

Gold

Gold - 2011 Annual Review and Outlook

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NOTE TO READERS

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Gold – 2011 Annual Review and Outlook

HIGHLIGHTS

- The price of gold started the year at US\$1405 per troy ounce (oz) and finished at US\$1534/oz. The highest price during the year was in September at US\$1895/oz. The average price during the year was US\$1571/oz.
- Canadian mine production of gold decreased slightly to 98.16 tonnes (t), valued at \$4.74 billion, from 102.14 t in 2010.
- Osisko Mining Corporation reached commercial production at its Canadian Malartic mine in Malartic, Quebec. At full production, the mine is capable of producing 600 000 oz of gold per year.
- Production was steady at most Canadian operations. Producers are generally facing increasing operating costs, due mainly to the cost of labour and energy. The near-term production outlook is optimistic as several new, large mines are slated to commence production in the next few years.

CANADIAN PRODUCTION

Canadian mines produced 98.16 t of gold in 2011, down from 102.14 t in 2010 (Table 1 and Figure 1). The value of production increased to \$4.74 billion from \$4.14 billion due to higher realized prices. Canada ranked ninth among world gold producers. For the first half of the year, the gold price in U.S. dollars was higher than the Canadian dollar price. After September, the Canadian dollar price was higher as Canada's dollar was above parity with the U.S. dollar.

Ontario accounted for 51.6% of Canada's total gold production, followed by Quebec (27.4%) and Nunavut (8.7%). Canadian production of gold from auriferous quartz mines declined by 4% to 87.85 t. By-product gold from base-metal processing (8.7 t in 2011, Table 3), remained the second largest source of gold production. The third source, placer operations, contributed 1.6 t in 2011 from operations in British Columbia and the Yukon. The value of gold exports (including gold in ores and concentrates, scrap, and gold associated with base-metal production) increased to \$16.9 billion from \$13.9 billion a year earlier. Data on Canadian gold production, the value of production, and the percentage of total Canadian mineral production for the period 1988-2011 are provided in Table 4. Mine locations can be found in Figure 2.

The following is a summary of Canadian gold mining operations.

Newfoundland and Labrador

Anaconda Mining Inc. continued to produce gold from its Pine Cove mine on the Baie Verte Peninsula. In 2011, its gold production was 7080 oz. The mill was running at about 850 tonnes per day (t/d).

Rambler Metals and Mining plc began production at its Ming copper-gold mine. Initial gold production was coming from the Tilt Cove East satellite deposit as the Ming mine transitioned from pre-production development to production. Approximately 3500 oz of gold were produced during 2011.

Teck Resources Limited operates the Duck Pond mine, a copper and gold producer with a grade of 0.9 grams per tonne (g/t) gold. The company has not published any gold production data since the mine opened in 2007.

New Brunswick

All of New Brunswick's gold production is as a by-product of base-metal ore processing at the Xstrata plc smelter in Belledune, near Bathurst, where 13 400 000 oz of silver doré were produced in 2011.

Quebec

The Beaufor mine of Richmond Mines Inc., located near Val-d'Or, produced 26 947 oz of gold in 2011, a 21% increase over 2010 production. The gold was recovered at Richmond's Camflo mill in Malartic. The company's Francoeur mine produced 1265 oz of gold during the last quarter of 2011.

Aurizon Mines Ltd.'s Casa Berardi mine produced 163 845 oz of gold in 2011. Casa Berardi is near the Ontario-Quebec border about 150 kilometres (km) north of Rouyn-Noranda. The company continues to explore for extensions to the orebody both along strike and down-dip.

IAMGold Corporation continues to produce gold from its Mouska operation, located next to the Doyon mill near Rouyn-Noranda. Ore from Mouska is stockpiled and batch-processed at Doyon. Production for the full year was 24 000 oz for the two mines.

The Sleeping Giant mine, owned by North American Palladium and located 115 km north of Val-d'Or, produced 14 623 oz of gold in 2011. The company was facing increased cash costs per ounce due to a lack of grade continuity.

Osisko Mining Corporation began commercial production in May from its Canadian Malartic mine located at Malartic. Total production for 2011 was 200 137 oz. The mine is an open-pit, truck-and-shovel operation with a mill capacity of 50 000 t/d. It is expected that mill capacity will be increased to 60 000 t/d in 2012 once new secondary crushers are commissioned.

Agnico-Eagle Mines Limited has three mines in the Abitibi region: LaRonde, Goldex, and Lapa. The LaRonde mine produced 124 173 oz of gold in 2011. The mining operation is transitioning to the LaRonde Extension mine, in the deeper part of the orebody, to which access was recently completed. The gold grades are expected to increase with depth, while copper and zinc production is expected to decrease.

In 2011, Goldex's payable gold production was 135 478 oz. Mining operations at Goldex were suspended in October as the result of a rock failure that occurred in the hanging wall of the deposit. This event prevented the continued extraction of broken ore in the Goldex Extension zone. The company has implemented a remediation plan to address the situation. It is unclear when mining operations will be able to resume.

The Lapa mine produced 107 068 oz of gold in 2011. The ore is processed at the LaRonde mill, 11 km to the west. Production in the ore zone, grading about 8.2 g/t gold, continues to be affected by excessive dilution with a resulting reduction in total output.

In 2011, Wesdome Gold Mines Inc. produced 19 516 oz of gold at its Kiena mine and mill near Val-d'Or.

Alexis Minerals Corporation produced 10 268 oz of gold from its Lac Herbin mine in 2011. The mine is located northeast of Val-d'Or. Production was substantially reduced from the previous year due to lower mill recoveries and the lower tonnage mined.

White Tiger Gold Ltd., formerly Century Mining Corporation, owns the Lamaque mine in Val-d'Or where 14 622 oz of gold were recovered.

Ontario

Brigus Gold Corp. operates the Black Fox open-pit and underground mine near Matheson. In 2011, its production was 57 000 oz. Development work continued at the underground mine in an effort to access more stopes for mining. The ore was treated at the company's 2200-t/d mill.

Barrick Gold Corporation operates the David Bell and Williams mine, which is a combined underground and open-pit mine located at Hemlo, approximately 350 km east of Thunder Bay. The two mines share the Hemlo mill, and their combined production for 2011 was 227 000 oz of gold.

Goldcorp Inc.'s Red Lake gold mine, which is Canada's largest gold mine, comprises two operating complexes: Red Lake and Campbell. Total production in 2011 was 622 000 oz. The gold production level was negatively affected by lower production in the high-grade zone.

Goldcorp's Musselwhite mine is located 480 km northwest of Thunder Bay. Its production in 2011 was 242 600 oz. Exploration at the mine and in the surrounding area has pushed the expected mine life to beyond 2015.

Goldcorp's Porcupine mine comprises the Dome open-pit mine and mill and the Hoyle Pond underground mine, located near Timmins. In 2011, the mine produced 273 100 oz. The Porcupine operation includes North America's longest continually operating gold mine, the Dome mine, which began operation in 1910.

Wesdome Gold Mines Inc. produced 28 231 oz of gold from its Eagle River mine located 50 km west of Wawa. The mill is some 17 km away. Its gold production was negatively affected by the processing of lower-grade material from surface stockpiles. Pre-production work continued at the nearby Mishi mine, and production from an open pit is expected next year.

St Andrew Goldfields Ltd. operates three gold mines near Matheson. The Holloway underground mine produced 21 462 oz. The Holt underground mine re-opened in early 2011 and produced 26 024 oz. The third property, the Hislop open-pit mine, produced 20 084 oz. The ore from all three mines is processed at the Holt mill.

Richmont Mines Inc.'s Island Gold mine, located 45 km northeast of Wawa, produced 49 196 oz in 2011.

Kirkland Lake Gold Inc. owns the Macassa mine and mill, as well as four former producing gold properties in Kirkland Lake. The company produced 92 800 oz in 2011. During the year, it continued to invest in an expansion project that would see its mill capacity increase to 1600 t/d with an eventual capacity target of 2200 t/d. The project includes modifications to the mill and upgrades to the No. 3 shaft and hoisting services.

Lake Shore Gold Corp. operates two mines in the Timmins area: Timmins West and Bell Creek. Together they produced 86 565 oz of gold in 2011. The ore is processed at the Bell Creek mill.

Approximately 8000 oz of gold were recovered as a by-product of palladium production at North American Palladium Ltd.'s Lac des Iles mine near Thunder Bay.

Manitoba

San Gold Corporation produced 74 280 oz of gold in 2011 at its Rice Lake and Hinge mines, located at Bissett, 250 km northeast of Winnipeg. Mining is conducted in two distinct areas: the San Antonio mine unit and the Shoreline Basalt unit. The company is upgrading the mill capacity to 2000 t/d to handle new production from the Hinge mine.

By-product gold from base-metal mining in Manitoba accounts for more than two-thirds of the province's gold production. The 777, Trout Lake, and Chisel North mines of HudBay Minerals Inc. at Flin Flon produced an estimated 103 000 oz of gold in 2011. The Thompson and Birchtree mines owned by Vale at Thompson produced an estimated 10 000-20 000 oz of gold.

Saskatchewan

Claude Resources Inc. produced 44 756 oz of gold from its Seabee and Santoy 8 mines in 2011. Both mines are in the La Ronge region and share a mill.

Golden Band Resources Inc. operates the Roy Lloyd underground mine and the EP open-pit mine located 75 km north of La Ronge. In 2011, the mines produced 36 600 oz of gold. Processing of the ore is done at the Jolu mill, which is located between the two mines. The company plans to increase production by developing the Komis and Golden Heart deposits.

British Columbia

In 2011, Imperial Metals Corporation's Mount Polley open-pit copper mine, located near Likely, produced 42 500 oz of by-product gold.

Nyrstar NV, formerly Breakwater Resources Ltd., produced 12 400 oz of by-product gold from its Myra Falls copper-lead-silver mine on Vancouver Island.

Teck Resources Limited reported gold available from its Trail smelter as a co-product of its lead smelting process. Teck produces concentrates with gold content at the Highland Valley copper mine, but has not published recent gold production figures.

Yukon

In 2011, Capstone Mining Corp.'s Minto copper mine, located 240 km north of Whitehorse, produced 18 439 oz of gold contained in concentrates shipped from the mine. The mine also produced zinc and lead concentrates.

There are many placer mining land-use permits in the Yukon, especially near Dawson City, Keno Hill, and Carmacks. The placer deposits account for the majority of the Yukon's gold production.

Nunavut

Agnico-Eagle Mines Limited's Meadowbank open-pit mine, located 78 km north of Baker Lake, produced 270 801 oz of gold in 2011. Late in the year, the company conducted a review of the mine operation in light of continuing high operating costs and lower-than-expected ore grades. An updated life-of-mine plan envisages a shorter mine life and reduced reserves and resources. The mine is expected to cease production in 2017.

CANADIAN DEVELOPMENTS

Newfoundland and Labrador

Castillian Resources Corp. continued to explore for additional mineralization and to expand existing resources at its Hope Brook gold project, located 100 km southeast of Stephenville on the island of Newfoundland. The Hope Brook mine, discovered by BP-Selco in the 1980s, was an active mine from 1987 to 1997 that produced 752 000 oz of gold.

Nova Scotia

Acadian Mining Corporation continued to advance its Beaver Dam and Fifteen Mile Stream gold deposits, located about 100 km northeast of Halifax, with further surface exploration. Together these two properties contain an estimated 1.15 million oz of gold in the indicated and inferred categories.

Quebec

Aurizon Mines Ltd. is continuing with feasibility study work at its Joanna property located 20 km east of Rouyn-Noranda. The Hosco deposit has in-pit measured and indicated resources totaling 55.3 Mt grading 1.27 g/t gold for 2.26 million contained ounces.

Goldcorp Inc. has approved construction of the Éléonore mine, situated 520 km northeast of Val-d'Or in the James Bay region, after receiving the required permits. A 7000-t/d mill will produce about 600 000 oz of gold per year. The deposit contains 12.5 Mt of proven and probable reserves containing 3.03 million oz of gold.

Alto Ventures Ltd. released a National Instrument (NI) 43-101 resource estimate for its DAC gold deposit, which is part of the Destiny gold project, located 75 km north of Val-d'Or. The DAC deposit contains an indicated resource of 10.8 Mt at 1.05 g/t and an inferred resource of 8.3 Mt at 0.92 g/t gold. The company will continue infill drilling to upgrade resources and to test other areas on the property.

IAMGold Corporation continued with the underground development of its Westwood project located between Rouyn-Noranda and Val-d'Or. By the end of 2011, the shaft had been sunk to a depth of 1455 metres (m) and about 9300 m of development had been completed. The property contains an indicated resource of 966 000 t grading 10.9 g/t and an inferred resource of 22.9 Mt grading 6.9 g/t gold using a 1.0-g/t cut-off. A production rate of 2050 t/d has been proposed with the ore to be processed at the adjacent Doyon mill. The estimated annual production would be in the 200 000-oz range. The company hopes to begin production in 2013.

Ontario

AuRico Gold Inc. (formerly Northgate Minerals Corporation) is constructing the Young-Davidson mine located 60 km west of Kirkland Lake. Once in production in mid-2012, the mine is expected to produce 170 000 oz of gold per year over a 15-year mine life. The deposit contains proven and probable reserves of 46 Mt containing 3.7 million oz of gold.

Detour Gold Corporation is proceeding with construction of the Detour Lake mine located northeast of Cochrane. In 2010, it began construction of a mill and other surface infrastructure. The mill's capacity will be 60 000 t/d and the projected production is 650 000 oz per year. A feasibility study published in May announced open-pit reserves totaling 11.4 million oz of gold.

Claude Resources Inc. proceeded with further underground diamond drilling on its Madsen gold property in the Red Lake district. The company is exploring the depth potential of the high-grade No. 8 zone via drilling from the recently dewatered 16th level of the old Madsen mine. The property hosts an indicated resource of 928 000 t at 8.9 g/t and an inferred resource of 297 000 t at 11.7 g/t gold; it also has a 1000-t/d mill on site.

Rubicon Minerals Corporation is proceeding with development of the Phoenix deposit near Red Lake towards possible production by late 2013. The former McFinley mine shaft is being extended to 610 m to provide access for development headings and underground drilling. A preliminary economic assessment has outlined 5.2 Mt grading 15.9 g/t gold in the indicated and inferred category. The study envisages annual production of 180 000 oz over a 12-year mine life. Rubicon also announced that Agnico-Eagle Mines Limited has purchased a 9.2% interest in the company and will provide technical services for the project.

Goldcorp is proceeding with development of the Cochenour-Bruce Channel deposits located about 5 km west of its operating Red Lake mine. The development includes the rehabilitation of the old Cochenour mine shaft and the driving of a 5500-foot haulage drift connecting Cochenour with the main Red Lake mine. This new mine could contribute 250 000 oz of production.

Manitoba

Auriga Gold Corp. published a preliminary economic assessment for its Maverick gold project located 65 km northeast of Flin Flon. The open-pit and underground mine would use the existing mill and

associated infrastructure at the former Puffy Lake mine. The deposit is estimated to contain 944 000 t of indicated resources grading 5.73 g/t and 3.1 Mt of inferred resources grading 5.61 g/t gold.

Saskatchewan

Claude Resources Inc. completed an NI 43-101 technical report for its Amisk gold project located 20 km southwest of Flin Flon, Manitoba. The deposit is estimated to contain 7.6 Mt of indicated resources grading 1.93 g/t and 3.6 Mt of inferred resources grading 1.48 g/t gold at a 1.0-g/t cut-off. The company is continuing with engineering and metallurgical studies.

British Columbia

New Gold Inc. acquired the Blackwater project, situated 160 km southwest of Prince George, following the purchase of Richfield Ventures Corp. This property contains 165 Mt in the indicated category at 1.01 g/t and 39 Mt in the inferred category at 0.94 g/t gold. The company completed an upgrade to the camp and related infrastructure, and is conducting environmental baseline studies in parallel with an expanded surface drilling program.

NovaGold Inc. announced in November that it would seek to sell all or part of its 50% interest in the Galore Creek copper-gold project that it shares with Teck Resources. The project is located 160 km northwest of Stewart. Galore Creek Mining Corporation, manager of the project on behalf of the partners, announced the results of a prefeasibility study that outlines a 95 000-t/d mine with an 18-year mine life. The project is forecast to produce 6.2 billion pounds (lb) of copper and 4 million oz of gold over the life of the mine.

In November 2011, Taseko Mines Ltd. announced that the New Prosperity gold-copper project, located 125 km southwest of Williams Lake, would be examined by a panel review by the Canadian Environmental Assessment Agency. The review is expected to take 12 months to complete. New Prosperity contains 7.7 million oz of recoverable gold and 3.6 billion lb of recoverable copper. A mine life of more than 20 years is forecast with annual gold production of 300 000 oz.

Imperial Metals Corporation filed an updated NI 43-101 technical report on its Red Chris copper-gold project located 80 km south of Dease Lake. The project has received federal and provincial environmental approvals and is awaiting provincial mining permits before proceeding with construction. This mine development will benefit from the construction of the BC Hydro Northwest Transmission Line. Imperial is planning a 30 000-t/d open-pit mine that would produce 2.08 billion lb of copper and 1.32 million oz of gold over a 28-year mine life.

Yukon

Exploration continued on many fronts in the expanding White Gold district located about 100 km southeast of Dawson City. In 2008, Underworld Resources Inc. discovered anomalous gold values in soil samples, which triggered a staking rush in the area. In 2010, Kinross Gold Corporation acquired Underworld Resources and its Golden Saddle discovery. Kaminak Gold Corporation is exploring the Coffee gold project, which consists of a series of gold-mineralized areas over a 5-km strike length. The gold is associated with brecciated and hydrothermally altered gneisses and schists. Northern Freegold Resources is exploring its Freegold Mountain property and its Nucleus deposit. In February, the company reported a resource estimate of 48.49 Mt grading 0.7 g/t in the indicated category and 41.44 Mt grading

0.47 g/t gold in the inferred category. This area of the Yukon also hosts the Casino copper-molybdenum project owned by Western Copper and Gold Corporation.

Northwest Territories

Tyhee Gold Corp. has started a full feasibility study on its Yellowknife gold project. A preliminary feasibility study, released in 2010, foresees a combined open-pit/underground mine that would produce about 110 000 oz of gold per year over an eight-year mine life at an average operating cost of \$540/oz.

Seabridge Gold Inc. released the results of a preliminary economic assessment for its Courageous Lake project in April 2011. The property is located 250 km northeast of Yellowknife. It contains 12.58 Mt of measured resources at 2.52 g/t and 77.58 Mt of indicated resources at 2.31 g/t gold. A tentative mine plan estimates production at 6.73 million oz of gold over a 16-year mine life.

Nunavut

Agnico-Eagle Mines is proceeding with exploration on its extensive Meliadine project, located 25 km northwest of Rankin Inlet. Four separate mineralized zones together contain proven and probable reserves of 2.78 million oz at an average grade of 7.2 g/t and indicated resources of 1.66 million oz. The company is conducting a feasibility study that is expected to be completed in 2013.

Sabina Gold & Silver Corp is advancing its Back River gold project located 510 km northeast of Yellowknife and about 200 km east of the former Lupin gold mine. The project hosts four separate gold zones: George, Goose, Llama, and Umwelt. The George Lake deposit is located about 60 km northwest of the other three zones. A new resource estimate for the four zones combined, published in November, outlines 22.3 Mt of indicated resources grading 5.62 g/t and 10.0 Mt of inferred resources grading 6.23 g/t gold.

WORLD PRODUCTION

World gold production for 2011 was estimated by the World Gold Council at 2809 t. China and Australia were the top world producers at about 360 t and 260 t, respectively (Figure 3). Other top producers included the United States (232 t), Russia (210 t), and Peru (162 t). The top six global gold mining companies in terms of 2011 production were Barrick Gold, Newmont Mining, AngloGold Ashanti, Goldfields, Kinross Gold, and Goldcorp, which together contributed 802.6 t of gold, or about 28.5% of the world's mine production total. Of these companies, Barrick, Kinross, and Goldcorp are Canadian-based.

An additional 1550 t of gold were added to the world supply through recycling in 2011. The contribution of recycled gold to overall supply has been on a downward trend since 2009. This was in part due to the expectation that gold prices would continue to rise and that gold contained in scrap would enter the marketplace at some point.

TRADE

In 2011, Canada imported 327 t of gold in different forms, mainly unwrought (Table 2). This classification includes doré bars, which are destined for Canada's gold refineries where pure gold bullion is produced. The pure gold in bullion form is then re-exported. Unwrought gold is imported primarily from Peru, Argentina, the United Kingdom, Mexico, Chile, Nicaragua, and the United States. Gold

originating from countries such as the United Kingdom is re-exported from other gold-producing countries. Argentina and Peru, which account for 31% and 25% of imports, respectively, continued to be the greatest source of gold imported to Canada.

Unwrought gold from Canada is exported primarily to the United Kingdom, the United States, Hong Kong, and Switzerland.

MARKETS AND PRICES

World demand for gold in 2011 was 4067 t, according to statistics from the World Gold Council. This represents a very slight increase over 2010. Demand can be broken down as follows: jewellery (1962 t), technology (463 t), bars and coins (1486 t), and exchange-traded funds (154 t). A decrease in demand for jewellery and technology applications was offset by a 5% increase in investment demand. Consumer demand was the strongest in China, Hong Kong, Thailand, Germany, and Switzerland. Demand in India, the United States, and Italy decreased by 7%, 17%, and 17%, respectively.

The price of gold started the year at US\$1405/oz and finished it at US\$1534/oz. The highest price during the year was in September at US\$1895/oz (Figure 4). The average price during the year was US\$1571/oz, which was about 20% higher than the 2010 average. The gold price rallied strongly for the first nine months of the year and then declined about 6% by year-end. Economic factors that may have influenced the gold price include the continued sovereign debt problem in Europe, the slowing down of Asian economies, and the aftermath of the Japanese earthquake and tsunami.

OUTLOOK

Gold prices have increased substantially over the past five years from US\$636/oz in January 2007 to US\$1534/oz in December 2011. From mid-2009 until September 2011, prices doubled. These robust prices have created the conditions whereby several new gold mines are slated to reach commercial production in Canada in the next two years. These include the Young-Davidson and Detour Lake mines in Ontario and the Westwood mine in Quebec. Looking at the slightly longer term, other projects, including Cochenour-Bruce Channel, Phoenix, and Eléonore, could add significantly to Canada's gold production. Taken together these projects could contribute an additional 60 t of annual gold production.

The continued economic instability that is pervasive globally, including the uncertainty over the European sovereign debt situation, should positively influence gold prices in the next year. Prices are expected to remain in the US\$1500-\$1700/oz range in 2012.

Gold demand in China is expected to continue to grow as the middle class seeks precious metals for investment. In India, demand decreased in 2011, due in part to higher prices and the switch to purchasing silver jewellery. This trend is expected to continue in the short term.

With respect to new mine supply, operating companies have no shortage of projects in the pipeline. However, factors that may delay the construction of new mines in some regions of the world include: higher labour and energy costs; increased capital costs; access to financing; resource nationalism policies; changes to tax and royalty regimes; the protection of sensitive environments, including scarce water resources; and obtaining a social licence to operate.

Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to the document entitled "Definitions and Valuation: Mineral Production, Shipments, and Trade." (2) Information in this review was current as of June 30, 2012. (3) This and other reviews, including previous editions, are available on the Internet at www.nrcan.gc.ca/minerals-metals/business-market/canadian-minerals-yearbook/4070.

Gold - Other Information

INTRODUCTION TO GOLD

Gold is a metallic element; its symbol is Au and its atomic number is 79. Gold occurs as the native metal dispersed and as fracture fillings in igneous rock, and as flakes, dust, and nuggets in alluvium. It occurs less commonly as gold compounds, notably with tellurium. Native gold is remarkable for its shiny lustre, yellow colour, high density (with a specific gravity of 19.3), resistance to corrosion, extreme ductility, and thermal and electrical conductivity. Gold's melting point is 1063 degrees celcius. Its scarcity has enhanced its value so that a major portion of the world's historical gold production is used as a means to store wealth.

An estimated 142 000 tonnes (t) of gold have been mined in human history. Unlike most commodities, much of the gold has been stored or recycled to remain available today. Therefore, current worldwide production increases this world supply by about 1.5% per year.

Gold in alluvium, also known as placer gold, is easily separated from most other minerals by gravity methods, sluicing, or panning. Gold associated with quartz in rock is most commonly dissolved out of the rock using alkaline solutions of cyanide that are further processed. Final refining is often by electrolysis. Most Canadian mines are certified under The International Cyanide Management Code, which is a voluntary industry program for companies involved in the production of gold using cyanide. It was developed under the auspices of the United Nations Environment Programme with the goal of safeguarding human health and the environment. In addition to primary production, a significant proportion of gold production is as a by-product of base-metal processing.

About 10% of the current gold production is consumed by industry. Being chemically inert, gold is used in dentistry for crowns and caps. Because of its superior electrical conductivity and corrosion resistance, it is also used in electronics, and its imperviousness to infrared has led to gold cladding for hardware in space. About half of the world's gold production goes into jewellery and the remainder, some 40%, stays in a pure form where it serves as a medium of investment.

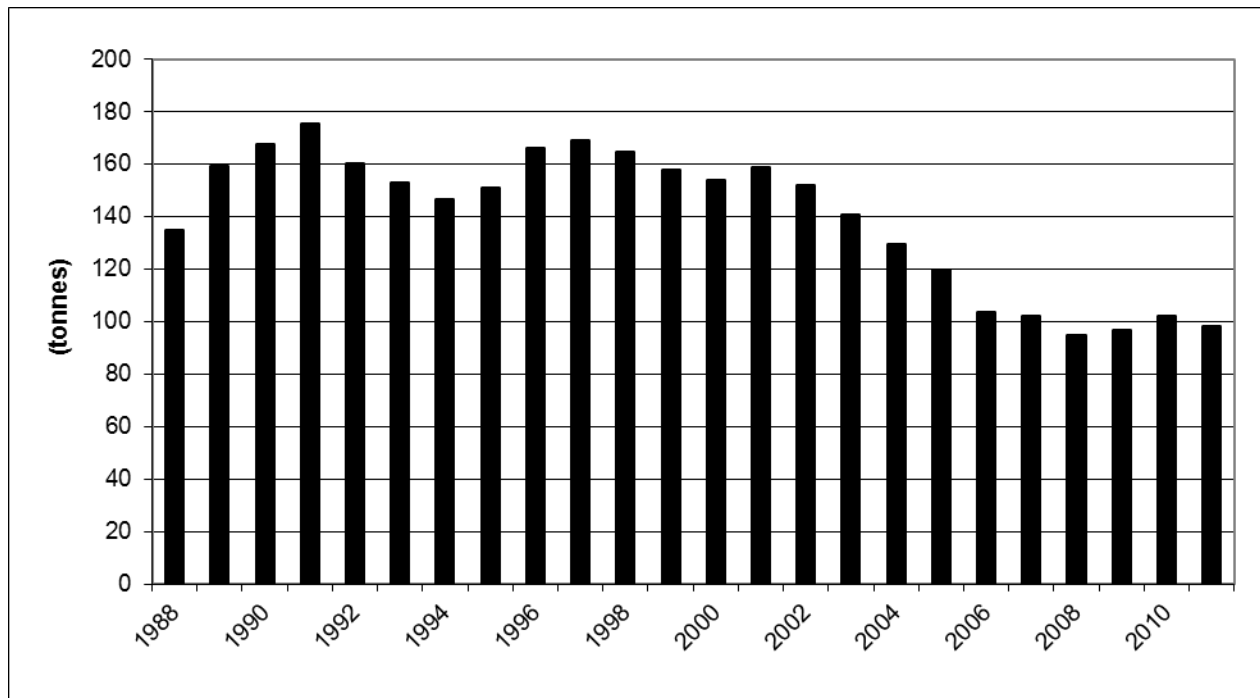
Gold is measured in troy weight; 1 troy ounce (oz) is approximately equal to 31.103 grams (g). When alloyed with other metals, the carat is used to express the concentration. For example, 24 carats is pure gold and an object that is 50% by weight other elements would be 12-carat gold.

Gold was first discovered in Canada in 1823 along the shores of the Chaudière River in the Eastern Townships of Quebec. In 1858, the Cariboo gold rush began in British Columbia, and 1897 marked the

start of the Yukon or Klondike gold rush. In the early 20th century, gold mining camps in Ontario and Quebec opened and these provinces have dominated the industry in Canada ever since.

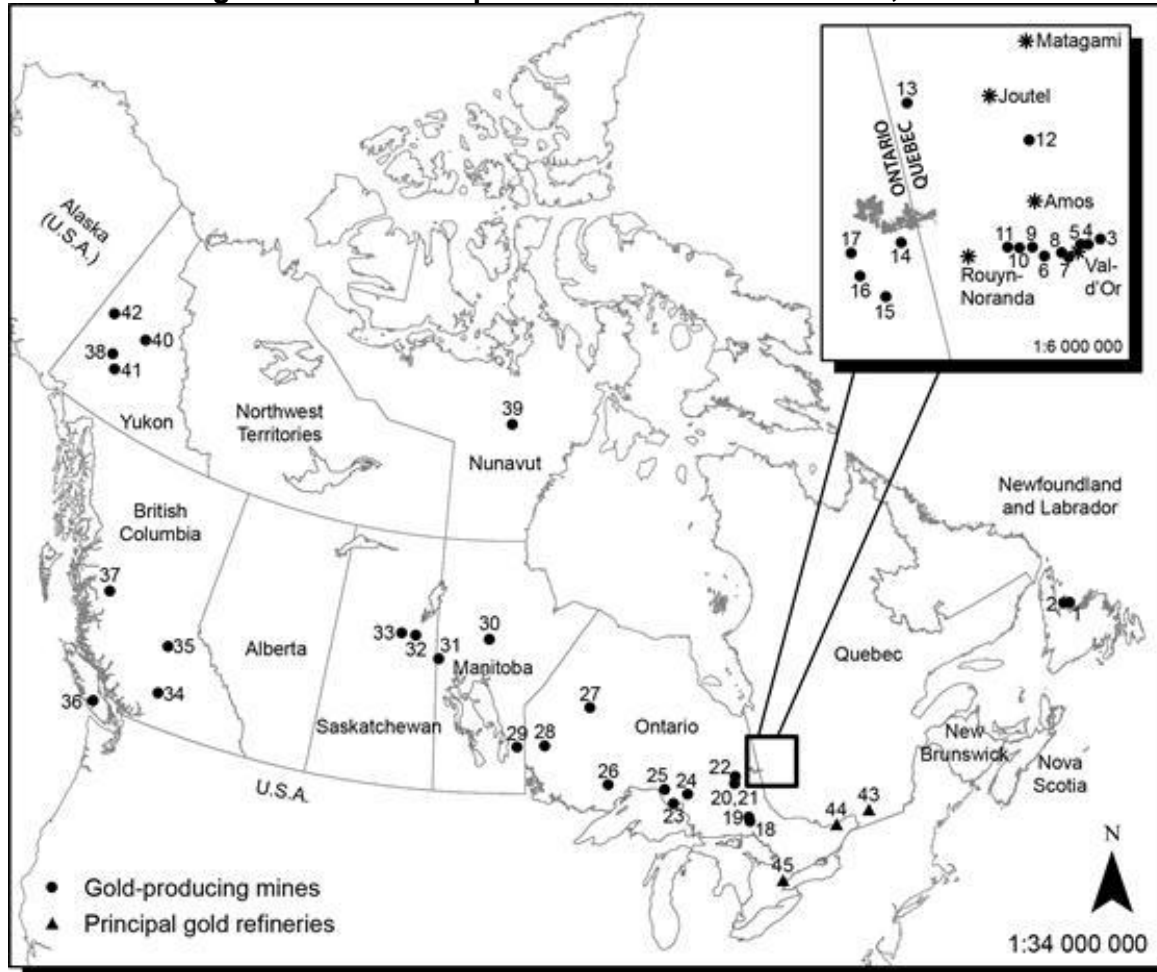
In 1971, the United States ended direct convertibility of its currency to gold (\$35 per troy oz) and, in the ensuing decade, the price of gold in dollar terms rose to be 16 times as high. Gold prices eased in the 1980s and 1990s, but rose again dramatically after 2005 to reach US\$1410 per troy oz in 2010. In 2011, the highest price reached during the year was in September at US\$1895 per troy oz; the average price for the year was US\$1571 per oz.

Figure 1
Canadian Mine Shipments of Gold, 1988-2011



Source: Natural Resources Canada.

Figure 2
Gold-Producing Mines and Principal Gold Refineries in Canada, 2011



Numbers refer to locations on map above.

GOLD-PRODUCING MINES

1. Ming	Rambler Metals and Mining PLC	www.ramblermines.com
2. Pine Cove	Anaconda Mining Inc.	www.anacondamining.com
3. Beaufor	Richmont Mines Inc.	www.richmont-mines.com
4. Lac Herbin	Alexis Minerals Corporation	www.alexisminerals.com
5. Lamaque	White Tiger Gold Ltd.	www.whitetigergold.com
6. Canadian Malartic	Osisko Mining Corporation	www.osisko.com
7. Goldex	Agnico-Eagle Mines Limited	www.agnico-eagle.com
8. Kiena	Wesdome Gold Mines Ltd.	www.wesdome.com
9. Lapa	Agnico-Eagle Mines Limited	www.agnico-eagle.com
10. LaRonde	Agnico-Eagle Mines Limited	www.agnico-eagle.com
11. Mouska	IAMGOLD Corporation	www.iamgold.com
12. Sleeping Giant	North American Palladium Ltd.	www.napalladium.com
13. Casa Berardi	Aurizon Mines Ltd.	www.aurizon.com
14. Holloway/Holt	St. Andrew Goldfields Ltd.	www.sasgoldmines.com
15. Macassa	Kirkland Lake Gold Inc.	www.klgold.com
16. Hislop	St. Andrew Goldfields Ltd.	www.sasgoldmines.com

17. Black Fox	Brigus Gold Corp.	www.brigusgold.com
18. Ontario Division	Vale Limited	www.nickel.vale.com
19. Sudbury Division	Xstrata Nickel Canada	www.xstrata.com
20. Bell Creek	Lake Shore Gold Corp.	www.lsgold.com
21. Timmins West	Lake Shore Gold Corp.	www.lsgold.com
22. Porcupine	Goldcorp Inc.	www.goldcorp.com
23. Eagle River	Wesdome Gold Mines Ltd.	www.wesdome.com
24. Island Gold	Richmont Mines Inc.	www.richmont-mines.com
25. Hemlo	Barrick Gold Corporation	www.barrick.com
26. Lac des Iles	North American Palladium Ltd.	www.napalladium.com
27. Musselwhite	Goldcorp Inc.	www.goldcorp.com
28. Red Lake	Goldcorp Inc.	www.goldcorp.com
29. Rice Lake	San Gold Corporation	www.sangoldcorp.com
30. Thompson	Vale Limited	www.nickel.vale.com
31. Flin Flon	HudBay Minerals Inc.	www.hudbayminerals.com
32. Seabee	Claude Resources Inc.	www.clauderresources.com
33. Roy Lloyd	Golden Band Resources Inc.	www.goldenbandresources.com
34. Highland Valley Copper	Teck Resources Limited	www.teck.com
35. Mount Polley	Imperial Metals Corporation	www.imperialmetals.com
36. Myra Falls	Nyrstar NV	www.nyrstar.com
37. Huckleberry	Imperial Metals Corporation	www.imperialmetals.com
38. Minto	Capstone Mining Corporation	www.capstonemining.com
39. Meadowbank	Agnico-Eagle Mines Limited	www.agnico-eagle.com

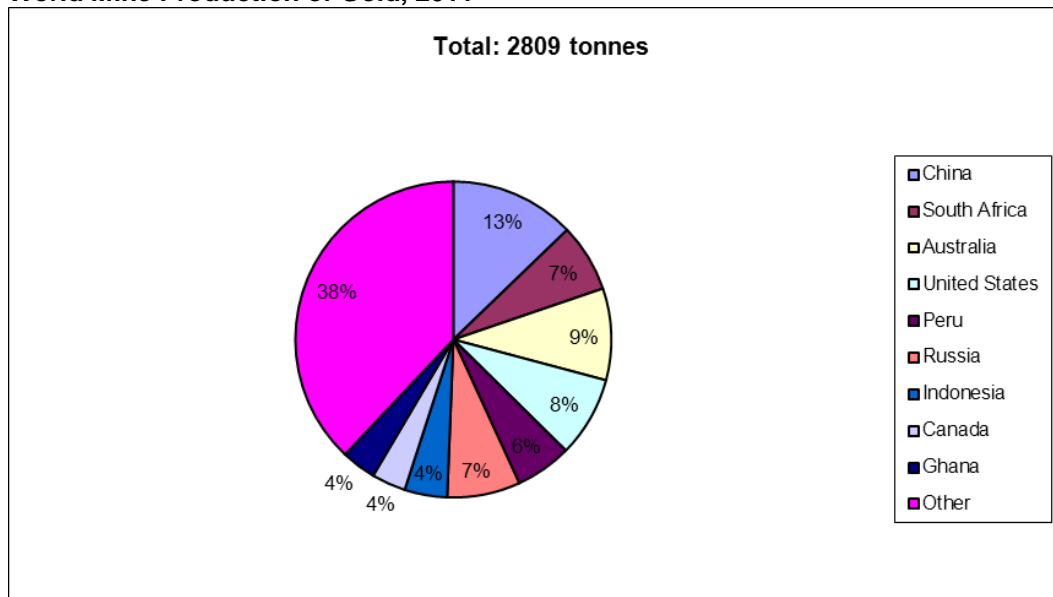
PLACER AREAS

40. Keno Hill
41. Carmacks
42. Dawson City

PRINCIPAL GOLD REFINERIES

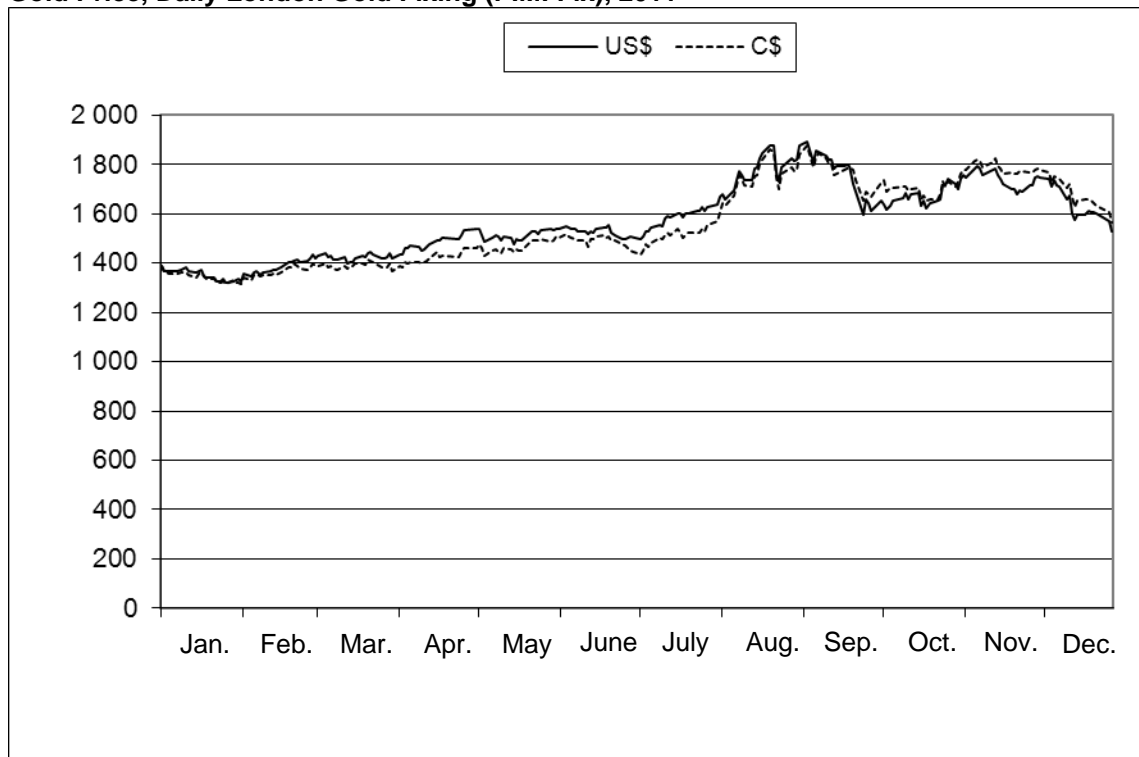
43. Canadian Copper Refinery	Xstrata Plc	www.xstrata.com
44. Royal Canadian Mint		www.mint.ca
45. Johnson Matthey Limited		www.matthey.com

Figure 3
World Mine Production of Gold, 2011



Sources: U.S. Geological Survey; published reports.

Figure 4
Gold Price, Daily London Gold Fixing (P.M. Fix), 2011



Sources: London Bullion Market Association (p.m. fix, US\$); Bank of Canada (US\$ close).

TARIFFS

Item No.	Description	Canada			United States	European Union	Japan
		MFN	GPT	USA	Canada	Conventional Rate (1)	WTO (2)
2603.00.82	Copper ores and concentrates: gold content	Free	Free	Free	Free	Free	Free
2604.00.82	Nickel ores and concentrates: gold content	Free	Free	Free	Free	Free	Free
2607.00.82	Lead ores and concentrates: gold content	Free	Free	Free	Free	Free	Free
2608.00.82	Zinc ores and concentrates: gold content	Free	Free	Free	Free	Free	Free
2616.10.82	Precious metal ores and concentrates: silver ores and concentrates: gold content	Free	Free	Free	Free	Free	Free
2616.90.20, 2616.90.82	Precious metal ores and concentrates: other: gold content	Free	Free	Free	Free	Free	Free
71.08	Gold (including gold plated with platinum), unwrought or in semi-manufactured forms, or in powder form						
7108.11	Non-monetary: powder	Free	Free	Free	Free	Free	Free
7108.12	Non-monetary: other unwrought forms	Free	Free	Free	Free	Free	Free
7108.13	Non-monetary: other semi-manufactured forms	Free	Free	Free	Free	Free	Free

Sources: Canadian *Customs Tariff*, effective January 2011, Canada Border Services Agency; *Harmonized Tariff Schedule of the United States*, 2011; *Official Journal of the European Union* (Tariff Information), October 29, 2010, edition; *Customs Tariff Schedules of Japan*, 2011.

GPT General Preferential Tariff; MFN Most Favoured Nation; WTO World Trade Organization.

(1) The customs duties applicable to imported goods originating in countries that are Contracting Parties to the General Agreement on Tariffs and Trade or with which the European Community has concluded agreements containing the most-favoured-nation tariff clause shall be the conventional duties shown in column 3 of the Schedule of Duties. (2) WTO rate is shown; lower tariff rates may apply circumstantially.

TABLE 1. CANADA, GOLD PRODUCTION BY PROVINCE AND TERRITORY, 2009-11

Province/Territory	2009		2010		2011 (p)	
	(grams)	(\$000)	(grams)	(\$000)	(grams)	(\$000)
PRODUCTION (1)						
Newfoundland and Labrador	117 384	4 192	147 899	5 999	299 853	14 483
New Brunswick	204 173	7 291	234 076	9 494	224 501	10 843
Quebec	27 950 076	998 097	25 326 520	1 027 244	26 966 047	1 302 460
Ontario	52 740 886	1 883 377	54 753 992	2 220 822	50 642 458	2 446 031
Manitoba	3 984 589	142 290	4 374 304	177 422	5 310 910	256 517
Saskatchewan	1 461 397	52 186	1 480 401	60 045	1 410 209	68 113
Alberta	28 044	1 001	27 616	1 120	27 616	1 120
British Columbia	7 535 048	269 077	5 603 875	227 293	2 650 651	128 026
Yukon	2 551 887	91 128	2 402 514	97 446	2 104 613	101 653
Nunavut	7 795 433	316 183	8 528 709	411 937
Total	96 573 484	3 448 639	102 146 630	4 143 067	98 165 567	4 741 183
Mine output (2)	97 234 663	..	102 692 996	..	99 181 784	..

Sources: Natural Resources Canada; Statistics Canada.

.. Not available; (p) Preliminary.

(1) Recoverable gold in bullion and concentrates shipped. (2) Gold content in bullion and concentrates produced.

Note: Numbers may not add to totals due to rounding.

TABLE 2. CANADA, GOLD TRADE, 2009-11

		2009		2010		2011	
		(grams)	(\$000)	(grams)	(\$000)	(grams)	(\$000)
EXPORTS							
2600.00 (1)	Gold in ores and concentrates						
	Japan	640 270	21 545	935 492	34 350	1 311 323	62 436
	China	755 179	24 924	712 297	28 014	1 047 174	49 223
	South Korea	455 903	13 266	733 116	26 497	1 014 532	47 425
	Sweden	—	—	189 281	8 322	126 915 901	29 522
	Bulgaria	—	—	—	—	316 263	14 762
	United States	89 680	1 298	82 792	1 024	418 815	12 670
	Philippines	34 073	797	981 450	41 811	295 726	12 651
	Finland	—	—	—	—	154 714	8 504
	Brazil	—	—	—	—	130 635	6 990
	India	—	—	10 915	258	138 432	6 706
	Belgium	—	—	30 946	1 164	85 083	4 120
	Germany	42 694	1 273	40 300	1 540	42 349	2 018
	Other countries	15 299	265	—	—	544	14
	Total	2 033 098	63 368	3 716 589	142 980	131 871 491	257 041
7108.11	Gold powder						
	United States	21 532	465	16 050	39	20 562	517
	Finland	837	17	—	—	—	—
	Japan	115	2	—	—	—	—
	Total	22 484	484	16 050	39	20 562	517
7108.12	Other unwrought forms						
	United Kingdom	153 643 250	5 439 788	209 665 132	8 422 754	225 179 794	11 257 931
	United States	66 784 498	2 352 130	103 868 660	4 338 430	76 299 812	3 594 090
	Hong Kong	440 463	15 629	5 016 741	196 549	21 382 305	1 047 073
	Switzerland	8 626 617	293 688	15 579 096	582 867	12 930 129	465 802
	China	—	—	—	—	2 999 744	153 030
	Thailand	26 001	910	1 040 112	37 271	1 534 644	65 993
	Australia	—	—	232	6	891 711	28 160
	Mexico	278 361	9 219	688 673	20 753	779 013	26 006
	South Korea	—	—	—	—	302 483	13 439
	India	2 172 426	72 348	1 886 594	83 329	300 564	13 049
	United Arab Emirates	3 189 795	106 376	236 937	9 042	204 451	9 686
	Germany	22 412	748	—	—	62 207	3 203
	Singapore	—	—	49 243	1 966	38 074	1 796
	Other countries	43 656	1 422	1 078 725	42 876	56 856	2 384
	Total	235 227 479	8 292 258	339 110 145	13 735 843	342 961 787	16 681 642
7108.13	Other semi-manufactured forms						
	United States	1 575 196	34 190	1 525 872	35 660	1 424 664	45 815
	Mexico	13 713	244	10 157	203	6 825	165
	Singapore	—	—	—	—	1 786	89
	Hong Kong	—	—	2 093	13	3 635	73
	United Arab Emirates	—	—	—	—	2 045	71
	France	—	—	—	—	3 483	69
	Australia	—	—	—	—	2 000	57
	Germany	360	7	2 518	56	363	7
	Trinidad and Tobago	3 101	47	1 762	35	180	4
	Turkey	—	—	—	—	28	1
	United Kingdom	—	—	—	—	69	1
	Other countries	200	3	225	6	—	—
	Total	1 592 570	34 491	1 542 627	35 973	1 445 078	46 352
Total exports		238 875 631	8 390 601	344 385 411	13 914 835	476 298 918	16 985 552

IMPORTS (2)							
2600.00 (3)	Gold in ores and concentrates						
	United States	4 622 430	146 047	4 652 165	181 276	6 285 051	288 095
	Peru	971 232	29 459	728 973	28 069	893 084	29 817
	Mexico	2 169	28	128 844	3 787	816 793	22 741
	Argentina	–	–	458	20	87 500	4 347
	Australia	104 200	2 035	761	16	207 358	4 251
	Spain	–	–	–	–	22 528	739
	Chile	–	–	23 343	842	2 688	126
	Other countries	1 484 456	41 467	81	1	668	13
	Total	7 184 487	219 036	5 534 625	214 011	8 315 670	350 129
7108.11	Gold powder						
	United States	21 790	305	77 744	1 073	49 683	676
	Ghana	1	...	–	–	19 164	266
	South Africa	–	–	–	–	343	5
	China	–	–	3 243	24	207	3
	Italy	284	4	87	1	122	2
	Germany	42	1	–	–	78	1
	Congo	–	–	–	–	85	1
	Other countries	1 718	18	2 315	34	15	...
	Total	23 835	328	83 389	1 132	69 697	954
7108.12	Other unwrought forms						
	Peru	78 567 984	2 022 274	86 104 939	2 569 475	81 075 300	3 135 795
	Argentina	6 609 526	212 864	59 679 873	1 100 550	102 674 851	1 843 966
	United Kingdom	11 139 886	170 410	26 417 665	547 067	26 365 069	700 244
	Chile	4 041 124	131 532	12 699 994	384 920	16 764 732	615 881
	Mexico	14 437 795	268 884	14 151 195	418 937	11 783 226	512 675
	Guyana	8 204 536	288 123	6 840 945	279 754	7 540 012	375 933
	Egypt	8 696	294	4 580 466	162 213	7 729 435	333 409
	Eritrea	–	–	–	–	5 934 525	318 911
	Mongolia	4 475 761	157 984	5 987 647	230 971	5 319 738	240 590
	Nicaragua	2 023 469	35 726	8 165 877	148 977	11 037 778	231 189
	Turkey	110	5	50	2	5 597 826	226 394
	United States	8 296 926	229 662	13 488 977	421 945	5 280 396	218 097
	Brazil	2 124 884	72 182	2 761 115	102 516	4 347 847	189 315
	Suriname	9 058 306	430 509	11 827 676	508 443	4 068 250	176 701
	Canada	30 648	891	3 829 054	152 165	4 222 321	151 318
	Switzerland	3 657 102	134 758	1 996 931	72 575	4 139 272	139 791
	South Africa	279 317	9 431	3 546 542	123 285	2 956 328	135 046
	Sudan	2 052 609	67 811	2 054 375	82 541	2 309 779	113 296
	Panama	1 410 639	32 849	3 511 547	70 904	5 115 861	113 166
	Georgia	6 767 253	119 702	6 735 294	114 062	6 810 709	103 950
	Armenia	1 744 226	32 342	1 558 873	28 213	2 930 115	64 192
	Other countries	2 443 055	79 261	1 075 613	39 745	3 065 829	118 495
	Total	167 373 852	4 497 494	277 014 648	7 559 260	327 069 199	10 058 354
7108.13	Other semi-manufactured forms						
	United States	519 013	14 381	1 949 313	14 023	4 206 547	27 623
	Switzerland	3 348	83	55 483	403	19 481	437
	Russia	5 085	30	16 080	198	26 990	321
	Italy	9 192	172	19 299	84	17 129	153
	Canada	390	5	33 794	343	6 255	140
	Armenia	745	67	1 785	148	1 412	136
	Germany	10 658	131	32 701	126	18 640	122
	Australia	–	–	19 273	82	4 390	119
	United Kingdom	6 854	160	6 546	75	6 755	47
	China	2 279	69	10 444	63	10 220	42
	Hong Kong	152	6	195	7	697	31
	Other countries	24 556	602	17 781	162	14 051	70

	Total	582 272	15 706	2 162 694	15 714	4 332 567	29 241
Total imports	175 164 446	4 732 564	284 795 356	7 790 117	339 787 133	10 438 678	

Sources: Natural Resources Canada; Statistics Canada.

– Nil; . . . Amount too small to be expressed.

(1) Includes Harmonized System (HS) classes 2603.00.82, 2607.00.82, 2608.00.82, 2616.10.82 and 2616.90.82. (2) Imports from "other countries" may include re-imports from Canada. (3) Includes HS classes 2603.00.00.82, 2604.00.00.82, 2607.00.00.82, 2608.00.00.82, 2616.10.00.82 and 2616.90.00.20.

Notes: Numbers may not add to totals due to rounding. HS code descriptions in this table may have been abbreviated. For detailed HS code descriptions related to this commodity, please refer to the corresponding tariffs table.

TABLE 3. CANADA, GOLD PRODUCTION BY SOURCE, HISTORICAL, 1989-2011

Year	Auriferous Quartz Mines		Placer Operations		Base-Metal Ores		Total	
	(kg)	(%)	(kg)	(%)	(kg)	(%)	(kg)	(%)
1989	138 211	86.7	5 354	3.4	15 930	10.0	159 494	100
1990	147 355	88.0	3 993	2.4	16 025	9.6	167 373	100
1991	153 859	87.8	3 834	2.2	17 589	10.0	175 282	100
1992	141 965	88.5	3 469	2.2	14 917	9.3	160 351	100
1993	137 346	89.7	3 787	2.5	11 997	7.8	153 129	100
1994	133 018	90.8	3 714	2.5	9 696	6.6	146 428	100
1995	132 834	88.0	5 303	3.5	12 730	8.4	150 867	100
1996	147 052	89.3	3 971	2.4	13 636	8.3	164 660	100
1997	155 543	90.7	3 987	2.3	11 949	7.0	171 479	100
1998	147 574	89.6	3 098	1.9	14 102	8.6	164 773	100
1999	141 467	89.8	3 081	2.0	13 068	8.3	157 617	100
2000	139 145	90.5	2 695	1.8	11 874	7.7	153 715	100
2001	144 815	91.2	2 461	1.5	11 598	7.3	158 875	100
2002	140 839	92.7	2 347	1.5	8 719	5.7	151 904	100
2003	130 549	92.7	1 841	1.3	8 471	6.0	140 861	100
2004	116 993	90.4	3 557	2.7	8 928	6.9	129 478	100
2005	107 879	90.2	2 189	1.8	9 482	7.9	119 549	100
2006	92 471	89.3	2 117	2.0	8 925	8.6	103 513	100
2007	91 131	89.2	2 240	2.2	8 840	8.6	102 211	100
2008	82 133	86.5	1 869	2.0	10 908	11.5	94 909	100
2009	87 096	90.2	1 892	2.0	7 586	7.9	96 573	100
2010	91 651	89.7	1 784	1.8	8 714	8.5	102 146	100
2011 (p)	87 856	89.5	1 628	1.7	8 681	8.8	98 165	100

Sources: Natural Resources Canada; Statistics Canada.

(p) Preliminary.

**TABLE 4. CANADA, GOLD PRODUCTION, AVERAGE VALUE
AND PERCENT OF TOTAL MINERAL PRODUCTION, HISTORICAL,
1988-2011**

Year	Total Production	Total Value	Average Value (1)	Gold as a Percent of Total Mineral Production (2)
	(kg)	(\$000)	(\$/g)	(%)
1988	134 813	2 331 989	17	6
1989	159 494	2 315 860	15	6
1990	167 373	2 407 654	14	6
1991	175 282	2 338 614	13	7
1992	160 351	2 141 161	13	6
1993	153 129	2 284 991	15	6
1994	146 428	2 468 926	17	6
1995	150 867	2 557 502	17	6
1996	164 660	2 799 547	17	6
1997	171 479	2 527 429	15	5
1998	164 773	2 312 593	14	5
1999	157 617	2 099 302	13	4
2000	153 715	2 044 869	13	2
2001	158 875	2 135 275	13	3
2002	151 904	2 377 303	16	12
2003	140 861	2 307 157	16	11
2004	129 478	2 217 050	17	9
2005	119 549	2 071 787	17	7
2006	103 513	2 280 913	22	7
2007	102 211	2 460 623	24	6
2008	94 909	2 835 318	30	6
2009	96 574	3 448 693	36	11
2010	102 147	4 143 067	41	10
2011 (p)	98 166	4 741 183	48	10

Sources: Natural Resources Canada; Statistics Canada.

(p) Preliminary.

(1) The value is based on the average London p.m. fix price for gold and the Canadian-U.S. dollars annual exchange rate from the Bank of Canada. (2) Beginning in 2002, "Total Mineral Production" excludes oil and gas.