

# Canada's Global Mining Presence

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## GLOBAL MARKET FOR MINERAL EXPLORATION

In 2000, the value of exploration programs planned around the world by companies of all sizes for precious metals, base metals and diamonds fell to an estimated \$3.8 billion (US\$2.6 billion), down by 7% from the \$4.1 billion (US\$2.8 billion) planned the previous year.<sup>1</sup> Exploration programs were reduced in most countries, but were postponed or abandoned entirely in others.

## WORLD'S LARGER COMPANIES

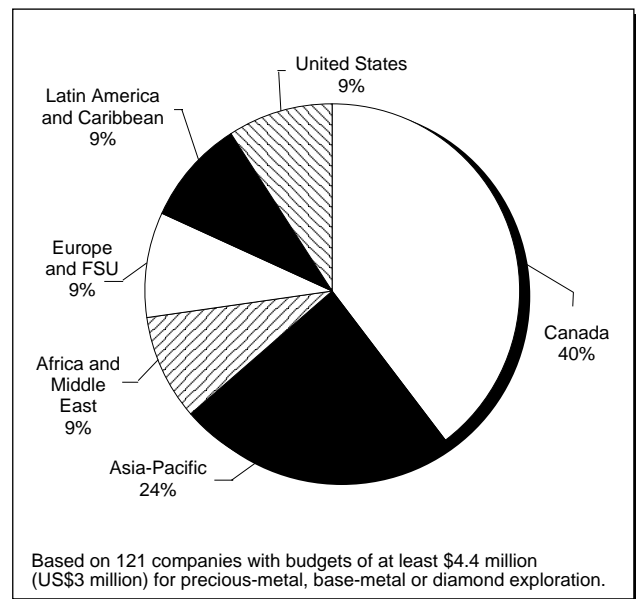
Global trends in mineral exploration are based largely on data for the world's larger companies.<sup>2</sup> These companies are defined here as those with annual exploration budgets of more than \$4.4 million in 2000 (US\$3 million). The larger companies are the only ones for which there are consistent data on worldwide exploration activity spanning a period of almost 10 years. In 2000, 121 companies based around the world each planned to spend more than \$4.4 million on exploration, down from a record 279 companies in 1997.

During 2000, the world's larger companies were expected to undertake exploration programs with a combined value of \$2.9 billion (US\$2.0 billion) in 106 countries. The larger companies represent only about 18% of the more than 650 companies of all sizes that were active in mineral exploration worldwide in 2000. However, they account for over 80% of the value of all mineral exploration programs carried out around the globe.

## LARGER CANADIAN-BASED COMPANIES

There are more mineral exploration companies based in Canada than in any other country (Figure 1). In spite of generally low prices for mineral commodities and the difficulty in raising capital, 48 Canadian-based companies each planned to spend more than \$4.4 million on exploration in 2000, about the same as in 1999. In 1996, mining companies listed on Canadian stock exchanges raised a record amount of capital.<sup>3</sup> As a result, 141 Canadian-based companies each planned to spend more than \$4 million on exploration programs around the world in 1997. Their aggregate budgets for exploration, adjusted for inflation, reached an all-time value of over \$2.0 billion during that year.

**Figure 1**  
Distribution of the World's Larger Exploration Companies, by Domicile, 2000



Source: Natural Resources Canada, based on *Corporate Exploration Strategies: A Worldwide Analysis*, Metals Economics Group, Halifax, Nova Scotia.

In 2000, the total value of the exploration programs that the larger Canadian-based companies planned to undertake in both Canada and elsewhere around the world stood at almost \$887 million (Figure 2), down slightly from the \$916 million budgeted in 1999. The programs that Canadian-based companies planned to undertake during 2000 represent more than 30% of all larger-company exploration programs around the world. Canadians account for the dominant share, by far, of all worldwide mineral exploration activity. Their closest rivals, the Australians, account for about 20%. In 1997, Canadian programs accounted for a record 35% of the value of all exploration planned worldwide.

The larger Canadian-based companies tend to have exploration budgets that are smaller than those of the industry worldwide. In 2000, these Canadian companies had average exploration budgets with a mean of \$18.5 million and a median of \$8.8 million, about 20% smaller than the global averages of \$23.8 million and \$11.0 million, respectively.

Although, on a company-by-company basis, there can be significant variations between budgets and expenditures, aggregate exploration budgets generally provide a reliable estimate of actual sums spent worldwide in the field. In the case of the larger Canadian

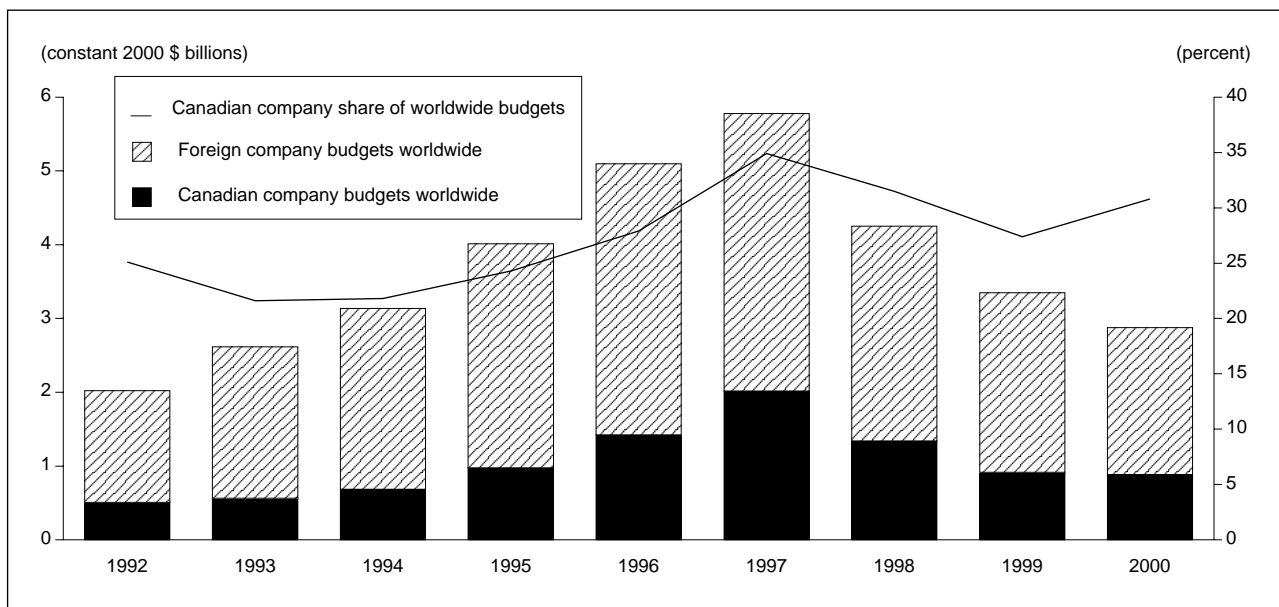
companies, actual expenditures in 1999 were about 7% lower than budgeted, roughly the same departure as in the previous year.<sup>4</sup>

At the end of 2000, companies of all sizes listed on Canadian stock exchanges held interests in a portfolio of more than 6300 properties (Figure 3) located in Canada and in more than 100 other countries around the world.<sup>5</sup> Most of this portfolio is at the early exploration stage of the mineral development cycle.

## LARGER-COMPANY EXPLORATION MARKET IN CANADA

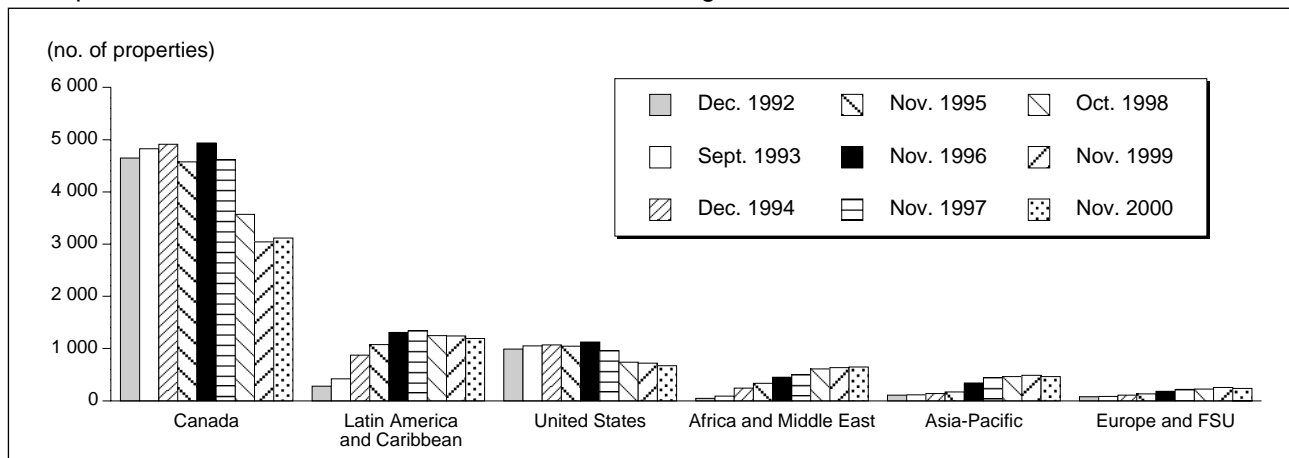
In 2000, the larger-company mineral exploration market in Canada was valued at almost \$400 million, up by \$35 million, or 10% from about \$360 million in 1999 (Figure 4). The balance of the Canadian market is held by companies with worldwide exploration budgets of less than \$4.4 million, the activities of which are not addressed specifically here. Canada and, to a lesser extent, New Caledonia, Brazil and South Africa are among the few countries where a significant increase in exploration activity was expected to occur from 1999 to 2000. Canada ranks second, after Australia, in terms of countries where the global

**Figure 2**  
**Exploration Budgets of the World's Larger Companies, by Origin, 1992-2000**  
Companies with Worldwide Budgets of at Least \$4.4 Million in 2000 for Precious-Metal, Base-Metal or Diamond Exploration



Source: Natural Resources Canada, based on *Corporate Exploration Strategies: A Worldwide Analysis*, Metals Economics Group, Halifax, Nova Scotia.  
Notes: The worldwide exploration budgets of companies that intended to spend less than \$4.4 million in 2000 (US\$3 million) are excluded. The worldwide exploration budgets for other commodities such as uranium or industrial minerals are also excluded.

**Figure 3**  
**Canadian Mineral Property Portfolio Worldwide, by Region, 1992-2000**  
 Companies of All Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on *MIN-MET CANADA* for 1992-1997 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

Note: The decrease in properties in Canada after 1997 is due mainly to the implementation of database features that make it possible to exclude many inactive properties.

mineral exploration industry is the most active. Canada has held that position since 1992.

In 2000, 53 of the world's larger domestic-based or foreign-based companies planned to explore for minerals in Canada. As a result, almost 14% of the exploration efforts of all of the world's larger companies were destined for Canada (Figure 5), up from about 11% during each of the previous three years. Prior to the large increase in exploration activity that occurred in developing countries starting in the early 1990s, the proportion of worldwide exploration activity taking place in Canada stood at 18%. At the end of 2000, there were more than 3100 mineral properties with recent exploration activity in this country (Figure 3).<sup>6</sup>

In 2000, 33 of the larger Canadian-based companies allocated, in total, almost \$265 million for exploration in Canada, up from about \$250 million in 1999. For the first year since 1994, Canadian companies planned to spend more on mineral exploration in Canada than in all of Latin America.

The larger Canadian-based companies control two thirds of the larger-company market in Canada. The only other countries where domestic companies control more than half of the larger-company market for mineral exploration are Australia, Japan and South Africa. In 1992, Canadian-based companies controlled 80% of the larger-company market in Canada but, with increasing globalization, their share has fallen gradually as foreign-based companies have increased their investment in this country. Since the

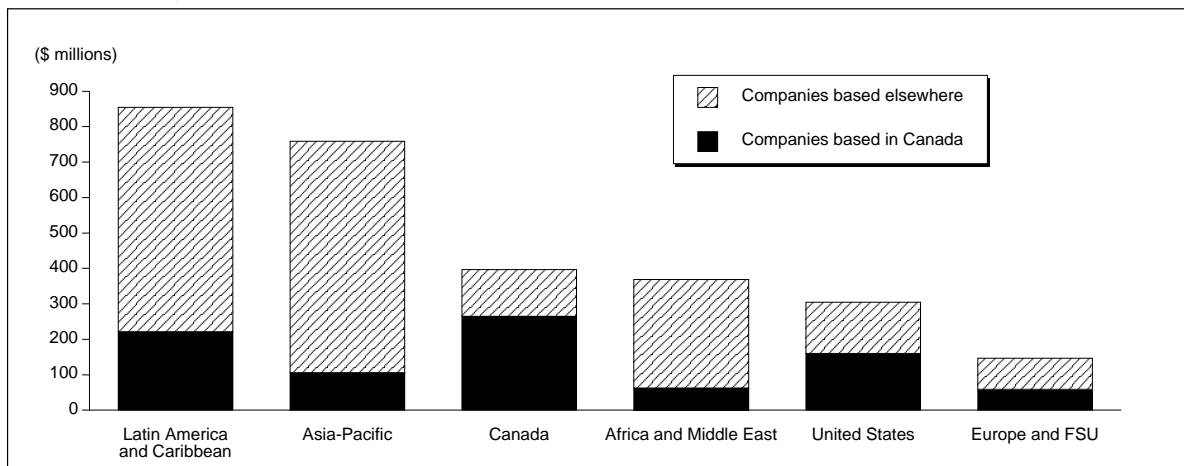
early 1990s the share of the exploration market controlled by the larger domestic firms has also fallen gradually in the United States and Australia. Still, Canada remains the country where Canadian-based companies conduct, by far, the most mineral exploration (Figure 6).

During 2000, 20 of the larger foreign-based companies planned to spend, in total, over \$130 million on mineral exploration in Canada (Figure 5). This represents one third of all activity planned for this country. Compared with the previous year, the budgets of foreign-based companies for Canada increased by more than \$32 million in 2000.

In 2000, the larger foreign-based companies active in mineral exploration in Canada included: Ashton Mining Ltd., The Broken Hill Proprietary Company Limited (BHP), Normandy Mining Ltd., Pasminco Limited and WMC Limited, all based in Australia; Battle Mountain Gold Company, Echo Bay Mines Ltd., Freeport-McMoRan Copper & Gold Inc., Homestake Mining Company, Newmont Mining Corporation and Phelps Dodge Corporation, all based in the United States; Anglo American plc, AngloGold Limited, Billiton plc, Outokumpu Oyj and Rio Tinto plc, all based in Europe; Anglo American Platinum Corporation Limited, De Beers Consolidated Mines, Limited and Impala Platinum Holdings Limited, all based in South Africa; and the Mexican mining consortium, Grupo Mexico S.A. de C.V.

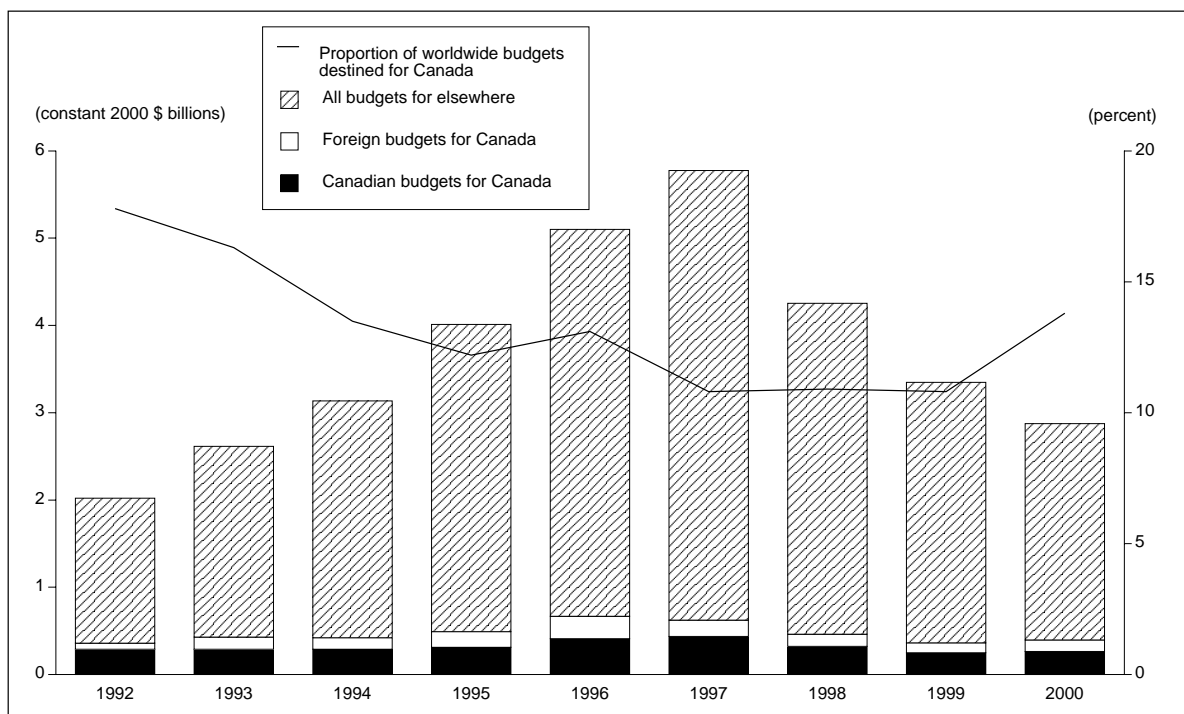
In 2000, De Beers had an estimated exploration budget for Canada of almost \$50 million, the largest of

**Figure 4**  
**Exploration Budgets of the World's Larger Companies for Selected Regions of the World, 2000**  
 Companies with Worldwide Budgets of at Least \$4.4 Million for Precious-Metal, Base-Metal or Diamond Exploration



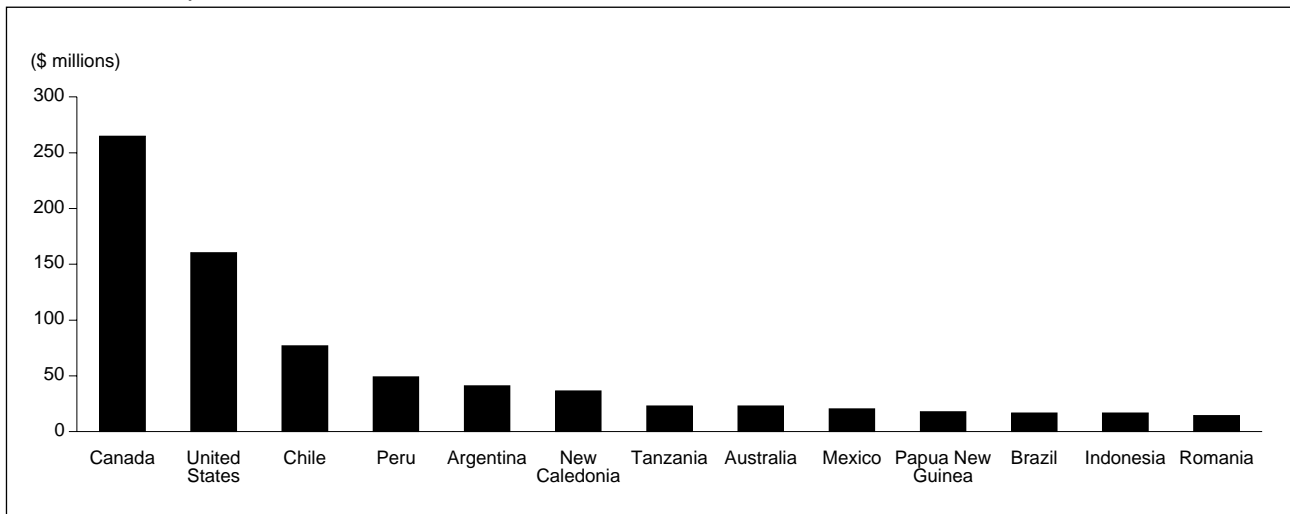
Source: Natural Resources Canada, based on *Corporate Exploration Strategies: A Worldwide Analysis*, Metals Economics Group, Halifax, Nova Scotia.  
 Notes: The worldwide exploration budgets of companies that intended to spend less than \$4.4 million in 2000 (US\$3 million) are excluded. The worldwide exploration budgets for other commodities such as uranium or industrial minerals are also excluded.

**Figure 5**  
**Exploration Budgets of the World's Larger Companies for Canada and Elsewhere, 1992-2000**  
 Companies with Worldwide Budgets of at Least \$4.4 Million in 2000 for Precious-Metal, Base-Metal or Diamond Exploration



Source: Natural Resources Canada, based on *Corporate Exploration Strategies: A Worldwide Analysis*, Metals Economics Group, Halifax, Nova Scotia.  
 Notes: The worldwide exploration budgets of companies that intended to spend less than \$4.4 million in 2000 (US\$3 million) are excluded. The worldwide exploration budgets for other commodities such as uranium or industrial minerals are also excluded.

**Figure 6**  
**Exploration Budgets of the Larger Canadian-Based Companies, 2000 –**  
**Countries Accounting for 90% of Canadian Budgets**  
 Companies with Worldwide Budgets of at Least \$4.4 Million for Precious-Metal, Base-Metal  
 or Diamond Exploration



Source: Natural Resources Canada, based on *Corporate Exploration Strategies: A Worldwide Analysis*, Metals Economics Group, Halifax, Nova Scotia.  
 Notes: The worldwide exploration budgets of companies that intended to spend less than \$4.4 million in 2000 (US\$3 million) are excluded. The worldwide exploration budgets for other commodities such as uranium or industrial minerals are also excluded.

all domestic and foreign companies operating in this country. Grupo Mexico's exploration budget for Canada is the result of its takeover of ASARCO Incorporated, which planned to spend almost \$3 million looking for base metals in this country.

## LARGER CANADIAN-BASED COMPANIES ABROAD

In 2000, the larger Canadian-based companies planned to spend more than \$620 million on mineral exploration outside Canada (Figure 4), down by 6% from the more than \$665 million they had planned to spend in 1999. About 70% of their worldwide budgets for 2000 were allocated to programs abroad. Their foreign programs, as a proportion of all of their programs, peaked at over 78% in 1997. In 1992, that proportion was only slightly more than 40%.

At the end of 2000, companies of all sizes listed on Canadian stock exchanges held interests in a portfolio of over 3200 mineral properties located abroad (Figure 3). Foreign properties represent slightly more than half of the total mineral property portfolio held by these companies, up from about 25% in 1992. Apart from the United States, where companies of all sizes listed on Canadian stock exchanges have a substantial mining presence, about 30 other nations, spread across the globe, account for most of the

balance of their mineral property portfolio held abroad (Figure 7).

Canadian companies have interests in over 200 mines, smelters, refineries, plants under construction or projects awaiting the results of a final production feasibility study in almost 60 foreign countries (Table 1). They also have hundreds of other projects at the early stages of exploration in these countries, and in more than 40 others. The activities of Canadian mining companies in Canada and abroad have fostered the development in this country of over 2200 suppliers of specialized mining goods and services.<sup>7</sup>

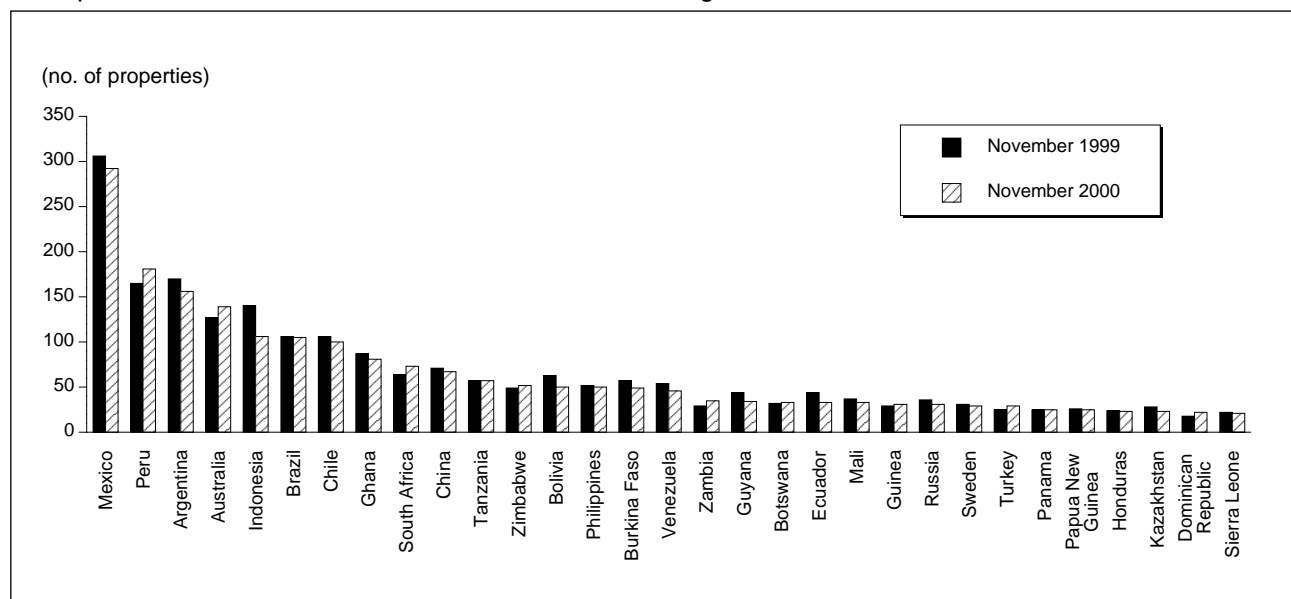
## United States

In 2000, the larger-company mineral exploration market in the United States was valued at over \$300 million (Figure 4), or about 11% of the \$2.9 billion larger-company market worldwide. In spite of general global retrenchment, 17 of the larger Canadian-based companies planned to spend, in total, about \$160 million in the United States, only about 6% less than in 1999.

Companies based in most countries considerably reduced their exploration programs for the United States in recent years while those based in Canada increased theirs. As a result, the share of the larger-company exploration market held by Canadian-based

**Figure 7**  
**Canadian Mineral Property Portfolio Abroad, 1999 and 2000 – Countries Accounting for 80% of Canadian Holdings Located Outside the United States in 2000**

Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on InfoMine db, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

companies in the United States has grown to over 50%. Canadian-based companies have increased their share of the exploration market in the United States almost every year since the early 1990s. The United States ranks second after Canada in terms of countries where Canadian companies are the most active in mineral exploration (Figure 6).

Canadian companies planned to spend almost \$80 million more than U.S. companies in the United States during 2000. American companies have budgeted decreasing amounts for mineral exploration in their country most years since the early 1990s. Although American companies accounted for almost 60% of the value of all exploration programs in their country in 1992, they accounted for only 27% in 2000.

In late 2000, companies of all sizes listed on Canadian stock exchanges held about 675 mineral properties in the United States (Figure 3). They had projects located in 22 states, concentrated mainly in the western part of the country in Nevada, Alaska, California, Arizona, Montana, Idaho, Wyoming, Colorado, Washington, Utah and South Dakota (Figure 8). Nevada alone accounted for more than 250 of their mineral properties, or almost 40% of the total Canadian portfolio in the United States.

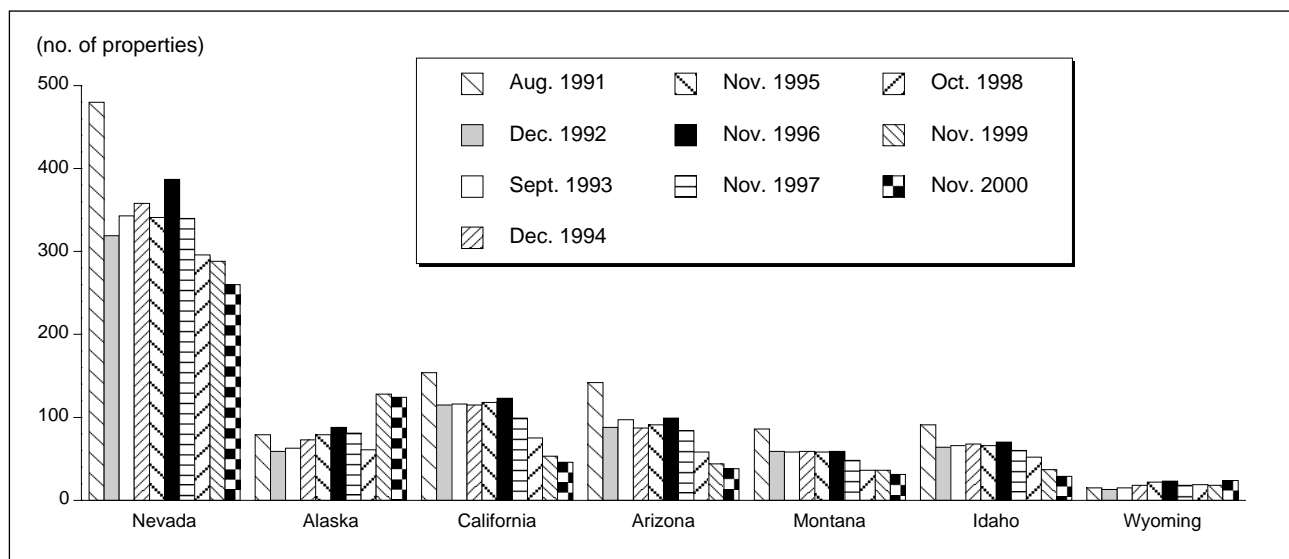
Although Canadian companies have considerably expanded their activities in Latin America, Africa

and Asia since the early 1990s (Figure 3), the United States is likely to remain, for the foreseeable future, the foreign country where they hold their largest portfolio of mineral properties. At the end of 2000, the United States accounted for over 20% of all properties held abroad by companies of all sizes listed on Canadian stock exchanges.

Of all the Canadian-based companies, Placer Dome Inc., Teck Corporation, Cominco Ltd., Barrick Gold Corporation and Kinross Gold Corporation planned the largest mineral exploration programs in the United States during 2000. Together they planned to spend more than \$135 million, equivalent to over 80% of the value of all Canadian programs for that country.

Placer Dome planned to spend about two thirds of its \$44 million exploration budget for the United States at the Getchell gold mine in Nevada. This budget was the largest of all domestic and foreign companies operating in that country in 2000. Teck planned to spend much of its \$28 million budget for the United States at the Pogo gold deposit in Alaska. Cominco planned to spend a good portion of its \$25 million American budget in proximity to the Red Dog zinc-lead-silver mine in Alaska and at the Pend Oreille zinc-lead deposit in Washington State. Barrick planned to spend much of its \$25 million budget for the United States on further exploration for gold at the Goldstrike mine, the Pinson mine, at the Rossi

**Figure 8**  
**Canadian Mineral Property Portfolio in the United States, 1991-2000 –**  
**States Accounting for 80% of Canadian Holdings in 2000**  
 Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on *MIN-MET CANADA* for 1991-97 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

deposit and the Dee property, all in Nevada. Kinross planned to spend much of its \$13 million American budget at or near the Fort Knox gold mine in Alaska.

### Latin America and the Caribbean

In 2000, the larger-company mineral exploration market in Latin America and the Caribbean was valued at over \$850 million (Figure 4), or almost 30% of the \$2.9 billion larger-company market worldwide.

During 2000, the larger Canadian-based companies planned to spend over \$220 million there, down by \$60 million, or roughly 20%, compared with 1999. After Canada, Latin America has become the region of the world where Canadian companies are the most active in mineral exploration. However, from 1995 to 1999, Canadian companies spent more on exploration in that region than in Canada. In 2000, Canadian companies held slightly more than one quarter of the larger-company market in Latin America and the Caribbean, ranking a close second to companies based in that region.

At the end of 2000, companies of all sizes listed on Canadian stock exchanges held interests in almost 1200 mineral properties in Latin America and the Caribbean. Since 1996, the total number of mineral properties held by Canadian companies in the region has exceeded the number held in the United States (Figure 3).

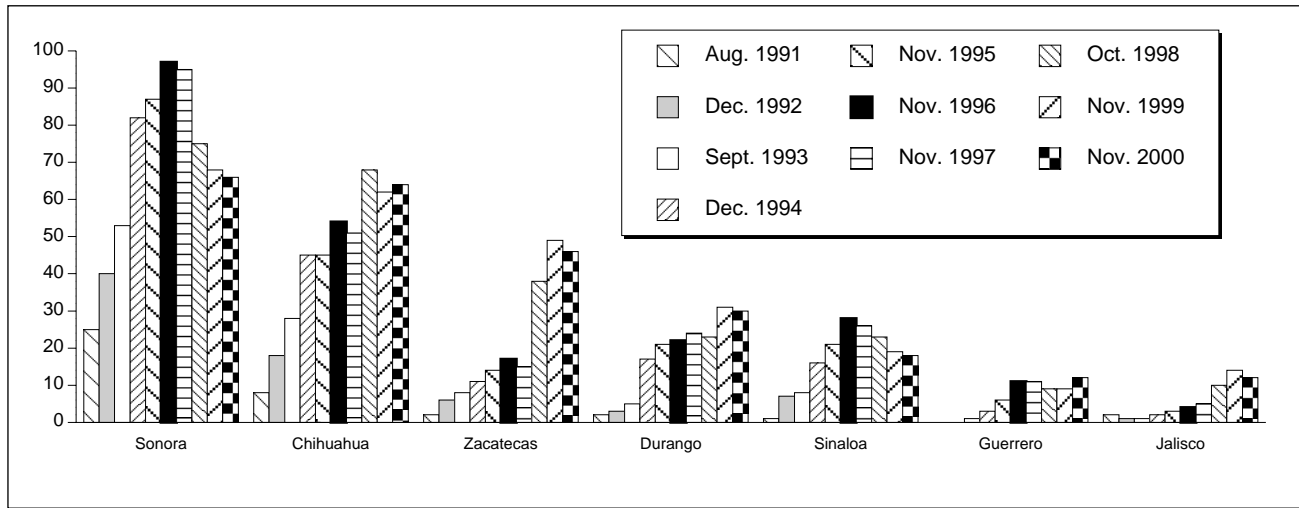
### Mexico

In 2000, the larger-company mineral exploration market in Mexico was valued at almost \$120 million, or 4% of the \$2.9 billion larger-company market worldwide. Eleven of the larger Canadian-based companies planned to spend, in total, \$20 million in that country, equivalent to almost 17% of the market. Mexico ranks fourth in Latin America and ninth in the world in terms of countries where Canadian companies are the most active (Figure 6).

During 1994, there was a significant increase in the mineral property portfolio held in Mexico by companies of all sizes listed on Canadian stock exchanges. At the end of 2000, these companies held interests in almost 300 properties in 20 of the country's 31 states and district (Figure 9).

Teck and Noranda Inc. planned the largest Canadian exploration programs in Mexico during 2000. Teck planned to spend a good portion of its \$10 million budget for Mexico to study the feasibility of bringing into production the San Nicholas copper-zinc deposit and on delineating reserves at the Los Filos gold deposit. Noranda planned to spend \$4.7 million on grassroot exploration for base metals at the El Gordo, Lobo 6, Gavilanes, Aire Libre, La Joya and other properties.

**Figure 9**  
**Canadian Mineral Property Portfolio in Mexico, 1991-2000 –**  
**States Accounting for 80% of Canadian Holdings in 2000**  
 Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on *MIN-MET CANADA* for 1991-97 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

### South America

In 2000, the larger-company mineral exploration market in South America was valued at over \$680 million, almost one quarter of the \$2.9 billion larger-company market worldwide. Twenty-four of the larger Canadian-based companies planned to spend \$185 million in total in the region, which represents 27% of the market there. Canadian companies held the dominant share of the market in both Chile and Argentina.

Chile is the South American country where Canadian-based companies conduct the largest portion of their exploration programs (Figure 6). It ranks third in the world in terms of countries where Canadian companies are the most active in exploration. In 2000, Barrick planned to spend \$35 million in Chile, equivalent to almost 17% of the value of all exploration programs planned for that country. The company planned to allocate most of its budget there to increase reserves on the Pascua portion of the Pascua-Lama gold-silver deposit, which straddles the Chile-Argentina border. In addition, Barrick planned to spend most of its \$32 million budget for Argentina on the Lama portion of the Pascua-Lama deposit. The exploration programs planned by Barrick for Chile and Argentina were the largest in both of these countries.

At the end of 2000, companies of all sizes listed on Canadian stock exchanges held more than 750 mineral properties throughout South America. They

held about 180 properties in Peru, more than 150 in Argentina, more than 100 in each of Brazil and Chile, and about 50 in each of Bolivia and Venezuela (Figure 10).

### Central America

In 2000, the larger-company mineral exploration market in Central America was valued at about \$7 million, or less than 1% of the \$2.9 billion larger-company market worldwide. Two of the larger Canadian-based companies were expected to conduct about one quarter of all exploration programs in the region.

Breakwater Resources Ltd. planned to spend roughly \$2 million at the El Mochito zinc-lead-silver mine in Honduras. Although this is a relatively small program, it represents more than 40% of the larger-company mineral exploration market in that country.

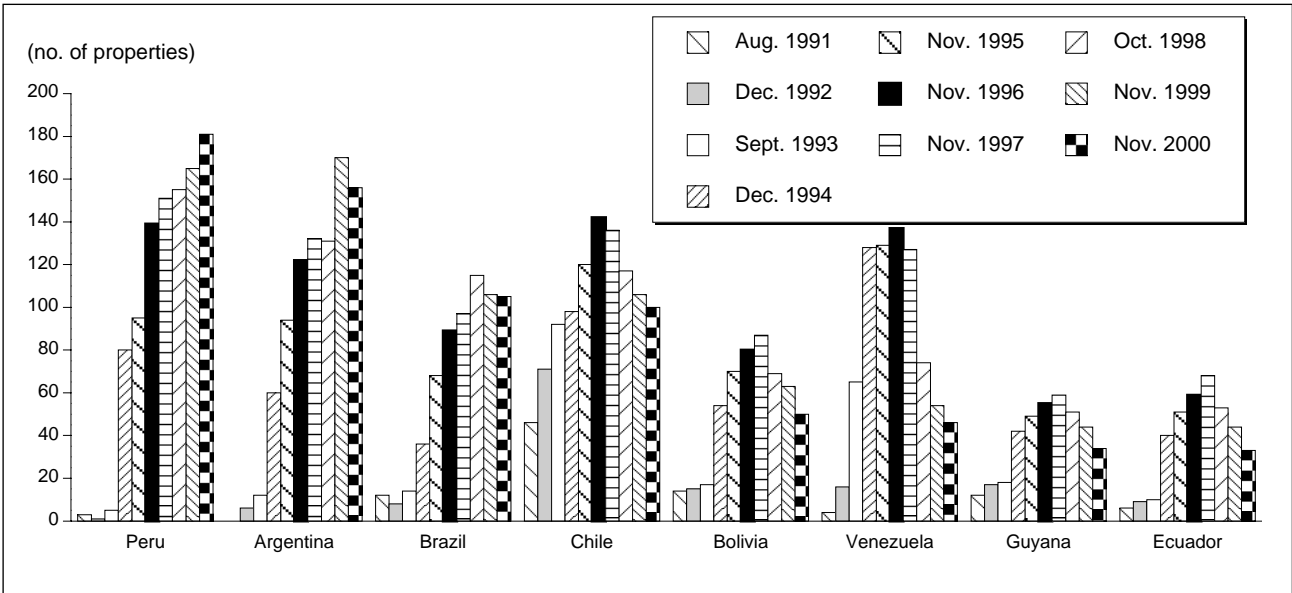
At the end of 2000, companies of all sizes listed on Canadian stock exchanges held about 100 mineral properties throughout Central America. They held 20 or more in each of Panama and Honduras (Figure 11).

### Caribbean

In 2000, the larger-company mineral exploration market in the Caribbean was valued at about \$6 million, or less than 1% of the \$2.9 billion larger-company market worldwide. Northern Orion

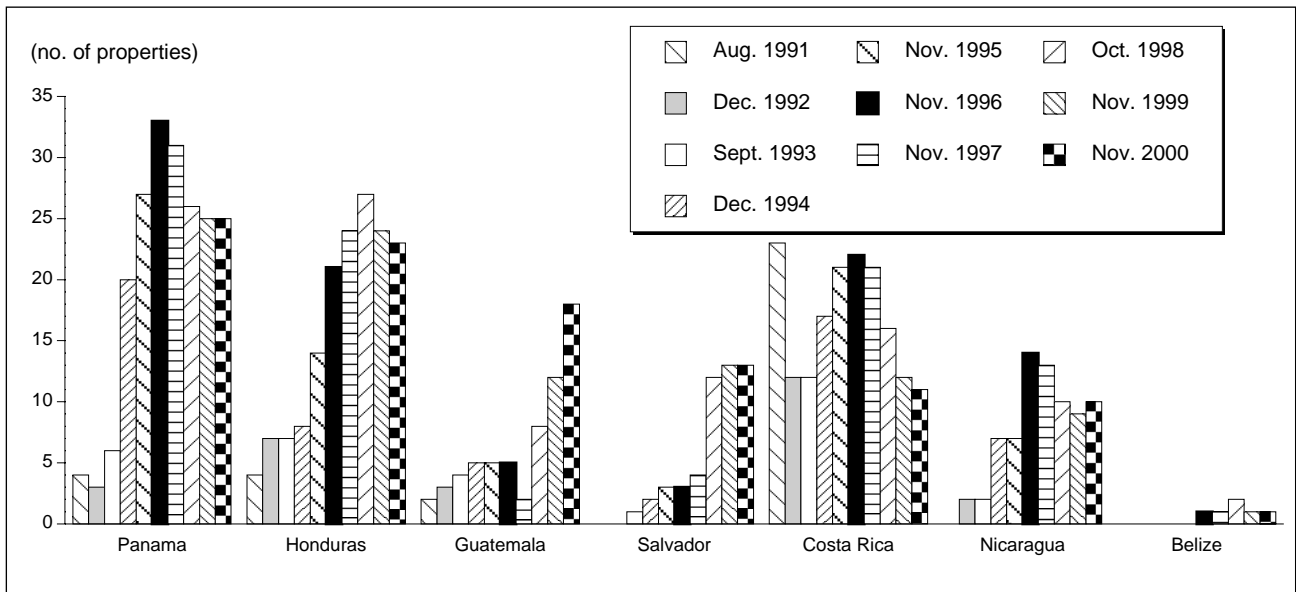


**Figure 10**  
**Canadian Mineral Property Portfolio in South America, 1991-2000 –**  
**Countries Accounting for 90% of Canadian Holdings in 2000**  
 Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on *MIN-MET CANADA* for 1991-97 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

**Figure 11**  
**Canadian Mineral Property Portfolio in Central America, 1991-2000**  
 Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on *MIN-MET CANADA* for 1991-97 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

Explorations Ltd. is the only larger Canadian-based company that reported an exploration program for the Caribbean. The company planned to spend \$0.3 million in Cuba on a study of the feasibility of bringing the Mantua copper-gold deposit into production.

At the end of 2000, companies of all sizes listed on Canadian stock exchanges held about 40 mineral properties in the Caribbean, most of them in the Dominican Republic and Cuba (Figure 12).

### Europe and the Former Soviet Union

In 2000, the larger-company mineral exploration market in Europe and the Former Soviet Union (FSU) was valued at almost \$150 million (Figure 4), or slightly more than 5% of the \$2.9 billion larger-company market worldwide. The larger Canadian-based companies planned to spend about \$60 million in the region, equivalent to almost 40% of the market. At the end of 2000, companies of all sizes listed on Canadian stock exchanges held almost 240 mineral properties in Europe and the FSU (Figure 3).

#### Western Europe

In 2000, the larger-company mineral exploration market in western Europe was valued at almost \$70 million, or slightly more than 2% of the \$2.9 bil-

lion larger-company market worldwide. The larger Canadian-based companies planned to spend more than \$20 million there, equivalent to more than one third of the market.

Canadian-based companies held the dominant share of the market in two countries of western Europe. In Greenland, Crew Development Corporation planned to spend almost \$4 million on advanced exploration at the Nalunaq gold deposit, the largest program in that country. Crew also planned to spend \$1.5 million at the Røros zinc-copper complex in Norway.

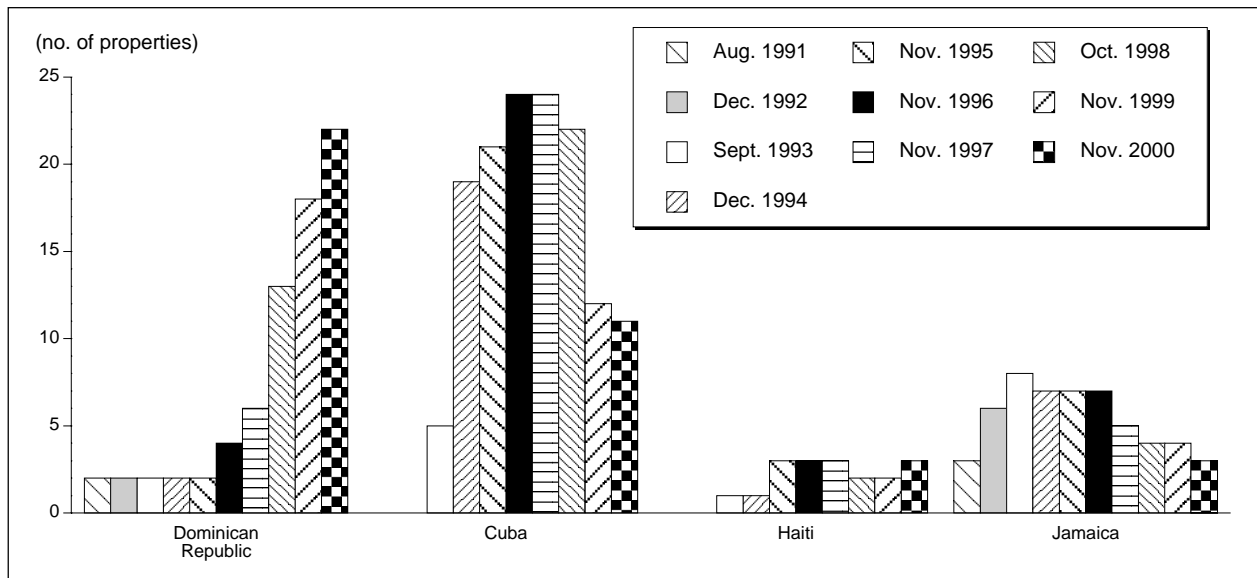
At the end of 2000, companies of all sizes listed on Canadian stock exchanges held more than 100 mineral properties in western Europe. They held almost 30 in Sweden and more than 10 in each of Portugal, Greenland and Spain (Figure 13).

#### Eastern Europe

In 2000, the larger-company mineral exploration market in eastern Europe was valued at almost \$30 million, or less than 1% of the \$2.9 billion larger-company market worldwide. The larger Canadian-based companies planned to spend more than \$20 million there, equivalent to 85% of the market.

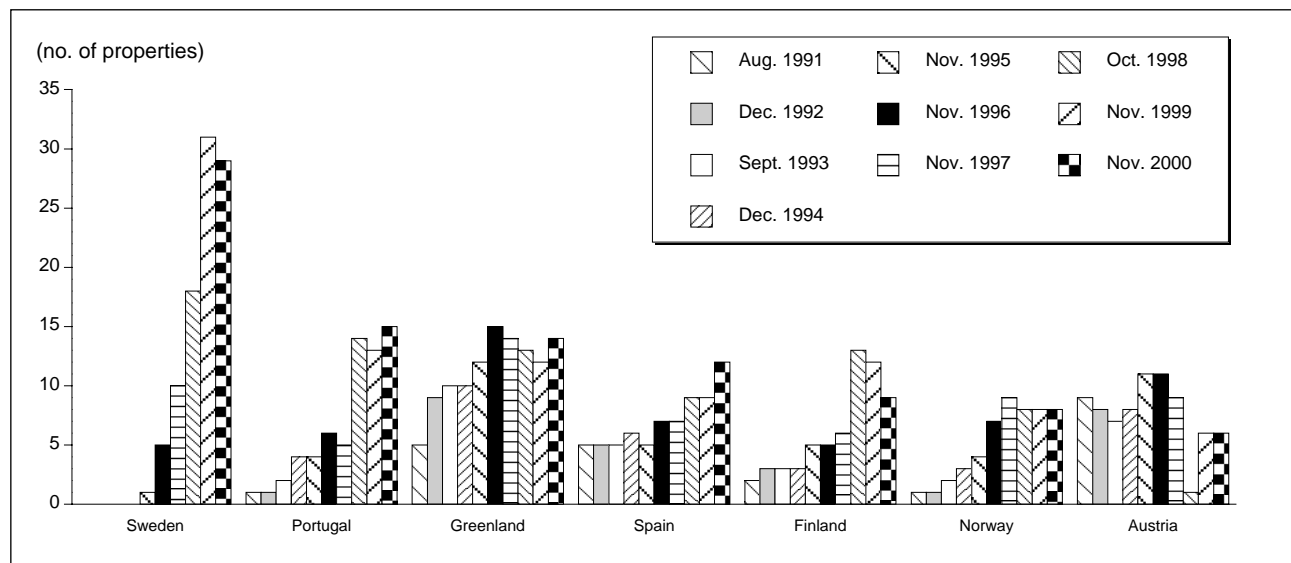
Canadian-based companies held the dominant share of the market in two countries of eastern Europe. In Romania, Gabriel Resources Limited planned to

**Figure 12**  
**Canadian Mineral Property Portfolio in the Caribbean, 1991-2000 –**  
**Countries With Canadian Holdings in 2000**  
 Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on MIN-MET CANADA for 1991-97 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

**Figure 13**  
**Canadian Mineral Property Portfolio in Western Europe, 1991-2000 –**  
**Countries Accounting for 90% of Canadian Holdings in 2000**  
 Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on *MIN-MET CANADA* for 1991-97 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

spend over \$14 million, about 70% of it to study the feasibility of bringing the Rosia Montana gold-silver deposit into production, while in Turkey, Eldorado Gold Corporation planned to spend roughly \$4 million on advanced exploration for gold.

At the end of 2000, companies of all sizes listed on Canadian stock exchanges held almost 70 mineral properties in eastern Europe. They held almost 30 in Turkey (Figure 14).

### Former Soviet Union

In 2000, the larger-company mineral exploration market in the countries of the FSU was valued at almost \$40 million,<sup>8</sup> or slightly more than 1% of the \$2.9 billion larger-company market worldwide. The larger Canadian-based companies planned to spend about \$6 million in these countries.

At the end of 2000, companies of all sizes listed on Canadian-based stock exchanges held interests in almost 70 mineral properties in six countries of the FSU (Figure 15).

Russia is the country of the FSU where the larger Canadian-based companies are the most active. In 2000, they planned to spend about \$5 million on exploration there, equivalent to about 30% of the market. Kinross, whose budget for Russia was the largest of all larger companies operating there,

planned to spend almost \$3 million, mainly at or in the vicinity of the Kubaka gold-silver mine. The number of properties held in Russia by companies of all sizes listed on Canadian stock exchanges increased significantly starting in 1996 and now stands at over 30.

### Africa and the Middle East

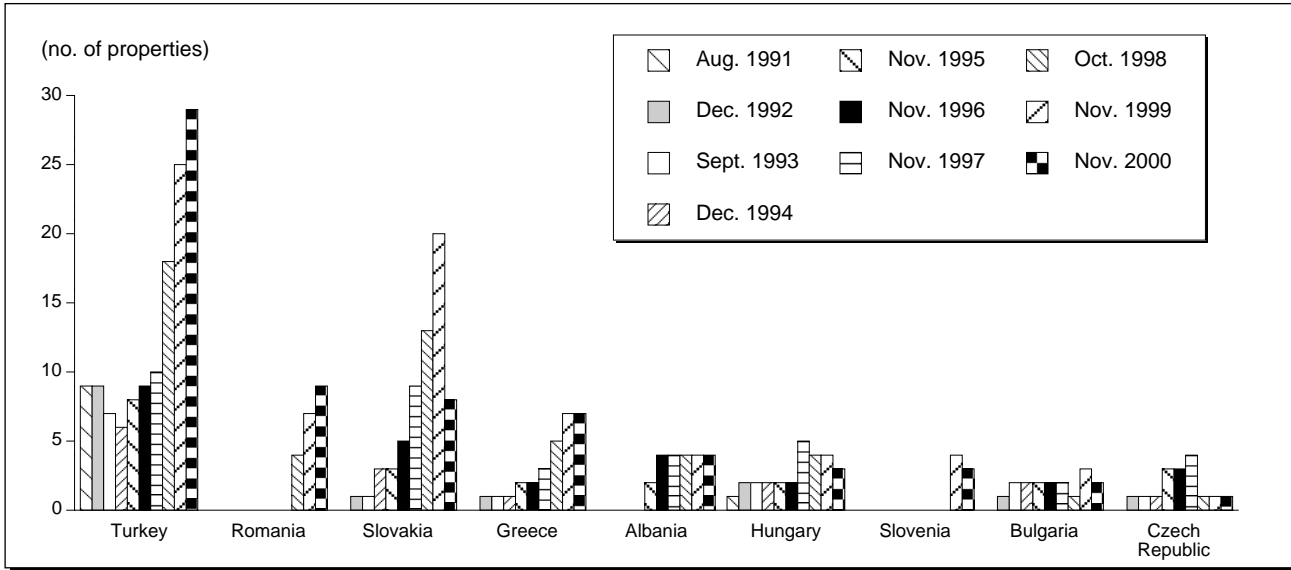
In 2000, the larger-company mineral exploration market in Africa and the Middle East was valued at almost \$370 million (Figure 4), or almost 13% of the \$2.9 billion larger-company market worldwide. The larger Canadian-based companies planned to spend more than \$60 million in Africa, equivalent to almost 17% of the market on that continent.

### Africa

In 2000, the larger-company mineral exploration market in Africa was valued at almost \$365 million (Figure 4), or almost 13% of the \$2.9 billion larger-company market worldwide.

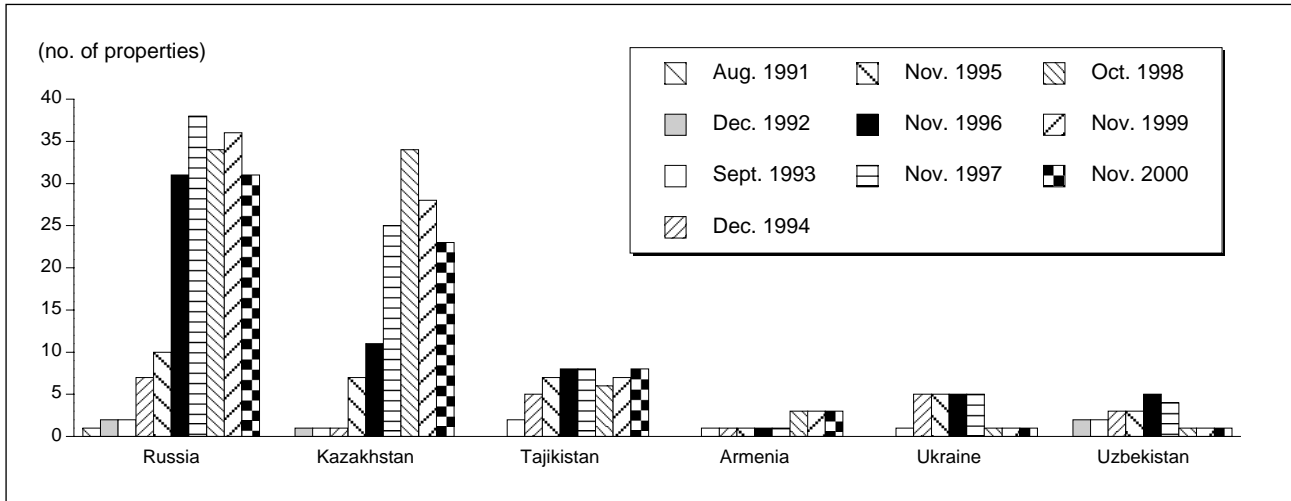
The larger Canadian-based companies were expected to finance the largest share of the mineral exploration programs in four countries of Africa: in Burkina Faso, SEMAFO Inc. planned to spend more than \$4 million on grassroots exploration at the Mana property; in Niger, SEMAFO also planned to spend almost \$3 million for advanced exploration at

**Figure 14**  
**Canadian Mineral Property Portfolio in Eastern Europe, 1991-2000 –**  
**Countries With Canadian Holdings in 2000**  
 Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on MIN-MET CANADA for 1991-97 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

**Figure 15**  
**Canadian Mineral Property Portfolio in the Former Soviet Union, 1991-2000 –**  
**Countries with Canadian Holdings in 2000**  
 Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on MIN-MET CANADA for 1991-97 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

the Libiri gold deposit; in Senegal, IAMGOLD Corporation planned to spend over \$1.5 million on grass-roots exploration for gold at the Bambadji and Daorala-Boto properties; and in Tanzania, Barrick planned to spend almost \$15 million looking for gold, more than half of it at the Bulyanhulu mine.

At the end of 2000, companies of all sizes listed on Canadian stock exchanges held interests in almost 640 mineral properties in 39 countries on the African continent. They held interests in over 80 properties in Ghana, in over 70 in South Africa, and in 50 or more in each of Tanzania, Zimbabwe and Burkina Faso (Figure 16).

### Middle East

In 2000, the larger-company mineral exploration market in the Middle East was valued at about \$5 million. The larger Canadian-based companies planned to spend only \$0.1 million there, equivalent to about 2% of the market in that region.

### Asia-Pacific

In 2000, the larger-company mineral exploration market in Asia-Pacific was valued at almost \$760 million (Figure 4), or more than one quarter of the \$2.9 billion larger-company market worldwide. The larger Canadian-based companies planned to spend over \$100 million in the region, equivalent to 14% of the market there. Canadian budgets for Asia-Pacific were almost twice as large as in 1999.

At the end of 2000, companies of all sizes listed on Canadian stock exchanges held interests in over 460 mineral properties in Asia-Pacific (Figure 3).

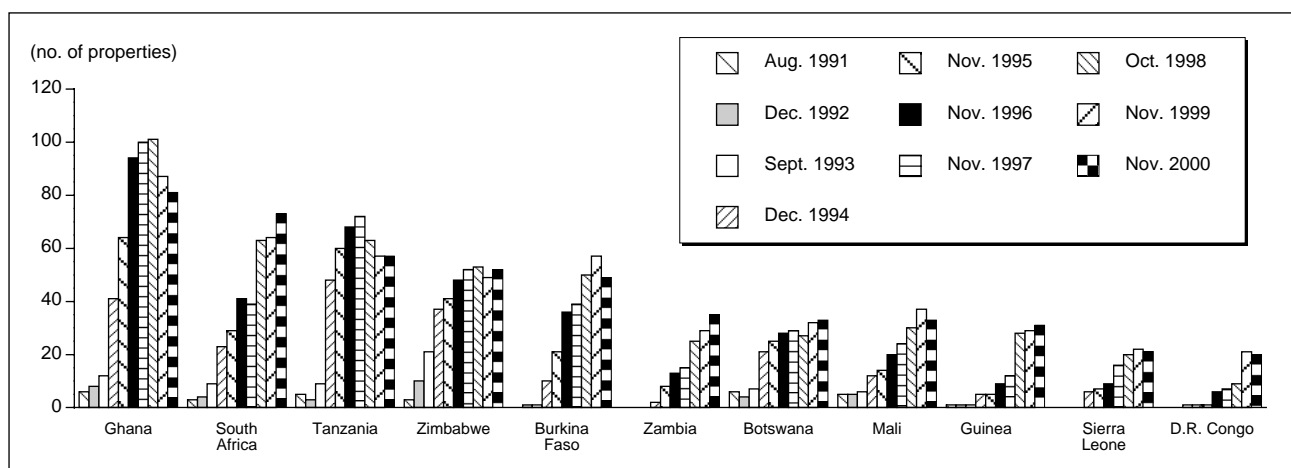
### Southeast Asia

In 2000, the larger-company mineral exploration market in Southeast Asia was valued at over \$200 million, or slightly more than 7% of the \$2.9 billion larger-company market worldwide. The larger Canadian-based companies planned to spend over \$40 million in the region, equivalent to more than 20% of the market there.

In Indonesia, Weda Bay Minerals Inc. planned to spend over \$7 million to study the feasibility of bringing the Halmahera Island nickel-cobalt deposit into production. In Papua New Guinea, Madison Enterprises Corp. planned to spend \$15 million on advanced exploration at the Mount Kare gold-silver deposit. In the Philippines, Crew planned to spend more than \$4 million on advanced exploration at the Mindoro lateritic nickel-cobalt deposit. In Vietnam, Falconbridge Limited planned to spend \$1 million at the Ban Phuc nickel-copper deposit.

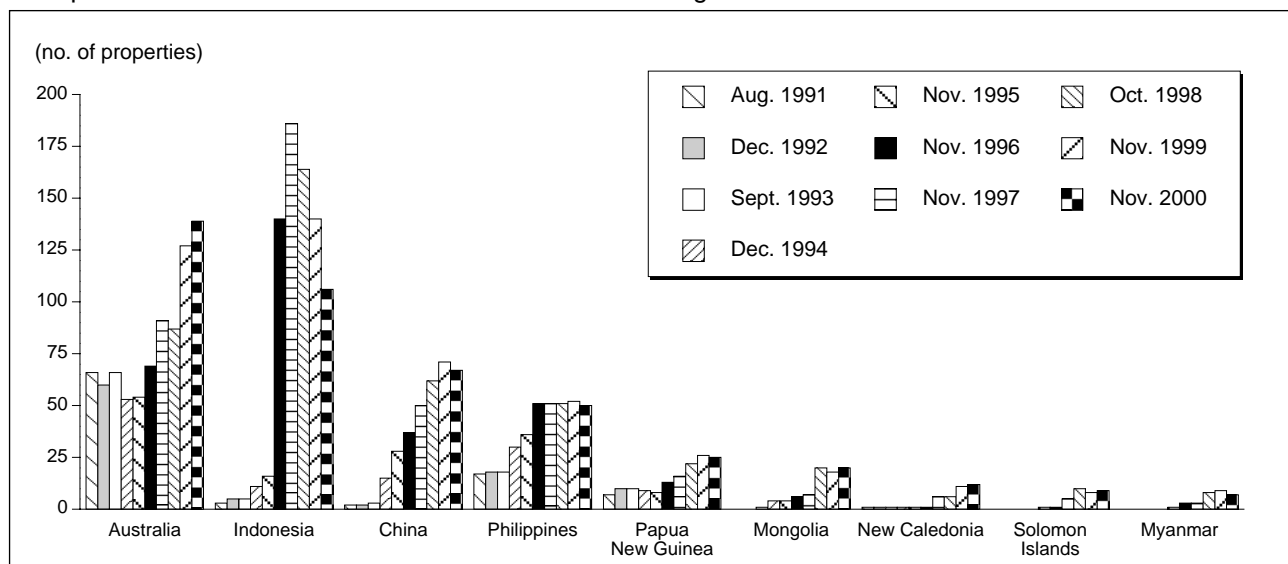
At the end of 2000, companies of all sizes listed on Canadian stock exchanges held over 200 mineral properties in Southeast Asia. They held over 100 in Indonesia and more than 50 in the Philippines (Figure 17).

**Figure 16**  
Canadian Mineral Property Portfolio in Africa, 1991-2000 –  
Countries Accounting for 75% of Holdings in 2000  
Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on *MIN-MET CANADA* for 1991-97 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

**Figure 17**  
**Canadian Mineral Property Portfolio in Asia-Pacific, 1991-2000 –**  
**Countries Accounting for 95% of Canadian Holdings in 2000**  
 Companies of all Sizes Listed on Canadian Stock Exchanges



Source: Natural Resources Canada, based on *MIN-MET CANADA* for 1991-97 and InfoMine db for 1998-2000, Robertson Info-Data Inc., Vancouver, British Columbia, and used under licence.

### East Asia

In 2000, the larger-company mineral exploration market in east Asia, which includes China, Japan, Mongolia, North Korea, South Korea and Taiwan, was valued at almost \$40 million,<sup>9</sup> or slightly more than 1% of the \$2.9 billion larger-company market worldwide. The larger Canadian-based companies planned to spend about \$5 million there, equivalent to almost 13% of the market.

Since 1993, there has been considerable Canadian interest in the mineral potential of China. In 2000, Placer Dome and Teck each planned to spend about \$0.7 million there. In late 2000, companies of all sizes listed on Canadian stock exchanges held interests in almost 70 mineral properties in that country (Figure 17).

In South Korea, Ivanhoe Mines Ltd. planned to spend about \$1.5 million on grassroots exploration for base metals. In Mongolia, Cameco Corporation planned to spend almost \$2 million on grassroots exploration for gold at the Sharingol concession.

### South Pacific

In 2000, the larger-company mineral exploration market in the South Pacific was valued at over \$500 million, or over 17% of the \$2.9 billion larger-company market worldwide. Australia accounted for

90% of that market. The larger Canadian-based companies planned to spend almost \$60 million in the region, three times as much as in 1999.

In New Caledonia, Falconbridge planned to spend over \$36 million for advanced exploration at the Koniambo lateritic nickel deposit. This budget is among the largest for a single Canadian project abroad. In Australia, Placer Dome planned to spend over 70% of its more than \$7 million budget for that country looking for additional gold at the Granny Smith mine and at the Kidston mine. Noranda planned to spend a good portion of its more than \$6 million budget for Australia at the Lady Loretta zinc-lead-silver deposit.

At the end of 2000, companies of all sizes listed on Canadian stock exchanges held almost 170 properties in the South Pacific, of which over 80% were located in Australia (Figure 17).

### South Asia

In 2000, the larger-company mineral exploration market in South Asia, which includes India, Pakistan and Sri Lanka, was valued at about \$13 million, or less than 1% of the \$2.9 billion larger-company market worldwide. The larger Canadian-based companies reported no exploration programs for that region.

## SUMMARY AND OUTLOOK

In 2000, Canadian-based companies planned to conduct mineral exploration programs around the world valued at roughly \$900 million. This is equivalent to more than 30% of all of the activity planned worldwide. Almost 14% of the world's mineral exploration activity was expected to occur in Canada, compared with about 11% in each of the previous three years. Canada is one of the few countries where exploration activity was expected to increase significantly from 1999 to 2000. For the first year since 1994, Canadians planned to conduct more exploration in Canada than in all of Latin America.

Also in 2000, Canadian companies further increased their share of the exploration market in the United States. They planned to undertake over 50% of all exploration activity there. Furthermore, they planned to conduct the largest share of exploration programs not only in Canada, but also in South America, the Caribbean and eastern Europe. Although Canadian companies have diversified their portfolio of mineral projects to well over 100 countries, Canada remains the country where they are, by far, the most active.

Exploration finance markets remain depressed and mineral commodity prices are relatively low, such that a return to the record levels of exploration programs carried out around the world in the late 1990s is not in sight. Many of the smaller companies are inactive because of a lack of funds. Mergers and acquisitions are commonplace.

Although Canadian companies tend to have smaller exploration budgets than those of other developed countries, they are considerably more numerous than companies based elsewhere. As a result, companies based in Canada are likely to continue, for the foreseeable future, to dominate mineral exploration worldwide.

## REFERENCES

<sup>1</sup> All currencies in this review are expressed in Canadian dollars unless otherwise indicated.

<sup>2</sup> Most of the data on the larger-company mineral exploration market worldwide are based on *Corporate Exploration Strategies: A Worldwide Analysis*, published annually by the Metals Economics Group, Halifax, Nova Scotia (tel. [902] 429-2880).

<sup>3</sup> Keith Brewer and André Lemieux, *Canada's Global Position in Mining - Canadian Financing of the International Mining Industry*, Metals Finance 4th International Conference, Toronto, May 7-9, 1997, Natural Resources Canada, Ottawa, 53 pp. (tel. [613] 995-4577).

<sup>4</sup> For more information on various aspects of the relationship between exploration budgets and exploration expenditures for the larger Canadian companies, see André Lemieux, "Canada's Global Mining Presence," in the 1998 edition of the *Canadian Minerals Yearbook*, Natural Resources Canada, Ottawa, pp. 7.1 and 7.2; see also André Lemieux, "Canada's Global Mining Presence," in the 1999 edition of the *Canadian Minerals Yearbook*, Natural Resources Canada Ottawa, pp. 7.1 and 7.3 (<http://www.nrcan.gc.ca/mms/cmy/content/1998/08.pdf> and <http://www.nrcan.gc.ca/mms/cmy/content/08.pdf>, respectively).

<sup>5</sup> Most of the data for 1991 through 1997 on the mineral property portfolio of companies of all sizes listed on Canadian stock exchanges are derived from *MIN-MET CANADA*; for 1998 through 2000, they are derived from *InfoMine db*. These databases are products of Robertson Info-Data Inc., Vancouver, British Columbia (tel. (604) 683-2037).

<sup>6</sup> For trends in mineral deposit appraisal activity in Canada over the interval 1982-97, and for a list of projects at the deposit appraisal stage in early 1997, see André Lemieux, "Canada's Global Mining Presence," in the 1996 edition of the *Canadian Minerals Yearbook*, Natural Resources Canada, Ottawa, pp. 8.9 and 8.11-8.22 (<http://www.nrcan.gc.ca/mms/cmy/content/1996/08.pdf>).

<sup>7</sup> For a discussion of the global market for mining goods and services and the role played by Canadian companies, see André Lemieux, *Canadian Suppliers of Mining Goods and Services: Links Between Canadian Mining Companies and Selected Sectors of the Canadian Economy*, Natural Resources Canada, Ottawa, September 2000, 84 pp. (<http://www.nrcan.gc.ca/mms/pubs/services-mines-e.pdf>).

<sup>8, 9</sup> The mineral exploration market in certain regions of the world is probably underestimated because there are few data available on the extent of exploration programs undertaken by some state agencies.

*Notes: (1) Information in this review was current as at July 2001. (2) This and other reviews, including previous editions, are available on the Internet at [http://www.nrcan.gc.ca/mms/cmy/index\\_e.html](http://www.nrcan.gc.ca/mms/cmy/index_e.html).*

## NOTE TO READERS

The intent of this document is to provide general information and to elicit discussion. It is not intended as a reference, guide or suggestion to be used in trading, investment, or other commercial activities. The author and Natural Resources Canada make no warranty of any kind with respect to the content and accept no liability, either incidental, consequential, financial or otherwise, arising from the use of this document.

**TABLE 1. SELECTED PRODUCTION AND OTHER ADVANCED MINERAL DEVELOPMENT PROJECTS ABROAD IN WHICH COMPANIES BASED IN CANADA HAVE AN INTEREST**

Country	Project	Canadian Participants	Products	Status
Angola	Camafuca	SouthernEra Resources Limited	Diamonds	Feasibility
	Luo	DiamondWorks Ltd.	Diamonds	Suspended
	Yetwene	DiamondWorks Ltd.	Diamonds	Suspended
Argentina	Alumbrera, Bajo de la El Pachón	Rio Algom Limited	Copper, gold	Production
	Lama (Pascua-Lama)	Cambior Inc.	Copper	Feasibility
Armenia	Ararat	Barrick Gold Corporation	Gold, silver	Feasibility
	Meghradzor	First Dynasty Mines Ltd.	Gold	Production
	Zod	First Dynasty Mines Ltd.	Gold	Construction
Australia	Bounty	First Dynasty Mines Ltd.	Gold	Feasibility
	Carosue Dam	Viceroy Resource Corporation	Gold	Production
	Ely	Teck Corporation	Gold	Production
	Emily Ann	Alcan Inc.	Aluminum	Production
	Gladstone (refinery)	LionOre Mining International Ltd.	Nickel	Construction
	Gove	Alcan Inc.	Aluminum	Production
	Granny Smith	Alcan Inc.	Aluminum	Production
	Kalgoorlie	Placer Dome Inc.	Gold	Production
	Kidston	Barrick Gold Corporation	Gold	Production
	Magellan	Placer Dome Inc.	Gold, silver	Production
	Mount Cuthbert	Ivernia West Inc.	Lead	Feasibility
	Osborne	Summo Minerals Corporation	Copper	Production
	Savage River	Placer Dome Inc.	Gold, copper	Production
	Tarmoola	Ivanhoe Mines Ltd.	Iron	Production
	Thunderbox	Teck Corporation	Gold	Production
	Yilgarn	Lion Ore Mining International Ltd.	Gold	Feasibility
Bolivia	Amayapampa	Barrick Gold Corporation	Gold	Production
Botswana	Phoenix (Tati)	Vista Gold Corp.	Gold	Feasibility
	Selkirk (Tati)	LionOre Mining International Ltd.	Nickel, copper	Production
Brazil	Alumar (refinery)	LionOre Mining International Ltd.	Nickel, copper	Production
	Aratu (smelter)	Alcan Inc.	Aluminum	Production
	Brasília	Alcan Inc.	Aluminum	Production
	Crixás	TVX Gold Inc.	Gold	Production
	Ouro Preto (refinery)	TVX Gold Inc.	Gold	Production
	Ouro Preto (smelter)	Alcan Inc.	Aluminum	Production
	São Bento	Alcan Inc.	Aluminum	Production
	Trombetas	Eldorado Gold Corporation	Gold	Production
Chile	Altonorte (smelter)	Alcan Inc.	Aluminum	Production
	Andacollo Copper	Noranda Inc.	Copper, sulphuric acid	Production
	Cerro Casale (Aldebaran)	Aur Resources Inc.	Copper, gold	Production
	Cerro Colorado	Placer Dome Inc., Bema Gold Corporation, Arizona Star Resource Corp.	Gold, copper, silver	Feasibility
	Collahuasi	Rio Algom Limited	Copper	Production
	El Indio	Falconbridge Limited	Copper	Production
	El Toqui	Barrick Gold Corporation	Copper, gold, silver	Production
	Guanaco	Breakwater Resources Ltd.	Zinc, gold, silver, copper, lead	Production
	La Coipa	Kinross Gold Corporation	Gold, silver	Production
	Lobo-Marté	Placer Dome Inc., TVX Gold Inc.	Gold, silver	Production
	Lomas Bayas	Teck Corporation	Gold	Feasibility
	Pascua (Pascua-Lama)	Boliden Limited	Copper	Production
	Quebrada Blanca	Barrick Gold Corporation	Gold, silver	Feasibility
	Refugio	Aur Resources Inc.	Copper	Production
	Zaldívar	Bema Gold Corporation, Kinross Gold Corporation	Gold, silver	Production
China	Bamen Est	Placer Dome Inc.	Copper	Production
	Crimson Hills	Goldpark China Limited	Gold	Production
	Fortune Mountain	Goldpark China Limited	Gold	Production
	Hucun	Goldpark China Limited	Gold	Production
	Kunshun (refinery)	UNIREX Corporation	Copper, gold	Production
	Qian Chang	Inco Limited	Nickel	Production
Costa Rica	Bellavista	UNIREX Corporation	Iron, copper, gold, silver	Production
Cuba	Mantua	Wheaton River Minerals Ltd.	Gold	Feasibility
	Moa Bay	Northern Orion Explorations Ltd.	Copper, gold	Feasibility
Democratic Republic of the Congo	Tenke Fungurume	Sherritt International Corporation	Nickel, cobalt	Production
Dominican Republic	Falcondo	Tenke Mining Corp.	Copper, cobalt	Feasibility
Ghana	Bonte (Jeni)	Falconbridge Limited	Nickel	Production
	Ghana Bauxite (GBC)	Akrokeri-Ashanti Gold Mines Inc.	Gold	Production
	Tarkwa	Alcan Inc.	Aluminum	Production
		Repadre Capital Corporation	Gold	Production



TABLE 1. (cont'd)

Country	Project	Canadian Participants	Products	Status	
Greece	Olympias	TVX Gold Inc.	Gold, zinc, lead, silver	Construction	
	Skouries	TVX Gold Inc.	Gold, copper	Feasibility	
	Stratoni	TVX Gold Inc.	Lead, zinc, silver	Production	
Greenland	Nulanuq	Crew Development Corporation	Gold	Feasibility	
	Guinea	Aredor	Trivalence Mining Corporation	Diamonds	Production
		Halco (CBG)	Alcan Inc.	Aluminum	Production
Guyana	Jean-Gobeles	SEMAFO Inc.	Gold	Construction	
	Omai	Cambior Inc.	Gold	Production	
Honduras	El Mochito	Breakwater Resources Ltd.	Zinc, lead, silver	Production	
	Vueltas del Rio	Geomaque Explorations Ltd.	Gold	Construction	
India	Alupuram (smelter)	Alcan Inc.	Aluminum	Production	
	Chandgad	Alcan Inc.	Aluminum	Production	
	Hirakud (smelter)	Alcan Inc.	Aluminum	Production	
	Lohardaga	Alcan Inc.	Aluminum	Production	
	Muri (refinery)	Alcan Inc.	Aluminum	Production	
	Utkal	Alcan Inc.	Aluminum	Feasibility	
	Utkal (refinery)	Alcan Inc.	Aluminum	Feasibility	
Indonesia	Cikidang	International Antam Resources Ltd.	Gold, silver	Production	
	Halmahera	Weda Bay Minerals Inc.	Nickel, cobalt	Feasibility	
	Soroako	Inco Limited	Nickel	Production	
Ireland	Lisheen	Ivemia West Inc.	Zinc, lead	Production	
Japan	Tokyo (refinery)	Inco Limited	Nickel	Production	
Kazakhstan	Central Mukur	Eurasia Gold Corp.	Gold	Production	
	Inkai (test mine)	Cameco Corporation	Uranium	Feasibility	
Kenya	Myaly	Eurasia Gold Corp.	Gold	Production	
	Kwale	Tiomin Resources Inc.	Titanium sands	Feasibility	
Kyrgyzstan	Kumtor	Cameco Corporation	Gold	Production	
	Mali	Sadiola	IAMGOLD Corporation	Gold	Production
Mexico	Yatela	IAMGOLD Corporation	Gold	Production	
	Avino	Avino Silver & Gold Mines Ltd.	Silver, copper, gold	Production	
	La Colorada	Pan American Silver Corp.	Silver, gold, zinc, lead	Feasibility	
	Magistral	Queenstake Resources Ltd.	Gold	Feasibility	
	Paredones Amarillos	Viceroy Resource Corporation	Gold	Feasibility	
	Pilares	Fording Inc.	Wollastonite	Production	
	San Francisco	Geomaque Explorations Ltd.	Gold	Production	
	San Martin	First Silver Reserve Inc.	Silver	Production	
	San Nicholas	Teck Corporation, Western Copper Holdings Limited	Zinc, copper, gold, silver	Feasibility	
	Myanmar	Letpadaung	Ivanhoe Mines Ltd.	Copper	Feasibility
New Caledonia	Monywa (S&K)	Ivanhoe Mines Ltd.	Copper	Production	
	Goro	Inco Limited	Nickel, cobalt	Feasibility	
Nicaragua	Koniambo	Falconbridge Limited	Nickel	Feasibility	
	El Limon	Black Hawk Mining Inc.	Gold	Production	
Niger	Samira Hill	SEMAFO Inc.	Gold	Construction	
Norway	Bjørnevatn	Ivanhoe Mines Ltd.	Iron	Financing	
	Nikkelverk (refinery)	Falconbridge Limited	Nickel, copper, cobalt, silver, gold, platinum group metals, sulphuric acid	Production	
Papua New Guinea	Norzinc (smelter and refinery)	Boliden Limited	Zinc, aluminum	Production	
	Misima	Placer Dome Inc.	Gold, silver	Production	
	Ok Tedi	Inmet Mining Corporation	Copper, gold	Production	
Peru	Porgera	Placer Dome Inc.	Gold, silver	Production	
	Acari	Dynacor Mines Inc.	Gold	Production	
Philippines	Antamina	Noranda Inc., Teck Corporation	Copper, zinc, silver, molybdenum	Production	
	Cajamarquilla (refinery)	Cominco Ltd.	Zinc, sulphuric acid	Production	
	El Brocal (Tajo Norte)	Cominco Ltd.	Zinc, lead, silver	Production	
	Huaron	Pan American Silver Corp.	Silver, zinc, lead, copper	Production	
	Pierina	Barrick Gold Corporation	Gold, silver	Production	
	Quiruvilca	Pan American Silver Corp.	Silver, zinc, lead, copper	Production	
	Tabmo Grande	Manhattan Minerals Corp.	Copper, zinc, silver	Production	
	Bulawan	Philex Gold Inc.	Gold	Production	
	Mindoro	Crew Development Corporation	Nickel	Feasibility	
	Sibutad	Philex Gold Inc.	Gold	Care and maintenance	
Portugal	Aljustrel	EuroZinc Mining Corporation	Zinc, lead, copper, silver	Feasibility	
Russia	Irokinda	High River Gold Mines Ltd.	Gold	Production	
	Julietta	Bema Gold Corporation	Gold, silver	Construction	
	Kubaka	Kinross Gold Corporation	Gold, silver	Production	
	Zun-Holba	High River Gold Mines Ltd.	Gold	Production	
Sierra Leone	Koidu	DiamondWorks Ltd.	Diamonds	Suspended	
South Africa	Klipspringer (Fissure)	SouthernEra Resources Limited	Diamonds	Construction	
	Maranda	Crew Development Corporation	Zinc, copper	Production	
	Marsfontein (M1 Pipe)	SouthernEra Resources Limited	Diamonds	Production	
	Messina	SouthernEra Resources Limited	Platinum group metals, copper, nickel	Financing	

TABLE 1. (cont'd)

Country	Project	Canadian Participants	Products	Status
	Murchison	Crew Development Corporation	Gold, antimony	Production
	Nigramoep	Crew Development Corporation	Copper	Production
	O'Okiep (smelter)	Crew Development Corporation	Copper	Production
	Palmietgat	Trivalence Mining Corporation	Diamonds	Production
	Ryedale (Metmin)	Crew Development Corporation	Manganese	Production
	So Ver	Diamcor Mining Inc.	Diamonds	Production
	South Deep	Placer Dome Inc.	Gold	Production
	Vergenoeg	Crew Development Corporation	Fluorite	Production
	Wakefield	Crew Development Corporation	Coal	Production
South Korea	Onsan (refinery)	Inco Limited	Nickel	Production
Spain	Carlés	Rio Narcea Gold Mines Ltd.	Gold	Production
	El Valle	Rio Narcea Gold Mines Ltd.	Gold	Production
	Los Frailes (Apirsa)	Boliden Limited	Zinc, copper, lead, silver	Production
Sweden	Aitik	Boliden Limited	Copper, gold, silver	Production
	Åkerberg	Boliden Limited	Zinc, copper, lead, gold, silver	Production
	Garpenberg	Boliden Limited	Zinc, copper, lead, gold, silver	Production
	Kristineberg	Boliden Limited	Zinc, copper, lead, gold, silver	Production
	Laisvall	Boliden Limited	Lead, zinc, silver	Production
	Maurilinden	Boliden Limited	Zinc, copper, lead, gold, silver	Production
	Petiknäs	Boliden Limited	Zinc, copper, lead, gold, silver	Production
	Renström	Boliden Limited	Zinc, copper, lead, gold, silver	Production
	Rönnskär (smelter and refinery)	Boliden Limited	Copper, lead, zinc, gold, silver, nickel, platinum group metals, sulphuric acid	Production
Taiwan	Kaohsiung (refinery)	Inco Limited	Nickel	Production
Tajikistan	Aprelevka	Gulf International Minerals Ltd.	Gold	Construction
Tanzania	Bulyanhulu	Barrick Gold Corporation	Gold	Production
Thailand	Somboon	Asia Pacific Resources Ltd.	Potash	Feasibility
Tunisia	Bougrine	Breakwater Resources Ltd.	Zinc, lead	Production
Turkey	Çayeli	Inmet Mining Corporation	Copper, zinc, gold, silver	Production
United Kingdom	Acton (refinery)	Inco Limited	Platinum group metals	Production
	Burntisland (refinery)	Alcan Inc.	Aluminum	Production
	Clydach (refinery)	Inco Limited	Nickel, cobalt	Production
	Kinlochleven (smelter)	Alcan Inc.	Aluminum	Production
	Lochaber (smelter)	Alcan Inc.	Aluminum	Production
	Lynemouth (smelter)	Alcan Inc.	Aluminum	Production
United States	American Tripoli	Fording Inc.	Tripoli	Production
	Bald Mountain	Placer Dome Inc.	Gold	Production
	Betze-Post (Goldstrike)	Barrick Gold Corporation	Gold	Production
	Castle Mountain	Viceroy Resource Corporation	Gold	Production
	Cortez (Pipeline)	Placer Dome Inc.	Gold, silver	Production
	Crow Butte	Cameco Corporation	Uranium	Production
	DeLamar	Kinross Gold Corporation	Gold, silver	Suspended
	Denton-Rawhide	Kinross Gold Corporation, Dayton Mining Corporation	Gold, silver	Production
	Eveleth	Stelco Inc.	Iron	Production
	Fort Knox	Kinross Gold Corporation	Gold	Production
	Golden Sunlight	Placer Dome Inc.	Gold	Production
	Hayden Hill	Kinross Gold Corporation	Gold, silver	Production
	Hibbing	Stelco Inc.	Iron	Production
	Highland	Cameco Corporation	Uranium	Production
	Hycroft	Vista Gold Corp.	Gold, silver	Suspended
	Jamboree	Stelco Inc.	Coal	Production
	Ken Snyder	Franco-Nevada Mining Corporation Limited	Gold	Production
	Lisbon Valley	Summo Minerals Corporation	Copper	Feasibility
	Meikle (Goldstrike)	Barrick Gold Corporation	Gold	Production
	New Madrid (smelter)	Noranda Inc.	Aluminum	Production
	Pend Oreille	Cominco Ltd.	Zinc, lead	Feasibility
	Pogo	Teck Corporation	Gold	Feasibility
	Rasmussen Ridge (Conda)	Agrium Inc.	Phosphate	Production
	Red Dog	Cominco Ltd.	Zinc, lead, silver	Production
	Sebree (smelter)	Alcan Inc.	Aluminum	Production
	Tilden	Algoma Steel Inc., Stelco Inc.	Iron	Production
	Wharf	Goldcorp Inc.	Gold	Production
	Willsboro (Nyco)	Fording Inc.	Wollastonite	Production
Uruguay	San Gregorio	Crystallex International Corporation	Gold	Production

TABLE 1. (cont'd)

Country	Project	Canadian Participants	Products	Status
Venezuela	Albino-1	Crystallex International Corporation	Gold	Feasibility
	Loma de Niquel	iTech Capital Corp.	Nickel	Construction
	Tomi	Crystallex International Corporation	Gold	Production
Zambia	Bwana Mkubwa	First Quantum Minerals Ltd.	Copper, sulphuric acid	Production
	Chibuluma South	Crew Development Corporation	Copper	Production
	Chibuluma West	Crew Development Corporation	Copper, cobalt	Production
	Mufulira	First Quantum Minerals Ltd.	Copper	Production
	Mulfira (refinery)	First Quantum Minerals Ltd.	Copper	Production
	Mulfira (smelter)	First Quantum Minerals Ltd.	Copper	Production
	Nkana	First Quantum Minerals Ltd.	Copper, cobalt	Production
Zimbabwe	Nkana (refinery)	First Quantum Minerals Ltd.	Copper, cobalt	Production
	Blanket	Kinross Gold Corporation	Gold	Production
	Blue Rock	Conquest Resources Limited	Gold	Production
	Connemara	First Quantum Minerals Ltd.	Gold	Suspended
	Glencairn	Conquest Resources Limited	Gold	Production
	Shamrock	Conquest Resources Limited	Gold	Production

Source: Natural Resources Canada, based on company reports available as at July 2001.

Note: Canadian companies have interests in hundreds of other less advanced projects around the globe at the exploration stage of the mineral development process.