

Gold

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2001 mine production: \$2.11 billion
World rank: Seventh
Exports: \$2.22 billion (includes exports from recycled products and public and private reserves)

Canada	2001	2002	2003 (f)
(000 tonnes)			
Production	160	153	154

(f) Forecast.

Gold is valued for its rarity, lustrous colour, malleability, ductility, high resistance to corrosion and conductivity. It has been treasured for its decorative and monetary value for at least 8000 years. Gold has a high density, its weight being equal to 19.3 times an equivalent volume of water. The main industrial uses for gold are in jewellery (78%) and electronics (5%). Gold bullion and coins, such as the Maple Leaf coin, are also important products.

ANNUAL AVERAGE SETTLEMENT PRICES, LONDON BULLION MARKET ASSOCIATION

1999	2000	2001	2002 (e)
(US\$/troy oz)			
279	279	271	308

(e) Estimated.

CANADIAN OVERVIEW

- For the second consecutive year, Goldcorp Inc. will produce more than 15 t of gold (500 000 oz) at the Red Lake mine at a direct production cost of close to US\$65/oz; this will place the mine, for the second year running, among the leading Canadian gold producers for volume of gold produced and among the producers with the lowest production costs in the world.
- In May, Kirkland Lake Gold Inc. (formerly Foxpoint Resources Ltd.) resumed processing operations at the Macassa mill using tailings and ore from surface inventories on the old Teck-Hugues and Lakeshore mining properties. The company is currently installing the equipment and services needed to restart mining activities in the upper levels of the Macassa mine, where it expects to initially produce about 7000 oz of gold per month early in 2003.
- In January 2002, McWatters Mining Inc. (then under the protection of the *Companies' Creditors Arrangement Act*) had its restructuring plan accepted by its creditors and shareholders. Under this plan, the company transferred all of the Sigma-Lamaque property to a limited partnership in which it holds a 60% interest with SOQUEM INC. holding the other 40% interest. The Sigma-Lamaque mine will go into production in early 2003 and will have a production capacity of nearly 150 000 oz/y over six years.
- In October, Agnico-Eagle Mines Limited completed work to expand its mill facilities at the LaRonde mine to 7000 t/d. With this expansion, annual gold production will increase to nearly 400 000 oz, a production level that could be reached in 2004. The ore at LaRonde also contains commercial ore-grade zinc, copper and silver, which will place this mine among those with the lowest production costs in Canada when the credits obtained for these metals are taken into account.
- In the first quarter of 2002, mining activities resumed at the Beaufor mine operated by Richmond Mines Inc. The mine had been closed in August 2000 as a preventive measure due to instability in the mine pillars.

Securing the mine and modernizing the Camflo mill, where the ore is processed, required an investment of \$5 million.

- Campbell Resources Inc. has resumed operations at the Joe Mann mine. The company expects to produce nearly 35 000 oz of gold in 2002 and could produce over 50 000 oz in 2003. It is also mobilizing to restore the Copper Rand property at Chibougamau to production status with a view to starting mining activities in 2004.
- Miramar Mining Corporation and Hope Bay Gold Corporation Inc. have decided to merge. They each held a 50% interest in the Hope Bay property, which contains a number of high-grade gold deposits. The merger will expedite the start of production on these deposits, which are located in Nunavut.
- Two mines ceased operations due to ore depletion: McWatters' Kiena mine and Barrick Gold Corporation's Bousquet mine. McWatters carried out an exploration program at Kiena to identify new economic reserves; it is also looking into the possibility of using the mill to process ore from the nearby East-Amphi property.
- Placer Dome North America and Kinross Gold Corporation have decided to set up a joint venture to which their respective mining properties will be transferred. These properties are in the Porcupine district in Ontario. A subsidiary of Placer Dome will manage the new company, which will operate the Hoyle Pond and Dome mines. The combined production will be around 13 or 14 t/y. Placer Dome will hold 51% of the new company and Kinross will hold 49%.

WORLD OVERVIEW

- Gold-producing companies continued at an even greater pace with their industry consolidation that began a few years ago. Early in the year, Newmont Gold Company acquired Normandy Mining Ltd. of Australia. Later, Placer Dome took possession of Aurion Gold – a new corporation that resulted from the merger in 2001 of two Australian companies, Delta Gold Mining Corp. and Goldfields Limited. There were also mergers or proposals for mergers between TVX Gold Inc., Kinross Gold Corporation and Echo Bay Mines Ltd., between Glamis Gold Ltd. and Francisco Gold Corp., between Repadre Capital Corporation and IAMGOLD Corporation, between Meridian Gold Inc. and Brancote Holdings Plc, and between Bema Gold Corporation and EAGC Ventures Corp.
- Despite all these mergers, the gold sector remains relatively fragmented. Over the past five years, the

proportion of gold production from the 10 largest producers increased from 47% in 1998 to about 55% in 2002.

- After setting a new record in terms of quantity produced in 2001, global gold mine production began a slow decline that could last for a few years. This drop in production, combined with the buyback of a portion of the mining companies' hedging programs, is the main cause of the rise in the price of gold in 2002. Mine production is expected to be around 2540 t, a reduction of more than 60 t and, when combined with gold sales and loans by central banks, recycled gold, and sales by investors, results in a global gold supply that will reach nearly 3700 t, a slight decrease from the previous year.
- Demand for gold, mainly from jewellery, electronics and the investment sector, fell slightly in 2002. The significant increase in the price of gold substantially reduced demand from the jewellery sector. This major decrease was offset by the buyback by mining companies of a portion of their hedging programs, which maintained the price of gold at higher levels than had been forecast for 2002. Buyback activities are expected to continue in 2003.
- In 2002, China continued its policy of liberalizing the gold sector in its territory. It now intends to authorize direct participation by foreign corporations in mining and has inaugurated a new exchange in Shanghai where gold will be traded freely, ending 50 years of absolute government control over the price of gold.
- Barrick Gold Corporation has discovered a major deposit on its Alto Chicama property in Peru. The results of initial exploration work indicate gold resources of over 7.3 million oz. The similarities between this deposit and the Pierina deposit, located 175 km from the discovery, already promise a mine with very low production costs. Barrick is confident it can expand these resources even further and is expecting to devote nearly \$35 million in exploration expenditures to this property. The property could be brought into production by 2005 at an initial production capacity of 500 000 oz/y.

MARKET OUTLOOK

World mine production, which has been rising for nearly 20 years, began to decline in 2002, thus entering a downward cycle that could last three or four years. The weakness in the price of gold in recent years has led to a drop in exploration expenditures, which in turn has lowered the number of economic deposits discovered. The decline in gold production as a result of mine closures cannot be completely mitigated by mine capacity expansion or by the

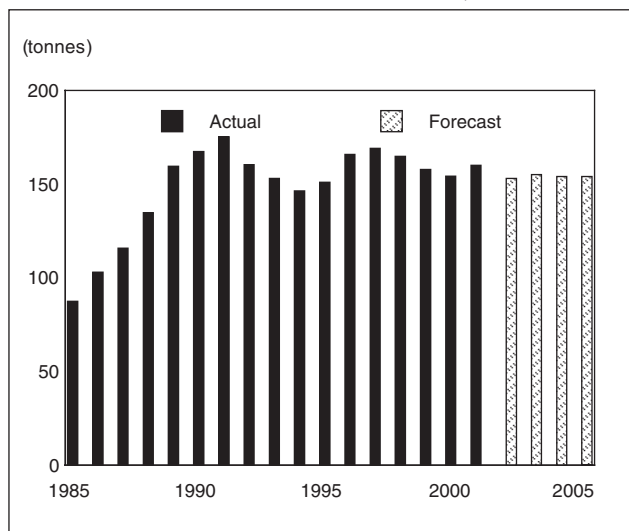
start-up of production at new deposits. Until 2004, when the *Washington Agreement* expires, gold sales and loans by central banks – another important element in the gold supply – are expected to remain at more or less the same level as in the past two years.

World demand grew more than 35% over the last decade, mainly because weakness in the price of gold led to an increase in demand by jewellers who specialize in gold jewellery. World gold demand for jewellery and electronics is expected to resume its upward trend as soon as economic conditions are favourable again.

CANADIAN PRODUCTION OUTLOOK

By the end of 2001, Canada had produced over 9300 t of gold since official production was first recorded in 1858 (reference: *Canadian Minerals Yearbook: 1999 Review and Outlook*). Canadian gold production is expected to reach 153 t in 2002, which is 4%, or 7 t, less than in 2001. This production decline is primarily due to closures and the suspension of activities by nine gold producers in 2001. The production start-ups announced in 2002 are expected to result in a net increase of 2-3 t in 2003, even taking the closure of two mines into account. For the following years, mine production is forecast to be between 152 and 155 t. Any significant growth in Canadian gold production over the coming years is expected to come essentially from mine capacity expansions or from the resumption of production at existing mines.

Figure 1
Mine Production of Gold in Canada, 1985-2005



Source: Natural Resources Canada.

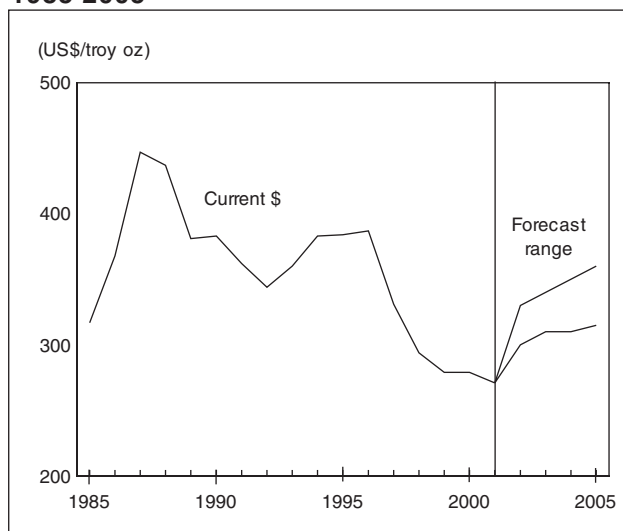
PRICE OUTLOOK

In 2002, the average price of gold began what could become a new upward trend lasting for several years. For 2002, the average price is expected to settle around US\$308/troy oz, which compares with US\$271/troy oz in 2001 and US\$279/troy oz in 2000. The decline in mine production, the stabilization of gold sales from the official sector, and especially the buyback by mining companies of a portion of their hedging programs, led to a sustainable price increase that few analysts had anticipated. The drop in demand from jewellery due to the economic slowdown was more than offset by gold purchases under these hedging programs.

The anticipated decrease in the global gold supply in 2003, combined with stable or slightly increased demand, is expected to continue the pressure to maintain the price of gold within the price range reached in 2002. Over the next few years, the price of gold is forecast to vary between US\$310 and US\$360/troy oz and could even exceed this maximum for a brief period. A higher price level may be reached if global demand comes under new pressure stemming from the liberalization of the gold trade in China and from possible successes brought on by the advertising campaign begun by gold producers.

Note: Information in this article was current as of November 30, 2002.

Figure 2
London Bullion Market Association Gold Prices, 1985-2005



Source: Natural Resources Canada.

NOTE TO READERS

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