a similar total tonnage of 99 million tons milled by Chamber members in 1994, which was at the higher grade of 5.40 grams per ton (0.158 ounce per short ton).

The six major corporate groups or "houses" that continued to dominate the South African gold-mining industry were as follows: The Anglo American Corp. of South Africa Ltd. (AAC), Gold Fields of South Africa Ltd., Gencor Ltd., Johannesburg Consolidated Investment Co. Ltd., Anglovaal Ltd., and Randgold and Exploration Co. Ltd. As in prior years, the two largest gold mines in terms of production during 1995 were the Freegold and Vaal Reefs, both owned by AAC. The two next largest mines were the Driefontein and Kloof, both owned by Gold Fields.

Outlook

Gold remains an internationally traded metal but, unlike most commodities bound by the traditional laws of market supply and demand, gold also serves as a trusted repository of wealth, a storehouse of value, held by investors and Governments alike. In recent years, average annual gold prices have remained in a rather tight range, and for the short term this situation is expected to continue. The directionless nature of recent gold prices and their listless performance has resulted in a general lack of commitment on the part of Western investors to physically hold gold. It is expected that the extensive use of hedging transactions by major gold producers will continue to temper significant increases in gold prices for the near term.

¹U.S. Gold Jewelry Retail Sales Annual Report for 1995. World Gold Council, 1995, 20 pp.

²Where used by itself elsewhere in this report, ounce refers to troy ounce. One kilogram of gold is equivalent to 32.1507 troy ounces.

³Bundtzen, T. K., R. C. Swainbank, A. H. Clough, M. W. Henning, and K. M. Charlie. Alaska's Mineral Industry 1995. AK Div. Geol. and Geophys. Surv. Spec. Rep. 50, Sept. 1996, 72 pp.

⁴McCulloch, R. Annual Review 1995—State Activities: Montana. Min. Eng., v. 48, No. 5, May 1996, pp. 61-63.

⁵Murray, S., P. Klapwijk, T. Sutton-Pratt, P. Walker, and others. Gold 1996. Gold Fields Mineral Services Ltd. (London), May 1996, 64 pp.

⁶Analysis of Worldwide Exploration Expenditures. Strategic Report. Metals Economics Group, Halifax, NS, v. 8, No. 5, Sept.-Oct. 1996, pp. 1-5.

⁷Couturier, G. Gold. Advance copy of Ch. from Canadian Minerals Yearbook—1995. 18 pp.

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TABLE 1
SALIENT GOLD STATISTICS 1/

		1991	1992	1993	1994	1995
United States:						
Mine production	kilograms	294,000	330,000	331,000	327,000 r/	320,000
Value	thousands	\$3,430,000	\$3,660,000	\$3,840,000	\$4,050,000 r/	\$396,000
Gold recovered by cyanidation:						
Extracted in vats, tanks, and closed containers 2/	kilograms	160,000	178,000	177,000	169,000	155,000
Leached in open heaps or dumps 3/	do.	104,000	120,000	128,000	119,000	124,000
Refinery production:						
Ores, concentrates and dore	do.	225,000	284,000	243,000	241,000 4/	(4/)
Recycled materials (new and old scrap)	do.	153,000	163,000	152,000	148,000 4/	(4/)
Imports for consumption:						
Refined	do.	147,000	141,000	130,000	96,400	111,000
Exports						
Refined	do.	174,000	257,000	658,000	334,000	277,000
Net deliveries from foreign stocks in Federal Reserve Bank of New York						
	do.	61,600	136,000	582,000	217,000	244,000
Stocks, Dec. 31:						
Industry 5/	do.	39,400	36,700	34,400	32,700 4/	(4/)
Commodity Exchange (Comex) 6/	do.	49,900	46,500	78,500	49,100	45,400
Department of the Treasury 7/	metric tons	8,150	8,150	8,140	8,140	8,140
Volume of U.S. Gold Futures Trading 8/	do.	21,200	18,700	25,500	26,400	24,200
Department of the Treasury: 9/						
American Eagle gold coin	kilograms	13,700	11,100	21,800	10,900	13,900
Other Numismatic gold coins	do.	952	965	2,250	852	1,150
Consumption in industry and the arts	do.	114,000	110,000	91,400	76,100 4/	(4/)
Apparent demand, refined 10/	do.	307,000	357,000	363,000	294,000 4/	(4/)
Price: Average per troy ounce 11/		\$363.29	\$344.97	\$360.91	\$385.41	\$385.50
Employment, mine and mill only 12/		15,100	14,800	14,700	14,100 r/	14,700
World:						
Production, mine	kilograms	2,160,000 r/	2,250,000 r/	2,270,000 r/	2,260,000 r/	2,250,000 e/
Official bullion reserves 13/	metric tons	35,500	35,100 r/	34,900 r/	34,800 r/	34,600

e/ Estimated. r/ Revised.

1/ Data are rounded to three significant digits, except prices.

2/ May include small quantities recovered by gravity methods.

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

4/ Data under review.

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

6/ Comex division of New York Mercantile Exchange.

7/ Includes gold in Exchange Stabilization Fund.

8/ Comex only.

9/ Sales to market in fiscal year 1990; thereafter, bullion disbursements to U.S. Mint coin programs. Fiscal year begins Oct. 1, of year prior to year indicated.

10/ Defined as refinery production from primary materials + refinery production from old scrap + net bullion flow to market from foreign stocks at the New York Federal Reserve Bank + net imports of bullion. Assumed to include gold held for investment purposes. Excludes gold contained in fabricated items, imported coins, and official monetary gold.

11/ Engelhard Industries quotation.

12/ Data from Mine Safety and Health Administration.

13/ Held by central banks and governments and international monetary organizations. Data from International Monetary Fund.

TABLE 2
MINE PRODUCTION OF GOLD IN THE UNITED STATES, BY STATE 1/

(Kilograms)

State	1994	1995
Alaska 2/	5,660 r/	4,410
Arizona	2,050 r/	1,920
California	30,100	26,200
Colorado	4,420	W
Idaho	W	8,850
Montana	12,600	12,400
Nevada	214,000	213,000
Washington	7,410	W
Other States 3/	50,600 r/	53,700
Total	327,000 r/	320,000

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

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Production data collected by the State.

3/ Includes New Mexico, Oregon (1994), South Carolina, South Dakota, Utah, Wisconsin, and States indicated by symbol "W."

TABLE 3
TWENTY-FIVE LEADING GOLD-PRODUCING MINES IN THE UNITED STATES IN 1995, IN ORDER OF OUTPUT

Rank	Mine	County and State	Operator	Source of gold
1	Goldstrike	Eureka, NV	Barrick Gold Corp.	Gold ore.
2	Carlin Mines Complex	do.	Newmont Gold Co.	Do.
3	Bingham Canyon	Salt Lake, UT	Kennecott-Utah Copper Corp.	Copper ore.
4	Twin Creeks	Humboldt, NV	Santa Fe Pacific Gold Corp.	Gold ore.
5	Homestake	Lawrence, SD	Homestake Mining Co.	Do.
6	Smokey Valley Common Operation	Nye, NV	Round Mountain Gold Corp.	Do.
7	Jerritt Canyon (Enfield Bell)	Elko, NV	Independence Mining Co.	Do.
8	McCoy and Cove	Lander, NV	Echo Bay Mines	Do.
9	McLaughlin	Napa, CA	Homestake Mining Co.	Do.
10	Lone Tree	Humboldt, NV	Santa Fe Pacific Gold Corp.	Do.
11	Mesquite	Imperial, CA	do.	Do.
12	Getchell	Humboldt, NV	FirstMiss Gold	Do.
13	Bullfrog	Nye, NV	Barrick Gold Corp.	Do.
14	Castle Mountain	San Bernardino, CA	Viceroy Gold Corp.	Do.
15	Denton-Rawhide	Mineral, NV	Kennecott Rawhide Mining Co.	Do.
16	Battle Mountain Complex	Lander, NV	Battle Mountain Gold Co.	Do.
17	Kinsley	Elko, NV	Alta Gold Co.	Do.
18	Florida Canyon	Lander, NV	Pegasus Gold Inc.	Do.
19	Ridgeway	Fairfield, SC	Kennecott Ridgeway Mining Co.	Do.
20	Cortez	Lander, NV	Placer Dome (U.S.) Inc.	Do.
21	Zortman-Landusky	Phillips, MT	Pegasus Gold Inc.	Do.
22	Black Pine	Cassia, ID	do.	Do.
23	Mercur	Tooele, UT	Barrick Gold Corp.	Do.
24	Kettle River	Ferry, WA	Echo Bay Mines	Do.
25	Hycroft	Humboldt, NV	Granges Inc.	Do.

TABLE 4
U.S. EXPORTS OF GOLD, BY COUNTRY 1/ 2/

Year and country	Ores and concentrates 3/		Dore and precipitates		Refined bullion		Total		Waste and scrap	
	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)
1994	462	\$3,780	60,600	\$677,000	334,000	\$4,060,000	395,000	\$4,740,000	76,300 4/	\$745,000
1995:										
Argentina	--	--	--	--	598	7,610	598	7,610	--	--
Belgium	--	--	--	--	--	--	--	--	1,630	20,400
Canada	342	3,430	8,340	83,700	2,120	25,400	10,800	113,000	38,700	272,000
China	--	--	--	--	289	3,730	289	3,730	--	--
France	--	--	20,500	254,000	--	--	20,500	254,000	14,200	187,000
Germany	--	--	513	7,030	9,150	118,000	9,670	125,000	5,760	70,700
Hong Kong	--	--	--	--	36,900	456,000	36,900	456,000	13	122
Israel	--	--	--	--	178	1,880	178	1,880	25	293
Italy	--	--	--	--	123	888	123	888	369	4,630
Japan	--	--	50	564	17,500	215,000	17,500	215,000	74	862
Korea, Republic of	--	--	--	--	8,570	106,000	8,570	106,000	61	756
Mexico	--	--	151	1,890	3,630	40,000	3,780	41,900	2	15
Netherlands	--	--	1	5	848	10,100	849	10,200	3	30
Peru	--	--	8	99	692	8,620	700	8,720	--	--
Singapore	--	--	--	--	331	3,640	331	3,640	8	99
Sweden	--	--	--	--	2	11	2	11	2,740	41,600
Switzerland	--	--	19,300	239,000	133,000	1,590,000	153,000	1,830,000	8,360	58,400
Taiwan	9	49	--	--	17,000	210,000	17,000	210,000	1	5
Turkey	--	--	--	--	338	4,020	338	4,020	--	--
United Arab Emirates	--	--	--	--	129	1,540	129	1,540	2	21
United Kingdom	--	--	20,700	254,000	45,500	559,000	66,200	813,000	10,400	104,000
Other	1	3	47	385	182	2,110	230	2,500	54	530
Total	352	3,480	69,700	841,000	277,000	3,360,000	347,000	4,210,000	82,400	762,000

1/ Data are rounded to three significant digits; may not add to totals shown.

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

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

4/ Verification of Bureau of the Census export quantities was not possible for some months of 1994. Quantities shown are rounded estimates derived by dividing dollar values, which are believed to be accurate, by an estimated value for waste and scrap of \$9,400 per kilogram.

Source: Bureau of the Census.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF GOLD, BY COUNTRY 1/ 2/

Year and country	Ores and concentrates 3/		Dore and precipitates		Refined bullion		Total		Waste and scrap	
	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)	Quantity (kilograms)	Value (thousands)
1994	2,250	27,300	15,100	174,000	96,400	1,180,000	114,000	1,380,000	21,800	111,000
1995:										
Argentina	--	--	--	--	1,850	23,300	1,850	23,300	330	5,650
Bolivia	--	--	--	--	831	10,700	831	10,700	93	949
Brazil	--	--	--	--	11,400	142,000	11,400	142,000	1	9
Canada	32	308	3,940	40,800	58,500	719,000	62,500	760,000	1,360	15,600
Chile	448	5,440	926	9,240	8,870	110,000	10,200	125,000	122	1,940
China	--	--	--	--	--	--	--	--	102	1,330
Colombia	--	--	104	1,090	12,000	143,000	12,100	144,000	--	--
Costa Rica	--	--	--	--	42	333	42	333	892	4,730
Dominican Republic	--	--	1,440	1,550	242	1,770	1,680	3,320	4,100	27,300
Ecuador	--	--	--	--	759	8,420	759	8,420	143	939
Estonia	--	--	--	--	--	--	--	--	90	1,100
Guyana	--	--	70	795	589	7,700	659	8,500	179	2,020
Malaysia	--	--	--	--	--	--	--	--	625	3,070
Mexico	4,370	46,200	2,850	36,000	3,720	45,800	10,900	128,000	2,120	13,400
Nicaragua	--	--	--	--	430	5,310	430	5,310	78	194
Panama	--	--	468	2,820	261	2,640	729	5,460	176	1,290
Peru	170	1,860	4	53	158	1,910	332	3,830	689	7,550
Russia	2	13	20	235	96	1,040	118	1,290	140	1,790
South Africa	--	--	--	--	1,070	13,300	1,070	13,300	53	43
Suriname	--	--	--	--	925	11,700	925	11,700	1,750	22,300
Switzerland	--	--	--	--	3,180	38,100	3,180	38,100	1	15
Taiwan	--	--	--	--	--	--	--	--	256	2,930
Trinidad and Tobago	--	--	--	--	--	--	--	--	253	3,410
United Kingdom	--	--	--	--	4,410	55,600	4,410	55,600	24	245
Venezuela	--	--	--	--	1,300	15,600	1,300	15,600	91	918
Other	--	--	1	10	406	4,900	407	4,910	778	3,810
Total	5,020	53,900	9,820	92,600	111,000	1,360,000	126,000	1,510,000	14,400	123,000

1/ Data are rounded to three significant digits; may not add to totals shown.

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

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

Source: Bureau of the Census.

TABLE 6
GOLD: WORLD MINE PRODUCTION, BY COUNTRY 1/ 2/

(Kilograms)

Country	1991	1992	1993	1994	1995 e/
Argentina	1,725	1,106	937	1,000 e/	1,100
Armenia e/	XX	500	200 r/	100 r/	100
Australia	234,218	243,000 e/	247,196	256,188	253,504 3/
Belize e/	5	5	2	5 r/	5
Bolivia	3,501	4,688	10,423	12,838	14,405 3/
Botswana	20	165	192	248 r/	86 3/
Brazil 4/	89,578	85,862	74,219	70,535 r/	72,000
Bulgaria e/	2,000	2,000	2,000	2,000	2,000
Burkina Faso e/	5,600	5,400	5,000	6,000	6,000
Burundi e/	25	32	20	20	10
Cameroon e/	10	10	10	560 r/ 3/	560 3/
Canada	176,552	161,402	152,929	146,428 r/	150,273 3/
Central African Republic	176	155	700 r/ e/	700 r/ e/	700
Chile	28,879	33,774	33,638	38,786 r/	39,180 3/
China e/	120,000	125,000 r/	130,000 r/	132,000 r/	140,000
Colombia	34,844	32,118	27,472 r/	20,762 r/	21,160 3/
Congo	12	5	5 e/	5 e/	5
Costa Rica e/	550	550	600	358 r/ 3/	500
Cote d'Ivoire	1,800 r/	2,800 r/	3,100 r/	2,900 r/	3,200
Dominican Republic	3,082 r/	3,813 r/	366 r/	595 r/	3,288 3/
Ecuador 5/	12,200	12,300 r/	12,500 r/	13,000 r/	15,500
Eritrea	XX	XX	XX	78	59
Ethiopia 6/	3,038	2,224	3,387	2,370 r/	4,500 3/
Fiji	2,743	3,701	3,784	3,440	3,775 3/
Finland	2,240 r/	1,595	1,385 r/	1,372 r/	1,400
France	4,612	2,910 r/	3,735 r/	4,009 r/	4,000
French Guiana (Guyane)	1,417	2,140	2,500 e/	2,500 e/	2,500
Gabon 5/	50	70	120	72 e/	70
Georgia e/	XX	1,500	1,000	600	500
Germany	10 e/	--	--	--	--
Ghana	26,311	31,032	39,235	44,505	52,200
Guatemala	31	32	30 e/	30 e/	30
Guinea 7/	4,453	2,113	2,100 e/	5,617 r/	7,863 3/
Guyana	1,844	2,475	9,614	11,811	11,800
Honduras	180	163	111	106	110
Hungary e/	-- r/	-- r/	-- r/	-- r/	--
India 8/	1,973	1,762	2,003	2,244 r/	2,300
Indonesia 9/	16,879	37,983	42,097	42,600 r/	62,800
Iran	500 e/	500 e/	417	723	650 3/
Japan	8,299	8,893	9,352	9,551	9,185 3/
Kazakstan e/ 10/	XX	24,000	25,000	26,000	26,000
Kenya e/	20	20	154 r/ 3/	155 r/	170
Korea, North e/	5,000	5,000	5,000	5,000	5,000
Korea, Republic of 8/	20,809	23,263	25,000 e/	12,332 r/	13,000
Kyrgystan e/	XX	1,000 r/	1,000 r/	1,100 r/	1,200
Liberia e/ 11/	600	700	700	500 r/	500
Madagascar e/	500 r/	500 r/	500 r/	500 r/	500
Malaysia	2,777	3,513	4,462	4,085 r/	3,161 3/
Mali e/	4,900	5,700	5,500	5,500	7,800
Mexico	10,142	9,891	11,100	13,888 r/	20,292 3/
Mongolia e/	800	900	1,200	2,000	4,800
Mozambique	394	296	149	336	900
Nambia	1,857	2,025	1,954	2,394 r/	2,099 3/
New Zealand	6,758	10,531	11,161	10,600 r/ e/	13,000
Nicaragua	1,154	1,322	1,240	1,073	1,600
Panama	194	250	255 e/	245 e/	1,100
Papua New Guinea	60,780	71,190	60,587	60,287 r/	52,635 3/
Peru 5/	9,934	20,582	23,650 r/	46,000 r/	56,500 3/
Philippines	25,916	25,609 r/	21,155 r/	27,059 r/	27,144 3/
Poland e/	-- r/	-- r/	-- r/	-- r/	--
Portugal e/	160	89	--	--	--
Romania e/	3,000	3,700	4,000 r/ 3/	4,000	4,000
Russia	XX	146,000	149,500	146,600	132,170 3/

See footnotes at end of table.

TABLE 6--Continued
GOLD: WORLD MINE PRODUCTION, BY COUNTRY 1/ 2/

(Kilograms)

Country	1991	1992	1993	1994	1995 e/
Rwanda e/	1,000	1,000	1,000	100	100
Saudi Arabia	4,780	6,150	7,519	7,630 r/	8,080 3/
Serbia and Montenegro 12/	XX	7,330	3,325	4,000 e/	4,000
Sierra Leone 13/	26	92	157	125 r/	50
Solomon Islands e/	30	25	20	5	1
South Africa	601,110	614,071	619,201	580,201 r/	523,820 3/
Spain	7,402	6,582	6,083	5,852 r/	6,000
Sudan e/	50	1,000	1,600	2,500	3,000
Suriname e/	30	300	300	300	300
Sweden	6,247	6,164	6,548	6,364 r/	6,400
Taiwan 8/	--	2 r/	2 r/	5 r/	4
Tajikistan e/	XX	1,700	1,600	1,500	1,500
Tanzania	3,851 r/	3,200 r/	3,364 r/	2,549 r/	44 3/
Turkey 14/	970 e/	1,250 r/	1,110 r/	996 r/ e/	1,000
U.S.S.R. 15/	260,000	XX	XX	XX	XX
United States	294,000	330,000	331,000	327,000 r/	320,000 3/
Uruguay e/	--	300 r/	300	300	900
Uzbekistan e/	XX	70,000 r/	70,000 r/	70,000 r/	75,000
Venezuela	4,215	7,553	8,899 r/	10,094 r/	7,259 3/
Yugoslavia 12/ 16/	6,920	XX	XX	XX	XX
Zaire e/	8,800	9,000 r/	8,700 r/	10,500 r/	9,500
Zambia 17/	136	271	235	124 r/	79
Zimbabwe	17,820	18,278	18,916	20,512	24,344 3/
Total	2,160,000 r/	2,250,000 r/	2,270,000 r/	2,260,000 r/	2,250,000

e/ Estimated. r/ Revised. XX Not applicable.

1/ World totals, U.S. data, and estimated data are rounded to three significant digits; may not add to totals shown.

2/ Table includes data available through Aug. 15, 1996.

3/ Reported figure.

4/ Officially reported figures are as follows, in kilograms: Major companies: 1991--34,053; 1992--39,044; 1993--39,894; 1994--40,188 (revised); and 1995--42,000 (estimated). Garimpos 1991--55,525; 1992--46,818; 1993--34,325; 1994--30,034; and 1995--30,000 (estimated).

5/ Does not include undocumented production from small artisanal production.

6/ Year ending July 7 of that stated.

7/ Figures include reported Société Aurifère de Guinée (SAG) mine production as follows, in kilograms: 1991--1,450; 1992--1,110; and 1993--500 (estimated). Remainder represents approximate reported sales to Government, of artisanal production. Figures do not include artisanal production smuggled out of the country. In 1994, the SAG mine was closed.

8/ Refinery output.

9/ Excludes 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.

10/ Includes byproduct gold production. Primary gold production, in kilograms: 1994--14,483 and 1995--15,000 (estimated).

11/ These figures are based on gold taxed for export and include gold entering Liberia undocumented from Guinea and Sierra Leone.

12/ All production for Yugoslavia in 1991 came from Serbia and Montenegro.

13/ Data are based on official exports and do not reflect gold moved through undocumented channels.

14/ Indicates byproduct of base metals.

15/ Dissolved in Dec. 1991.

16/ Dissolved in Apr. 1992.

17/ Year beginning Apr. 1 of that stated. Byproduct of copper production by Zambia Consolidated Ltd. only. Some additional artisanal production was reported, but data are insufficient to make reliable estimates.