



2006 Minerals Yearbook

LATIN AMERICA AND CANADA

THE MINERAL INDUSTRIES OF LATIN AMERICA AND CANADA

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The 33 independent countries and 13 territories in Latin America (which includes the Caribbean) and Canada covered in this volume encompass an area of 30.5 million square kilometers. The region, which is more than three times the size of the United States, had a population of 594 million, or more than 9% of the world total, in 2006 (U.S. Central Intelligence Agency, 2007; World Bank, The, 2007; International Monetary Fund, 2008).

A number of countries in Latin America and Canada were major producers and exporters of mineral and fuel commodities. Such countries as Argentina, Brazil, Canada, Chile, Cuba, Jamaica, Mexico, Trinidad and Tobago, and Venezuela derived a significant portion of their economic strength, export revenues, and foreign direct investment (FDI) from the production and export of mineral and/or fuel commodities. In 2006, Latin America and Canada accounted for about 51% of the world's total mine output of copper and about 48% of the mine output of silver. The region accounted for about 16% of the world's natural gas liquids production, and 27% and 16% of the world's mine output of zinc and lead, respectively (table 4). The region was rich in mineral resources and continued to attract a significant portion of the world's exploration capital.

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- Bolivia—Viceministerio de Minería y Metalurgia and Asociación Nacional de Mineros Medianos;
- Brazil—Departamento Nacional de Produção Mineral;
- Canada—Natural Resources Canada;
- Chile—Corporación Nacional del Cobre de Chile, Comisión Chilena de Cobre, and Servicio Nacional de Geología y Minería;
- Colombia—Unidad de Planeación Minero Energética and Instituto Colombiano de Geología y Minería;
- Dominican Republic—Dirección General de Minería;
- Ecuador—Ministerio de Energía y Minas and Dirección Nacional de Minería;
- El Salvador—Dirección de Hidrocarburos y Minas;
- Guatemala—Ministerio de Energía y Minas, Dirección General de Minería, and Departamento de Desarrollo Minero;
- Honduras—Dirección Ejecutiva de Fomento a la Minería;
- Jamaica—Mines and Geology Division of the Ministry of Agriculture and Lands;

- Mexico—Servicio Geológico Mexicano and Secretaría de Economía;
- Nicaragua—Administración de Recursos Geológicos and Dirección de Minas;
- Peru—Ministerio de Energía y Minas; and
- Trinidad and Tobago—Ministry of Energy and Energy Industries.

General Economic Conditions

In 2006, the gross domestic product (GDP) of Latin America and Canada based on purchasing power parity was about \$6,205 billion. Latin America's real GDP increased by 4.5%, which was higher than the world's GDP growth rate of 3.4%. In 2006, the real GDP of Argentina grew significantly by 8.5%, as the country continued to recover from a recent economic recession. Brazil's real GDP increased by 3.8%, which was up from 2.9% in 2005. Its mining and mineral processing industries represented almost 6% of the GDP in 2006. Canada's real GDP increased by 2.8%, down from 2.9% in 2005. Its mining and mineral processing industries represented 3.7% of its GDP in 2006. The real GDP of Mexico grew by 4.8%. In 2006, Peru's economy benefited from high prices for mineral commodities; its GDP grew at a real rate of 7.6%, and its mining and mineral processing industries represented almost 1% of its GDP in 2006. The real GDP of Venezuela grew significantly by 10.3%, as the country continued to recover from a recent economic recession. In the Caribbean, Antigua and Barbuda, Trinidad and Tobago, and the Dominican Republic reported significant increases in their real GDP of 12.2%, 12%, and 10.7%, respectively. Brazil and Mexico contributed almost 48% of Latin America and Canada's GDP in terms of purchasing power parity in 2006 (table 2; International Monetary Fund, 2008).

The countries of Latin America and Canada continued to benefit from strong international prices for raw materials and petroleum, low interest rates and inflation, a healthy world economy, and expansion of their export volumes. Canada, which was one of the world's leading mineral producers, benefited in particular from the strong prices of copper, crude oil, natural gas, potash, and uranium. High nonfuel and petroleum prices had varying effects on the region's economies. On the one hand, high petroleum prices had a positive impact on the economies of petroleum exporting countries, such as Mexico and Venezuela, because of high world demand for these commodities. On the other hand, a number of countries in the region, such as Chile and Colombia, were net importers of fuel commodities and their trade balances were negatively affected by the high prices.

Latin America's economy, in general, experienced an increase in domestic demand fueled by increased FDI and employment, low inflation, and increased fiscal revenues (Economic

Commission for Latin America and the Caribbean, 2006, p. 11-13; Natural Resources Canada, 2007b; International Monetary Fund, 2008).

Investment Data and Political Risk

In 2006, FDI inflows to Latin America and the Caribbean (excluding financial centers) increased by about 1.5% to \$72.4 billion compared with that of 2005. The average level during 2002 to 2006 (\$61.2 billion), however, was significantly lower than that experienced during the period between 1997 and 2001 (\$77 billion) when rapid economic changes and privatization policies were the leading factors in an FDI upturn. Similarly, net FDI outflows (OFDI) from Latin America and the Caribbean (main investor countries) increased by about 120.4% to \$40 billion compared with that of 2005. The level during 2002 to 2006 (\$17.1 billion), however, was significantly higher than that experienced during the period between 1997 and 2001 (\$7 billion). In 2006, South America received about \$44.7 billion in FDI, of which, in order of value, \$25.1 billion went to the Mercado Común del Cono Sur (MERCOSUR), \$11.8 billion went to the Andean Community, and \$8.1 billion went to Chile. During the year, Mexico's FDI was \$19 billion; this was a decrease from that of 2005 (\$19.6 billion). Still, Mexico received the largest amount of net inflow of FDI in Latin America, followed by Brazil (\$18.8 billion) and Colombia (\$6.3 billion). A significant portion of Colombia's FDI went to petroleum and natural gas exploration and production. Chile's main areas of FDI were mining, transportation and communication, and electricity. About 20% of Argentina's FDI in 2006 was for the acquisition of the cement producer Loma Negra, S.A.; this company held almost 50% of the country's cement market share. In Ecuador, the largest investment was in the petroleum sector; in Peru, the largest investment was in mining, although significant activity continued in hydrocarbons. The only country that saw a significant decrease in the inflows of FDI was Venezuela; investment there decreased by \$543 million owing to the political and social instability of recent years and the Government's stated intent to nationalize the hydrocarbons sector. The country that saw a small increase in the inflows of FDI was Bolivia, whose inflows of FDI amounted to \$237.1 million in 2006. The small increase in FDI was attributed to the political and social instability and the nationalization of the hydrocarbons sector (Economic Commission of Latin America and the Caribbean, 2006, p. 11-13, 47, 59).

In Bolivia, several operations were scheduled for completion by 2014, and the Mutun iron ore and steel project was scheduled to be completed in 2011. Of the operations scheduled to open by 2010, the San Cristobal lead, silver, and zinc project was expected to have the highest level of investment. Most of the investment in the mining sector in Chile continued to be for copper, although the leading single project, which was scheduled for completion by 2010, was the Pascua-Lama copper, gold, and silver project (a joint effort with Argentina). Although most of the investment in Central America was for gold and silver, in Guatemala, the Fenix nickel lateritic project was scheduled for completion in 2009; about 92.4% of the

project was owned by Skye Resources Guatemala (B.V.I.) Inc. (a subsidiary of Skye Resources Inc.), and 7.6% was owned by the Guatemalan Government. The United States was the leading foreign investor in the region, followed by the Netherlands, Spain, and France. More than 50% of FDI was in services, followed by manufacturing and natural resources. In 2006, the leading investor countries from Latin America were Brazil (\$28.2 billion), Mexico (\$5.1 billion), and Argentina (\$5 billion). Brazil invested \$17.4 billion in mining in Canada and \$10.8 billion in hydrocarbons in Bolivia and Peru; Mexico invested \$5.1 billion in telecommunications in Brazil, the Dominican Republic, and Puerto Rico; and Argentina invested \$5 billion in steel in Mexico and the United States. A large portion of the investment in mining in Latin America was in gold. However, investments were also being made in other projects of importance in the area for a variety of mineral commodities (Economic Commission of Latin America and the Caribbean, 2006, p. 47-48, 63).

Legislation

In Brazil, the current (2006) Concessions Law created opportunities for the private sector's participation in public utilities previously reserved for the Government. The amended law stipulates that the exploitation of mineral deposits will depend upon the exploration authorization permit granted by the General Director of the Departamento Nacional de Produção Mineral (DNPM) and the development concession issued by the Ministro do Minas e Energia. Licensing is a restricted system applicable exclusively to the exploitation of industrial minerals. The DNPM is responsible for enforcing the 1997 Mining Code and for implementing its legal provisions (Departamento Nacional de Produção Mineral, 2007a; Ferraz, 2007, p. 7).

During the past decade, Latin America has been the most popular destination for international exploration investment in the world, in part because of recent reforms that reduced both real and perceived risks to investment (World Bank Group, The, 2004). However, there were indications that the investment climate may be changing. A framework for mineral exploration and mining that was developed and implemented in many Latin American countries (Argentina, Chile, and Peru, among others), known as the Latin American Mining Law Model, has been used by the World Bank as a model for mining sector reform in other developing countries (Bastida, Irrarázabal, and Labó, 2005, p. 1). Efforts to revise this framework or fill system gaps in individual countries or local jurisdictions were continuing. Growing anti-mining sentiment was also affecting mining and mineral development in Latin America. In Argentina, the Governor of Chubut Province suspended all metal mining activity in certain areas of the Province for 3 years (Pay Dirt, 2006). Similar legislation was passed in Mendoza Province, but this legislation was later vetoed by the Governor of the Province (Nones, 2006). Bolivia's President put forth plans to nationalize the country's forestry, mining, and other sectors, after already nationalizing the natural gas industry (Washington Post, The, 2006). Recent efforts to increase mining royalties and labor disputes at the Escondida Mine in Chile have led some to question the resource stability of that country

(McMahon and Melham, 2007). The Peruvian Congress passed an environmental law that supersedes the Natural Resources and Environmental Law of 1990 and requires development of a new national environmental policy and institutions to support that policy. Its impact on exploration and mining has not yet been fully determined. The tax regimes currently in force in Argentina, Bolivia, Brazil, Chile, Mexico, and Peru were considered to be internationally competitive (Smith, 2006).

The Canadian Government reinstated its 15% nonrefundable Investment Tax Credit for Exploration (ITCE) in its 2006 budget, after its December 2005 termination, in order to help solidify recent exploration gains. A number of Provinces and Territories also provided tax incentives to further encourage mineral exploration. British Columbia, Manitoba, Ontario, and Saskatchewan created their Provincial tax credits within the structure of the Federal ITCE (Natural Resources Canada, 2006b).

The Nunavik Inuit Land Claims agreement was signed in December 2006, confirming control of all minerals found in 500,000 hectares in Labrador and northern Quebec to the Inuit of Nunavik for a 10-year period (Kosich, 2006b). The agreement covers surface and subsurface mineral rights within the region.

Exploration

According to the Metals Economics Group (MEG), Latin America maintained its top position as a destination for proposed exploration capital, and its share of the world exploration budget increased to about 24% in 2006 from about 23% in 2005 (Metals Economics Group, 2006, p. 4-6). Based on data compiled by the USGS, Latin American countries with the greatest exploration activity were, in descending order by number of sites for which data were compiled, Mexico, Peru, Brazil, Argentina, and Chile. Brazil, Mexico, and Peru also were ranked in MEG's top 10 country list for anticipated exploration spending in 2006 (Metals Economics Group, 2006, p. 7-8). Gold attracted about 53% of total exploration activity, but interest in base metals reached 27%, and silver achieved about 15% of the total. Investment in 2006 was primarily used to further define newly discovered resources (80%), conduct exploration at a producing site (10%), conduct feasibility studies of promising discoveries (8%), and further explore for resources of deposits under development (2%).

Exploration activity in Mexico has focused on gold and silver projects for many years. High base metals prices in 2006 have increased interest in deposits rich in base metals. Mining-related investment for 2006 was expected to reach \$1 billion in Mexico (Northern Miner, 2006). Large-scale drilling for gold, silver, and base metals continued to expand resources at new sites and in areas adjacent to producing sites.

Mining-related investment in Peru was also expected to reach \$1.2 billion for 2006 (Northern Miner, 2006). The discovery of several large gold deposits in Peru during the past decade has been followed by aggressive exploration in the country. Higher metals prices have also encouraged extensive exploration in 2006 for base metals, gold, and silver in Peru. As exploration and mineral production in Peru has increased, anti-mining sentiment has also increased with the perception that company

profits are not adequately being used in the communities from which they are generated (Kosich, 2006a).

Minerals exploration in Argentina has benefited from new discoveries, high metals prices, and joint-cooperation agreements between Argentina and Chile that facilitate exploration and development of remote mineral deposits that span the border between these two countries. Exploration and development expenses in Argentina for 2006 were expected to reach \$400 million (Northern Miner, 2006). Canada continues to be a focus of global minerals exploration. Statistics as of September 2006 released by the Canadian Government show anticipated 2006 exploration spending to be \$1.5 billion (C\$1.7 billion), up 32% from an expenditure of \$1.2 billion (C\$1.3 billion) in 2005 (Natural Resources Canada, 2006b). The MEG reported budgeted exploration spending in Canada for 2006 to be \$1.4 billion (C\$1.6 billion), or about 19% of the estimated overall worldwide exploration budget (Metals Economics Group, 2006, p. 2-3). Canadian statistics include expenditures for coal and uranium exploration, which are excluded from MEG estimates. In 2006, precious metals (gold and silver) accounted for \$473 million (C\$536 million); base metals, \$267 million (C\$303 million); diamond, \$212 million (C\$240 million); and uranium \$80 million (C\$91 million) of the \$1.1 billion (C\$1.3 billion) exploration total (Natural Resources Canada, 2006b). Although data were not yet available, uranium exploration in 2006 was expected to surpass the level of exploration reported for 2005, thereby reducing the anticipated Canadian total (when uranium is excluded) from the reported \$1.5 million (C\$1.7 million) to about \$1.4 million (C\$1.55 million).

Exploration budget allocations for 2006 as reported by the Canadian Government were greatest in Ontario (about 20% of the total Canadian exploration and deposit appraisal exploration budget), British Columbia (18%), Quebec (14%), Saskatchewan (12%), Nunavut (11%), and Northwest Territories (10%) (Natural Resources Canada, 2006b). Canadian Provinces or Territories with an anticipated increase of more than 50% in exploration activity in 2006 from 2005 based on reported budget estimates were Northwest Territories (where exploration investment was expected to increase by 82%), Alberta and Nova Scotia (80% each), Newfoundland and Labrador (62%), New Brunswick (60%), and Saskatchewan (55%). Manitoba was the only Province for which an estimated reduction in the exploration budget for 2006 was reported. Budgets of junior exploration companies accounted for about 65% of the total expenditures compared with 61% in 2005, 51% in 2004, and 41% in 2003. Budget allocations for Canadian precious metals exploration in 2006 was expected to be lower than that reported for 2005. In contrast, exploration budgets for base metals, diamond, and other minerals were reported to be higher in 2006 than in 2005 (Natural Resources Canada, 2006a).

Canadian Provinces or Territories with the greatest exploration activity were, in descending order by number of sites as compiled by the USGS, Ontario, British Columbia, Quebec, Saskatchewan, Yukon Territory, and Nunavut. Based on the site data, exploration for gold accounted for approximately 48% of 2006 Canadian exploration expenditures; copper, 18%; diamond, 10%; and lead, nickel, and zinc, about 7% each. Approximately 93% of all reported exploration sites were

considered early-stage sites. Canadian gold and base metals exploration activity, based on the number of sites in 2006 for which data were collected, focused primarily on British Columbia, Ontario, and Quebec; diamond exploration focused on the Northwest Territories, Nunavut, and Saskatchewan.

Companies exploring in Canada have benefited from well-defined geologic conditions, a solid legal environment, and a skilled labor force. More than 60 mineral-related commodities are produced in Canada, and its future resource potential is large. Federal and provincial regulations provide tax incentives for mining, and the Investment Tax Credit for Exploration, which encourages investors into higher-risk mineral development projects, was extended in 2006 (Engineering and Mining Journal, 2006).

Commodity Overview

This section summarizes the supply and demand trends and potential developments for leading mineral commodities in Canada and Latin America. The region's share of world production of selected commodities is listed by mineral commodity in table 4.

Estimates for production of major mineral commodities for 2009 and beyond have been based upon supply-side assumptions, such as announced plans for increased production/new capacity construction and bankable feasibility studies. The outlook tables in this summary chapter show historic and projected production trends; therefore, no indication is made about whether the data are estimated or reported and revisions are not identified. Data on individual mineral commodities in tables in the individual country chapters are labeled to indicate estimates and revisions. The outlook segments of the mineral commodity tables are based on projected trends that could affect current (2006) producing facilities and on planned new facilities that operating companies, consortia, or Governments have projected to come online within indicated timeframes. Forward-looking information, which includes estimates of future production, exploration and mine development, cost of capital projects, and timing of the start of operations, are subject to a variety of risks and uncertainties that could cause actual events or results to differ significantly from expected outcomes. Projects listed in the following section are presented as an indication of industry plans and are not a USGS prediction of what will occur.

Metals

Aluminum.—Four countries in Latin America and Canada produced primary aluminum and four produced secondary aluminum in 2006. Canada was the leading producer of primary aluminum in the region with almost 55% of the total. Brazil, the second ranked producer of primary aluminum, contributed more than 29% of the total. The other two producers were Venezuela with almost 11% of the total, and Argentina with almost 5% of the total (table 4). Mexico was the leading producer of secondary aluminum in the region with almost 65% of the total. Brazil, the second ranked producer, contributed more than 30% of the total, and Canada contributed more than 5%. The Latin

America and Canada region, which from 2000 to 2005 increased its primary aluminum production by 16%, contributed more than 16% of the world output in 2006 and was expected to increase its production by about 60% by 2013 (tables 4, 6). Production capacity increases were planned in all producing countries in the region; Brazil led the growth with plans to double its production by 2013 by increasing its primary aluminum production capacity by 1.5 million metric tons per year (Mt/yr). Much of the new production in Brazil was expected to come from Alcoa Alumínio S.A. (Alcoa) as part of the expansions of the Alumar project, which included the proposed Juruti bauxite mine in the State of Para, the expansion of the Sao Luis alumina refinery and aluminum smelter in the State of Maranhao, and the rehabilitation of the Pocos de Caldas smelter in the State of Minas Gerais. The remaining planned expansion was by Companhia Brasileira de Alumínio (CBA) (Departamento Nacional de Produção Mineral, 2007b, p. 50-51).

Argentina was planning to expand its aluminum smelter to produce 400,000 metric tons per year (t/yr) by 2007. Venezuela's C.V.G. Aluminio del Caroni, S.A. (Alcasa) was planning to reach full production capacity of 210,000 t/yr of primary aluminum from its current annual production of 185,000 t. In Venezuela, the C.V.G. Industria Venezolana de Aluminio, C.A. (Venalum) owned the leading primary aluminum facility, with an installed capacity of 430,000 t/yr. The Alcasa and the Venalum combined full-capacity production of 640,000 t/yr of primary aluminum was expected to be reached by 2012 (C.V.G. Aluminio del Caroni, S.A., 2006; C.V.G. Industria Venezolana de Aluminio, C.A., 2006).

Bauxite and Alumina.—Latin America was a significant producer of bauxite, and the region's output increased by more than 42% from 2000 to 2006 (table 5). Latin America produced 27% of the world total and two countries in the region (Brazil and Jamaica) ranked among the top five bauxite producers in the world. Brazil and Jamaica combined produced more than 75% of Latin America's bauxite output. In addition, three other countries—Guyana, Suriname, and Venezuela—produced bauxite during the year (table 4). Jamaica's production increased by more than 5% and production from Suriname increased by almost 4% from that of 2005. Production from Venezuela was estimated to have increased slightly, by less than 1% (table 5).

Production of bauxite in Latin America was expected to increase significantly by about 16% by 2013 (table 5). A large portion of the increase was expected to come from Brazil where three new mines were scheduled to begin production in the next 3 years. Paragominas [a new mine that was owned by a subsidiary of Companhia Vale do Rio Doce (CVRD)] was scheduled to come onstream in the State of Para in 2007 with a capacity of 4.5 Mt/yr. Alcoa was developing the Juruti project, which was also located in the State of Para, and was scheduled to begin commercial mining operations in 2008. Juruti's production capacity was expected to reach 10 Mt/yr with an investment of \$1.4 billion (Departamento Nacional de Produção Mineral, 2007b, p. 50-51). Additional production also was expected in Jamaica, although the increase would be significantly lower than in Brazil. Guyana's Aroima Mining Company planned to increase its production capacity to 2.5 Mt in 2007 from 1.3 Mt in 2005. Suriname's bauxite production

was expected to decrease to 2 Mt by 2013 from 5.7 Mt in 2009 and 3.7 Mt in 2011, owing to depletions (table 5).

Copper.—Mine production of copper (contained copper) in Latin America and Canada contributed more than 50% of the world output and the region was expected to increase its production by more than 18% by 2013 (tables 4, 7). Latin America's output represented almost 47% of the world's output, and Chile accounted for more than 35% of the world's output (table 4). Owing to strong copper prices and increased consumption of copper, especially in China and India, copper production was expected to increase in Latin America and Canada at a rate of about 2% per year to 2013. Chile's production was anticipated to increase by more than 6% by 2009 and by almost 12% by 2011 and to remain at that level through 2013 (table 7). For other copper producing countries in the region, mine production of copper was expected to increase at a higher rate. In Argentina, production of copper was expected to almost double by 2011, with the opening of a new mine in the Province of Catamarca; the mine could come onstream by 2009 or 2010. Mexico's production was expected to increase to 400,000 metric tons (t) in 2009 from 334,000 t in 2006, which would place it at about the same production level as in 2005 (429,000 t) (table 7). In Brazil, production was expected to double by 2009 and to almost triple by 2013 because CVRD planned to open four new projects—Alemão, Corpo 118, Cristalino, and Salobo—in Carajás, State of Pará, during the 2007-11 period; these projects and others would make Brazil self-sufficient and even an exporter of copper metal by 2011 (Companhia Vale do Rio Doce, 2007; Departamento Nacional de Produção Mineral, 2007b, p. 70-71).

In 2006, the leading refined copper producers in the Latin America and Canada region were, in order of output, Chile, Peru, Canada, and Mexico (table 8). Chile, which was the world's leading producer of refined copper, contributed more than 63% of the region's total and 20% of the world's output. Production of refined copper in Latin America and Canada was expected to increase by almost 7% by 2009 and by more than 15% by 2013. Production of refined copper in Chile was expected to increase by almost 7% by 2009 and to remain unchanged from 2009 to 2013. As with mine production, output of refined copper from Brazil was expected to increase dramatically by 2013. The country's copper refining capacity was expected to increase following the completion of CVRD's Corpo 118 and Salobo copper projects, which were expected to produce a combined 36,000 t of copper cathode in 2008 and 200,000 t of copper cathode in 2010. Almost all other producing countries were expected to increase production, although at lower levels than those expected for Brazil. Production of refined copper from Mexico was expected to increase by almost 11% in 2009 and by almost 40% in 2013 compared with that of 2006 (Industrias Peñoles, S.A. de C.V., 2007, p. 24). Refined copper production from Peru was expected to increase slowly to 550,000 t in 2013. Peru's increase would result from capacity expansions at several refineries and at solvent extraction-electrowinning plants, such as the Cerro Verde Mine in the Department of Arequipa and the Cuajone and the Toquepala Mines in the Department of Tacna (Ministerio de Energía y Minas, 2007).

Gold.—In 2006, Latin America and Canada produced more than 20% of the world's gold output, and 19 regional countries contributed to this production (tables 4, 9). Peru and Canada were the first and second ranked producers, respectively, in the region and contributed more than 55% of the regional production. In 2006, Peru and Canada were among the world's eight leading producers, ranking fifth and eighth, respectively (tables 4, 9; George, 2007a). Production from Peru was expected to grow moderately after almost quadrupling during the past decade. About 90% of Canada's gold production comes from hard-rock underground and open-pit gold mines. The remainder is from base-metal mines and from placer mining operations located in Alberta, British Columbia, and the Yukon. In Canada, where production had been decreasing because new production was insufficient to replace output from large mines that had closed recently, production was expected to increase moderately as a result of recent increased interest in exploration that was encouraged by the continued strong price of gold (table 9; George, 2007a; Natural Resources Canada, 2007a). In general, mine production of gold in Latin America and Canada was expected to increase by more than 28% by 2013. The largest relative increases were expected to come from Venezuela, 182.3%; Costa Rica, 106.6%; Mexico, 66.8%; Guatemala, 52.9%; and Chile, 42.5% (table 9).

A significant portion of the new regional gold production was expected to come from the Pascua-Lama binational project, which is located on the border between Argentina and Chile. Exploration activity had increased dramatically in recent years in Argentina, and gold production at several gold projects, including the Gualcamayo, the Pirquitas, and the San José, was expected to increase significantly. Argentina's gold output increased dramatically by almost 63% from that of 2005, with an anticipated additional increase of more than 13% by 2013 because the Manantial Espejo Mine was expected to come onstream by 2008, and the Cerro Vanguardia Mine, by 2009 (table 9). In Venezuela, gold production in 2006 increased by 12.4% compared with that of 2005; gold output was expected to increase by more than 182% by 2013 as a result of the Sosa Mendez Mine coming onstream by 2009; the Brisas gold mine, by 2011; and perhaps the Las Cristinas copper project, by 2013 (table 9).

Iron Ore and Iron and Steel.—In terms of mine iron ore output, Brazil was the leading producer in Latin America and Canada with about 318 Mt, which represented almost 79% of the region's total. Canada and Venezuela were the second and third ranked producing countries in the region. Together, these two countries produced more than 14% of the region's total. In terms of gross weight, the region produced more than 22% of the world output (tables 4, 10). Production in Latin America and Canada, in terms of iron content, was expected to increase at a rate of about 1.5% per year through 2013; Brazil was expected to provide the largest portion of the increase owing to CVRD's expansion of Minas Carajás in the State of Pará and the Brucutu Mine in the State of Minas Gerais. The Brucutu Mine was expected to start production at the end of 2007 at a rate of 23 Mt/yr of iron ore (15 Mt/yr in terms of iron content) and 30 Mt/yr of iron ore (almost 20 Mt/yr in terms of iron content)

when the mine reaches full capacity by 2008 (Companhia Vale do Rio Doce, undated a, b). In addition, Minerações Brasileiras Reunidas S.A. (MBR), which was a subsidiary of CVRD, recently opened the Capao Xavier, the Capitao de Mato, Fazendao, Itabiritos, and the Tamandua Mines in the State of Minas Gerais where production was expected to reach 32 Mt/yr by 2008. The projected expansion by SAMARCO in Minas Gerais would increase iron ore production to 22 Mt/yr in 2008 from 16 Mt/yr in 2006. Brazil's principal markets were China, Japan, and the Republic of Korea. Exports of iron ore to China were expected to continue to increase owing to the increased demand for steel (Companhia Vale do Rio Doce, undated a, b; Departamento Nacional de Produção Mineral, 2007b, p. 70-71).

Companhia Siderúrgica Nacional, which was Brazil's third ranked producer of steel, had plans to increase the annual iron ore production capacity of the Casa de Pedra Mine to 40 Mt by 2008 from 13.1 Mt (20.4 Mt run-of-mine). The expansion was part of the company's \$820 million investment plan, which included expansion of its iron pellet capacity and its coal port facilities (Departamento Nacional de Produção Mineral, 2007b, p. 70-71).

Canada's production came from its major iron ore producing companies, which included Iron Ore Company of Canada [Rio Tinto Limited (58.72%), Mitsubishi Corporation (26.18%), and Labrador Iron Ore Royalty Income Fund (15.1%)]; Quebec Cartier Mining Company [Dofasco Inc. (98.7%) and others (1.3%)]; and Wabush Mines Ltd. [Stelco Inc. (44.6%), Dofasco Inc. (28.6%), and Cleveland-Cliffs Inc. (26.8%) (Natural Resources Canada, 2007b). Brazil continued to be the second ranked mine iron ore producer after China worldwide (Jorgenson, 2007).

In the past few years, the continued demand for iron ore resulted in significant international price increases. In Venezuela, C.V.G. Ferrominera Orinoco, C.A. (FMO), which was the Government-owned iron ore producer, renegotiated its export price with Ternium (a subsidiary of Grupo Techint); Ternium was the majority owner of Siderúrgica Orinoco C.A., which was Venezuela's leading steel producer (Techint Group, The, 2006).

In 2006, FMO produced 22.1 Mt of iron ore (15.2 Mt/yr in terms of iron content), which was almost 17% more than its iron content output in 2005. FMO was considering increasing the iron ore production capacity from 25 Mt/yr of iron ore in 2006 to 30 Mt/yr by 2009. The company was constructing a concentration plant that would produce 8 Mt/yr of high-grade ore, which would allow the company to produce and beneficiate iron ore that originated from its reserves of 1.8 billion metric tons of high-grade ore in the Piar region. With these efforts, Venezuela's iron ore output could match Canada's output by 2013 (table 10; C.V.G. Ferrominera Orinoco C.A., 2006).

Latin America and Canada contributed more than 6% of the world's production of crude steel. By far, the leading producer in the region was Brazil followed by, in order of output, Canada, Mexico, Argentina, and Venezuela (table 4). These countries produced more than 93% of the region's total. Production of steel in Latin America and Canada was expected to increase at an annual average rate of less than 3% between 2006 and 2013. The largest expansion was expected to come from Brazil with

28%, followed by Venezuela (22%), Canada (18%), and Mexico (17%) (table 11). Brazil's production of steel was expected to increase to 50 Mt/yr from the current 36.2 Mt/yr with an investment of \$15 billion (Departamento Nacional de Produção Mineral, 2007b, p. 20-21).

In 2006, Latin America was a net exporter of iron and steel. The region's apparent consumption of rolled steel products decreased slightly. The per capita apparent consumption of finished steel products averaged 92.2 kilograms (kg). The highest per capita consumption was in Mexico (168.1 kg) followed by Trinidad and Tobago (167.1 kg), Chile (127.6 kg), Costa Rica (106.4 kg), and Venezuela (101.6 kg) (Instituto Latinoamericano del Fierro y el Acero, 2006).

Lead.—Latin America and Canada produced more than 16% of the world's lead content in mine ore in 2006. Peru was the leading producer in the region with almost 9% of the world output and almost 53% of the regional production, followed by Mexico and Canada, which produced almost 23% and 14% of the region's total, respectively (table 4). In 2006, production from Latin America and Canada increased slightly by almost 1% compared with that of 2005. The overall downward trend of the region's mined lead production in the past 15 years was expected to be reversed with a projected increase in the lead production capacity in several countries that would result in a 25% increase in capacity by 2013. Production from Peru was expected to continue to increase, as was that from Canada and Mexico, although the production of Canada and Mexico was not expected to reach the levels achieved in the 1990s, particularly Canada (table 12).

In terms of individual country significance, Bolivia's lead production capacity was expected to increase by more than fivefold, in 2009 compared with 2006, with the opening of Apex Silver Mines Ltd.'s San Cristobal Mine in Southern Bolivia, where production was expected to begin in 2008 (table 12; Apex Silver Mines Ltd., undated). Five countries in Latin America and Canada produced primary refined lead and six produced secondary refined lead. They contributed about 10% of the total world production of primary and secondary refined lead; 95% of the primary refined lead came from Canada, Mexico, Peru, and 81% of the secondary production originated in (in decreasing order of output) Canada, Mexico, and Brazil (table 13). Production of refined metal in the region was expected to increase because of low world stock levels and expected increased demand (Teck Cominco Ltd., 2007, p. 3).

Nickel.—Six countries mined nickel in Latin America and Canada and contributed almost 26% of world production (table 4). In the region, Canada and Colombia were the leading producing countries, although expansions in the production capacities of Brazil and Colombia brought their production levels up significantly so that their production exceeded that of Cuba in 2006; production from the Dominican Republic decreased by more than 12% compared with that of 2005; and nickel production from Venezuela began in 2000 and was expected to increase by 10% between 2006 and 2009 (table 14). Canada was the world's second ranked producer of mine nickel after Russia (Kuck, 2007). In 2006, Canada's production was more than 42% of Latin America and Canada's total (tables 4, 14). Companhia Vale do Rio Doce (CVRD) made an offer for

Inco Ltd. on August 11, received Canadian regulatory clearance on October 19, and purchased control in October, acquiring 76% of the company's shares for \$15 billion. The purchase was completed in January 2007. CVRD Inco Ltd. (CVRD Inco) is the new company, which is the combination of Inco Limited Canada and CVRD Brazil. CVRD Inco's nickel sector is to be managed from Toronto, along with its marketing and metal sales. Inco's Voisey's Bay operation, in Canada's Province of Newfoundland and Labrador, was scheduled at the outset of 2006 to produce 54,400 t of nickel in concentrate and CVRD Inco reported refined production from Voisey's Bay as 35,500 t in 2006. In the longer term, plans called for underground mining to begin by about 2018 (Infomine Inc, 2006; McCutcheon, 2007). Colombia's production of nickel accounted for more than 17% of the region's output; that of Brazil, 15%; and that of Cuba, almost 14% (table 4). Brazil's production represented more than an 11% increase from that of 2005; most of the increase started in 2006. The combined mine nickel production of Brazil and Canada was expected to result in a more than 61% increase for the region in 2013 (table 14). Brazil's production of nickel was expected to increase with the development of three nickel projects: Anglo American plc.'s Barro Alto, which is located in the State of Goias; Cia. de Nickel do Brazil's Niquelandia, which is located in the State of Goias; and CVRD Inco's Onca-Puma, which is located in the State of Para. Production of nickel ore from Barro Alto was scheduled to begin in 2010, with full capacity of 36,000 t/yr planned for 2011; Niquelandia's output was planned to be 40,000 t/yr by 2009, and Onca-Puma's production was expected to be 55,000 t/yr by 2009 (Anglo American plc., 2006; Departamento Nacional de Produção Mineral, 2007b, p. 68-70).

Platinum-Group Metals.—Only two countries, Canada and Colombia, produced platinum-group metals (PGM) in the Latin America and Canada region in 2006. Canada produced about 6% of the world's output of palladium and about 3% of the world's output of platinum. Canada supplied 100% of the reported mine production of palladium and almost 81% of the region's estimated mine output of platinum (tables 15, 16). Canada's production came from the Lac des Iles open pit, which is located west of Thunder Bay in northern Ontario and was the only primary PGM mine, and two byproduct producers. The country's PGM production capacity was expected to increase with the planned development of an additional underground zone at the Lac des Iles Mine of North American Palladium Ltd. The deepening of the Lac des Iles Mine was expected to increase Canadian platinum output by about 40% (Chevalier, 2006; George, 2007b).

Zinc.—Latin America and Canada produced more than 27% of the world's mined zinc in 2006 (table 4). Peru was by far Latin America and Canada's leading producer of mined zinc, producing almost 44% of the region's total; it was the third ranked producer worldwide after China and Australia with about 12% of the world total (table 4; Jasinski, 2007). Between 2000 and 2006, production in the region had increased by about 4% despite a large decrease in production from Canada (more than 36%), which was the second leading producer in Latin America and Canada in 2006 (table 17). During the same period, production from Peru increased by more than 32% and Mexico,

which was the third ranked producer in the region, recorded an increase of more than 15%. In Canada, several zinc projects were advanced in 2006. For example, Xstrata plc.'s Perseverance zinc mine in Quebec planned to start producing 228,000 t/yr of zinc concentrate in August. In May, Agnico-Eagle Mines Ltd. announced the development of its LaRonde II project in Quebec and the project was expected to extend the life of the mine to at least 2020. In the second quarter of 2007, the Caribou lead-zinc mines near Bathurst, New Brunswick, was expected to produce 260,000 t/yr of zinc, 115,000 t/yr of lead, 7,300 t/yr of copper, and 218 t/yr of silver during its 5-year mine life. Finally, Yukon Zinc Corp.'s Wolverine deposit in the Finlayson District of southeast Yukon was planning to produce 33,300 t/yr of zinc (Natural Resources Canada, 2007c). Chile's El Toqui zinc mine was expected to produce higher zinc grades for the next 12 years. Mine production of zinc in Latin America was expected to increase to more than 3 Mt in 2009 with increases from Argentina, Bolivia, Canada, Mexico, and Peru. Production capacity was expected to increase to 3.2 Mt by 2013 (table 17). In Bolivia, mining was expected to increase despite concerns about the possibility of nationalization. Production increases were not expected from the active producers, however, but from Apex Silver's San Cristobal Mine, which was scheduled to begin operation in 2008. This new production would compensate in part for the decrease in production from Sinchi Wayra S.A. (a subsidiary of Glencore International AG) that was expected to result from a lack of investment in production and exploration owing to the uncertainty about the property's future. As a result of production from the San Cristobal Mine, zinc production in Bolivia was expected to increase by more than 27% from 2006 to 2013. Although Brazil produced almost 7% of Latin America and Canada's zinc mine output, it was a net importer of zinc concentrates (tables 17, 18). In 2006, the only zinc concentrate producers in Brazil were the Votorantim Metais Zinco S.A.'s Juiz de Fora and Vazante zinc mines, which are located in the State of Minas Gerais and the Prometalica Mineração Ltda's Santa Helena Mine, which is located in the State of Mato Grosso and which produced 165,000 t and 20,000 t of zinc in concentrate, respectively. Mine production from Brazil was expected to increase by almost 3% by 2013 (table 17; Departamento Nacional de Produção Mineral, 2007b).

Canada produced more than 23% of the Latin America and Canada region's mined zinc in 2006; however, the country's output was more than 36% lower than that of 2000 (table 17). Despite the low production level in 2006, production from Canada was expected to increase by more than 25% by 2013. Mine production of zinc from Peru was expected to continue to increase at a slower pace than in recent years. Increased output from Volcán Minera S.A.A., which was the leading producer of mined zinc in Peru, was the reason for this increase. Production was expected to increase by almost 14% by 2013 compared with that of 2006 (table 17). Only five countries in Latin America and Canada produced refined zinc, and three of them produced only primary refined zinc (table 18). The region produced more than 30% of the world's production that was identified as primary refined zinc, but only a small amount of secondary refined zinc. Because a large amount of zinc production was not identified as primary or secondary, when all refined zinc production is

accounted for, Latin America and Canada contributed only 14% of the world total (Natural Resources Canada, 2007c).

Production of refined zinc in Latin America and Canada was expected to increase by about 2% per year to 2013. Peru, which was the region's leading producer of mined zinc, had the second lowest production of refined zinc in the region (table 18). Votorantim Metais Zinco S.A.'s Refinería de Zinc Cajamarquilla was Peru's leading refined zinc producer and planned to double its refined zinc production capacity by 2008 (M.A. Yopez, Mineral Economist, U.S. Embassy, Economic Section, written commun., October 27, 2006).

Industrial Minerals

Diamond.—Only four countries in Latin America and Canada produced diamond in 2006 (table 19). Regional production was estimated to be 14 million carats (Mct); of this amount, Canada produced almost 95%; Brazil, Guyana, and Venezuela produced the remainder. Regional output represented more than 11% of the world's total production. This rate of production positions Canada as the world's fourth ranked diamond producer, by value, after Botswana, Russia, and Australia and the world's sixth ranked producer of natural diamond, by volume, after Russia, Botswana, Australia, Congo, and South Africa (Danese, 2007, p. 10, 26; Perron, 2007, p. 15, 24). Canada's diamond production began in the late 1990s after the discovery of major kimberlite deposits in the 1980s. From 2000, diamond production in Canada has increased dramatically (table 19). In 2006, Canada's diamond production was from Diavik Mine (9.8 Mct) and the Ekati Mine (3.1 Mct), which are located about 300 kilometers (km) northeast of Yellowknife in the Northwest Territories; and the Jericho Mine, which is located in Nunavut (296,000 carats) (Tahera Mine Corp., 2006). This trend was expected to continue to increase with three more diamond mines coming into production, such as De Beers Canada Inc.'s Snap Lake underground mine, which is located 220 km northeast of Yellowknife in the Northwest Territories and was expected to have the capacity to produce 1.5 million carats per year (Mct/yr) by 2007; the Victor open pit mine, which is located in James Bay, Ontario (600,000 carats per year by 2008); and the Gahcho Kué project, which is located south of Lac de Gras and 300 km northeast of Yellowknife in the Northwest Territories (3 Mct/yr by 2010) (De Beers Canada Inc., 2007a, b; Perron, 2007, p. 10-12).

Diamond production in Brazil, which had significantly decreased since 2000 because of decreased production from garimpeiros, was expected to more than triple by 2013 from that of 2006. The Vaaldiam Resources Ltd. was in the development stage of eight diamond projects. The advanced projects included Pimenta Bueno in the State of Rondonia, Brauna in the State of Bahia, and Duas Barras in the State of Minas Gerais. The four projects under evaluation were the new project Aroeira in the State of Bahia, the Barra Rica and the Gruta in the State of Minas Gerais, the Taboco in the State of Mato Grosso do Sul, and the Traira in the State of Mato Grosso. Duas Barras was scheduled to produce 38,000 carats per year in 2007 (Danese, 2007, p. 12-13).

Elkedra Diamonds NL had plans to begin production from the Chapada Alluvial Diamond Project in the State of Mato

Grosso in 2007. The company planned eventually to produce 100,000 carats per year with an original mine life of 9 years, but continued its exploration program with the purpose of increasing reserves of the project (Elkedra Diamonds NL, undated).

Another company, Brazilian Diamonds Ltd., was exploring properties that had previously been owned by De Beers. The company expected to reach a decision in 2008 on whether to begin large-scale dredging from one of these properties, Santo Antonio de Bonito (Brazilian Diamonds Ltd., 2007). Estimated production from Guyana and Venezuela was expected to remain at the 2006 levels.

Phosphate Rock.—In terms of phosphorus pentoxide, the region of Latin America and Canada was a small producer, accounting for almost 6% of the world's total (table 4). The leading producer in the region was Brazil, which produced almost 81% of the region's total; it was also the world's sixth ranked producer and produced almost 5% of the world's output. Canada was the second leading producer in the region with almost 14% of the region's total and less than 1% of the world's total (tables 4, 20). Brazil's expansion was expected to increase by more than 12% by 2013 (table 20). In 2006, the three leading producers in Brazil were Bunge Brasil S.A., Copebrás of Grupo Anglo American, and Fosfértil and Ultrafértil S/A. Most of the production was in the States of Goiás, Minas Gerais, and São Paulo. The three leading producers were planning to expand production capacity by an additional 900,000 t/yr of phosphate rock by 2008 (table 20; Departamento Nacional de Produção Mineral, 2007b, p. 165-167). Production of phosphate rock in Canada was expected to decrease by 2007. This decrease was expected owing to the lower grade of the ore that was being mined from Kapuskasing Mine in Ontario (Agrium Inc., 2007, p. 4). CVRD won an international bid on March 16, 2005, to explore further the Bayovar phosphate deposit in Peru. The feasibility study to produce about 3.3 Mt/yr was expected to be completed in the second quarter of 2007 and production to begin in 5 years. Under the terms of the concession, Peru would begin production by 2012 (Companhia Vale do Rio Doce, 2006; Ministerio de Energía y Minas, 2007).

Mineral Fuels and Related Materials

Coal.—Latin America and Canada produced almost 3% of the world's coal production total. In the region, Colombia was the leading producer of coal followed closely by Canada. These two countries produced more than 83% of the region's total (table 4). Production from the region was expected to increase by more than 34% by 2013 (table 21). The majority of the increase was expected to come from Colombia's El Descanso Mine, which was expected to produce about 25 Mt/yr, and Venezuela's expansion of operations in Zulia State by 2010. Both the Colombian and the Venezuelan Governments proposed higher production-capacity expansions than those expected by coal industry analysts. Among the issues limiting the planned expansions, however, was the infrastructure necessary to bring the coal to the export markets, which accounted for most of the coal produced in both countries. Chile's Isla Riesco coal deposit, which is located in Region XII, reported at least 1 billion metric tons of coal reserves, and production was expected to start by 2012.

Uranium.—Only two countries in Latin America and Canada produced uranium. Canada was by far the leading producer in the region with about 99% of the total in 2006. The country was also the world leader in uranium production. Brazil was the other producer, although Argentina had produced uranium in 1995 and had announced plans to resume uranium production in the decade (table 22). Production of uranium was expected to increase in Canada with the opening of the Cigar Lake underground mine. Construction of the mine began on January 1, 2005. However, in October 2006, a rock fall caused a major flooding, and dewatering of the mine and resumption of mine development and completion was expected by 2010 (Calvert, 2007, p. 20; Cameco Corp., 2007).

References Cited

- Agencia Bolivariana de Noticias, 2005, Nace la Compañía Nacional de Industrias Básicas: Agencia Bolivariana de Noticias. (Accessed April 24, 2007, at <http://www.conapri.org/ArticleDetalleIV.asp?articleid=216040&CategoryId2=14551>.)
- Agrium Inc., 2007, Annual report 2006: Calgary, Alberta, Canada, Agrium Inc., 130 p.
- Anglo American plc., 2006, Anglo American approves \$1.2 billion Barro Alto nickel project: Anglo American plc. (Accessed May 30, 2007, at http://www.angloamerican.co.uk/article/?afw_source_key=13E68634-773B-48D7-804C-EABAE6019706&xsl_menu_parent=newsandmedia/pressreleases/archive2006.)
- Apex Silver Mines Ltd., [undated], San Cristobal: Apex Silver Mines Ltd. (Accessed May 25, 2007, at <http://www.apexsilver.com/home.html>.)
- Bastida, Elizabeth, Irrarázabal, Ricardo, and Labó, Ricardo, 2005, Mining investment and policy developments: Argentina, Chile, and Peru—Centre for Energy, Petroleum and Mineral Law and Policy Internet Journal, v. 16, no. 10. (Accessed February 7, 2006, at <http://www.dundee.ac.uk/cepmlp/journal/>.)
- Brazilian Diamonds Ltd., 2007, Final results of the year ended December 31, 2006: Brazilian Diamonds Ltd. press release, March 28. (Accessed June 3, 2007, at http://www.braziliandiamonds.com/s/PressReleases.asp?ReportID=178685&_Type=Press-Releases&_Title=Final-Results-For-The-Year-Ended-31-December-2006.)
- Calvert, Tom, 2007, Uranium, in Canadian overview 2006: Ottawa, Ontario, Canada, Natural Resources Canada, May 2007, 38 p.
- Cameco Corp., 2007, Cameco announces plans for Cigar Lake: Cameco Corp. news release, March 18. (Accessed June 4, 2007, at http://www.cameco.com/media_gateway/news_releases/2007/news_release.php?id=175.)
- Chevalier, Patrick, 2006, Platinum group metals, in Canadian minerals yearbook—2005 review and outlook: Ottawa, Ontario, Canada, Natural Resources Canada, p. 41.1-41.14.
- Companhia Vale do Rio Doce, [undated]a, Brucutu Mine awakens: Companhia Vale do Rio Doce. (Accessed May 18, 2007, at <http://www.cvr.com.br>.)
- Companhia Vale do Rio Doce, [undated]b, Farewell to a giant: Companhia Vale do Rio Doce. (Accessed May 18, 2007, at <http://www.cvr.com.br>.)
- Companhia Vale do Rio Doce, 2006, CVRD wins international bid to explore phosphate in Peru: Companhia Vale do Rio Doce, March. (Accessed December 17, 2006, at http://www.cvr.com.br/cvrd_us/cgilua.exe/sys/start.htm?infoid=831&sid=307.)
- Companhia Vale do Rio Doce, 2007, Company fact sheet: Companhia Vale do Rio Doce. (Accessed December 21, 2007, at <http://www.dnpm.gov.br>.)
- C.V.G. Aluminio del Caroní, S.A., 2006, Company fact sheet: C.V.G. Aluminio del Caroní, S.A. (Accessed July 30, 2008, at <http://www.cvg.com/ingles/cvgalcasa.html>.)
- C.V.G. Ferrominera Orinoco, C.A., 2006, La Empresa: Mensaje del Presidente: C.V.G. Ferrominera Orinoco, C.A. (Accessed August 6, 2008, at http://www.ferrominera.com/esp/empresa/Mensaje_presidente.asp.)
- C.V.G. Industria Venezolana de Aluminio, C.A., 2006, Company fact sheet. (Accessed July 30, 2008, at <http://www.cvg.com/ingles/cvgvenalum.html>.)
- Danese, L.C., 2007, Sumário mineral 2007: Brasília, Brazil, Departamento Nacional de Produção Mineral, 326 p.
- De Beers Canada Inc., 2007a (January 1), Snap Lake Project factsheet: De Beers Canada Inc. (Accessed June 3, 2007, at http://www.debeerscanada.com/files_2/snap_lake/factsheet.html.)
- De Beers Canada Inc., 2007b (April 18), Victor Project factsheet: De Beers Canada Inc., April 18. (Accessed June 3, 2007, at http://www.debeerscanada.com/files_2/victor_project/factsheet.html.)
- Departamento Nacional de Produção Mineral, 2007a, Informe mineral—Directoria de Desenvolvimento e Economia Mineral: Brasília, DF, Brazil, Primer Semestre 2007, v. 5, 29 p.
- Departamento Nacional de Produção Mineral, 2007b, Sumário mineral: Produção Mineral Brasileira, v. 26, December, 200 p.
- Economic Commission for Latin America and the Caribbean, 2006, Foreign investment in Latin America and the Caribbean 2006: Santiago, Chile, Economic Commission for Latin America and the Caribbean, May, 200 p.
- Elkedra Diamonds NL, [undated], Company information for Elkedra Diamonds NL: Elkedra Diamonds NL. (Accessed June 3, 2007, at http://www.minesite.com/companies/comp_single/company/elkedra-diamonds-nl.html.)
- Engineering and Mining Journal, 2006, Exploration trends and the international presence of Canadian mining companies: Engineering and Mining Journal, September 2006, p. 60-63.
- Ferraz, C.P., 2007, Brazil—South American powerhouse, in Country overview: Brasília, DF, Brazil, Mining Journal special publication, July, 16 p.
- George, M.W., 2007a, Gold: U.S. Geological Survey Mineral Commodity Summaries 2007, p. 70-71.
- George, M.W., 2007b, Platinum-group metals: U.S. Geological Survey Mineral Commodity Summaries 2007, p. 122-123.
- Industrias Peñoles, S.A. de C.V., 2007, Informe Anual 2006: Mexico City, Mexico, Industrias Peñoles, S.A. de C.V., February 16, 88 p.
- Infomine Inc. 2006, Voisey's Bay: Infomine Inc., August 26. (Accessed May 30, 2007, at <http://www.infomine.com/minesite/minesite.asp?site=voiseysbay>.)
- Instituto Latinoamericano del Fierro y el Acero, 2006, La Siderurgia de América Latina en Cifras 2006: Santiago, Chile, Instituto Latinoamericano del Fierro y el Acero, October, 24 p.
- International Monetary Fund, 2008, World economic outlook database: International Monetary Fund, April. (Accessed July 23, 2008, at <http://www.imf.org/external/pubs/ft/weo/2008/01/weodata/index.aspx>.)
- Jasinski, S.M., 2007, Zinc: U.S. Geological Survey Mineral Commodity Summaries 2007, p. 186-187.
- Jorgenson, J.D., 2007, Iron ore: U.S. Geological Survey Mineral Commodity Summaries 2007, p. 82-83.
- Kosich, Dorothy, 2006a, As Peru cuts budgets, pressure mounting for mining windfall profits program: Mineweb, August 22. (Accessed February 21, 2007, at <http://www.mineweb.net/>.)
- Kosich, Dorothy, 2006b, Inuit now control minerals in northern Quebec and Labrador: Mineweb, December 4, 2006. (Accessed February 21, 2007, at <http://www.mineweb.net/>.)
- Kuck, P.H., 2007, Nickel: U.S. Geological Survey Mineral Commodity Summaries 2007, p. 112-113.
- McCutcheon, Bill, 2007, Nickel, in Canadian overview 2006: Ottawa, Ontario, Canada, Natural Resources Canada, May, 38 p.
- McMahon, Fred, and Melhem, Anas, 2007, Fraser Institute annual survey of mining companies 2006/2007: Fraser Institute, March, 91 p. (Accessed March 19, 2007, at <http://www.fraserinstitute.ca/admin/books/files/Mining06rv2.pdf>.)
- Metals Economics Group, 2006, Trends in worldwide exploration budgets—Worldwide exploration budgets reach new high-water mark: Canada, Metals Economics Group, Strategic Report, v. 19, no. 6, November/December, p. 1-9.
- Ministerio de Energía y Minas, 2007, Producción anual, in Minería Estadísticas, 2006: Ministerio de Energía y Minas. (Accessed September 4, 2007, at <http://www.minem.gob.pe>.)
- Natural Resources Canada, 2006a, Canadian mineral exploration and deposit appraisal: Natural Resources Canada, Information Bulletin—Exploration. (Accessed February 20, 2007, at http://www.nrcan-nrcan.gc.ca/mms/pdf/explor-06_e.pdf.)
- Natural Resources Canada, 2006b, Mineral exploration: Natural Resources Canada, Minerals and Mining On-Line. (Accessed February 20, 2007, at http://mmsd1.mms.nrcan.gc.ca/mmsd/explor/default_e.asp.)
- Natural Resources Canada, 2007a, Gold, in Canadian overview 2006: Ottawa, Ontario, Canada, Natural Resources Canada, May, 38 p.
- Natural Resources Canada, 2007b, Production of Canada's leading minerals monthly publication: Natural Resources Canada. (Accessed June 27, 2007, at http://mmsd1.mms.nrcan.gc.ca/mmsd/data/default_e.asp.)
- Natural Resources Canada, 2007c, Zinc, in Canadian overview 2006: Ottawa, Ontario, Canada, Natural Resources Canada, May, 38 p.

- Nones, Jon, 2006, Governor vetoes mining ban in Argentina's Mendoza Province: Resource Investor, December 20. (Accessed February 14, 2007, at <http://www.resourceinvestor.com/pebble.asp?relid=27402>.)
- Northern Miner, 2006, Latin America's base metal miners expect bumper year: Northern Miner, v. 92, no. 2, March 3-9, p. B1.
- Pay Dirt, 2006, Latin America: Copper Queen Publishing Company, Inc., August, p. 11.
- Perron, Louis, 2007, Diamonds, *in* Canadian overview 2006: Ottawa, Ontario, Canada, Natural Resources Canada, May, 38 p.
- Smith, Mark, 2006, Peru's new general environmental law: Mining Record, p. 13.
- Tahera Mine Corp., 2006, Tahera Diamond Corporation—Official opening ceremony for the Jericho Diamond Mine held on August 17, 2006: Tahera Mine Corp. press release, August 17. (Accessed June 3, 2007, at <http://www.tahera.com/News/PressReleases/2006>.)
- Teck Cominco Ltd., 2007, Annual report 2006: Vancouver, British Columbia, Canada, Teck Cominco Ltd., February 26, 117 p.
- Techint Group, The, 2006, The Techint Group 2005-2006: Buenos Aires, Argentina, The Techint Group annual report, October, 76 p.
- Washington Post, The, 2006, Bolivia to widen control of industry: The Washington Post, May 3. (Accessed February 14, 2007, at http://www.washingtonpost.com/wp-dyn/content/article/2006/05/02/AR2006050201829_p.A16.)
- World Bank Group, The, 2004, Mining policy and reform—Projects: The World Bank Group. (Accessed February 17, 2005, at <http://www.worldbank.org/ogmc/wbminingpolicyprojects.htm>.)
- World Bank, The, 2007, Population 2006: The World Bank (Accessed May 2, 2008, at <http://siteresources.worldbank.org/DATASTATISTICS/Resources/POP.pdf>.)
- U.S. Central Intelligence Agency, 2007, Rank order—Area, *in* World Factbook 2007. (Accessed May 6, 2008, at <http://www.cs.fit.edu/~ryan/factbook/factbook2007/rankorder/2147rank.html>.)

TABLE 1
THE AMERICAS: AREA AND POPULATION IN 2006¹

| | Area ² (square kilometers) | Estimated population ³ (millions) |
|------------------------------------|--|--|
| North America: | | |
| Canada | 9,984,670 | 33 |
| Mexico | 1,972,550 | 104 |
| United States | 9,826,630 | 299 |
| Total | 21,800,000 | 436 |
| Central America and the Caribbean: | | |
| Antigua and Barbuda | 443 | 0.082 |
| Aruba | 193 | 0.101 |
| Bahamas, The | 13,940 | 0.329 |
| Barbados | 431 | 0.274 |
| Belize | 22,966 | 0.301 |
| Bermuda | 53 | 0.064 |
| Costa Rica | 51,100 | 4.354 |
| Cuba | 110,860 | 11.3 |
| Dominica | 754 | 0.072 |
| Dominican Republic | 48,730 | 8.651 |
| El Salvador | 21,040 | 7.011 |
| Grenada | 344 | 0.108 |
| Guadeloupe | 1,780 | 0.453 |
| Guatemala | 108,890 | 12.983 |
| Haiti | 27,750 | 8.478 |
| Honduras | 112,090 | 7.355 |
| Jamaica | 10,991 | 2.673 |
| Martinique | 1,100 | 0.436 |
| Montserrat | 102 | 0.009 |
| Netherlands Antilles | 960 | 0.189 |
| Nicaragua | 129,494 | 5.912 |
| Panama | 78,200 | 3.284 |
| Saint Kitts and Nevis | 261 | 0.051 |
| Saint Lucia | 616 | 0.167 |
| Saint Vincent and the Grenadines | 389 | 0.107 |
| Trinidad and Tobago | 5,128 | 1.298 |
| Other ⁴ | 16,647 | 4.15 |
| Total | 765,000 | 80.2 |
| South America: | | |
| Argentina | 2,766,890 | 38.971 |
| Bolivia | 1,098,580 | 9.627 |
| Brazil | 8,511,965 | 187 |
| Chile | 756,950 | 16.4 |
| Colombia | 1,138,910 | 46.8 |
| Ecuador | 283,560 | 13.5 |
| French Guiana | 91,000 | 0.215 |
| Guyana | 214,970 | 0.759 |
| Paraguay | 406,750 | 5.92 |
| Peru | 1,285,220 | 27.6 |
| Suriname | 163,270 | 0.518 |
| Uruguay | 176,220 | 3.2 |
| Venezuela | 912,050 | 26.96 |
| Total | 17,800,000 | 377 |
| Americas total | 40,365,000 | 893 |
| Share of world total | 27 | 14 |
| World total | 149,000,000 ⁵ | 6,538 ⁶ |

¹Table includes data available as of April 2008. Population and totals are rounded to no more than three significant digits.

²Source: U.S. Central Intelligence Agency, World Factbook 2007.

³Source: International Monetary Fund, World Economic Outlook Database, April 2008.

⁴Includes Anguilla, British Virgin Islands, Cayman Islands, Puerto Rico, Turks and Caicos Islands, and U.S. Virgin Islands.

⁵Land.

⁶Source: The World Bank, 2007, Population 2006.

TABLE 2
THE AMERICAS: ECONOMY IN 2006^{1,2}

| | Gross domestic product based on purchasing power parity | | Real gross domestic product growth rate (percentage) |
|---|--|-------------------------|--|
| | Total (billion dollars) | Per capita (dollars) | |
| North America: | | | |
| Canada | 1,201.030 | 36,837 | 2.8 |
| Mexico | 1,269.240 | 12,178 | 4.8 |
| United States | 13,194.700 | 44,118 | 2.9 |
| Total | 15,700 | XX | XX |
| Central America and the Caribbean: | | | |
| Antigua and Barbuda | 1.400 | 17,017 | 12.2 |
| Aruba | NA | NA | NA |
| Bahamas, The | 7.871 | 23,927 | 7.9 |
| Barbados | 4.972 | 18,146 | 3.9 |
| Belize | 2.329 | 7,734 | 5.6 |
| Bermuda | NA | NA | NA |
| Costa Rica | 41.731 | 9,585 | 8.8 |
| Cuba | NA | NA | NA |
| Dominica | 0.626 | 8,727 | 4.0 |
| Dominican Republic | 55.469 | 6,412 | 10.7 |
| El Salvador | 38.765 | 5,530 | 4.2 |
| Grenada | 1.047 | 9,914 | -2.4 |
| Guadeloupe | NA | NA | NA |
| Guatemala | 57.617 | 4,438 | 5.2 |
| Haiti | 10.514 | 1,240 | 2.3 |
| Honduras | 28.084 | 3,818 | 6.3 |
| Jamaica | 19.867 | 7,432 | 2.5 |
| Martinique | NA | NA | NA |
| Montserrat | NA | NA | NA |
| Netherlands Antilles | NA | NA | NA |
| Nicaragua | 14.870 | 2,515 | 3.9 |
| Panama | 30.227 | 9,204 | 8.7 |
| St. Kitts and Nevis | 0.680 | 13,355 | 6.4 |
| Saint Lucia | 1.694 | 10,151 | 5.0 |
| Saint Vincent and the Grenadines | 0.952 | 8,916 | 6.9 |
| Trinidad and Tobago | 21.961 | 16,916 | 12.0 |
| Other ³ | NA | NA | NA |
| Total | 341 | XX | XX |
| South America: | | | |
| Argentina | 469.457 | 12,046 | 8.5 |
| Bolivia | 36.864 | 3,829 | 4.6 |
| Brazil | 1,696.000 | 9,081 | 3.8 |
| Chile | 214.315 | 13,083 | 4.0 |
| Colombia | 290.846 | 6,218 | 6.8 |
| Ecuador | 94.421 | 6,973 | 4 |
| French Guiana | NA | NA | NA |
| Guyana | 2.698 | 3,555 | 5.1 |
| Paraguay | 24.791 | 4,191 | 4.3 |
| Peru | 195.727 | 7,081 | 7.6 |
| Suriname | 3.761 | 7,266 | 4.8 |
| Uruguay | 33.850 | 10,578 | 7.0 |
| Venezuela | 300.615 | 11,150 | 10.3 |
| Total | 3,360 | XX | XX |
| Americas total | 19,400 | XX | XX |
| World total | 60,300 | XX | XX |

NA Not available. XX Not applicable.

¹Table includes data available as of April 2008.

²Totals are rounded to no more than three significant digits.

³Includes Anguilla, British Virgin Islands, Cayman Islands, Puerto Rico, Turk and Caicos Islands, and U.S. Virgin Islands.

Source: International Monetary Fund, World Economic Outlook Database, April 2008.

TABLE 3
SELECTED SIGNIFICANT LATIN AMERICA AND CANADA EXPLORATION IN 2006¹

| Location | Type ² | Site | Commodity | Company | Resource ³ | Exploration ⁴ |
|-----------|-------------------|----------------------------|--------------------|----------------------------------|--|--------------------------|
| Argentina | F | Gualcamayo | Au | Yamana Gold Inc. | 1.9 Moz Au | Extensive drilling. |
| Do. | E | La Cabeza | Au, Ag | Exeter Resource Corp. | 390,000 oz Au | Do. |
| Do. | E | La Fortuna | Au, Ag | Golden Peaks Resources Ltd. | Data not released | Do. |
| Brazil | E | Santa Fé/Iporá | Ni, Co | Int'l. Nickel Ventures Corp. | 1.2 Mt Ni, 65,000 t Co | Do. |
| Canada | E | Ajax West | Cu, Au | Abacus Mining & Exploration Inc. | Data not released | Do. |
| Do. | P | Doyon/Westwood | Au | Iamgold Corp. | 853,000 oz Au | Extensive work program. |
| Do. | E | Fenelon | Au | American Bonanza Gold Corp. | 35,000 oz Au | Extensive drilling. |
| Do. | E | Ferguson Lake | Cu, Ni, Pd, Pt | Starfield Resources Inc. | 80,000 t Cu, 58,000 t Ni, 411,000 oz Pd, 58,000 oz Pt | Do. |
| Do. | F | Fort à La Corne/Orion/Star | Diamond | Shore Gold Inc. | Data not released | Do. |
| Do. | F | Galore Creek | Au, Ag, Cu | NovaGold Resources Inc. | 3 Mt Cu, 5.3 Moz Au, 92.6 Moz Ag | Extensive drilling. |
| Do. | E | Garrison | Au | ValGold Resources Ltd. | 189,000 oz Au | Do. |
| Do. | P | Gibraltar | Cu, Mo | Taseko Mines Ltd. | 2.5 Mt Cu, 74,000 t Mo | Do. |
| Do. | E | GJ/Kinaskan | Cu, Au | Canadian Gold Hunter Corp. | 342,000 t Cu, 1.1 Moz Au | Do. |
| Do. | E | Hackett River | Ag, Zn, Cu, Pb, Au | Sabina Silver Corp. | 205 Moz Ag, 2.2 Mt Zn, 150,000 t Cu, 320,000 t Pb, 423,000 oz Au | Do. |
| Do. | F | Hope Bay | Au | Miramir Mining Corp. | 3.43 Moz Au | Do. |
| Do. | P | Island Gold | Au | Richmont Mines Inc. | 189,000 oz Au | Do. |
| Do. | E | Kansas/Silver Coin | Au, Ag | Pinnacle Mines Ltd. | Data not released | Do. |
| Do. | E | Malartic | Au | Osisko Exploration Ltd. | 6.5 Moz Au | Do. |
| Do. | E | Marathon | Pd, Pt, Au, Cu | Marathon PGM Corp. | 2 Moz Pd, 551,000 oz Pt, 210,000 oz Au, 218,000 t Cu | Do. |
| Do. | F | Meladine West | Au | Comaplex Minerals Corp. | 1.19 Moz Au | Do. |
| Do. | P | Minto | Cu, Au, Ag | Sherwood Copper Corp. | 154,000 t Cu, 156,000 oz Au, 2 Moz Ag | Do. |
| Do. | E | New Polaris | Au | Canarc Resource Corp. | 555,000 oz Au | Do. |
| Do. | F | Raglan South | Ni, Cu, PGE | Canadian Royalties Inc. | 110,000 t Ni, 133,000 t Cu, 1.1 Moz PGE | Extensive work program. |
| Do. | E | Santoy/Porky Lake | Au | Claude Resources Inc. | 111,000 oz Au | Extensive drilling. |
| Do. | P | Seabee | Au | do. | 162,000 oz Au | Do. |
| Do. | E | Selwyn/Howard's Pass | Zn, Pb | Pacifica Resources Ltd. | 6.2 Mt Zn, 2.4 Mt Pb | Do. |
| Do. | E | Tulk's South/Boomerang | Zn, Pb, Cu, Ag, Au | Messina Minerals Inc. | Data not released | Do. |
| Do. | F | Tulsequah | Au, Ag, Cu, Pb, Zn | Redcorp Ventures Ltd. | 448,000 oz Au, 16 Moz Ag, 75,000 t Cu, 64,000 t Pb, 340,000 t Zn | Do. |
| Chile | P | El Toqui/Porvenir | Zn, Au | Breakwater Resources Ltd. | 287,000 t Zn, 209,000 oz Au | Do. |
| Do. | F | El Morro | Cu, Au | Metallica Resources Inc. | 2.89 Mt Cu, 8.22 Moz Au | Do. |
| Do. | P | Refugio | Au | Bema Gold Corp. | 1.8 Moz Au | Do. |
| Do. | F | Sierra Gorda | Cu, Mo | Quadra Mining Ltd. | 2 Mt Cu, 186,000 t Mo | Do. |
| Do. | E | Volcan | Au | Andina Minerals Inc. | 1.4 Moz Au | Do. |
| Colombia | F | Angostura | Au, Ag | Greystar Resources Ltd. | 7.4 Moz Au, 33 Moz Ag | Do. |
| Guyana | E | Tassawini | Au | StrataGold Corp. | Data not released | Do. |
| Honduras | P | San Andres | Au | Yamana Gold Corp. | 477,000 oz Au | Do. |
| Mexico | F | Boleo | Cu, Co, Zn, Mn | Baja Mining Corp. | 1.8 Mt Cu, 149,000 t Co, 1.2 Mt Zn, 6.4 Mt Mn | Do. |
| Do. | P | La Guitarra | Ag, Au | Genco Resources Ltd. | 3.2 Moz Ag, 19,000 oz Au | Do. |
| Do. | F | Peñasquito | Ag, Au, Zn, Pb | Goldcorp Inc. | 822 Moz Ag, 12.8 Moz Au, 3.6 Mt Zn, 1.6 Mt Pb | Do. |
| Do. | E | Pinos Altos | Au, Ag | Agnico-Eagle Mines Ltd. | 1.6 Moz Au, 41 Moz Ag | Do. |
| Do. | E | Pitarrilla | Ag | Silver Standard Resources Inc. | 234 Moz Ag | Do. |
| Do. | E | San Anton | Au, Ag, Cu | Kings Minerals NL | 2.5 Moz Au, 95 Moz Ag, 224,000 t Cu | Do. |

See footnotes at end of table.

TABLE 3--Continued
SELECTED SIGNIFICANT LATIN AMERICA AND CANADA EXPLORATION IN 2006¹

| Location | Type ² | Site | Commodity | Company | Resource ³ | Exploration ⁴ |
|-----------|-------------------|--------------------|------------|----------------------------|-------------------------------------|--------------------------|
| Peru | E | Cañariaco Norte | Cu | Candente Resource Corp. | 2.2 Mt Cu | Extensive drilling. |
| Do. | E | Constancia | Cu, Ag, Mo | Norsemont Mining Inc. | 340,000 t Cu, 7 Moz Ag, 8,600 t Mo | Do. |
| Do. | E | Corani | Ag, Pb, Zn | Bear Creek Mining Corp. | 278 Moz Ag, 1.4 Mt Pb, 720,000 t Zn | Do. |
| Do. | E | Galeno | Cu, Au, Mo | Northern Peru Copper Corp. | 3.7 Mt Cu, 2.6 Moz Au, 107,000 t Mo | Do. |
| Do. | E | Las Bambas | Cu, Mo | Xstrata Copper Corp. | 2.4 Mt Cu, 5,000 t Mo | Do. |
| Do. | F | Marcona/Mina Justa | Cu | Chariot Resources Ltd. | 2.46 Mt Cu | Do. |
| Venezuela | E | Increible 6 | Au | Mena Resources Inc. | Data not released | Do. |

Do. Ditto

¹ Abbreviations used in this table for commodities are as follows: Au, gold; Ag, silver; Co, cobalt; Cu, copper; Mn, manganese; Mo, molybdenum; Ni, nickel; Pb, lead; Pd, palladium; PGE, platinum-group elements; Pt, platinum; and Zn, zinc. Abbreviations used in this table for units of measurement are as follows: Moz, million troy ounces; Mt, million metric tons; oz, troy ounces; t, metric tons.

² E Active exploration; F Feasibility work ongoing/completed; P Exploration at producing site.

³ Based on 2005 data reported from various sources, values vary from measured reserves to identified resources. Data not verified by the U.S. Geological Survey.

⁴ Significance of activity defined by either quantity of drilling or investment expenditure for exploration work program.

TABLE 4
LATIN AMERICA AND CANADA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2006¹

(Thousand metric tons unless otherwise specified)

| Country | Metals | | | | | | | | | | | |
|--------------------------|---------------------|--------------------|------------------------------|------------------|------------------------|------------------------|---------------------|-------------------------------|------------------|----------------------------------|--|--|
| | Aluminum | | | Copper, | | | Iron and steel | | | Nickel, | | |
| | Bauxite | Metal, primary | Gold, Au content (kilograms) | Cu content | Au content (kilograms) | Iron ore, gross weight | Steel, crude | Lead, mine output, Pb content | Ni content | Silver, Ag content (metric tons) | Tin, mine output, Sn content (metric tons) | |
| Argentina | -- | 273 | 44,131 | 180 | 44,131 | -- | 5,533 | 13 | -- | 248 | -- | |
| Bolivia | -- | -- | 9,628 | (2) | 9,628 | -- | -- | 12 | -- | 472 | 17,669 | |
| Brazil | 22,700 ^P | 1,630 ^P | 45,000 ^P | 148 ^P | 45,000 ^P | 317,800 ^P | 30,900 ^P | 26 ^P | 82 ^P | 38 ^P | 12,907 ^P | |
| Chile | -- | -- | 42,100 | 5,361 | 42,100 | 8,629 | 1,627 ^P | 1 | -- | 1,607 | -- | |
| Colombia | -- | -- | 15,700 ^e | 3 ^e | 15,700 ^e | 644 | 1,221 | -- | 94 ^e | 8 | -- | |
| Costa Rica | -- | -- | 1,210 ^e | -- | 1,210 ^e | -- | -- | -- | -- | -- | -- | |
| Cuba | -- | -- | -- | -- | -- | 8 | 257 | -- | 75 ^e | -- | -- | |
| Dominican Republic | NA | -- | -- | -- | -- | -- | 60 ^e | -- | 47 | -- | -- | |
| Ecuador | -- | -- | 5,500 ^e | -- | 5,500 ^e | -- | 87 ^e | -- | -- | (2) ^e | -- | |
| El Salvador | -- | -- | -- | -- | -- | -- | 77 ^e | -- | -- | -- | -- | |
| French Guiana | -- | -- | 2,000 | -- | 2,000 | -- | -- | -- | -- | -- | -- | |
| Guatemala | -- | -- | 5,036 | -- | 5,036 | -- | 292 | (2) | -- | 50 | -- | |
| Guyana | 1,558 | -- | 6,406 | -- | 6,406 | -- | -- | -- | -- | -- | -- | |
| Honduras | -- | -- | 4,100 ^e | (2) ^e | 4,100 ^e | -- | -- | 12 | -- | 55 | -- | |
| Jamaica | 14,865 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| Mexico | -- | -- | 38,961 | 334 | 38,961 | 10,983 | 16,313 | 135 | -- | 2,569 | NA | |
| Nicaragua | -- | -- | 3,395 | -- | 3,395 | -- | -- | -- | -- | 3 | -- | |
| Panama | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| Paraguay | -- | -- | -- | -- | -- | -- | 118 | -- | -- | -- | -- | |
| Peru | -- | -- | 202,834 | 1,050 | 202,834 | 7,138 | 750 ^e | 313 | -- | 3,471 | 38,470 | |
| Suriname | 4,924 | -- | 9,362 | -- | 9,362 | -- | -- | -- | -- | -- | -- | |
| Trinidad and Tobago | -- | -- | -- | -- | -- | -- | 674 | -- | -- | -- | -- | |
| Uruguay | -- | -- | 3,200 | -- | 3,200 | 16 | 57 | -- | -- | -- | -- | |
| Venezuela | 5,928 | 610 ^e | 12,400 ^e | -- | 12,400 ^e | 23,000 ^e | 4,900 ^e | -- | 20 ^e | -- | -- | |
| Other ³ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| Total | 50,000 | 2,510 | 451,000 | 7,080 | 451,000 | 268,000 | 62,900 | 512 | 318 | 8,520 | 69,000 | |
| Share of world total | 26% | 7% | 18% | 47% | 18% | 20% | 5% | 14% | 15% | 43% | 24% | |
| Canada | -- | 3,051 ^P | 104,234 ^P | 607 ^P | 104,234 ^P | 34,094 ^P | 17,000 ^e | 82 ^P | 233 ^P | 983 ^P | -- | |
| Share of world total | -- | 9% | 4% | 4% | 4% | 2% | 1% | 2% | 11% | 5% | -- | |
| United States | NA | 2,280 | 252,000 | 1,200 | 252,000 | 52,700 | 98,200 | 429 | -- | 1,140 | -- | |
| Share of world total | NA | 7% | 10% | 8% | 10% | 3% | 8% | 12% | -- | 6% | -- | |
| Total Western Hemisphere | 50,000 | 7,850 | 807,000 | 8,880 | 807,000 | 455,000 | 178,000 | 1,020 | 552 | 10,600 | 69,000 | |
| Share of world total | 26% | 23% | 33% | 58% | 33% | 25% | 14% | 28% | 26% | 53% | 24% | |
| World total | 190,000 | 34,100 | 2,450,000 | 15,200 | 2,450,000 | 1,830,000 | 1,240,000 | 3,660 | 2,130 | 20,000 | 293,000 | |

See footnotes at end of table.

TABLE 4—Continued
LATIN AMERICA AND CANADA: PRODUCTION OF SELECTED COMMODITIES IN 2006¹

(Thousand metric tons unless otherwise specified)

| Country | Mineral fuels and related products | | | | | | | | | | | |
|--------------------------|------------------------------------|--------------------------|---|---------------------|------------------------|------------------------------|------------------------------|------------------------------|------------------------|------------------------------|------------------------------|------------------------------|
| | Metals—Continued | | | | | Petroleum | | | | | | |
| | Zinc, mine output, (metric tons) | Zn content (metric tons) | Cement, hydraulic | Industrial minerals | Coal, all grades | Natural gas | Crude, including condensate | Refinery products | Dry Plant liquids | Refinery products | | |
| | | | Gypsum | Salt | (million cubic meters) | (thousand 42-gallon barrels) | (thousand 42-gallon barrels) | (thousand 42-gallon barrels) | (million cubic meters) | (thousand 42-gallon barrels) | (thousand 42-gallon barrels) | (thousand 42-gallon barrels) |
| | | | Phosphate rock, P ₂ O ₅ content | | | | | | | | | |
| Argentina | 27,220 | 8,929 | 1,203 | -- | 1,918 | 295 | 41,000 ^e | 18,000 ^e | 240,492 | 214,986 | | |
| Bolivia | 172,747 | 1,636 | (2) | -- | 45 ^e | -- | 13,700 ^e | 5,000 ^e | 15,100 ^e | 10,200 ^e | | |
| Brazil | 185,211 ^P | 36,700 ^P | 1,725 ^P | 2,224 ^P | 7,340 ^P | 6,220 ^P | 17,880 ^P | 4,700 ^P | 700,800 ^P | 637,290 ^P | | |
| Chile | 36,238 | 4,112 | 845 | 4 ^e | 6,068 | 674 | 2,199 | 3,500 ^e | 1,061 | 88,070 | | |
| Colombia | -- | 10,000 | 700 ^e | 8 ^e | 638 | 65,758 | 6,600 ^e | 2,600 ^e | 192,503 | 109,000 | | |
| Costa Rica | -- | 2,000 ^e | -- | -- | 20 ^e | -- | -- | -- | -- | 4,920 | | |
| Cuba | -- | 1,705 | -- | -- | 180 | -- | 1,090 ^e | -- | 18,702 ^e | 5,480 ^e | | |
| Dominican Republic | -- | 2,780 | 356 | -- | 50 ^e | -- | -- | -- | -- | 12,000 ^e | | |
| Ecuador | -- | 3,000 ^e | (2) | -- | 75 | -- | 281 | 500 | 195,948 | 47,260 | | |
| El Salvador | -- | 1,311 | 6 ^e | -- | 30 ^e | -- | -- | -- | -- | 6,180 ^e | | |
| French Guiana | -- | 62 ^e | -- | -- | -- | -- | -- | -- | -- | -- | | |
| Guatemala | -- | 2,500 ^e | 227 | -- | 50 ^e | -- | (2) ^e | -- | 5,893 | -- | | |
| Guyana | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | | |
| Honduras | 37,646 | 1,800 ^e | 6 ^e | -- | 40 ^e | -- | -- | -- | -- | -- | | |
| Jamaica | -- | 761 | 364 | -- | 19 ^e | -- | -- | -- | -- | 12,000 ^e | | |
| Mexico | 453,893 | 40 | 6,076 | 2 | 8,371 | 10,882 | 35,610 | 155,855 | 1,188,440 | 485,341 | | |
| Nicaragua | -- | 530 ^e | 42 | -- | 30 ^e | -- | -- | -- | -- | 5,200 ^e | | |
| Panama | -- | 1,050 ^e | -- | -- | 18 ^e | -- | -- | -- | -- | -- | | |
| Paraguay | -- | 550 ^e | 5 ^e | -- | -- | -- | -- | -- | -- | 2,660 ^e | | |
| Peru | 1,201,786 ^P | 5,000 ^P | 151 ^P | 17 ^P | 252 ^P | 30 ^P | 1,003 ^P | 13,873 ^P | 28,288 ^P | 60,305 ^P | | |
| Suriname | -- | 65 ^e | -- | -- | -- | -- | -- | -- | -- | 2,500 | | |
| Trinidad and Tobago | -- | 883 | -- | -- | -- | -- | NA | 11,251 | 52,105 | 57,585 | | |
| Uruguay | -- | 1,050 ^e | 1,150 ^e | -- | -- | -- | -- | -- | -- | 15,300 ^e | | |
| Venezuela | -- | 11,000 ^e | 7 | 115 ^e | 350 ^e | 7,459 | 28,500 ^e | 78,475 | 916,515 | 434,000 ^e | | |
| Other ³ | -- | 1,060 | -- | -- | 1,899 | -- | 12 | -- | 343 | 146,800 | | |
| Total | 2,110,000 | 98,500 | 12,900 | 2,370 | 27,400 | 91,300 | 148,000 | 294,000 | 3,560,000 | 2,360,000 | | |
| Share of world total | 21% | 4% | 10% | 5% | 10% | 2% | 5% | 13% | 13% | 9% | | |
| Canada | 637,726 ^P | 13,985 ^P | 9,082 ^P | 380 ^e | 13,338 ^P | 62,928 ^P | 171,641 ^P | 68,800 ^e | 961,502 ^P | 805,129 ^P | | |
| Share of world total | 6% | 1% | 7% | 1% | 5% | 1% | 6% | 3% | 4% | 3% | | |
| United States | 727,000 | 99,700 | 21,100 | 8,680 | 44,300 | 1,050,000 | 525,000 | 635,000 | 1,860,000 | 3,610,000 | | |
| Share of world total | 7% | 4% | 16% | 18% | 4% | 18% | 19% | 29% | 7% | 14% | | |
| Total Western Hemisphere | 3,480,000 | 212,000 | 43,100 | 11,400 | 85,100 | 1,210,000 | 844,000 | 997,000 | 6,380,000 | 6,770,000 | | |
| Share of world total | 35% | 8% | 32% | 24% | 34% | 20% | 30% | 46% | 24% | 26% | | |
| World total | 10,000,000 | 2,520,000 | 135,000 | 47,400 | 261,000 | 6,010,000 | 2,820,000 | 2,180,000 | 27,100,000 | 26,400,000 | | |

See footnotes at end of table.

TABLE 4—Continued
 LATIN AMERICA AND CANADA: PRODUCTION OF SELECTED COMMODITIES IN 2006¹

⁰Estimated; estimated data, U.S. data, and world totals are rounded to no more than three significant digits. ¹Preliminary. NA Not available. -- Zero or zero percent.
¹Totals may not add due to independent rounding. Percentages are calculated on unrounded data. Table includes data available as of June 11, 2008.
²Less than 1/2 unit.
³Includes Aruba, Barbados, Belize, Guadeloupe, Haiti, Martinique, and the Netherlands Antilles.

TABLE 5
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED BAUXITE MINE PRODUCTION, 1995-2013

(Thousand metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|--------------------|--------|--------|------------------|--------|-------------------|-------------------|-------------------|
| Brazil | 10,200 | 13,800 | 22,100 | 22,700 | 26,000 | 29,500 | 30,000 |
| Dominican Republic | -- | -- | 535 ¹ | NA | -- | -- | -- |
| Guyana | 2,028 | 2,471 | 1,648 | 1,558 | 4,000 | 4,000 | 4,000 |
| Jamaica | 10,900 | 11,100 | 14,116 | 14,865 | 15,600 | 15,600 | 15,600 |
| Suriname | 3,530 | 3,610 | 4,757 | 4,924 | 5,700 | 3,700 | 2,000 |
| Venezuela | 5,020 | 4,360 | 5,900 | 5,928 | 6,000 | 6,000 | 6,000 |
| Total | 32,000 | 35,000 | 49,000 | 50,000 | 57,000 | 59,000 | 58,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown.

NA Not available. -- Negligible or no production.

¹Sales from stockpiles.

TABLE 6
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED PRIMARY AND SECONDARY ALUMINUM PRODUCTION, 1995-2013

(Thousand metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|-----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
| Argentina | 196 | 278 | 287 | 289 ¹ | 366 ¹ | 391 ¹ | 396 |
| Brazil | 1,272 ¹ | 1,490 ¹ | 1,751 ¹ | 1,905 ¹ | 2,300 ¹ | 3,800 ¹ | 4,400 |
| Canada | 2,170 | 2,518 ¹ | 2,944 ¹ | 3,101 ¹ | 3,070 ¹ | 3,570 ¹ | 4,200 |
| Mexico | 139 ¹ | 348 ¹ | 574 ¹ | 600 ¹ | 600 ¹ | 700 ¹ | 700 |
| Suriname | 28 | -- | -- | -- | -- | -- | -- |
| Venezuela | 630 | 571 | 615 | 610 | 600 | 600 | 1,100 |
| Total | 4,400 | 5,200 | 6,200 | 6,500 | 6,900 | 9,100 | 10,800 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. -- Negligible or no production.

¹Includes secondary aluminum production.

TABLE 7
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED COPPER MINE PRODUCTION, 1995-2013

(Metal content in thousand metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|-----------|-------|-------|-------|-------|-------------------|-------------------|-------------------|
| Argentina | -- | 145 | 187 | 180 | 200 | 350 | 350 |
| Brazil | 49 | 32 | 133 | 148 | 296 | 410 | 420 |
| Canada | 726 | 634 | 595 | 607 | 670 | 670 | 700 |
| Chile | 2,490 | 4,600 | 5,321 | 5,361 | 5,700 | 6,000 | 6,000 |
| Mexico | 335 | 365 | 429 | 334 | 400 | 500 | 500 |
| Peru | 444 | 554 | 1,010 | 1,050 | 1,050 | 1,060 | 1,100 |
| Other | 2 | 3 | 3 | 3 | 2 | 2 | 2 |
| Total | 4,000 | 6,300 | 7,700 | 7,700 | 8,300 | 9,000 | 9,100 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. -- Negligible or no production.

TABLE 8
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED REFINED COPPER PRODUCTION, 1995-2013

(Thousand metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^c |
|------------------------|-------|-------|-------|-------|-------------------|-------------------|-------------------|
| Argentina ¹ | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Brazil | 219 | 233 | 225 | 247 | 250 | 450 | 500 |
| Canada | 614 | 613 | 515 | 500 | 600 | 610 | 650 |
| Chile ² | 1,490 | 2,670 | 2,824 | 2,811 | 3,000 | 3,000 | 3,000 |
| Mexico | 212 | 411 | 416 | 379 | 420 | 530 | 530 |
| Peru ² | 444 | 452 | 512 | 508 | 530 | 540 | 550 |
| Total | 3,000 | 4,400 | 4,500 | 4,500 | 4,800 | 5,100 | 5,200 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown.

¹Secondary only.

²Primary only.

TABLE 9
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED GOLD MINE PRODUCTION, 1995-2013

(Metal content in kilograms)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^c |
|--------------------|---------|---------|---------|---------|-------------------|-------------------|-------------------|
| Argentina | 837 | 26,000 | 27,904 | 44,131 | 50,000 | 50,000 | 50,000 |
| Belize | 5 | 7 | (1) | 5 | 100 | 500 | 500 |
| Bolivia | 14,400 | 12,000 | 8,871 | 9,628 | 10,000 | 10,000 | 10,000 |
| Brazil | 63,300 | 50,400 | 38,292 | 45,000 | 50,000 | 50,500 | 51,000 |
| Canada | 152,000 | 156,200 | 120,541 | 104,234 | 125,000 | 135,000 | 135,000 |
| Chile | 44,600 | 54,100 | 40,447 | 42,100 | 50,000 | 55,000 | 60,000 |
| Colombia | 21,100 | 37,000 | 35,783 | 15,700 | 16,000 | 20,000 | 20,000 |
| Costa Rica | 400 | 50 | 424 | 1,210 | 50 | 1,000 | 2,500 |
| Cuba | 184 | 1,000 | -- | -- | -- | -- | -- |
| Dominican Republic | 3,280 | -- | -- | -- | -- | -- | 20,000 |
| Ecuador | 7,410 | 2,870 | 5,338 | 5,500 | 6,400 | 7,300 | 7,500 |
| French Guiana | 3,000 | 3,492 | 1,955 | 2,000 | 2,000 | 2,000 | 2,000 |
| Guatemala | 30 | 140 | 741 | 5,036 | 7,700 | 7,700 | 7,700 |
| Guyana | 9,005 | 13,510 | 8,166 | 6,406 | 7,000 | 7,000 | 7,000 |
| Honduras | 111 | 878 | 4,438 | 4,100 | 2,600 | 1,000 | 1,000 |
| Jamaica | -- | -- | -- | -- | -- | -- | -- |
| Mexico | 20,300 | 26,400 | 30,356 | 38,961 | 55,000 | 60,000 | 65,000 |
| Nicaragua | 1,320 | 3,670 | 3,674 | 3,395 | 2,200 | 2,200 | 2,000 |
| Panama | 1,100 | -- | -- | -- | -- | 1,500 | 2,000 |
| Peru | 56,000 | 139,000 | 208,002 | 202,834 | 215,000 | 220,000 | 220,000 |
| Suriname | 300 | 300 | 10,619 | 9,362 | 10,000 | 10,000 | 10,000 |
| Uruguay | 900 | 2,180 | 3,151 | 3,200 | 3,500 | 3,500 | 3,500 |
| Venezuela | 7,260 | 7,330 | 10,000 | 12,400 | 17,000 | 30,000 | 35,000 |
| Total | 407,000 | 537,000 | 559,000 | 555,000 | 630,000 | 620,000 | 710,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. -- Negligible or no production.

¹Less than 1/2 unit.

TABLE 10
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED IRON ORE PRODUCTION, 1995-2013

(Iron content in thousand metric tons)

| Country | Iron content | 1995 | 2000 | 2005 | 2006 | 2009 ^c | 2011 ^c | 2013 ^c |
|-----------|--------------|---------|---------|---------|---------|-------------------|-------------------|-------------------|
| Argentina | 68% | -- | -- | -- | -- | 30 | 300 | 500 |
| Bolivia | 65% | -- | -- | -- | -- | -- | -- | 1,000 |
| Brazil | 66% | 113,000 | 141,000 | 186,309 | 211,020 | 215,000 | 220,000 | 225,000 |
| Canada | 64% | 24,600 | 22,700 | 19,333 | 21,691 | 22,500 | 23,000 | 23,500 |
| Chile | 61% | 5,200 | 5,400 | 4,707 | 5,235 | 7,000 | 8,500 | 9,300 |
| Colombia | 55% | 300 | 363 | 334 | 354 | 330 | 300 | 270 |
| Guatemala | 65% | 1 | 10 | -- | -- | -- | -- | -- |
| Mexico | 60% | 5,630 | 6,800 | 7,012 | 6,590 | 7,000 | 7,000 | 7,000 |
| Peru | 68% | 3,950 | 2,810 | 4,565 | 4,785 | 4,900 | 5,000 | 5,500 |
| Uruguay | 50% | 3 | 4 | 12 | 16 | 16 | 16 | 16 |
| Venezuela | 65% | 12,600 | 11,100 | 13,000 | 15,200 | 20,000 | 20,000 | 20,000 |
| Total | XX | 165,000 | 190,000 | 235,000 | 265,000 | 280,000 | 285,000 | 290,000 |

^cEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. -- Negligible or no production. XX Not applicable.

¹Includes beneficiated and direct-shipping ore.

TABLE 11
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED CRUDE STEEL PRODUCTION, 1995-2013

(Thousand metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^c | 2011 ^c | 2013 ^c |
|---------------------|------------------|--------|--------|--------|-------------------|-------------------|-------------------|
| Argentina | 3,620 | 4,470 | 5,386 | 5,533 | 5,600 | 5,700 | 5,800 |
| Brazil | 25,100 | 27,900 | 31,631 | 30,900 | 37,500 | 39,000 | 39,500 |
| Canada | 14,400 | 15,900 | 17,000 | 17,000 | 19,000 | 20,000 | 20,000 |
| Chile | 1,010 | 1,350 | 1,537 | 1,627 | 1,700 | 1,700 | 1,700 |
| Colombia | 792 | 660 | 842 | 1,221 | 1,200 | 1,200 | 1,200 |
| Cuba | 207 | 327 | 245 | 257 | 250 | 250 | 250 |
| Dominican Republic | -- | 36 | 60 | 60 | 60 | 60 | 60 |
| Ecuador | 35 | 58 | 84 | 87 | 90 | 90 | 90 |
| El Salvador | 28 | 41 | 48 | 77 | 80 | 80 | 80 |
| Guatemala | NA | 166 | 207 | 292 | 300 | 300 | 300 |
| Jamaica | 25 | -- | -- | -- | -- | -- | -- |
| Mexico | 12,100 | 15,600 | 16,202 | 16,313 | 18,200 | 18,500 | 19,000 |
| Paraguay | 96 | 77 | 101 | 118 | 120 | 120 | 120 |
| Peru | 515 ¹ | 749 | 750 | 750 | 750 | 750 | 750 |
| Trinidad and Tobago | 738 | 753 | 711 | 674 | 700 | 700 | 700 |
| Uruguay | 40 | 38 | 64 | 57 | 65 | 65 | 65 |
| Venezuela | 3,630 | 3,840 | 4,907 | 4,900 | 5,200 | 5,500 | 6,000 |
| Total | 62,300 | 72,000 | 79,800 | 79,900 | 91,000 | 94,000 | 96,000 |

^cEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. NA Not available.

-- Negligible or no production.

¹Ingots and castings.

TABLE 12
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED LEAD MINE PRODUCTION, 1995-2013

(Metal content in metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|-----------|---------|---------|---------|---------|-------------------|-------------------|-------------------|
| Argentina | 10,500 | 14,100 | 10,683 | 12,778 | 12,800 | 12,900 | 13,000 |
| Bolivia | 20,400 | 9,520 | 11,231 | 11,955 | 65,000 | 70,000 | 70,000 |
| Brazil | 11,600 | 8,830 | 24,000 | 26,000 | 27,000 | 28,000 | 28,500 |
| Canada | 211,000 | 149,000 | 79,254 | 82,393 | 85,000 | 90,000 | 90,000 |
| Chile | 944 | 785 | 878 | 672 | 1,200 | 2,000 | 2,500 |
| Colombia | 300 | 226 | -- | -- | -- | -- | -- |
| Ecuador | 200 | 200 | -- | -- | -- | -- | -- |
| Honduras | 2,620 | 4,810 | 10,488 | 11,775 | 9,000 | 8,800 | 8,500 |
| Mexico | 164,000 | 138,000 | 134,388 | 135,025 | 145,000 | 150,000 | 150,000 |
| Peru | 238,000 | 271,000 | 319,368 | 313,322 | 360,000 | 375,000 | 375,000 |
| Total | 660,000 | 597,000 | 590,000 | 594,000 | 710,000 | 740,000 | 740,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. -- Negligible or no production.

TABLE 13
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED PRIMARY AND SECONDARY REFINED LEAD PRODUCTION, 1995-2013

(Metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|-----------|---------|---------|---------|---------|-------------------|-------------------|-------------------|
| Argentina | 28,730 | 35,700 | 45,607 | 49,064 | 52,500 | 52,500 | 52,500 |
| Brazil | 79,000 | 50,000 | 104,904 | 113,646 | 152,000 | 157,000 | 157,000 |
| Canada | 281,000 | 284,000 | 230,237 | 250,464 | 265,000 | 275,000 | 280,000 |
| Colombia | 8,000 | 12,000 | 12,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| Mexico | 176,000 | 253,000 | 213,691 | 227,315 | 235,000 | 235,000 | 235,000 |
| Peru | 221,000 | 116,000 | 122,079 | 120,311 | 125,000 | 125,000 | 125,000 |
| Venezuela | 16,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 |
| Total | 810,000 | 781,000 | 759,000 | 801,000 | 870,000 | 880,000 | 890,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 14
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED NICKEL MINE PRODUCTION, 1995-2013

(Metal content in metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|--------------------|---------|---------|---------|---------|-------------------|-------------------|-------------------|
| Brazil | 29,100 | 45,300 | 74,198 | 82,492 | 85,000 | 90,000 | 90,000 |
| Canada | 182,000 | 191,000 | 199,932 | 233,461 | 260,000 | 260,000 | 260,000 |
| Colombia | 24,200 | 59,000 | 89,000 | 94,100 | 80,000 | 80,000 | 80,000 |
| Cuba | 41,000 | 68,100 | 73,753 | 75,000 | 87,000 | 90,000 | 90,000 |
| Dominican Republic | 46,500 | 39,900 | 53,124 | 46,526 | 30,000 | 30,000 | 30,000 |
| Venezuela | -- | 2,540 | 20,000 | 20,000 | 22,000 | 22,000 | 22,000 |
| Total | 323,000 | 406,000 | 510,000 | 552,000 | 560,000 | 570,000 | 570,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. -- Negligible or no production.

TABLE 15
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED PLATINUM MINE PRODUCTION, 1995-2013

(Metal content in kilograms)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|----------|-------|-------|-------|-------|-------------------|-------------------|-------------------|
| Canada | 7,000 | 5,700 | 6,075 | 6,120 | 8,000 | 9,000 | 9,000 |
| Colombia | 973 | 339 | 1,082 | 1,438 | 1,600 | 1,600 | 1,600 |
| Total | 8,000 | 6,000 | 7,200 | 7,600 | 10,000 | 11,000 | 11,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown.

TABLE 16
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED PALLADIUM MINE PRODUCTION, 1995-2013

(Metal content in kilograms)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|---------|-------|--------|--------|--------|-------------------|-------------------|-------------------|
| Canada | 8,900 | 10,400 | 10,415 | 10,493 | 15,000 | 15,000 | 15,000 |

^eEstimated; estimated data are rounded to no more than three significant digits.

TABLE 17
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED ZINC MINE PRODUCTION, 1995-2013

(Metal content in metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|-----------|-----------|-----------|-----------|-----------|-------------------|-------------------|-------------------|
| Argentina | 32,100 | 34,900 | 29,839 | 27,220 | 40,000 | 40,000 | 40,000 |
| Bolivia | 146,000 | 149,000 | 159,502 | 172,747 | 200,000 | 220,000 | 220,000 |
| Brazil | 189,000 | 100,000 | 170,659 | 185,211 | 185,000 | 190,000 | 190,000 |
| Canada | 1,120,000 | 1,000,000 | 666,664 | 637,726 | 795,000 | 800,000 | 800,000 |
| Chile | 35,400 | 31,400 | 28,841 | 36,238 | 36,500 | 37,000 | 37,000 |
| Colombia | -- | 40 | -- | -- | -- | -- | -- |
| Ecuador | 100 | 100 | -- | -- | -- | -- | -- |
| Honduras | 27,100 | 31,200 | 42,698 | 37,646 | 35,000 | 32,000 | 30,000 |
| Mexico | 364,000 | 393,000 | 455,625 | 453,893 | 475,000 | 475,000 | 475,000 |
| Peru | 692,000 | 910,000 | 1,201,671 | 1,201,786 | 1,300,000 | 1,370,000 | 1,370,000 |
| Total | 2,610,000 | 2,650,000 | 2,760,000 | 2,750,000 | 3,070,000 | 3,160,000 | 3,160,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. -- Negligible or no production.

TABLE 18
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED ZINC METAL PRODUCTION, 1995-2013

(Metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|---------------------|-----------|-----------|-----------|-----------|-------------------|-------------------|-------------------|
| Argentina | 35,800 | 39,300 | 40,224 | 45,991 | 47,000 | 48,000 | 48,000 |
| Brazil | 206,000 | 199,000 | 267,374 | 272,333 | 280,000 | 300,000 | 300,000 |
| Canada ¹ | 720,000 | 780,000 | 724,035 | 824,466 | 825,000 | 850,000 | 850,000 |
| Mexico ¹ | 223,000 | 235,000 | 327,205 | 279,734 | 350,000 | 350,000 | 350,000 |
| Peru ¹ | 159,000 | 200,000 | 163,603 | 175,250 | 215,000 | 225,000 | 225,000 |
| Total | 1,350,000 | 1,450,000 | 1,520,000 | 1,600,000 | 1,720,000 | 1,770,000 | 1,770,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown.

¹Primary only.

TABLE 19
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED DIAMOND MINE PRODUCTION, 1995-2013

(Thousand carats)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|-----------|-------|-------|--------|--------|-------------------|-------------------|-------------------|
| Brazil | 1,280 | 1,600 | 300 | 300 | 1,000 | 1,000 | 1,000 |
| Canada | -- | 2,530 | 12,314 | 13,242 | 16,000 | 17,000 | 17,000 |
| Guyana | 52 | 82 | 357 | 341 | 350 | 350 | 350 |
| Venezuela | 296 | 110 | 115 | 115 | 100 | 100 | 100 |
| Total | 1,600 | 4,300 | 13,100 | 14,000 | 18,000 | 19,000 | 19,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. -- Negligible or no production.

TABLE 20
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED PHOSPHATE ROCK PRODUCTION, 1995-2013

(P₂O₅ content in thousand metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|---------------------|-------|-------|-------|-------|-------------------|-------------------|-------------------|
| Brazil | 1,360 | 1,690 | 2,044 | 2,224 | 2,400 | 2,500 | 2,500 |
| Canada ¹ | NA | 125 | 325 | 380 | 200 | 200 | 200 |
| Chile | 3 | 4 | 3 | 4 | 4 | 4 | 4 |
| Colombia | 10 | 8 | 8 | 8 | 10 | 10 | 10 |
| Mexico | 187 | 316 | (2) | 2 | 3 | 3 | 3 |
| Peru | 89 | 6 | 14 | 17 | 18 | 18 | 18 |
| Venezuela | 23 | 105 | 110 | 115 | 115 | 115 | 115 |
| Total | 1,700 | 2,300 | 2,500 | 2,800 | 2,800 | 2,900 | 2,900 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. NA Not available.

¹Sources: Natural Resources Canada and Jasinski, S.M., 2001 and 2006, Phosphate rock, *in* Metals and minerals, v. I, of U.S. Geological Survey Minerals Yearbook 2001, p. 57.1-57.10; 2006, p. 56.1-56.10.

²Less than 1/2 unit.

TABLE 21
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED SALABLE COAL PRODUCTION, 1995-2013

(Thousand metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|---------------------|---------|---------|---------|---------|-------------------|-------------------|-------------------|
| Argentina | 305 | 246 | 320 | 295 | 400 | 600 | 800 |
| Brazil | 2,780 | 6,000 | 6,480 | 6,220 | 6,500 | 6,500 | 6,500 |
| Canada ¹ | 75,000 | 69,200 | 65,341 | 62,928 | 70,000 | 75,000 | 75,000 |
| Chile | 1,490 | 509 | 732 | 674 | 500 | 700 | 1,000 |
| Colombia | 26,000 | 38,200 | 59,064 | 65,758 | 75,000 | 100,000 | 100,000 |
| Mexico ¹ | 11,200 | 14,300 | 11,750 | 10,882 | 12,000 | 12,000 | 12,000 |
| Peru ¹ | 80 | 27 | 22 | 30 | 30 | 30 | 30 |
| Venezuela | 4,260 | 7,910 | 7,195 | 7,459 | 8,000 | 10,000 | 12,000 |
| Total | 121,000 | 136,000 | 151,000 | 154,000 | 170,000 | 210,000 | 210,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown.

¹Run of mine.

TABLE 22
LATIN AMERICA AND CANADA: HISTORIC AND PROJECTED URANIUM PRODUCTION, 1995-2013

(U₃O₈ content in metric tons)

| Country | 1995 | 2000 | 2005 | 2006 | 2009 ^e | 2011 ^e | 2013 ^e |
|---------------------|--------|--------|--------|-------|-------------------|-------------------|-------------------|
| Argentina | 68 | -- | -- | -- | -- | -- | -- |
| Brazil ¹ | -- | 20 | 129 | 130 | 300 | 300 | 300 |
| Canada | 12,400 | 12,600 | 12,597 | 9,781 | 16,500 | 17,700 | 17,700 |
| Total | 12,500 | 12,600 | 12,700 | 9,900 | 16,800 | 18,000 | 18,000 |

^eEstimated; estimated data and totals are rounded to no more than three significant digits; may not add to totals shown. -- Negligible or no production.

¹Source: Anuário Mineral Brasileiro 2001-2006.