



2007 Minerals Yearbook

CONGO (KINSHASA)

THE MINERAL INDUSTRY OF CONGO (KINSHASA)

By Thomas R. Yager

The Democratic Republic of the Congo [Congo (Kinshasa)] played a globally significant role in the world's production of cobalt and diamond. In 2007, the country's share of the world's cobalt production amounted to 36%; industrial diamond, 31%; and gem-quality diamond, 6%. Congo (Kinshasa) accounted for about 49% of the world's cobalt reserves. Copper and crude petroleum production also played a significant role in the domestic economy. The country was not a globally significant consumer of minerals or mineral fuels (Olson, 2008a, b; Shedd, 2008).

Minerals in the National Economy

The mining and mineral processing sector accounted for 13.2% of the gross domestic product in 2006 (the latest year for which data were available); and the manufacturing sector, 4.5%. An estimated 700,000 artisanal miners were involved in diamond production; employment in diamond trading amounted to about 100,000 (International Monetary Fund, 2005, p. 48-49; 2007, p. 46).

Government Policies and Programs

The Parliament of Congo (Kinshasa) passed a mining code in July 2002 that replaced Ordinance No. 81-013 of April 2, 1981. The revised code promotes private sector development of the mining industry; the principal role of the Government is to promote and regulate the development of the industry. Mining rights are vested with the Government. Congo (Kinshasa) was a signatory to the Kimberley Process, which was a certification system established in November 2002 to reduce the trade in conflict diamond.

Production

In 2007, the production of niobium (columbium) in Congo (Kinshasa) increased by an estimated 133%; tantalum, by an estimated 129%; tin, by an estimated 89%; silver, by 13%; refined cobalt, by 10%; zinc, by 10%; and copper, by an estimated 10%. Refined copper production was restarted in 2007. Cobalt mine production declined by an estimated 7%, and diamond, by an estimated 5%.

Structure of the Mineral Industry

La Générale des Carrières et des Mines (Gécamines), which was a state-owned company, produced cobalt and copper; other cobalt and copper mining companies were privately owned. The cement producers Cimenterie de Lukala and Interlacs were privately owned. The Government held an 80% share in the large-scale diamond producer Société Minière de Bakwanga (MIBA). Artisanal and small-scale miners accounted for most Congolese output of diamond, gold, niobium (columbium),

tantalum, tin, and tungsten. Artisanal and small-scale miners also played a significant role in the country's cobalt mine production.

Mineral Trade

Exports were estimated to be about \$2.32 billion in 2006, and imports, \$2.74 billion. Diamond accounted for 38% of total exports; crude petroleum, 25%; cobalt, 16%; and copper, 11%. Other mineral exports included gold, niobium (columbium), tantalum, tin, tourmaline, and tungsten. The share of diamond in total exports declined from nearly 53% in 2001; the shares of cobalt and copper increased from 8% and 4%, respectively. From 2001 to 2006, diamond exports nearly doubled in value, but cobalt and copper exports increased at a faster rate because of higher prices and increased production. Petroleum products accounted for nearly 6% of total imports in 2006 (International Monetary Fund, 2007, p. 68-69).

Commodity Review

Metals

Aluminum.—In 2007, BHP Billiton Ltd. signed an agreement with the Government to fund a feasibility study of a new aluminum smelter in Bas-Congo Province. The proposed smelter would have a capacity of 800,000 metric tons per year (t/yr) in its first phase and would consume electricity produced from about 2,000 megawatts (MW) of installed capacity from the proposed Inga 3 hydroelectric power station on the Congo River. The feasibility study was expected to be completed in 2009. Depending on the results of the study and the development of Inga 3, aluminum production could start in 2014 or 2015. The estimated cost of the project was \$3 billion (Mining Review Africa, 2007c).

Cobalt and Copper.—First Quantum Minerals Ltd. of Canada produced copper ore from the Lonshi Mine; the company shipped its ore across the border with Zambia to the Bwana Mkubwa solvent extraction-electrowinning (SX-EW) facility. Reserves at the Lonshi Mine were likely to be depleted in the third quarter of 2008 (First Quantum Minerals Ltd., 2008, p. 8, 11).

In November 2007, First Quantum started production at the Frontier Mine; output amounted to 8,712 metric tons (t) of copper for the year. Production was expected to increase to 84,000 t in 2008 and 100,000 t in 2010. First Quantum planned to produce an average of 73,000 t/yr of copper during the 19-year life of the mine (First Quantum Minerals Ltd., 2008, p. 9-10, 21).

In 2007, First Quantum committed to proceeding with the Kolwezi Tailings project. Production was expected to start at the company's mine and SX-EW plant in the first quarter of 2010 at an initial rate of 35,000 t/yr of refined copper and 7,000 t/yr of cobalt hydroxide. First Quantum planned to increase production

to 70,000 t/yr of refined copper in 2011. The company was also considering the development of a cobalt refining plant (First Quantum Minerals Ltd., 2008, p. 10, 23).

Anvil Mining Ltd. of Australia operated the Dikulushi open pit copper-silver mine, which is located near Lake Mweru in Katanga Province. The company exported copper concentrates from the Dikulushi Mine to Namibia for smelting. Anvil produced 24,561 t of copper in 2007 compared with 22,618 t in 2006; silver production increased to 76,242 kilograms (kg) from 67,633 kg. The transition from open pit to underground mining was completed at Dikulushi in late 2007. Anvil expected production to be 17,000 t of copper and 40,000 kg of silver in 2008 (Anvil Mining Ltd., 2008, p. 1, 8, 22).

Anvil was engaged in a joint venture with DeMoura Enterprises and Gécamines to mine the Kulu deposit. In 2007, production at Kulu declined to 10,066 t of copper from 19,956 t. Production was limited by heavy rainfall, lower grades, and reduced recoveries. In 2008, copper output was expected to be about 12,000 t. Anvil planned to complete a feasibility study of an expandable SX-EW plant at Kulu with an initial capacity of 15,000 t/yr of refined copper (Anvil Mining Ltd., 2008, p. 8, 22).

Anvil opened the Kinsevere Mine in 2007; copper production amounted to 13,006 t. In 2008, copper output was expected to be 26,000 t. Anvil planned to complete construction of an electric arc furnace at Kinsevere for the production of blister copper ingots with a grade of 92% copper. The Kinsevere project was expected to produce between 23,000 and 25,000 t/yr of black copper ingots starting in the first quarter of 2008 (Avery, 2007; Anvil Mining Ltd., 2008, p. 21-22).

After receiving favorable results from its feasibility study, Anvil started construction on the second stage of the Kinsevere project in August 2007. Anvil planned to build an SX-EW plant with a capacity of 60,000 t/yr of refined copper. Production was expected to start near the end of 2009. Capital costs of the second stage were estimated to be \$238 million. The combined copper production from the Dikulushi, the Kinsevere, and the Kulu Mines was expected to be 55,000 t in 2008 and more than 100,000 t in 2010 (Avery, 2007; Anvil Mining Ltd., 2008, p. 3, 5).

Ruashi Mining SPRL (Metorex Ltd. of South Africa, 80%) produced cobalt and copper from tailings near the Ruashi Mine. In 2007, copper production amounted to 9,175 t, and cobalt, 391 t. The company's copper and cobalt production amounted to 2,217 t and 53 t, respectively, in 2006. Ruashi Mining planned to start the second phase of the project in late February or early March 2008, which involved mining the Ruashi ore body. The company planned to produce 45,000 t/yr of refined copper and 3,500 t/yr of contained cobalt at a new SX-EW plant. Ruashi Mining expected to reach full capacity by September 2008. Capital costs of the project were estimated to be \$210 million (Metorex Ltd., 2007, p. 19; 2008).

Nikanor plc started production at the Kananga and the Tilwezembe Mines in late 2006. In the first half of 2007, Nikanor produced 18,200 t of cobalt and copper concentrate with an average grade of 12% copper and 6% cobalt. Kananga and Tilwezembe had planned capacities of 2,500 metric tons per day (t/d) of ore and 2,000 t/d of ore, respectively (Resource Information Unit, 2008).

Katanga Mining Ltd. of Canada started copper mining at its Kamoto joint-venture project in 2007. Copper production in concentrate amounted to 3,500 t; Katanga also reopened the Luilu refinery in December 2007. In November, Katanga initiated a merger with Nikanor. The combined mining operations of Katanga and Nikanor were expected to produce 30,500 t of refined copper and 1,600 t of cobalt metal in 2008; production was likely to increase to more than 300,000 t/yr of refined copper and 30,000 t/yr of refined cobalt by 2011. Katanga planned to produce 150,000 t/yr of refined copper and 8,000 t/yr of refined cobalt from the rehabilitated Luilu plant and to open a new SX-EW plant with a capacity of 160,000 t/yr of copper and 20,000 t/yr of cobalt (Katanga Mining Ltd., 2007; 2008, p. 1, 10, 22-23)

Central African Mining and Exploration Company plc (CAMEC) of the United Kingdom started operations at its Luita SX-EW plant near Lubumbashi in 2007. In 2007, CAMEC produced at least 4,948 t of copper and 699 t of cobalt. The company planned to increase output to 30,000 t/yr of refined copper and 8,000 t/yr of contained cobalt by March 2009, and 100,000 t/yr of copper and 12,000 t/yr of cobalt by March 2011 (Central African Mining and Exploration Company plc, 2008, p. 14, 21).

Mining at the Tenke Fungurume project was expected to start in 2009; output was planned to be 115,000 t/yr of refined copper and 8,000 t/yr of cobalt in metal and cobalt hydroxide in the first phase of the project. In October 2007, the estimate of the project's capital costs was revised to about \$900 million from \$650 million. Tenke Fungurume was a joint venture of Phelps Dodge Corp. of the United States (57.75%), Tenke Mining Corp. of Canada (24.75%), and Gécamines (17.5%). In March 2007, Phelps Dodge was purchased by Freeport McMoran Copper & Gold Inc. of the United States, and in May, Tenke Mining was purchased by Lundin Mining Corp. of Canada (Mining Journal, 2007a).

Copper Resources Corp. (CRC) of Australia, Metorex, and Société de Développement Industriel et Minière du Congo were engaged in a bankable feasibility study of reopening the Kinsenda copper mine. Depending on favorable results from the study, CRC and its joint-venture partners could produce 54,000 t/yr of copper in concentrate starting in mid-2008. Capital costs of the project were estimated to be \$93 million. The life of the mine was expected to be 13 years (Mining Review Africa, 2007f).

Africo Resources Ltd. of Canada planned to produce 16,400 t/yr of copper and 3,800 t/yr of cobalt in concentrate at the new Kalukundi open pit mine starting in 2008. Capital costs of the project were estimated to be \$163 million. Reserves were estimated to be 7.8 million metric tons (Mt) at a grade of 2.44% copper and 0.69% cobalt. The life of the mine was expected to be 10 years. Africo was engaged in a dispute with Akam Mining SPRL over ownership of Kalukundi; the Government resolved the dispute in Africo's favor in November 2007 (African Mining, 2007; Resource Information Unit, 2008).

TEAL Exploration and Mining Inc. of Canada and Gécamines started mining operations at the Kalumines property in May 2007. Copper production was expected to be 10,000 t/yr in concentrate. TEAL also planned to produce 5,000 t/yr of

blister copper from a new furnace starting in 2007; the furnace would process ore from the Kalumines Mine. The company was conducting exploration at Kalumines and a feasibility study of another mine with a capacity of 30,000 t/yr of copper (Mining Review Africa, 2007e; Resource Information Unit, 2008).

Gécamines and its joint-venture partners produced 36,000 t of copper in 2006 compared with 26,000 t in 2005 and 38,000 t in 2001. The company's production was inhibited by aging equipment; a lack of investment, fuel, and spare parts; and poor infrastructure. Gécamines' joint ventures included its partnerships with Enterprise Generale Malta Forrest SPRL to produce cobalt and copper at the Luiswishi open pit mine and La Société pour le Traitement du Terril de Lubumbashi's (STL) tailings treatment plant in Lubumbashi. In 2007, the production of cobalt at STL increased to 5,500 t from 5,024 t in 2006, and copper, to 3,200 t from 3,001 t. In the first 10 months of 2007, copper output at Luiswishi amounted to 10,380 t, and cobalt, 3,215 t (International Monetary Fund, 2007, p. 51; George Forrest International S.A., 2008a-c).

Gold.—Artisanal and small-scale miners produced gold in the Ituri District of Orientale Province and Sud-Kivu Province in eastern Congo (Kinshasa). Gold exports from Ituri were estimated to be about 5,200 kilograms per year (kg/yr), and those from Sud-Kivu Province, 4,800 kg/yr. Gold mines in Sud-Kivu, which included the Fizi, the Mwenga, the Shabunda, the Uvira, and the Walungu, were reportedly under the control of rebel groups (Tegera and Johnson, 2007, p. 45, 50, 56).

Banro Corp. of Canada was conducting a prefeasibility study of developing new mines at its Namoya and Twangiza properties in eastern Congo (Kinshasa). Depending on the results of the study, Banro expected to complete a full feasibility study in the second half of 2008. Banro planned to produce an average of 9,900 kg/yr of gold during the first 5 years of mining at Twangiza and an average of 8,100 kg/yr during the 13-year life of the mine. The company also planned to produce an average of 6,000 kg/yr in the first 5 years of mining at Namoya and an average of 5,100 kg/yr during the 8-year life of the mine. Capital costs at Twangiza and Namoya were estimated to be \$328 million and \$215 million, respectively. Depending on the results of the feasibility study, production could start at Namoya and Twangiza by 2011 (Mining Review Africa, 2007a).

In December 2007, Moto Goldmines Ltd. of Australia announced the results of its feasibility study of the Moto project in the Ituri District of Orientale Province. The company and its joint-venture partners planned to develop a new mine that would produce an average of 12,400 kg/yr of gold. Planned production would be 11,000 kg in the first year of mining and would reach a peak of 14,200 kg in the fifth year. The life of the mine was expected to be between 8 and 9 years. Capital and infrastructure costs, which included a new 24-MW hydroelectric power station, were estimated to be \$483 million. Reserves were estimated to be 37.8 Mt at a grade of 3.2 grams per metric ton gold (Moto Goldmines Ltd., 2007, p. 2-3, 8).

Niobium (Columbium) and Tantalum.—The Lueshe pyrochlore mine, which accounted for a majority of domestic niobium (columbium) production between 2000 and 2003, remained closed at the end of 2007 because of infrastructural and legal problems. In December, Congres National pour la

Defense du Peuple reportedly engaged in armed conflict with Congolese military forces for control of the Lueshe Mine (Spittaels and Hilgert, 2008, p. 24, 29).

In 2007, Mwangachuchu Hizi International produced columbite-tantalite at a rate of 10 metric tons per month (t/mo) in Nord-Kivu Province using labor-intensive methods. The company planned to increase its output of columbite-tantalite to 100 t/mo; the cost of the expansion was estimated to be \$15 million (Mining Journal, 2007b).

Tin.—Artisanal miners produced cassiterite in Katanga, Maniema, Nord-Kivu, and Sud-Kivu Provinces. The mines near Walikale accounted for about 70% of the cassiterite exported from Nord-Kivu Province; in terms of production, Bisie was the largest local mine. Other significant artisanal mining areas included Kasese and Kalima in Maniema Province and Kamituga in Sud-Kivu Province (Garrett, 2008, p. 30-31).

Reported exports of cassiterite from Nord-Kivu Province were 4,019 t for the first 6 months of 2007 compared with 2,904 t for all of 2006 and 3,599 t for all of 2005. In Sud-Kivu Province, reported exports were 2,974 t in 2006 compared with 3,149 t in 2005. In Goma, such companies as Mining and Processing Congo (MPC) (a subsidiary of Kivu Resources Ltd. of Mauritius) and Sodexmines processed cassiterite concentrates to a tin content of 65% before export. Sodexmines accounted for 31% of exports from Nord-Kivu Province in the first half of 2007; Amur, 25% and MPC, 11%. In 2006, about 79% of the cassiterite exports from Nord-Kivu Province were shipped to Belgium (Tegera and Johnson, 2007, p. 40, 44, 90-91; Garrett, 2008, p. 49-50).

In 2007, about 1,000 artisanal miners produced cassiterite at Bisie from 57 pits with a total capacity of 10,600 t/yr. MPC held the concession for the Bisie Mine; the company's mining rights were contested by Bangandula Mining Group (GMB). Local landowners also claimed ownership in the Bisie Mine under local customs. In December 2007, the 85th Brigade, which was not integrated into the unified national Congolese military forces, took control of the mine (Tegera and Johnson, 2007, p. 25; Garrett, 2008, p. 25-27).

Some cassiterite mines were under the control of Congolese military forces and others (including mines near Walikale and in the Kahuzi-Biéga National Park in Sud-Kivu Province) were controlled by various rebel groups. GMB held concessions at Bimakwa, Biruwe, Busangi, Kabmgula-Utu, Kalolenge, and Kyassa. Shamika Resources Inc. of Canada was granted concessions that covered almost 1,000 square kilometers, including areas near Walikale (Garrett, 2008, p. 28, 31, 41).

Tungsten.—More than 1,000 artisanal miners produced wolframite at Kamole in Sud-Kivu Province; the Kamole Mine was reportedly controlled by Congolese military forces. Wolframite was also mined in Nord-Kivu Province. In 2006, reported wolframite exports from Sud-Kivu Province amounted to 574 t, and from Nord-Kivu Province, 401 t (Tegera and Johnson, 2007, p. 40, 90-91; Spittaels and Hilgert, 2008, p. 34).

Zinc.—STL produced zinc oxide dust at Lubumbashi; output increased to 18,500 t of zinc in 2007 from 16,831 t in 2006. First Quantum and Kumba Resources Ltd. of South Africa planned to reopen the Kipushi zinc-copper mine in Katanga Province. In 2006, Gécamines cancelled its agreement with First Quantum

and Kumba and announced that bidding had been reopened for the right to mine at Kipushi. Gécamines awarded the mining rights to Kipushi to United Resources AG of Switzerland in February 2007. United Resources announced plans to spend \$400 million on reopening the mine. First Quantum and Kumba filed suit against Gécamines in Belgium (Africa Mining Intelligence, 2007; George Forrest International S.A., 2008b, c).

Industrial Minerals

Diamond.—MIBA produced mostly industrial and near-gem-quality diamond at Mbuji-Mayi in Kasai-Oriental Province. The company's production was expected to decline to less than 1.0 million carats in 2007 from 2.51 million carats in 2006; the decline was partially attributable to labor disputes and conflict between MIBA and artisanal miners who reportedly made incursions onto the company's property (Arenson, 2007).

Artisanal miners produced diamond at Aketi in Orientale Province; at Bakongo, Bakwachimuna, and Tshibue in Kasai-Oriental Province; at Tshikapa in Kasai-Occidental Province; and at various operations in Bandundu, Bas-Congo, Equateur, and Katanga Provinces. Artisanal diamond production decreased to about 26 million carats in 2006 from 26.8 million carats in 2005 (International Monetary Fund, 2007, p. 51).

Gem Diamonds Ltd. installed a processing plant at its Mbelenge property in 2007 with a capacity of 100 metric tons per hour; the company's mining operation was producing at the plant's full capacity by yearend. In the second half of 2007, Gem Diamonds also commenced trial mining at Lumembe; output amounted to 7,571 carats. The company was expanding the Lumembe mining operation in late 2007. Gem Diamonds also planned to start trial mining at Longatshimo in late 2008 (Mining Review Africa, 2007d).

In 2007, Pangea Diamondfields plc acquired five new properties near its existing properties along the Longatshimo and the Tshikapa Rivers. Pangea engaged in exploration at its Longatshimo River and Tshikapa River projects throughout 2007. The company planned to commission a plant for its bulk sampling program at Longatshimo River in the first quarter of 2008 (Pangea Diamondfields plc, 2007).

De Beers and Bugeco SA of Belgium were engaged in a joint venture to explore at Bugeco's properties in Kasai-Oriental Province. The companies planned a drilling program that could last as long as 2 years. The completion of a feasibility study was not likely until the end of 2010. Depending on the results of the study, mining could start as early as 2011 (Mining Review Africa, 2007b).

Durnpike Investments (Pty.) Ltd. of South Africa (a subsidiary of Rockwell Diamonds Inc. of Canada) was engaged in a joint venture with Midamines SPRL to explore for diamond at the Kwango River project. One of the shareholders of Midamines disputed the validity of the agreement. By August 2007, planned exploration was delayed because Durnpike was unable to get access to the property (Resource Information Unit, 2008).

Gravity Diamonds Ltd. of Australia held the Gunge, the Luebo, the Maniamuna, and the Penge concessions on the Kasai Craton. In May 2007, Gravity was purchased by Mwana Africa plc of the United Kingdom. BHP Billiton and SouthernEra

Diamonds Inc. of Canada were engaged in a joint venture to explore at 39 of SouthernEra's 56 permits in Kasai-Oriental Province. SouthernEra was purchased by Mwana in November 2007 (Arenson, 2007; Resource Information Unit, 2008).

Outlook

Cobalt, copper, and gold output in Congo (Kinshasa) was expected to increase substantially in the near future. Cobalt and copper output could increase because of projects that included the Frontier, the Kolwezi Tailings, the Kinsevere, the KOV, the Ruashi, and the Tenke Fungurume; and gold, because of the Namoya and the Twangiza projects. The development of these projects depends heavily upon political and economic stability and favorable conditions in world markets. The outlook for gold, niobium (columbium), tantalum, tin, and tungsten is particularly dependent upon political stability because of continued civil unrest in eastern Congo (Kinshasa).

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TABLE 1
CONGO (KINSHASA): PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2003	2004	2005	2006	2007 ^e
METALS					
Cobalt:					
Mine output, Co content ^{e,3}	14,800	20,200	24,500	27,100 ^r	25,300
Metal, Co content ⁴	1,200	735	600	550	606 ⁵
Copper:					
Mine output, Cu content	59,000	73,000	97,000	134,000 ^r	148,000
Smelter, electrowon (low grade)	8,000	20,000	20,000	20,000 ^e	20,000
Refined	--	--	--	--	6,200
Germanium kilograms	2,500	2,500	2,500	2,500	2,500
Gold, mine output, Au content ^e do.	8,900	10,500	9,000	11,700 ^r	10,200
Niobium (columbium) and tantalum:					
Columbite-tantalite concentrate: ⁶					
Gross weight	113	74	124	52	120
Nb content ^e	26	17	28	12	28
Ta content ^e	30	20	33	14	32
Pyrochlore concentrate:					
Gross weight	733	--	--	--	-- ⁵
Nb content	360 ^e	--	--	--	-- ⁵
Silver, mine output, Ag content kilograms	35,501	32,953	53,553	67,633	76,242 ⁵
Steel, crude	158,000	145,000	110,000	104,000	100,000
Tin, mine output, concentrate: ⁶					
Gross weight	2,411	7,564	6,748	5,878	11,000
Sn content ^e	1,600 ^r	4,900 ^r	4,400 ^r	3,800 ^r	7,200
Tungsten, mine output, concentrate: ⁶					
Gross weight	236	42	342	975	980
W content ^e	120	20	180	500	500
Zinc, mine output, Zn content	7,911 ^r	8,027 ^r	7,588 ^r	16,831 ^r	18,500 ⁵
INDUSTRIAL MINERALS					
Cement, hydraulic	331,000	402,500	511,000	530,000	520,000
Diamond: ⁷					
Artisanal thousand carats	19,141	21,646	26,839	26,030	26,000
Large-scale do.	7,840	7,870	8,368	2,510	1,000
Total do.	26,981	29,516	35,207	28,540	27,000
Lime ^e	25,000	25,000	25,000	25,000	25,000
Stone, crushed	203,000	205,000	210,000	217,000	220,000
Sulfuric acid ^e	80,000	15,000	15,000	15,000	15,000
MINERAL FUELS AND RELATED MATERIALS					
Coal, bituminous ^e	1,000	1,000	1,000	1,000	1,000
Petroleum, crude thousand 42-gallon barrels	9,200	10,100	9,000	9,000	9,000

^eEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. do. Ditto. ^rRevised. -- Zero.

¹Table includes data available through March 31, 2009.

²In addition to the commodities listed, tourmaline and crude construction materials, including brick clay, are produced, but available information is inadequate to make reliable estimates of output.

³Includes mine production and reprocessed tailings.

⁴Salable refined production only; excludes white alloy and matte.

⁵Reported data.

⁶Reported exports from Nord-Kivu and Sud-Kivu Provinces.

⁷An estimated 20% of total diamond is gem quality; the majority of production is from artisanal mining.

TABLE 2
CONGO (KINSHASA): STRUCTURE OF THE MINERAL INDUSTRY IN 2007

(Metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement	Cimenterie de Lukala [Enterprise Malta Forrest SPRL (EGMF), 80%]	Lukala plant near Kinshasa	360,000.
Do.	Interlacs [Enterprise Malta Forrest SPRL (EGMF), 98.7%]	Kabimba plant near Lubumbashi	50,000.
Do.	do.	Katana plant in Sud-Kivu Province ¹	NA.
Do.	Cimenterie Nationale SARL	Kimpele plant, 40 kilometers south of Kinshasa	318,000.
Do.	Cemenkat [Enterprise Malta Forrest SPRL (EGMF), and La Générale des Carrières et des Mines (Gécamines)]	Lubudi plant, between Likasi and Kolwezi, Katanga Province	200,000.
Coal	La Générale des Carrières et des Mines (Gécamines)	Luena Mine	800,000 bituminous.
Copper and cobalt			
Mine	do.	Kamfundwa Mine	400,000 copper in ore; 48,000 cobalt in ore.
Do.	do.	Kamoya Central Mine	79,000 copper in ore; 7,000 cobalt in ore.
Do.	do.	Kamoya South Mine	36,000 copper in ore; 11,000 cobalt in ore.
Do.	do.	Shangalowe Mine	NA.
Do.	do.	Kambove concentrator	700,000 concentrates; 130,000 ^c copper; 39,000 ^c cobalt.
Do.	First Quantum Minerals Ltd.	Frontier Mine	84,000 copper.
Do.	do.	Lonshi Mine in Katanga Province	50,000 copper.
Do.	Anvil Mining Ltd.	Kinsevere Mine	26,000 copper.
Do.	do.	Dikulushi Mine	20,000 copper.
Do.	do.	Kulu Mine	16,500 copper.
Do.	Katanga Mining Ltd.	Kambove and KOV Mines	31,000 ^c copper; 1,600 ^c cobalt.
Do.	Nikanor plc	Kananga Mine	14,000 ^c copper in ore; 7,000 ^c cobalt in ore.
Do.	do.	Tilwezembe Mine	13,000 ^c copper in ore; 4,000 ^c cobalt in ore.
Do.	Central African Mining and Exploration Company plc (CAMEC)	Mukondo Mountain	30,000 ^c copper; 8,000 ^c cobalt.
Do.	Compagnie Minière du Sud Katanga [Enterprise Malta Forrest SPRL (EGMF), 60%, and La Générale des Carrières et des Mines (Gécamines), 40%]	Luiswishi Mine near Lubumbashi	12,000 copper; 4,500 cobalt.
Do.	Ruashi Mining SPRL (Metorex Ltd., 80%)	Ruashi tailings project	10,000 copper; 1,000 cobalt.
Do.	TEAL Exploration and Mining Inc.	Kalumines	10,000 copper
Do.	La Société pour le Traitement du Terril de Lubumbashi (STL) [OM Group Inc., 55%; Enterprise Generale Malta Forrest SPRL (EGMF), 25%; La Générale des Carrières et des Mines (Gécamines), 20%]	Big Hill plant at Lubumbashi	2,500 copper; 5,000 cobalt.
Refined	Katanga Mining Ltd.	Luilu plant	175,000 copper; 8,000 cobalt.
Do.	La Générale des Carrières et des Mines (Gécamines)	Shituru plant	50,000 copper; 6,000 cobalt.
Do.	do.	Fonderie Electrique de Panda cobalt plant	1,200 cobalt.
Do.	Central African Mining and Exploration Company plc (CAMEC)	Luita plant	30,000 copper.

See footnote at end of table.

TABLE 2—Continued
 CONGO (KINSHASA): STRUCTURE OF THE MINERAL INDUSTRY IN 2007

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Diamond	carats	Société Minière de Bakwanga (MIBA) [Government, 80%, and Sibeka Group, 20%, which was owned by Mwana Africa plc]	Mines at Mbuji Mayi in Kasai Oriental Province	10,000,000.
Do.	do.	Artisanal miners	Mines at Aketi in Orientale Province; at Bakongo, Bakwachimuna, and Tshibue in Kasai Oriental Province; at Tshikapa in Kasai Occidental Province; and at various sites in Bas-Congo, Bandundu, Equateur, and Katanga Provinces	27,000,000. ^c
Gold	kilograms	do.	Mines at various sites in Ituri Province	5,200. ^c
Do.	do.	do.	Mines at various sites in Sud- Kivu Province	4,800. ^c
Niobium (columbium) and tantalum		Mwangachuchu Hizi International	Nord-Kivu Province	120.
Do.		Artisanal miners	Mines at various sites in Nord-Kivu and Sud-Kivu Provinces	NA.
Petroleum:				
Crude	thousand 42-gallon barrels	Muanda International Oil Co. (a subsidiary of Perenco plc) and Congolaise des Hydrocarbures	Kifuku, Kinkasi, Liawenda, Makelekese, Muanda, Nsiamfuma, and Tshiende onshore wells	5,480.
Do.	do.	Muanda International Oil Co. (a subsidiary of Perenco plc), 50%; Teikoku Oil Co. Ltd., 32.3%; ODS Ltd., 17.7%	GCO, Libwa, Lubi, Mibale, Moko, Motoba, Mwambe, and Tshlala offshore wells	3,650.
Refined	do.	Société Congo-Italienne de Raffinage (Government, 50%, and Agip SA, 50%)	Petroleum refinery at Muanda ¹	6,200.
Silver	kilograms	Anvil Mining Ltd.	Dikulushi Mine	50,000.
Sulfuric acid		La Générale des Carrières et des Mines (Gécamines)	Sulfuric acids plant at Kolwezi and Shituru	NA.
Do.		Central African Mining and Exploration Company plc (CAMEC)	Plant at Kambove	7,200.
Tin		85th Brigade of the Congolese military forces	Bisie Mine near Walikale	10,600 cassiterite.
Do.		Artisanal miners	Mines at Manono in Katanga Province, Kasese and Kalima in Maniema Province, and Kamituga in Sud-Kivu Province	NA.
Do.		Mining Processing Congo (MPC), Sodexmines, and other companies	Processing plants at Goma	8,100 ^e cassiterite.
Tungsten		Congolese military forces and artisanal miners, including: Congolese military forces Artisanal miners	Of which: Mines at Kamole in Sud-Kivu Province Mines at various sites in Nord-Kivu and Sud-Kivu Provinces	1,000 ^e wolframite. NA. NA.
Zinc		La Société pour le Traitement du Terril de Lubumbashi	Big Hill plant at Lubumbashi	15,000 zinc in zinc oxide.
Do.		United Resources AG	Kipushi Mine ¹	NA.
Do.		La Générale des Carrières et des Mines (Gécamines)	Kolwezi zinc leach plant and refinery ¹	30,000.
Do.		do.	Kolwezi zinc smelter ¹	72,000.

Do., do. Ditto. NA Not available.

¹Not operating in 2007.