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Canadian Minerals Yearbook (CMY) - 2009

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HIGHLIGHTS

- Canada's 2009 rough diamond production is estimated at $1.7 billion, for a production level just below 11.0 million carats (Mct). This makes Canada the world's second largest producer by value after Russia.
- On a value basis, Canada's diamond production currently accounts for approximately 17.1% of world production, which is estimated in 2009 at 124.8 Mct valued at US$8.6 billion.
- Diamond exploration expenditures across Canada plummeted to $60 million in 2009, down 72% from 2008.

INTRODUCTION

Preliminary figures indicate that Canada's 2009 rough diamond production dropped to 11.0 Mct valued at $1.7 billion. This was 26.0% lower in quantity and 28.9% lower in value (34.6% lower in U.S. dollars) than in 2008. The lower production stemmed mostly from a marketing decision made by most Canadian diamond mining companies to align their production with lower international demand for jewellery and other luxury goods on account of the economic downturn that started in 2008. The decrease in value resulted from a significant drop in overall diamond prices during the year, compounded by a 7.1% depreciation of the Canadian dollar versus the U.S. dollar (sales are made in U.S. dollars). Improved demand in the second half of 2009 is expected to continue and will allow mining companies to gradually ramp up their production to previous levels. In the longer term, increased demand from China and India is expected to result in a supply-demand imbalance that will lead to further price increases for rough diamonds.

Canada's current diamond production comes from four mines: the Ekati™, Diavik, and Snap Lake mines located about 300 km northeast of Yellowknife in the Northwest Territories (N.W.T.), and the Victor mine located in northern Ontario (Figure 1). The opening of these mines has created some 8000 direct and indirect jobs (including those of contractors working on projects under construction and jobs in ancillary industries), and in the formation of several hundred Aboriginal companies.

CANADIAN DEVELOPMENTS

Mine Developments

Ekati™ Mine

Canada's first diamond-producing mine, Ekati™, came into production in 1998. It is owned 80% by BHP Billiton Ltd. Chuck Fipke and Stuart Blusson, who discovered the first diamond deposit in 1991, each hold a 10% interest in the mine. In 2009, Ekati achieved a production level of 4.2 Mct, registering a 19% increase compared to 2008 and an average grade of 0.83 ct/t of ore processed. The production hike is reportedly due

to an increase in ore processed and the full ramp-up of the Koala underground mine, which contains a larger proportion of higher-value diamonds. Production was primarily sourced from the Panda and Koala underground mines and from the Fox and Beartooth open-pit mines.

Completed in early October 2007, ahead of schedule and under budget, the Koala underground mine is expected to supply 25% of the mine feed and 40% of the diamond output by value in the coming years. Over its 11-year production life, it is expected to deliver approximately 9.8 Mct of high-value Koala diamonds.

As of June 30, 2009, Ekati™ ore reserves were estimated at 38.5 Mt grading 0.476 ct/t, for a total of about 18.3 Mct. BHP Billiton Diamonds Inc. employs about 800 people and has, on average, an additional 700 contract workers on site providing a variety of support services.

Diavik Mine

Canada's second diamond mine, Diavik, began production in early 2003. It is an unincorporated joint venture between Diavik Diamond Mines Inc. (DDMI), which owns 60%, and Harry Winston Diamond Mines Ltd. (HWDML), which owns 40%. DDMI, the manager of the mine, is a wholly owned subsidiary of Rio Tinto plc, while HWDML is a wholly owned subsidiary of Harry Winston Diamond Corp. of Toronto, Ontario. The two joint-venture participants retain the right to market, independently, their respective share of the diamonds produced from Diavik.

Production at Diavik in 2009, occurring from the A154 South and North kimberlites, as well as from the A418 kimberlite, reached 5.6 Mct for an average grade of 4.09 ct/t, a 40% drop relative to 2008. This lower production is linked to a reduced operating level at the mine aimed at balancing production with lower market demand that began in mid-2008. DDMI reacted by temporarily ceasing diamond production at the Diavik mine between July 14 and August 24, 2009. The company was, however, able to cancel its planned winter 2009 shut-down on account of improved market conditions.

Open-pit mining of Diavik's A418 orebody commenced in the second quarter of 2008 and should continue until the first quarter of 2012, at which time all mining operations will be carried out from underground. Production from the A154 pit is scheduled to cease in early 2010. Work on the underground mine construction and related surface works was nearing completion at year-end and should allow underground production to begin in the first quarter of 2010.

During 2009, the work force at Diavik's operations averaged 810 workers, with northern and Aboriginal employment averaging 528 (65%) and 269 (33%), respectively. During the same period, Diavik and its contractors also employed an average of 201 workers for capital projects such as underground mine construction.

Jericho Project

The Jericho mine, Canada's third diamond mine and its first outside the N.W.T., is located in Nunavut about 420 km northeast of Yellowknife and 170 km north of the Diavik mine at Lac de Gras in the N.W.T. Owned by Tahera Diamond Corp., a Toronto-based firm, the deposit comprises at least six kimberlite lobes hosting about 5.5 Mt grading 0.85 ct/t.

Designed with a production capacity of around 500 000 ct/y and a nine-year life, the mine achieved commercial production on July 1, 2006. However, the company experienced start-up problems related to ore mining and processing that were compounded by higher operational costs related to an early closure of the ice road in 2006, which limited the transport of supplies to the mine site. The company was eventually able to improve its production rate. However, additional financial losses incurred by the company, linked to the appreciation of the Canadian dollar versus the U.S. dollar and higher oil prices, forced the company to enter into protection under the *Companies' Creditors Arrangement Act* on January 16, 2008. Mining operations were suspended on February 6 with production limited to only 118 000 ct in 2008. As of the end of 2009, the company was in the process of finalizing arrangements to proceed with the sale of all its Jericho mine assets.

Snap Lake Project

The Snap Lake diamond deposit, 100% owned by De Beers Canada Inc. (part of the De Beers Group), is located approximately 220 km northeast of Yellowknife in the N.W.T. The deposit is unique in that the kimberlite is in the form of a dyke, as opposed to the more common carrot-shaped pipe. The dyke is a tabular-shaped structure about 2.7 m thick that dips at a shallow angle of 15°. Because of its shape, the company is using a modified room and pillar underground mining method to mine the deposit, which is estimated at 18.3 Mt grading 1.46 ct/t.

While mining operations started in October 2007, Snap Lake achieved commercial production status in the first quarter of 2008 and was officially opened on July 25. At full production, the mine is designed to produce about 1.4 Mct/y and to have a life of just over 20 years. During the year, in order to align with market demand, De Beers proceeded with a six-week production holiday in July and August 2009, but was able to cancel another shut-down planned in December 2009. Total production for the year amounted to 440 000 ct for a recovered grade of 1.25 ct/t. The average price received for Snap Lake diamonds from the Diamond Trading Company (DTC) was US$148.07/ct. The mine had an average of 431 employees in 2009. However, current plans are for the work force to increase to a complement of 634 when full production is reached by 2012.

Victor Project

In northern Ontario, about 90 km west of the coastal community of Attawapiskat on the James Bay coast, the commissioning of the 100%-owned De Beers Victor project was initiated at the end of December 2007 and was officially opened on July 26, 2008. Developed at a cost of $991 million, the Victor kimberlite has a surface area of 15 ha and consists of two pipes that coalesce at the surface: Victor Main and Victor Southwest. It has mineable reserves estimated at 27.4 Mt averaging 0.23 ct/t. While at full capacity the mine is expected to produce an average of 600 000 ct/y over a 12-year open-pit mine life, it achieved production of 696 000 ct valued at $243.7 million in 2009 for an average price of US$350.14/ct and an average recovered grade of 0.33 ct/t. Full-time employment at the end of the year stood at 355. As with the Snap Lake

mine, the Victor mine took a production holiday for six weeks in July and August 2009. It also took a two-week production holiday over the 2008/09 Christmas period.

On December 3, De Beers Canada Inc. announced the formal signing with the Fort Albany First Nation and the Kashechewan First Nation of an Impact and Benefits Agreement for the Victor mine in the Northern Ontario James Bay Lowlands.

Exploration Developments

Exploration for diamonds, as for other commodities, fell significantly in 2009 across Canada. Following is a discussion on developments achieved on projects at an advanced stage of exploration or an early stage of mine development.

In the **Northwest Territories**, the **Gahcho Kué project**, owned by De Beers Canada Inc. (51%) and Mountain Province Diamonds Inc. (49%), is located south of Lac de Gras, 90 km southeast of the Snap Lake project and approximately 300 km northeast of Yellowknife. Of the eight diamondiferous kimberlites found to date on the Gahcho Kué property, the larger 5034, Hearne, and Tuzo kimberlite bodies are currently considered to be potentially economically viable. Technical studies completed so far have outlined in these three bodies an indicated resource of about 30.2 Mt grading 1.67 ct/t and an inferred resource of about 6 Mt grading 1.73 ct/t that could be mined out at a rate of 3.0 Mt/y over a 12-year mine life for an average annual production rate of about 4.5 Mct/y. The prices assumed for each of the main kimberlite bodies (in US$) to assess reasonable prospects for economic extraction to support the declaration of a mineral resource equate to $113/ct for 5034, $76/ct for Hearne, and $70/ct for Tuzo.

A feasibility study was initiated in August 2009 and should be completed by mid-2010. Key elements of the study include the mine schedule, pit design, waste dump design, process plant design, and waste and water management.

A final draft of the Gahcho Kué project description has been presented to the joint-venture partners. Once completed, the project description will be incorporated into the Environmental Impact Statement, which will be submitted to the Mackenzie Valley Environmental Impact Review Board. Given that the review process is expected to take 18-24 months, permitting is expected to take 6 months, and construction is expected to take about 2 years, the mine could be in production in mid-2014.

In **Nunavut**, joint-venture partners Stornoway Diamond Corporation (90%) and Hunter Exploration Group (10%) pursued exploration of the **Aviat project** located on the Melville Peninsula north of Hudson Bay where 12 kimberlite bodies have been discovered to date. These range from small pipe-like intrusions to shallowly dipping (8-20°) stacked sheets or dyke-like intrusions. An independent conceptual study of four dykes of Aviat's Eastern Sheet Complex carried out in 2008 estimated their content at 12.4-16.0 Mt of kimberlite material grading 2.35 ct/t. Representing about 78% of the estimated total kimberlite volume, Dyke ES 1 was the focus of a more extensive sampling program. A 202-t sample collected to better estimate its grade and size distribution enabled the recovery of 89.55 ct from a 42.67-t sample for an overall diamond recovery of 2.1 ct/t and 213.2 ct from the remaining 148.3 t of material for a diamond content of 1.44 ct/t; the largest diamond recovered weighed 3.99 ct. Desktop studies have been initiated to review potential mining methods and the optimum sampling strategy for achieving an NI 43-101-compliant mineral resource estimate.

Also in Nunavut, **Peregrine Diamonds Ltd.** pursued work on its Chidliak property located 150 km northeast of Iqaluit where an additional 13 kimberlites were discovered during the year, either by drilling or by prospecting and mapping, for a total of 16 kimberlites. Under an exploration agreement, BHP Billiton is earning a 51% interest in the property by funding a total of $22.3 million in future exploration expenditures. The $9.2 million 2009 exploration program, fully funded by BHP Billiton, included close to 4000 m of core drilling of selected targets, a 50-t mini-bulk sample from the CH-1 kimberlite, the collection of over 1200 heavy mineral samples, ground magnetic and electromagnetic geophysical surveys, and initiation of an environmental baseline study. One of the most promising kimberlites for now, CH-1, is estimated at 6 ha in size. A 2.28-t sample collected in 2008 on surface returned a diamond content of 1.56 ct/t and included a 2.01-ct gem-quality octahedron diamond. The $13.5 million exploration program approved for 2010 will include about 11 000 m of core drilling to test geophysical targets, further sampling of known kimberlites, and airborne and ground geophysical surveys.

In the Fort-à-la-Corne region of northern **Saskatchewan**, Shore Gold Inc. was active on the **Star** and **Fort-à-la-Corne** diamond projects where a $17.9 million exploration budget was earmarked for 2009, including $2.5 million for Star, $1.0 million for Star West, and $9.5 million for the Fort-à-la-Corne joint venture (FALC-JV). On August 27, the company released positive results from its prefeasibility study on the Star kimberlite, which outlined probable mineral reserves of 170.8 Mt at a grade of 0.12 ct/t for a total of 20.5 Mct at a weighted average price of US$225/ct. About 60% of this resource is part of Shore Gold's Star property while the rest, named Star West, is part of the FALC-JV owned by Shore Gold's wholly owned subsidiary, Kensington Resources Ltd. (60%), and Newmont Mining Corp. of Canada Ltd. (40%). Based on this prefeasibility study, the Star kimberlite could be developed as a stand-alone open-pit project. However, the partners are assessing the possibility of combining the development of both the Star and Orion South kimberlites to improve the economics of the project. Assuming the start of construction of a processing plant and other mine infrastructure in late 2010, the Star deposit could be brought into production in mid-2014 at a pre-production capital cost of $1487 million. The project would have a 12-year mine life and an initial capital payback period of 5.2 years. In response to Shore Gold's November 2008 project proposal, the Environmental Assessment Branch of the Saskatchewan Ministry of Environment published, on November 20, final Project-Specific Guidelines for the preparation of an Environmental Impact Statement for the conduct of an Environmental Impact Assessment of the project. Concurrently, Shore Gold is proceeding with the preparation of a feasibility study for the Star diamond project on which to base a production decision.

The nearby **Fort-à-la-Corne diamond project** owned by the FALC-JV is one of the largest diamondiferous clusters in the world with over 60 kimberlite bodies identified on the property. During 2009, the partners agreed to pursue large-diameter drilling and underground bulk sampling programs initiated in 2008 to enable an NI 43-101 resource estimate of the Orion South kimberlite. However, Newmont elected not to participate in the 2009 FALC-JV budget beyond the completion of the large-diameter drilling and bulk sampling programs, which were completed by late January. The mineral resource estimate released on September 10 identified indicated resources of 84 Mt at a grade of 0.138 ct/t and inferred resources of 98 Mt at a grade of 0.128 ct/t.

In north-central **Quebec**, Stornoway Diamond Corp., in a 50:50 joint venture with Soquem Inc., pursued exploration and development of the **Foxtrot property** where 14 kimberlite bodies have been identified so far. This number includes an extensive dyke system located west of the Renard Cluster. Drill programs conducted in the winter and summer enabled the recovery of 16 506 m of drill core to better delineate the geology of Renard 2 and 3 between the 400-m and 570-m levels, and to increase the confidence of some of the resource to the indicated category. A total of 6.2 t of microdiamond sampling and 543.9 t of macrodiamond sampling were also undertaken at Renard 2. Based on this work, the joint-venture partners filed an NI 43-101 technical report on January 22, 2010, comprising 26.5 Mt of indicated resources averaging 0.87 ct/t located in Renard 2, 3, and 4, and 17.8 Mt of inferred resources averaging 0.75 ct/t located in Renard 2, 3, 4, and 9 and in the Lynx and Hibou dykes. This corresponds to an indicated mineral resource of 23 Mct and an inferred resource of 13.3 Mct. A revision done in mid-2009 of the 2007 WWW valuation recommended that a modeled "base case" of US$117/ct be adopted for Renard 2, 3, 4 and 9, while a US$57/ct diamond price estimate was adopted for the Lynx and Hibou dykes. This new mineral estimate will now serve to update the economic assessment of the Renard project. If positive, the joint-venture partners' next step will be to proceed to a full feasibility study and a social and environmental impact assessment to be able to make a production decision.

USES[1]

Diamond is best known as a gemstone, but only 20% of the world's production by weight is used in jewellery. The other 80%, known as bort, is destined for industrial uses and research applications where diamond's unique properties are put to great use. About 170 Mct, or 36 000 kg, of diamonds are mined annually worldwide. In addition to mined diamonds, there are close to 600 Mct (120 000 kg) of synthetic diamonds produced annually for industrial use.

Diamond is the hardest known material and has the highest thermal conductivity of any material at room temperature. It is more than twice as hard as its nearest competitors: cubic boron nitride and silicon nitride. Because it is the hardest substance known, diamond has been used for centuries as an abrasive in cutting, drilling, grinding, and polishing. This currently represents the dominant industrial use of diamond. Even though it has a higher unit cost, diamond has proven to be more cost-effective in many industrial processes because it cuts faster and lasts longer than alternative abrasive materials. Diamond also has chemical, electrical, optical, and thermal characteristics that make it the best material available to industry for wear- and corrosion-resistant coatings, special lenses for laser radiation equipment, heat sinks in electrical circuits, wire drawing, polishing silicon wafers and disk drives in the computer industry, and other advanced technologies.

Most diamond uses in these technologies do not require large diamonds; in fact, most diamonds that are gem-quality except for their small size can find an industrial use. Diamonds are embedded in drill tips or saw blades, or are ground into a powder for use in grinding and polishing applications. Synthetic industrial diamonds are superior to their natural diamonds counterpart because their properties can be tailored to specific applications and they can be produced in large quantities. It is for these reasons that synthetic diamonds account for about 82% of the industrial diamonds used in the world.

Diamond tools have numerous industrial functions. Diamond drilling bits and reaming shells are used principally for gas, mineral, and oil exploration. Other applications of diamond bits and reaming shells include foundation testing, masonry drilling, and inspecting concrete. The primary uses of point diamond tools are for dressing and truing grinding wheels, and for boring, cutting, finishing, and machining applications. Bevelling glass for automobile windows is another application. Cutting dimension stone and cutting/grooving concrete in highway reconditioning are the main uses of diamond saws; other applications include cutting composites and forming refractory shapes for furnace linings. Very fine diamond saws are used to slice brittle metals and crystals into thin wafers for electronic and electrical devices. Diamond wire dies are essential for the high-speed drawing of fine wire, especially from hard, high-strength metals and alloys. The primary uses of diamond grinding wheels include edging plate glass, grinding dies, grinding parts for optical instruments, and sharpening and shaping carbide machine tool tips.

Synthetic diamond grit and powder are used in diamond grinding wheels, saws, impregnated bits and tools, and as a loose abrasive for polishing. Loose powders made with synthetic diamonds for polishing are used primarily to finish cutting tools, gemstones, jewel bearings, optical surfaces, silicon wafers, and wire-drawing dies for computer chips.

The use of polycrystalline diamond shapes (PDSs) and polycrystalline diamond compacts (PDCs) continues to increase for many of the applications cited above, including some of those that use natural diamonds. The use of PDSs, PDCs, and matrix-set synthetic diamond grit for drilling bits and reaming shells has increased in recent years. PDSs and PDCs are used in the manufacture of single- and multiple-point tools, and PDCs are also used in a majority of the diamond wire-drawing dies.

CANADIAN DIAMOND MANUFACTURING

Diamond Cutting and Polishing

Canada has a small diamond-manufacturing industry. However, due to the impact of the global economic downturn, which forced the closure of a number of cutting and polishing facilities including that of Diarough Canada in Matane, Quebec, on February 26, there were only three diamond manufacturers remaining in operation across Canada at the end of 2009. Located in Yellowknife (N.W.T.), Vancouver (British Columbia), and Sudbury (Ontario), these cutting and polishing factories provide work for about 50 workers. Limited cutting and polishing work is also performed in Winnipeg (Manitoba), Toronto (Ontario), and Montréal (Quebec).

Yellowknife, N.W.T.

Following the closure on February 19 of the Laurelton Diamonds cutting factory and in mid-December of Arslanian Cutting Works (NWT) Ltd. and the Polar Diamonds factory, there is only one factory remaining in operation in Yellowknife where, under territorial government policy, all diamond mining companies have made a commitment to provide up to 10% by value of their production to the northern factories at market price.

Operated by Crossworks Manufacturing Ltd. (a subsidiary of HRA-SunDiamond Group of Companies), the factory started its operation in the first half of 2008 and employs about 11 workers.

Vancouver, British Columbia

In operation since 2001, the Vancouver diamond cutting and polishing factory is owned by Hyperion Industries, a private company partly owned by HRA-SunDiamond Group of Companies. The factory is fully automated and currently employs about 12 workers. Hyperion Industries concentrates on cutting and polishing Canadian diamonds in order to add value to its product through the various branding programs it designs for its clients, such as the Ikuma brand designed for the Ben Bridge Jewellery chain. The size of rough diamonds favoured at the factory is around 1 ct. The plant is said to be producing at an average of 1500-1700 ct per month.

Sudbury, Ontario

Opened in September 2009 by the HRA-SunDiamond Group of Companies to take advantage of the agreement between the Ontario government and DeBeers Canada for the latter to provide 10% by value of its production to the northern factory at market price, the Crossworks Manufacturing Ltd. factory currently employs about 30 workers.

Diamond Jewellery Manufacturing

The largest mark-up in the pipeline for diamonds is at the jewellery stage. There are approximately 20 major plants located mainly in the Toronto region with a few in Montréal. There are also several smaller plants in Montréal. The elimination on May 2, 2006, of the 10% excise tax on diamonds and jewellery is a recent development that will lower the cost of jewellery in Canada and foster increased activity. A recent Diamond Trading Company study identified Canada as the world's sixth leading diamond-buying culture on account of its diamond value market share (1.8%) despite its relatively small population.

Diamond Tools and Equipment Manufacturing

Diamond products manufactured in Canada include drill bits, segments for circular blades, grinding wheels, and specialty tools. The major manufacturing plants are Fordia and K&Y Diamond Limited at Ville St-Laurent, Diamond Production and North Star Abrasives at Montréal, Diacan at Québec City, and Diamond Systems at Dorval, all in Quebec; Tru-Form Diamond Tool Company at Georgetown, JKS Boyle, Longyear, JKS Lamage, and Pilot Diamond Tools, all in North Bay, Diatech Diamond Tools in Toronto, Hammond Diamond Tooling Ltd. in Collingwood, and Northern Super Abrasives at Oakville, all in Ontario; Dimatec at Winnipeg, Manitoba; Diaset Products Ltd. at Delta, British Columbia; and Hobic Bit Industry at Richmond, British Columbia.

Synthetic Diamond Production

Crystalline Manufacturing Ltd. of Calgary, Alberta, produces synthetic diamond films using the Carbon Vapour Deposition (CVD) method. These are used in the manufacturing of tool inserts for the automotive industry and as semiconductors in electronic devices.

KIMBERLEY PROCESS CERTIFICATION SCHEME

Background

The Kimberley Process (KP) is an international agreement between diamond-producing and trading countries, representatives of civil society, and industry that was negotiated to prevent conflict diamonds from entering into legitimate diamond trade. Conflict diamonds are those diamonds sold by rebel forces to purchase arms for use in conflict against legitimate governments. The KP derives its name from the city in South Africa that is synonymous with diamonds. It came into force on January 1, 2003.

Under the Kimberley Process Certification Scheme (KPCS), all exports of rough diamonds must be accompanied by a certificate (issued by the government or an agency authorized by the government of the exporting country) confirming that shipments of rough diamonds are free from conflict diamonds. Trade in rough diamonds can only occur between participants. In order to be a participant, governments are required to have appropriate legislation in place that allows for adequate enforcement of the terms and conditions of the Scheme.

The Kimberley Process met November 2-5, 2009, in Swakopmund, Namibia, for its seventh annual plenary. Discussions at the plenary were dominated by the situation in Zimbabwe. They led to the adoption of a Joint Work Plan for implementing the recommendations of the Review Visit conducted in Zimbabwe from June 30 to July 4, which found credible indications of significant non-compliance with the minimum requirements of the KPCS. The plenary also adopted an Administrative Decision on cooperation pertaining to KP implementation and enforcement in order to enhance the KP's capacity and provide guidance to national authorities to address specific enforcement issues such as fraudulent certificates, shipments of suspicious origin, and exchange of information in cases of infringement.

On December 31, there were 49 Participants in the Kimberley Process, including the European Community with 27 member countries. However, two of these Participants, namely Venezuela and Ivory Coast, are listed as having a special status as they have temporarily suspended their rough diamond imports and exports. These 49 Participants are believed to represent 99% of the world trade in diamonds. Namibia chaired the KP in 2009 and was replaced by Israel for 2010. More information is available on the Internet at www.kimberleyprocess.com/home/index_en.html or at the following web sites: Partnership Africa Canada (www.pacweb.org), The World Diamond Council (www.worlddiamondcouncil.org), and Global Witness (www.globalwitness.org).

Implementation of the Kimberley Process Certification Scheme in Canada

In order for Canada to meet its obligations as a Participant in the Kimberley Process Certification Scheme, new legislation and regulations needed to be created. On October 12, 2002, Bill C-14, *The Export and Import of Rough Diamonds Act*, was passed into law and permitted Canada to begin implementation of the certification scheme on January 1, 2003.

In 2009, 187 Kimberley Process certificates were issued by Canada. These were primarily for exports to the European Community, the United States, and India. In addition, 205 shipments imported under subheadings 7102.10, 7102.21 or 7102.31 in the schedule to the *Customs Tariff*, thus requiring a Kimberley Process certificate issued by the exporting country, were received in Canada. These shipments came mostly from the United States and the European Community. More information on the implementation of the Kimberley Process in Canada is available on the Internet at www.nrcan-rncan.gc.ca/mms-smm/busi-indu/kpd-pkd-eng.htm.

TRADE

Canada's total primary exports of diamonds in 2009 are estimated to be valued at $1.79 billion, a 33% decrease compared to 2008. The lower exports are directly related to the lower value of Canada's rough diamond production during the year as its most important diamond export item is classified under Harmonized System (HS) code 7102.10, representing unsorted diamonds (Figure 2). Exports under this code, on a value basis ($1219 million), were mostly directed towards the United Kingdom (82%) and Belgium (18%). The second most important trade item, on a value basis ($475 million), is classified under HS code 7102.31, diamonds, non-industrial, unworked or simply sawn, cleaved or bruted, and largely represents Canadian mined diamonds that were sorted before export and are specifically destined for cutting and polishing. Diamonds in this category were destined for Antwerp, Belgium (60%), the United Kingdom (35%), and India (4%). The third most important export, on a value basis ($95 million, 23% less than in 2008), falls under HS code 7102.39, which represents cut gem-quality diamonds. These exports (Figure 3), sent mostly to the United States (70%), Mexico (19%), and Belgium (5%) in 2008, have significantly increased over the past decade (Figure 4) and reflect the increase in cutting and polishing capacity and branding efforts in Canada. (Note that in the case of exports to Mexico, the data are being investigated for inaccuracy.) The rest of Canada's exports, industrial and synthetic diamonds mostly exported to the United States, were also affected by the drop in industrial activity as a result of the recession and amounted to a meager 4541 ct valued at $28 000.

On the import side, Canada's total primary imports of diamonds in 2009 (Figure 5), estimated to be valued at $480 million, suffered a 45% drop relative to 2008. Canada's top import item (Figure 6) is cut diamonds exceeding 0.5 ct in weight destined for jewellery manufacturing. Imports in 2009 reached $338 million, a 30% decrease from 2008. Shipments (Figure 7) were from Israel (26%), the United States (22%), India (20%), and Belgium (14%). The second highest import item, again on a value basis ($44 million, a drop of 44% over 2008), was cut diamonds not exceeding 0.5 ct in weight that are also intended for jewellery manufacturing. Shipments in this case (Figure 8) came from India (29%), Belgium (25%), Israel (19%), and the United States (14%). It is interesting to note, as shown in Figure 9, that imports of cut diamonds greater than 0.5 ct have generally increased over the past decade, indicating either an increase in jewellery manufacturing in Canada and/or branding/marketing activities. However, imports of smaller cut diamonds have faltered in the past three years, as shown in Figure 10. The third item of importance, uncut gem diamonds (mostly Canadian goods returned for the Canadian cutting industry's branding programs), amounted to only $27 million in 2009, a 64% drop in value compared to 2008, resulting from the closure of a significant portion of the cutting capacity in Canada (Figure 11). The rest of Canada's diamond imports (various industrial grades, natural dust, and synthetic diamonds (Figure 12) were valued at $8 million. These were mostly imported from the United States, Ireland, South Africa, Belgium, and South Korea.

WORLD NATURAL ROUGH DIAMOND PRODUCTION AND DEMAND

Production

World production of natural rough diamonds in 2009, as publicly reported by the Kimberley Process Certification Scheme (see the world map in Figure 13 and Table 2), is estimated at 124.8 Mct valued at US$8.6 billion, for an average price of US$69.10/ct. This represents a 23.4% drop in production on a carat basis and a decrease of 32.3% on a value basis over that of 2008. The lower carat production is due to a significant drop in the production level observed in most countries, but especially in Botswana, Namibia, Canada, South Africa, and the Democratic Republic of Congo. This drop was partly offset by Angola and Zimbabwe where an increase in production was observed, and by Russia where the rate of production remained relatively unchanged. The more significant decrease in value stems from the lower production levels mentioned above, and also from a significant drop in market prices as a result of lower consumer demand. Refer to Figures 14 and 15 for the relative share of the world's rough diamond production of each of the main producers.

Demand

Because of the impact of the economic recession on the manufacturing industry and the resultant tightening of credit by banks, demand for rough diamonds dropped in the first half of the year, forcing most rough diamond producers to slash their production level in order to avoid a stockpile buildup and an eventual rough diamond price crash. Demand gradually improved as the year progressed, eventually leading a segment of the industry to speculate on prices and accelerating the price recovery. According to the *Diamond Intelligence Briefs*, worldwide retail sales of diamond jewellery in 2009 dropped by 9.4% to an estimated US$58.7 billion compared to 2008, following an 11.4% drop the year before. The value of the diamond jewellery content is estimated at US$15.9 billion, or 27% of retail sales. Retail markets are reported to have been dominated by the Americas (42%) but in a lesser fashion, while Asia-Arabia accounted for 21%, Europe and South Africa for 12%, Asia-Pacific for 8%, Japan for 5%, and others for 12%. Note that in emerging markets such as China and India, demand is expected to grow at an annual rate of 10-15%, compared to a rate of about 3% in North America, over the coming decade.

PRICES

There are no internationally set prices for rough diamonds such as there are for precious metals like gold, silver, and platinum, and for base metals such as copper, lead, and zinc. The market prices for rough natural diamonds are almost constantly in a state of flux.

Natural Diamonds

Gem-quality rough diamonds: While there are no internationally set prices for rough gem-quality diamonds, De Beers SA's marketing agency, the Diamond Trading Company (DTC), which controls nearly half of the world's rough diamond supply, holds 10 sales a year, at regular intervals, to market its production. These are called sights. Other major rough diamond producers also hold similar sights. In 2009, as the result of a severe global economic recession that settled in around September 2008, rough diamond prices experienced an average drop of 50% in the first half of the year, relative to the price peak reached in August 2008, before recovering most of the lost ground by year-end. However, as seen in 2008, the continuing imbalance between supply and demand for diamonds greater than 1 ct in size caused prices for the latter to increase more rapidly than for smaller goods. As an indication (all categories aggregated), the average per-carat value indicated by Kimberley Process production statistics for 2009 was 11.6% lower than in 2008. The price of a rough stone depends on its carat weight, shape, clarity, and colour. Prices vary widely, but the following is an indication of the prices paid at cutting and polishing factories for gem-quality rough stones: a 1-ct stone that sells for around US$20 is very low quality, US$200 is medium quality, US$400 is good quality, and US$1000+ is top quality. Figure 16 provides a historical perspective of rough diamond prices during the period 1960-2004 (the last year for which updates were done).

Natural industrial diamonds: Crushing bort sells for about US30¢/ct, casting sells for US$1-$2/ct, industrial stones sell for US$7-$10/ct, flets (e.g., a high-quality thin macle) sell for US$50/ct, and dies (larger diamonds of high quality but with poor [often yellow] colour that makes them unsuitable as gems) sell for up to US$200/ct.

Synthetic Diamonds

Synthetic diamond prices depend on their particle strength, size, and shape, and on whether or not the diamonds are coated with a metal, etc. For this reason, there are several hundred prices for synthetic industrial diamonds. Generally speaking, synthetic diamonds used in grinding and polishing vary in price from US30¢/ct to US$1/ct. Strong and blocky material for use in sawing and drilling, and known in the trade as SDA and MBS (Saw Diamond Abrasive and Metal Bond Sawing), produced respectively by De Beers and General Electric, sells for up to US$3/ct. Large single crystals with excellent structure for use in specific applications sell for several hundred dollars per carat.

OUTLOOK

Although Canada's status as an important diamond-producing country is recent, this industry already generates mining revenues estimated in 2009 at $1.7 billion and provides an estimated 4000 direct Canadian jobs and an equivalent number of indirect jobs in the service industries. The opening of the Gahcho Kué mine, tentatively set for mid-2014, and potential new production capacity from a number of projects currently at an advanced stage of development are expected to compensate for lower production from Diavik and Ekati in the years to come as they gradually rely more on underground operations. This will enable Canada's share of the world's diamond production to hover at between 12% and 17% for the foreseeable future (Figure 17). This ensures prosperous times to come for the economy of many Canadian regions, including Aboriginal communities, as well as major Canadian cities as hubs for the financial markets, equipment manufacturing companies, and allied industries.

In the short term, on account of improved demand for rough diamonds as economies recover from the financial crisis, Canadian diamond mining operators will pursue reactivating capacity that was suspended in 2008. Canada's 2010 diamond production is forecast to be approximately 12.5 Mct, an increase of 14% over 2009. Likewise, Canadian exploration expenditures for diamonds are forecast to stand at about $114 million in 2010, a significant improvement over 2009, but still a fraction of previous years' expenditures.

In response to the reduction of inventories by companies in the diamond pipeline to alleviate their financial burden, the gradual increase in consumer demand for diamond jewellery as disposable income increases, and the decrease in supply for rough diamonds as mining reserves are not replenished by significant discoveries, prices in the mid-to-long term are expected to increase substantially.

The arrival of Canada on the diamond industry scene has helped change the way business is done, the effects of which will continue for the short to medium term. For example, De Beers' control on supplies of rough diamonds has declined from about 95% in the mid-1900s to about 40% by value currently. As a result, a number of industry players are positioning themselves to be present at various levels of the diamond pipeline from "mines to market" either to ensure their supply of rough diamonds or to maximize their profits. At the same time, mining-based countries, such as South Africa, Botswana, Angola, and Namibia, are encouraging the development of a domestic downstream industry to maximize the benefits accruing from the mining of their resources. In the polished diamond industry, there has been a movement towards branding and associating the product with purity or high quality of colour, clarity, and cut, or with other known brand names, as seen with the Canadian Arctic Diamond certificate of the Government of the Northwest Territories; the Aurias and Canada Mark diamonds from BHP Billiton, which guarantee the source as Canada and the quality of cut to be up to triple excellent; and the joint marketing agreement between De Beers and LVMH, the European marketer associated with luxury goods. However, the success these brands gain with customers will require significant long-term marketing efforts.

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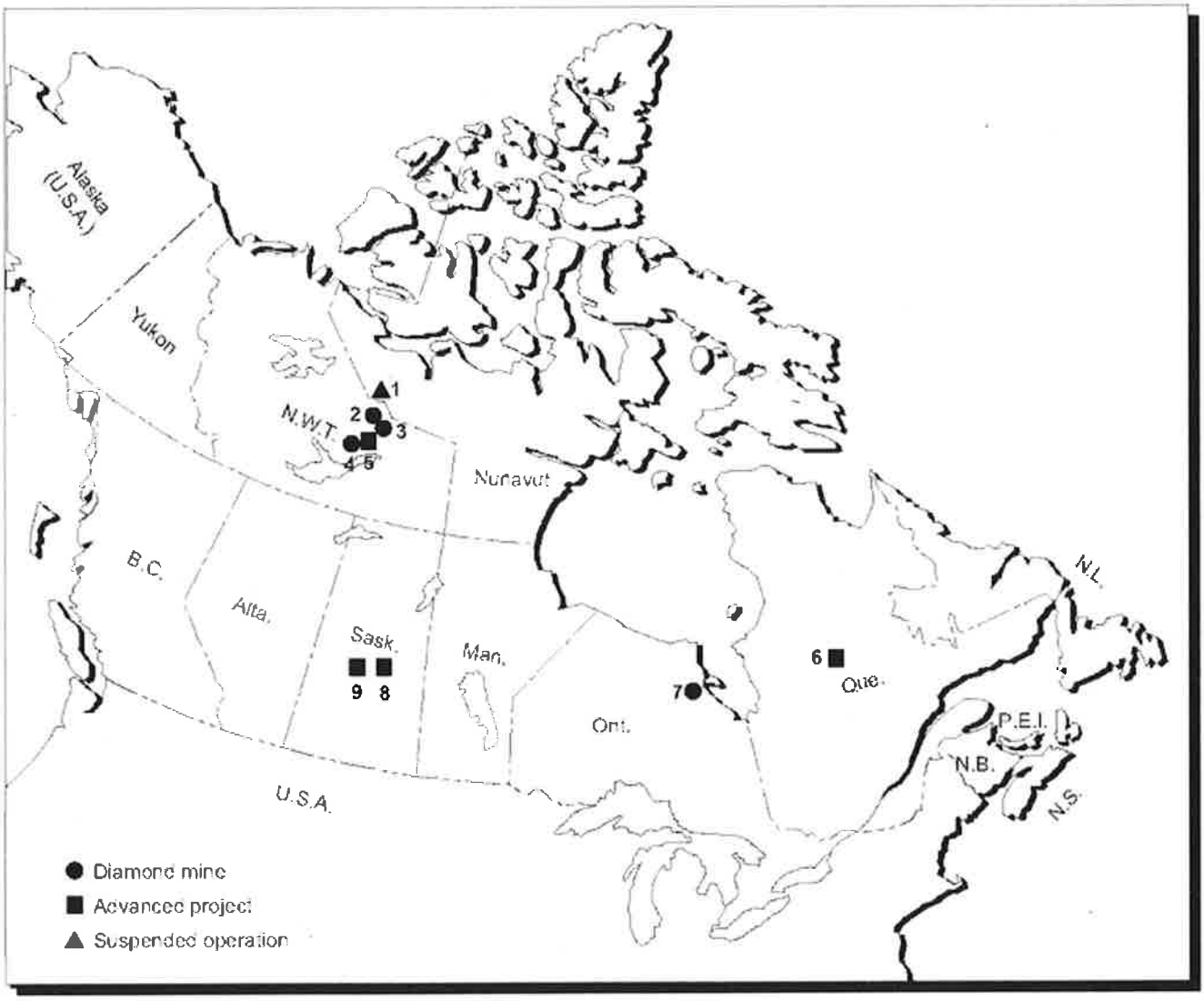
[1] The sources for some information in this section were the U.S. Geological Survey's *2005 Minerals Yearbook* article on Industrial Diamonds (http://minerals.usgs.gov/minerals/pubs/commodity/diamond/diamomyb05.pdf) and Wikipedia (http://en.wikipedia.org/wiki/Diamond).

Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to the chapter entitled "Definitions and Valuation: Mineral Production, Shipments, and Trade." (2) Information in this review was current as of January 22, 2010. (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.

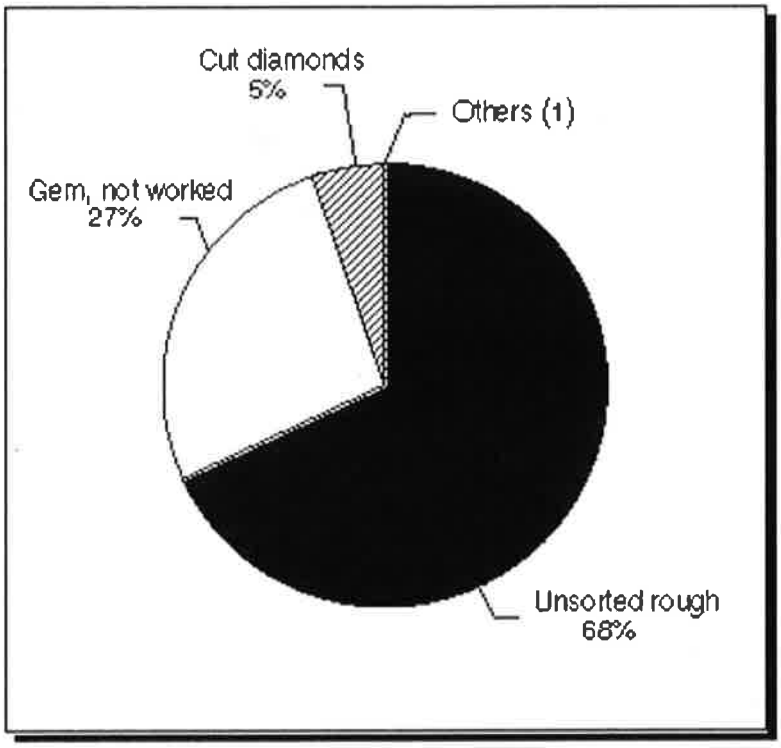
Note to Readers

Figure 1
Diamond Mines and Advanced Projects in Canada, 2009



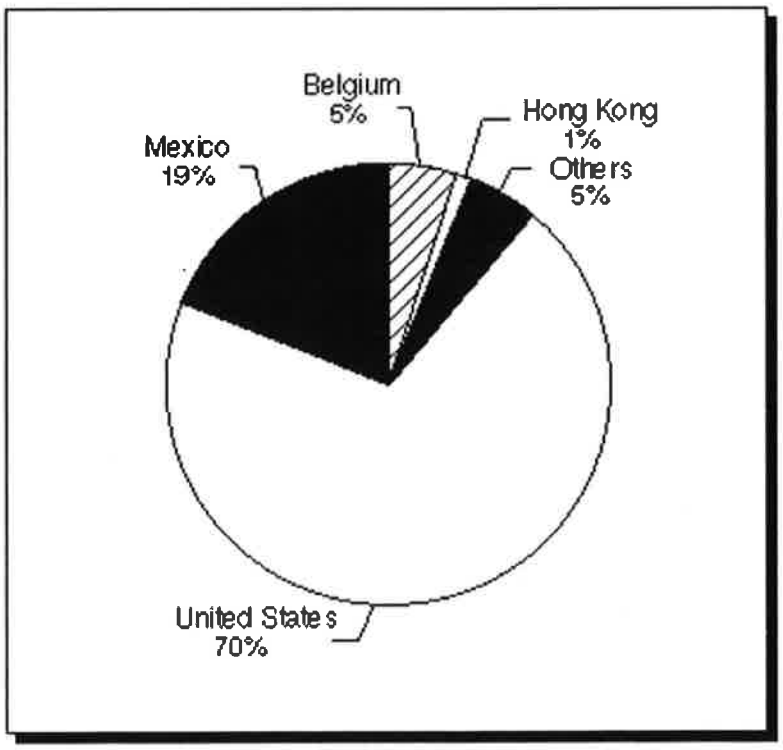
1. Jericho
2. Ekati
3. Diavik
4. Snap Lake
5. Gahcho Kué
6. Foxtrot
7. Victor
8. Star
9. Fort-à-la-Corne

Figure 2
Canadian Diamond Exports, By Product Type, By Value, 2009



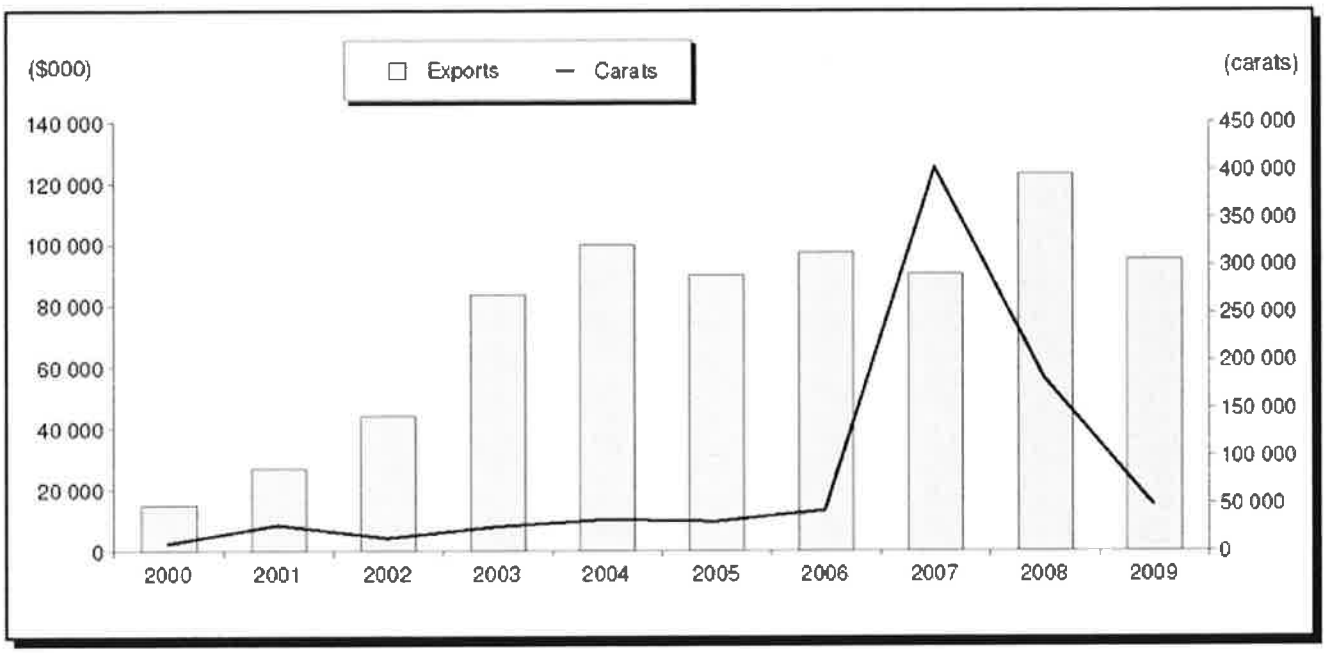
Source: Statistics Canada.
(1) Amount too small to be expressed.

Figure 3
Canadian Cut Diamond Exports, By Country, By Value, 2009



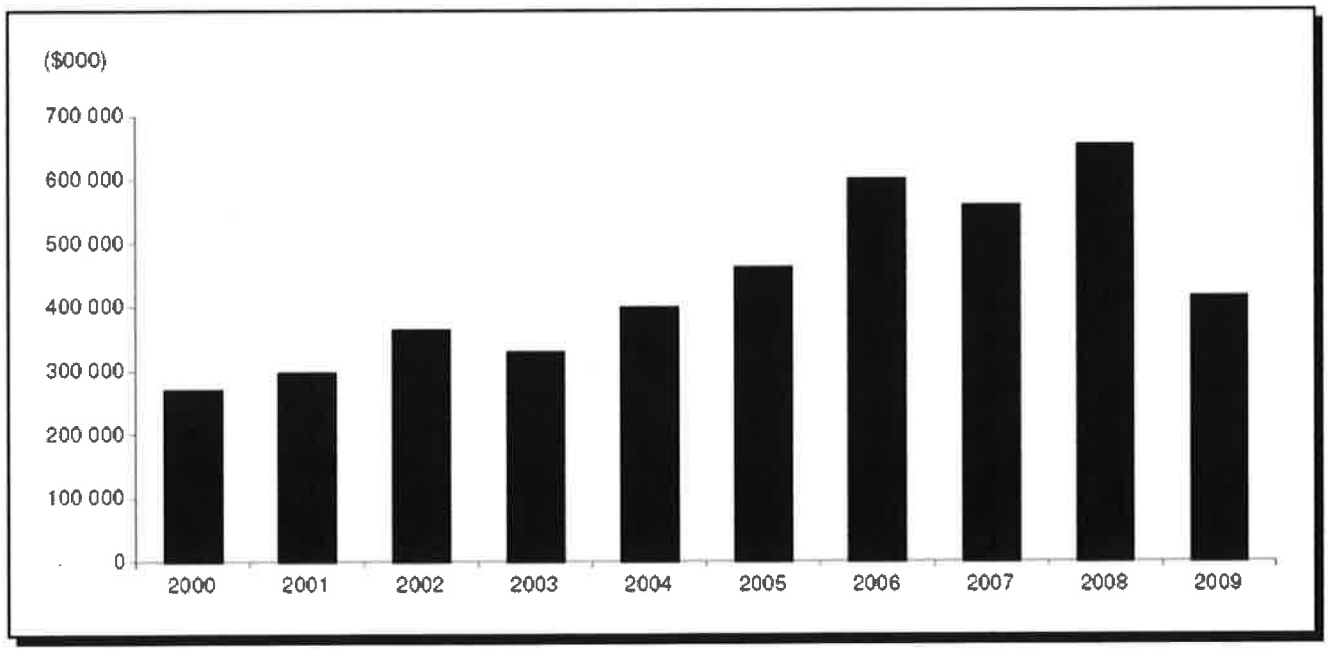
Source: Statistics Canada.

Figure 4
Canadian Cut Diamond Exports, 2000-09



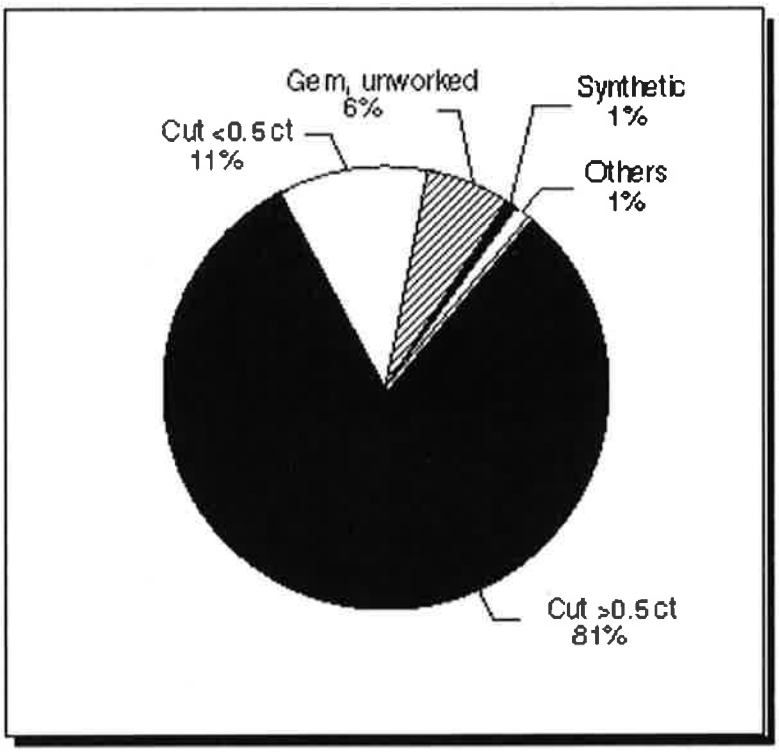
Source: Statistics Canada.

Figure 5
Total Value of Canadian Diamond Imports, 2000-09



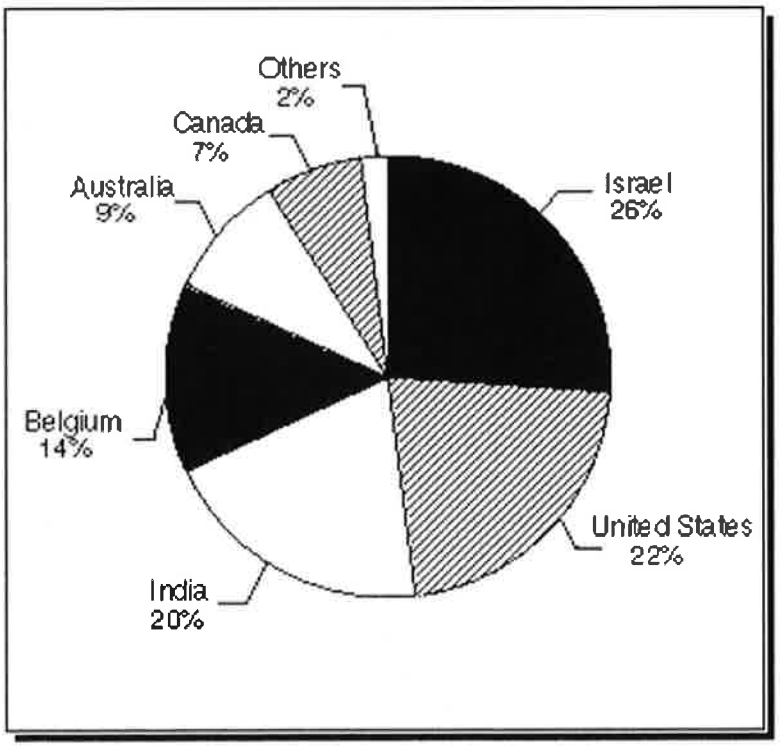
Source: Statistics Canada.

Figure 6
Canadian Diamond Imports, By Product Type, By Value, 2009



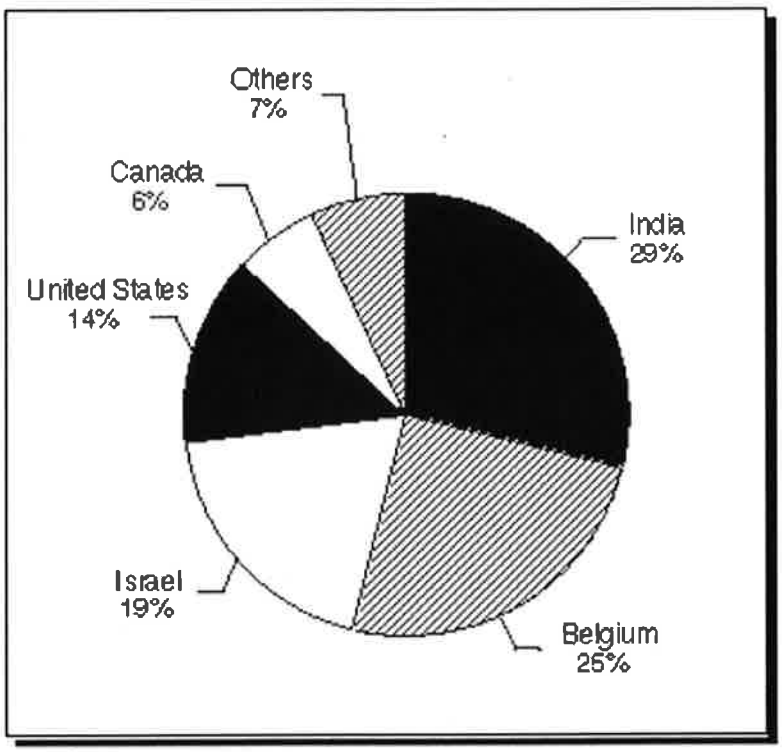
Source: Statistics Canada.

Figure 7
Canadian Cut Diamond Imports (>0.5 ct), By Country, By Value, 2009



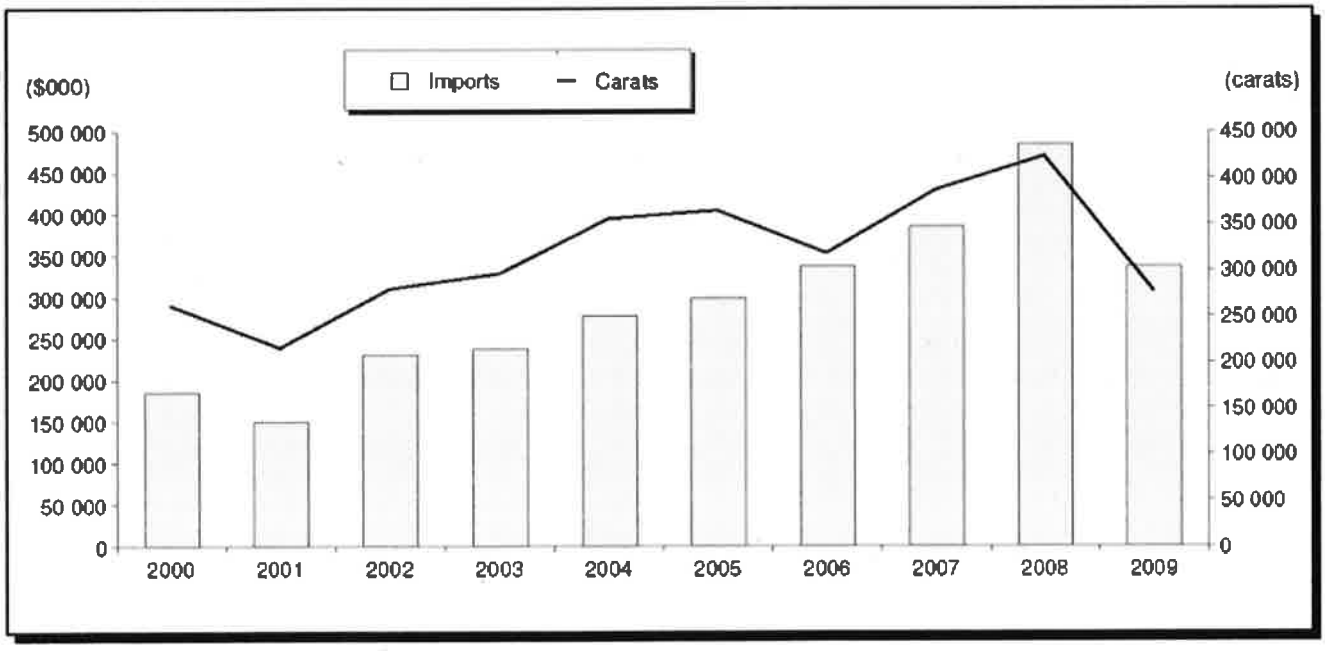
Source: Statistics Canada.

Figure 8
Canadian Cut Diamond Imports (<0.5 ct), By Country, By Value, 2009



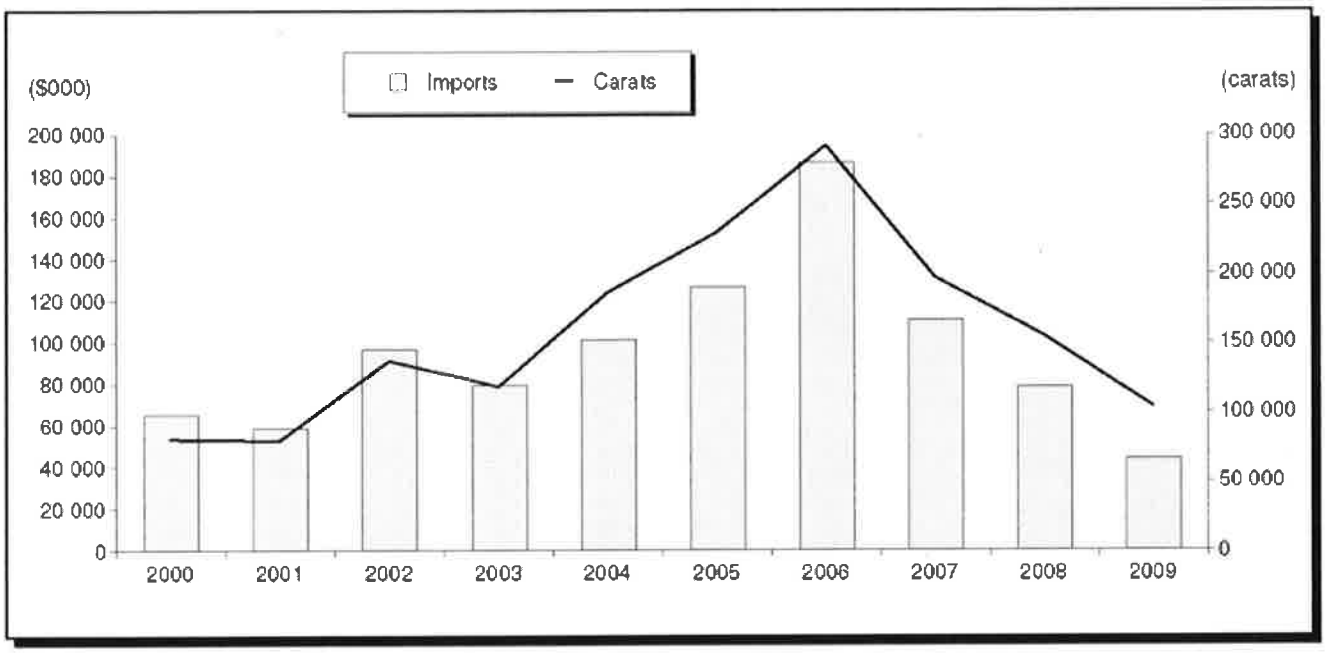
Source: Statistics Canada.

Figure 9
Canadian Cut Diamond Imports (>0.5 ct), 2000-09



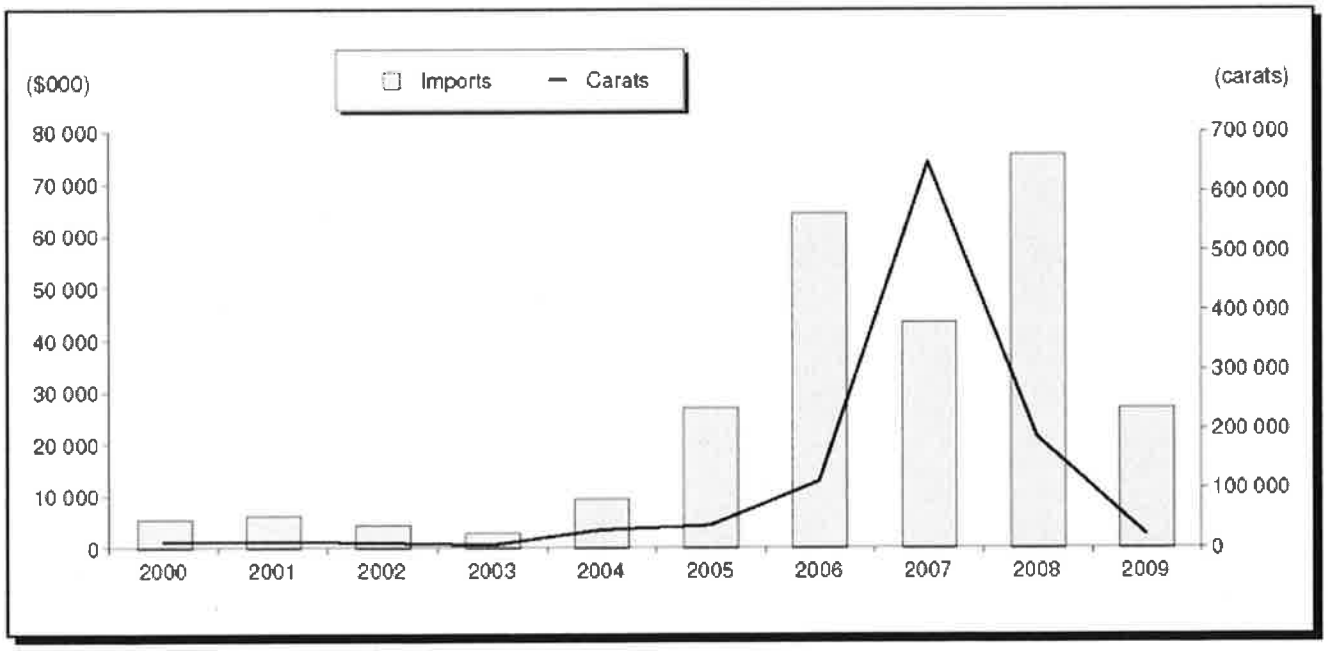
Source: Statistics Canada.

Figure 10
Canadian Cut Diamond Imports (ct), 2000-09



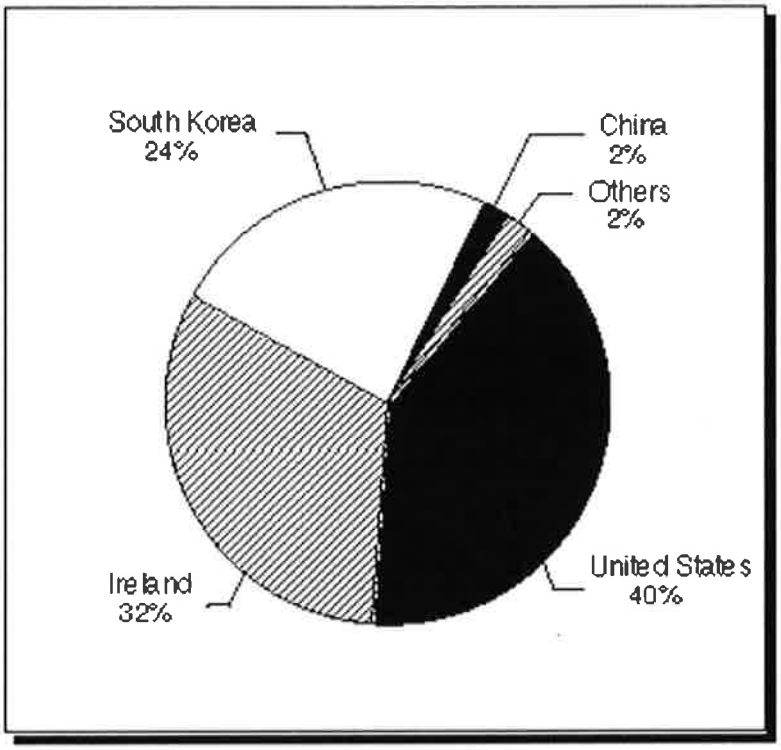
Source: Statistics Canada.

Figure 11
Canadian Gem-Quality Rough Diamond Imports, 2000-09



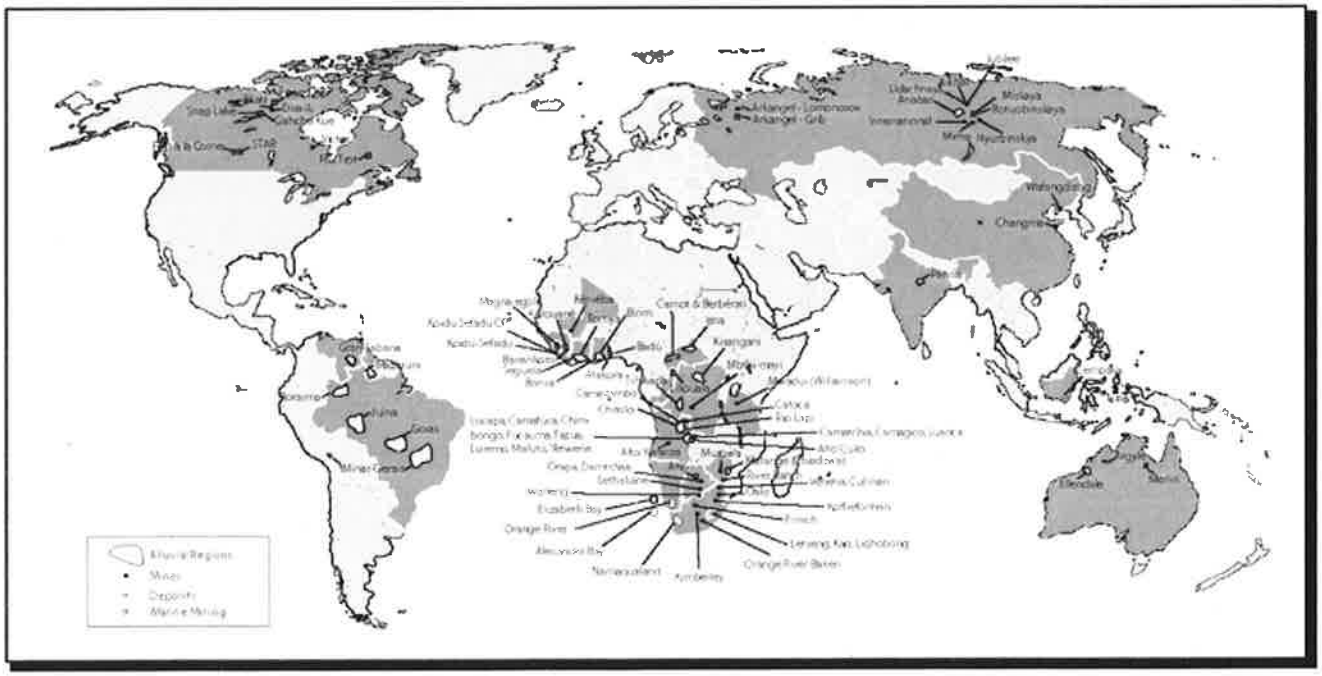
Source: Statistics Canada.

Figure 12
Canadian Synthetic Diamond Imports, By Country, By Value, 2009



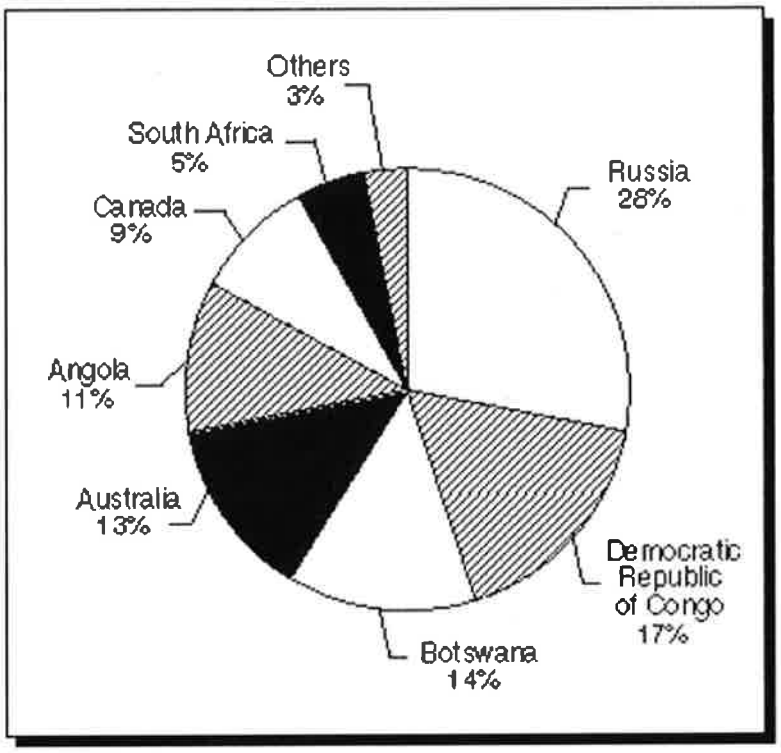
Source: Statistics Canada.

Figure 13
World Diamond Mines and Deposits, 2008 (a)



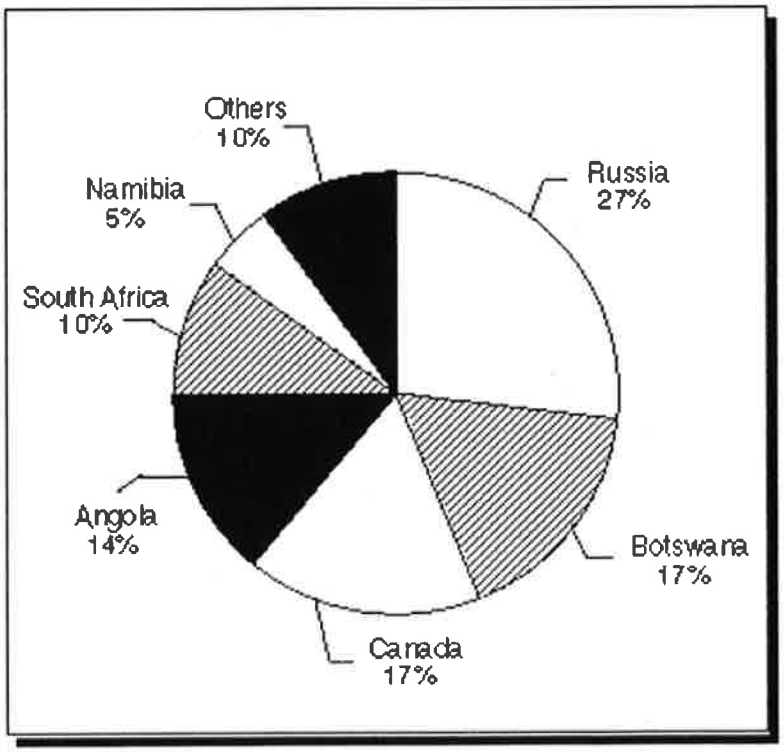
Source: Created by Natural Resources Canada using industry sources.
(a) Date of last update.

Figure 14
Share of World Rough Diamond Production (Carat Basis), 2009



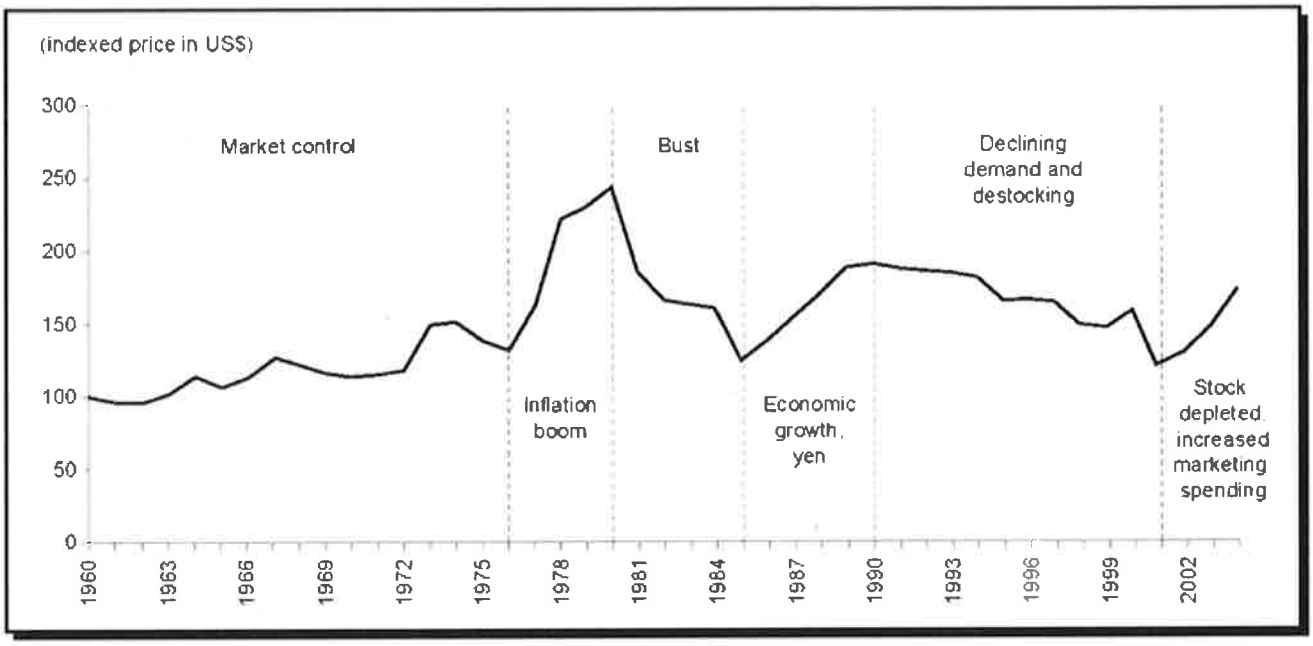
Source: Kimberley Process Certification Scheme.

Figure 15
Share of World Rough Diamond Production (Value Basis), 2009



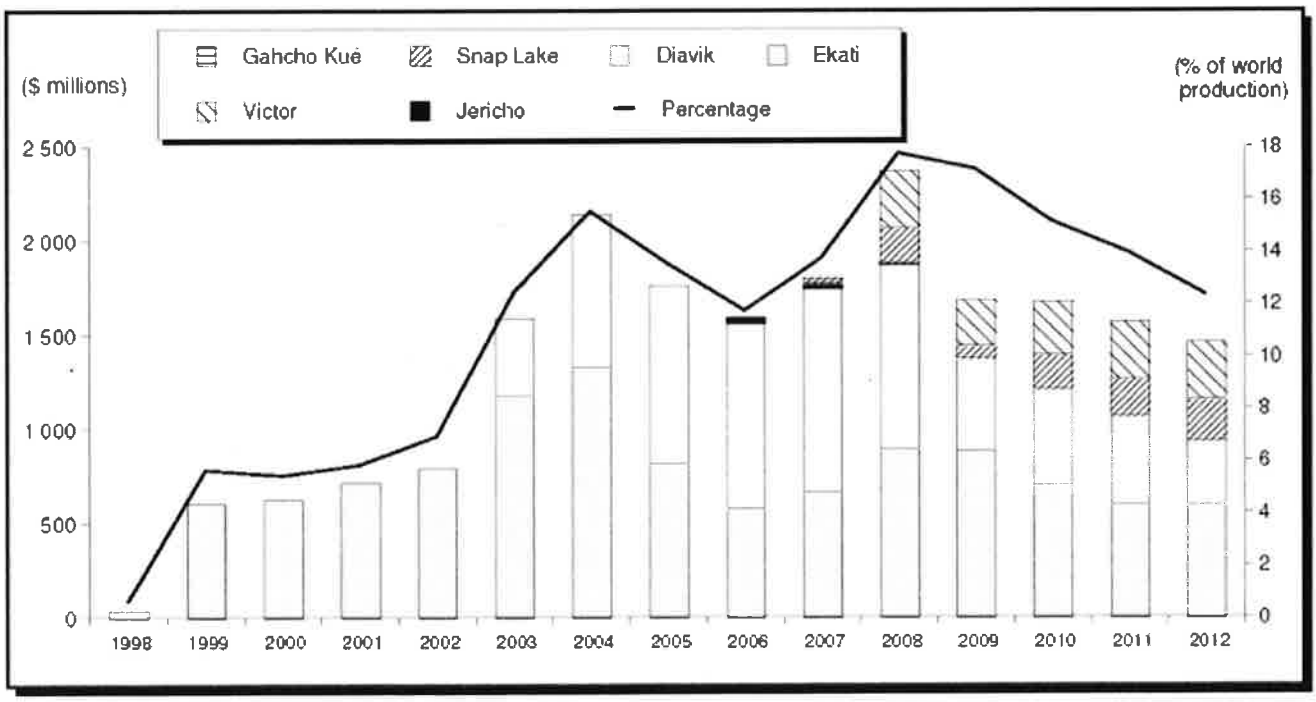
Source: Kimberley Process Certification Scheme.

Figure 16
Historical Rough Diamond Prices, 1960-2004



Source: Rio Tinto Diamonds (2005).

Figure 17
Canada's Diamond Production, Projected Gross Revenues, (1) 1998-2012



Sources: Natural Resources Canada; BHP Billiton Diamonds Inc.; De Beers Canada Inc.; Diavik Diamond Mines Inc.; Tahera Diamond Corporation.
(1) As of June 2010.

TARIFFS

Item No.	Description	Canada			United States	EU	Japan
		MFN	GPT	USA	Canada	Conventional Rate (1)	WTO (2)
7102.10	Diamonds, whether or not worked, but not mounted or set:unsorted	Free	Free	Free	Free	Free	Free
7102.21	Diamonds, whether or not worked, but not mounted or set:industrial: unworked or simply sawn, cleaved or bruted	Free	Free	Free	Free	Free	Free
7102.29	Diamonds, whether or not worked, but not mounted or set:industrial: other	Free	Free	Free	Free	Free	Free
7102.31	Diamonds, whether or not worked, but not mounted or set:non-industrial:unworked or simply sawn, cleaved or bruted	Free	Free	Free	Free	Free	Free
7102.39	Diamonds, whether or not worked, but not mounted or set:non-industrial:other	Free	Free	Free	Free	Free	Free
7105.10	Dust and powder of natural or synthetic precious or semi-precious stones:of diamond	Free	Free	Free	Free	Free	Free
9813	Goods, including containers or coverings filled or empty, originating in Canada, after having been exported therefrom, if the goods are returned without having been advanced in value or improved in condition by any process of manufacture or other means, or combined with any other article aboard						
9813.00.00.41	Diamonds of sections XIV otherwise classifiable to 71.02: diamonds otherwise classifiable to 7102.10, 7102.21 or 7102.31	Free	Free	Free	n.a.	n.a.	..
9813.00.00.49	Diamonds of Sections XIV otherwise classifiable to 71.02: other diamonds otherwise classifiable to 7102.29 or 7102.39	Free	Free	Free	n.a.	n.a.	..

Sources: Canadian Customs Tariff, effective January 2010, Canada Border Services Agency; *Harmonized Tariff Schedule of the United States*, 2010; *Official Journal of the European Union* (Tariff Information), October 31, 2009 edition; *Customs Tariff Schedules of Japan, 2010.*
GPT General Preferential Tariff; MFN Most Favoured Nation; WTO World Trade Organization.
. . Not available; n.a. Not applicable.
(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, DIAMOND PRODUCTION AND TRADE, 2007-09

		2007		2008		2009 (p)	
		(carats)	($000)	(carats)	($000)	(carats)	($000)
PRODUCTION							
Ontario		–	–	714 044	299 956	696 498	236 364
Northwest Territories		16 773 187	1 764 893	13 690 845	2 056 656	10 249 600	1 447 940
Nunavut		370 342	34 821	117 638	12 654	–	–
Total		**17 143 529**	**1 799 714**	**14 522 527**	**2 369 266**	**10 946 098**	**1 684 304**
DOMESTIC EXPORTS							
7102.10	Diamonds, unsorted, whether or not worked, but not mounted or set						
	United Kingdom	3 465 845	588 009	5 063 548	1 301 609	4 135 347	1 003 233
	Belgium	7 073 069	627 073	6 054 539	577 302	2 609 731	215 949
	Other countries	176	26	162	60	8	87

	Total	**10 539 090**	**1 215 108**	**11 118 249**	**1 878 971**	**6 745 086**	**1 219 269**
7102.21	Diamonds, industrial, unworked or simply sawn, cleaved or bruted						
	United States	1	3	58	6	–	–
	Afghanistan	–	–	1	...	–	–
	United Kingdom	–	–	318	40	–	–
	Total	**1**	**3**	**377**	**46**	**–**	**–**
7102.29	Diamonds, industrial, other						
	United States	34	54	395	190	5	24
	Afghanistan	–	–	..	...	–	–
	Total	**34**	**54**	**395**	**190**	**5**	**24**
7102.31	Diamonds, non-industrial, unworked or simply sawn, cleaved or bruted						
	Belgium	4 355 399	504 201	3 925 286	553 942	2 155 311	286 910
	United Kingdom	1 150 405	69 051	763 448	69 895	1 113 993	165 084
	India	1 292 536	24 174	1 043 057	21 690	1 123 878	20 343
	Other countries	577	72	5 021	8 692	1 752	2 434
	Total	**6 798 917**	**597 498**	**5 736 812**	**654 219**	**4 394 934**	**474 771**
7102.39	Diamonds, non-industrial, other						
	United States	21 644	56 892	29 161	81 800	25 252	67 100
	Mexico	309 240	12 952	126 072	20 955	15 889	18 072
	Belgium	12 782	17 255	4 962	10 400	2 791	5 122
	Hong Kong	1 622	1 235	295	241	1 391	1 231
	Israel	602	313	1 474	978	1 342	1 076
	Vietnam	–	–	–	–	350	1 066
	Armenia	–	–	4 455	6 878	500	852
	United Kingdom	55 402	730	12 106	521	49	231
	U.S. Minor Outlying Islands	–	–	–	–	28	209
	Italy	–	–	22	45	56	102
	Other countries	846	1 308	2 131	1 502	222	216
	Total	**402 138**	**90 685**	**180 678**	**123 320**	**47 870**	**95 287**
7105.10	Natural or synthetic diamond dust and powder						
	United States	44 168	19	5 488	7	4 536	4
	Australia	2 697	14	–	–	–	–
	Other countries	1 377	7	–	–	–	–
	Total	**48 242**	**40**	**5 488**	**7**	**4 536**	**4**
Total exports		**17 788 422**	**1 903 388**	**17 041 999**	**2 656 753**	**11 192 431**	**1 789 355**
IMPORTS							
7102.10	Diamonds, unsorted, whether or not worked, but not mounted or set						
	India	–	–	53	118	10	113
	Israel	–	–	–	–	6	68

	United States	5	16	29	106	44	60
	Other countries	79	66	31	71	1	13
	Total	**84**	**82**	**113**	**295**	**61**	**254**
7102.21.00.10	Diamonds, industrial, bort and black, diamonds for borers, unworked or simply sawn, cleaved or bruted, but not mounted or set						
	South Africa	120 033	826	86 911	666	73 725	720
	Belgium	66 120	215	109 884	444	36 411	145
	Botswana	12 935	61	1 071	13	10 910	61
	Australia	27 806	112	3 723	42	5 744	55
	Saudi Arabia	6 100	33	5 000	24	8 000	47
	Ghana	1 000	4	4 500	18	9 000	42
	United States	6 107	37	3 621	28	835	16
	Sierra Leone	–	–	–	–	207	10
	United Kingdom	2 530	15	1 041	6	48	2
	Other countries	7 525	19	9	. . .	10	. . .
	Total	**250 156**	**1 322**	**215 760**	**1 241**	**144 890**	**1 098**
7102.21.00.90	Diamonds, industrial, other, unworked or simply sawn, cleaved or bruted, but not mounted or set						
	South Africa	11 929	555	13 138	495	6 213	299
	Belgium	–	–	–	–	3 025	153
	Australia	6 371	201	11 246	265	4 641	75
	Saudi Arabia	110	. . .	27	1	1 602	21
	United States	7 361	38	2 410	21	366	11
	Botswana	613	18	505	23	273	10
	Ghana	289	19	–	–	202	7
	Other countries	26 189	375	361	15	14	1
	Total	**52 862**	**1 206**	**27 687**	**820**	**16 336**	**577**
7102.29.00.10	Diamonds, industrial, other, bort and black, diamonds for borers, but not mounted or set						
	United States	1 385	162	1 674	194	188	28
	South Korea	14	3	15	3	11	3
	China	2	. . .	144	33	7	2
	Israel	–	–	–	–	9	2
	Other countries	15 872	78	838	196	–	–
	Total	**17 273**	**243**	**2 671**	**426**	**215**	**35**
7102.29.00.90	Diamonds, industrial, other, other than bort and black, for borers, worked but not mounted or set						
	United States	14 295	376	5 796	198	4 430	121
	India	9 954	3 387	379	131	189	65
	South Africa	–	–	3 213	44	180	64
	Japan	2 126	73	477	99	117	41
	South Korea	54	2	19	8	91	32
	Belgium	9 459	1 356	3 035	810	301	12

	Israel	1 711	1 029	24	8	14	5
	Other countries	4 914	78	10 165	352	503	9
	Total	**42 513**	**6 301**	**23 108**	**1 650**	**5 825**	**349**
7102.31	Diamonds, non-industrial, unworked or simply sawn, cleaved or bruted, not mounted or set						
	Canada	637 188	41 064	146 256	67 742	16 161	20 280
	United Kingdom	1	...	1 391	1 312	1 990	4 019
	Belgium	2 835	1 052	2 199	2 060	2 611	2 575
	Sierra Leone	68	93	–	–	92	51
	South Africa	210	17	35 960	4 496	394	49
	Other countries	8 002	1 274	139	49	104	83
	Total	**648 304**	**43 500**	**185 945**	**75 659**	**21 352**	**27 057**
7102.39.00.10	Diamonds, non-industrial, other, of a weight not exceeding 0.5 carats each						
	India	107 661	37 859	88 227	31 630	38 902	12 787
	Belgium	34 400	25 474	32 079	19 632	16 177	10 890
	Israel	25 206	19 822	13 500	9 684	11 311	8 436
	United States	15 994	10 144	12 778	9 770	9 816	6 331
	Canada	6 272	11 491	2 570	2 528	22 813	2 876
	Australia	802	1 156	1 053	1 869	602	913
	China	485	328	1 051	874	1 338	746
	Brazil	508	918	613	630	202	239
	Other countries	5 251	3 827	2 688	2 154	1 880	1 098
	Total	**196 579**	**111 019**	**154 559**	**78 771**	**103 361**	**44 316**
7102.39.00.20	Diamonds, non-industrial, other, of a weight exceeding 0.5 carats each						
	Israel	83 473	91 990	90 820	120 690	65 348	88 359
	United States	51 851	75 107	54 650	112 619	34 046	72 648
	India	157 842	82 153	169 838	97 036	101 173	68 787
	Belgium	48 391	67 821	39 423	56 514	30 184	46 060
	Australia	17 750	28 033	20 532	32 802	19 909	29 833
	Canada	18 362	28 877	18 104	36 568	16 817	22 114
	China	1 283	1 179	3 078	4 585	1 694	2 633
	South Africa	1 060	4 741	1 245	4 409	633	1 674
	Russia	993	2 062	10 076	3 137	644	1 387
	Botswana	–	–	1 535	8 246	286	1 127
	Hong Kong	933	946	1 158	978	617	957
	United Arab Emirates	227	501	6 274	1 621	2 211	597
	Thailand	2 555	926	2 466	685	1 213	570
	Indonesia	42	28	772	390	717	278
	France	34	39	60	50	237	222
	Other countries	1 132	1 417	2 894	4 579	520	613

	Total	**385 928**	**385 820**	**422 925**	**484 909**	**276 249**	**337 859**
7105.10.00.10	Diamond dust for borers; dust mixed with a carrier in cartridges or in tubes						
	United States	768 675	1 130	493 332	814	213 935	346
	South Korea	–	–	5 002	18	27 000	17
	Ireland	69 932	65	62 000	33	4 182	15
	China	1 920	7	–	–	1 633	6
	South Africa	–	–	–	–	1 064	4
	Other countries	26 938	20	1 438	5	77	. . .
	Total	**867 465**	**1 222**	**561 772**	**870**	**247 891**	**388**
7105.10.00.91	Natural diamond dust and powder						
	United States	228 795	539	385 940	1 037	197 510	493
	South Korea	56 552	104	55 707	90	27 227	87
	South Africa	–	–	–	–	5 317	22
	United Kingdom	37 066	42	16 738	29	4 710	19
	Belgium	18 116	26	15 291	28	5 032	8
	Other countries	150309	514	41 343	122	5 738	13
	Total	**490 838**	**1 225**	**515 019**	**1 306**	**245 534**	**642**
7105.10.00.92	Synthetic diamond dust or powder						
	United States	4 182 990	3 351	2 797 048	2 693	2 710 378	1 872
	Ireland	2 132 596	2 988	3 663 643	3 920	2 633 699	1 493
	South Korea	1 196 175	713	2 026 553	1 087	1 849 251	1 094
	China	308 510	170	140 959	221	85 991	113
	Other countries	664 464	168	332 285	179	102 303	74
	Total	**8 484 735**	**7 390**	**8 960 488**	**8 100**	**7 381 622**	**4 646**
9813.00.00.41	Diamonds of Section XIV otherwise classifiable to 71.02: diamonds otherwise classifiable to 7102.10, 7102.21 or 7102.31						
	Canada	**369 599**	**79 695**	**1 611 116**	**221 952**	**340 926**	**63 084**
9813.00.00.49	Diamonds of Section XIV otherwise classifiable to 71.02: other diamonds otherwise classifiable to 7102.29 or 7102.39						
	Canada	–	–	–	–	34	35
Total Imports		**11 806 336**	**639 025**	**12 681 163**	**875 999**	**8 784 296**	**480 340**

Sources: Natural Resources Canada; Statistics Canada.
– Nil; . . Not available; . . . Amount too small to be expressed; (p) Preliminary.
Note: Numbers may not add to totals due to rounding.

TABLE 2. WORLD PRODUCTION OF NATURAL ROUGH DIAMONDS, 2008 AND 2009

	Production 2008		**Production 2009**			
Country	**Volume**	**Value**	**Volume**	**Variation vs. 2008**	**Value**	**Variation vs. 2008**
	(ct)	**(US$)**	**(ct)**	**(%)**	**(US$)**	**(%)**

Russia	36 925 150	2 508 957 130	34 759 400	-5.87	2 340 640 600	-6.71
Canada	14 802 699	2 254 710 604	10 946 098	-26.05	1 474 944 768	-34.58
Botswana	32 276 000	3 273 001 000	17 734 000	-45.06	1 436 454 000	-56.11
Angola	8 906 974	1 209 789 970	13 827 609	55.24	1 179 209 718	-2.53
South Africa	12 901 019	1 236 240 109	6 139 682	-52.41	885 544 181	-28.37
Namibia	2 435 195	918 033 931	1 191 762	-51.06	408 741 127	-55.48
Australia	14 932 137	326 394 285	15 604 969	4.51	312 708 458	-4.19
Congo, Democratic Republic of	33 401 928	431 833 163	21 298 459	-36.24	225 839 908	-47.70
Lesotho	253 054	222 680 825	91 816	-63.72	133 639 202	-39.99
Sierra Leone	371 261	98 772 171	400 843	7.97	78 423 595	-20.60
Central African Republic	377 209	47 752 281	311 779	-17.35	47 086 830	-1.39
Tanzania	237 676	24 083 955	181 874	-23.48	24 781 885	2.90
Zimbabwe	797 198	43 825 425	963 502	20.86	20 426 782	-53.39
Guinea	3 098 490	53 698 456	696 732	-77.51	16 411 406	-69.44
Guyana	193 027	31 190 623	97 007	-49.74	14 557 427	-53.33
Liberia	47 007	9 891 785	28 368	-39.65	11 260 573	13.84
Ghana	643 289	18 460 766	376 371	-41.49	6 984 025	-62.17
Congo, Republic of	110 000	5 250 000	68 000	-38.18	2 190 000	-58.29
India	–	–	9 317	n/a	1 663 091	n/a
Brazil	80 226	6 221 579	21 153	-73.63	830 115	-86.66
Indonesia	30 529	7 899 876	10 637	-65.16	819 081	-89.63
China	69 480	1 370 000	45 932	-33.89	480 000	-64.96
Togo	8 787	927 757	125	-98.58	15 025	-98.38
Venezuela	–	–	–	n.a.	–	n.a.
Total	**162 898 336**	**12 730 985 693**	**124 805 437**	**-23.38**	**8 623 651 797**	**-32.26**

Source: Kimberley Process Certification Scheme.
– Nil; n.a. Not applicable.

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