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GUINEA

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The Mineral Industry of Guinea

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In 2005, Guinea's mineral production consisted mainly of alumina, bauxite, cement, diamond, gold, and salt. Undeveloped mineral resources included graphite, iron, limestone, manganese, nickel, and uranium. Guinea continued to rank among the world's top five producers of bauxite (Plunkert, 2006). The country's bauxite-bearing regions were Lowland-Guinea, Mid-Guinea, and Upper-Guinea. Bauxite resources in these regions were estimated to be 5 billion metric tons (Gt), 2 Gt, and 500 million metric tons (Mt), respectively, and ranged between 44% and 53% Al_2O_3 and between 2% and 3% SiO_2 (Ministry of Mines and Geology, 2005a). Alumina Company of Guinea (ACG), Compagnie des Bauxites de Guinée (CBG), and Compagnie des Bauxites de Kindia (CBK) were the country's three bauxite producers. ACG was a joint venture between Russian Aluminum Group (RUSAL) (85%) and the Government (15%), CBG was a joint venture between Halco Mining Inc. (51%) and the Government (49%), and CBK was 100% owned by RUSAL. Halco, in turn, was a joint venture among Alcan Inc. (Alcan) (45%), Alcoa World Alumina LLC (Alcoa) (45%), and Dadco Group (10%) (Alcan Inc., 2005; Find Articles, 2005§[1]).

According to the U.S. Securities and Exchange Commission (2006, p. 8, 10), Alcan purchased about 6.4 Mt of bauxite from CBG in 2005 under contracts in effect through 2011. In November 2005, Alcan and Alcoa signed a basic agreement with the Government of Guinea to set forth the framework for the development of the Kamsar alumina refinery. Alcan and Alcoa had signed a memorandum of understanding with the Government in 2004 to jointly build a new 1.5-Mt/yr alumina refinery in Kamsar. In 2005, a detailed feasibility study was launched at an estimated cost of between $25 million and $30 million. If the final results of the study are favorable, the partners expected to make an investment decision to begin construction in early 2007 and planned to produce the first alumina by 2009 (Alcan Inc., 2006, p. 2, 47).

During the year, RUSAL continued with its plan to increase production capacity at the Friguia alumina refinery to 1.4 million metric tons per year (Mt/yr) from its existing capacity of 780,000 metric tons per year (t/yr). The company expected to launch Friguia's capacity expansion program in 2006 and have it completed by 2009 (Russian Aluminum Group, 2006; 2006§).

In February 2005, Global Alumina Corporation (GAC) (formerly known as Global Alumina Products Corporation; the name was changed in April 2005) signed a memorandum of understanding with Technip France S.A. for Technip to assume the role of engineering, procurement, and construction contractor for the construction of the company's 2.8-Mt/yr alumina refinery in Boke (Global Alumina Corporation, 2006, p. 12). Later during the year, Dubai Aluminium Company (Dubal) signed a $200 million agreement with GAC to acquire a 25% stake in GAC, which was in addition to a previous long-term supply agreement to acquire 40% of the company's planned refinery production. First production was expected to start at the end of 2008 with full production to be reached by 2009 (Australia Arab Chamber of Commerce and Industry Inc., 2005; Mining Journal, 2005b; Global Alumina Corporation, 2006, p. 12).

Gold in Guinea occurred as veins and alluvial deposits and was mined on artisanal, small, and industrial scales. The country's main gold-bearing area was the Siguiri Basin, which is located within the Upper-Guinea region. Gold is also found in the Fitaba, the N'Zerekore, and the Sierra-Fore areas and was produced by Société Ashanti de Guinée (SAG), Société d'Exploitation Minière d'Afrique de l'Ouest-Guinée (SEMAFO-Guinée), Société Minière de Dinguiraye (SMD), and small-scale and artisanal miners.

SAG, which was owned by AngloGold Ashanti Ltd. (85%) and the Government (15%), operated the Siguiri gold mine. In 2005, production at the Siguiri Mine increased to 8,989 kilograms (kg) from a revised 3,048 kg in 2003. The company attributed the increase in production to the transition from heap-leach operations to a newly commissioned carbon-in-pulp plant. The Siguiri Mine is located about 850 kilometers (km) northeast of Conakry in the Prefecture of Siguiri. Gold was mined from primary gold deposits (AngloGold Ashanti Ltd., 2006, p. 66-67).

SMD, which was owned by Guinor Gold Corp. of Canada (85%) and the Government (15%), mined gold deposits at the Lero Mine. The Lero gold mine was located at the border between the Prefectures of Dinguiraye and Siguiri. In October 2005, London-based Crew Gold Corporation announced its intention to acquire Guinor through the purchase of 100% of the company's common shares at a price of $1.50 per share. The transaction was valued at $389 million (Crew Gold Corporation, 2005; Mining Journal, 2005a).

SEMAFO-Guinée operated the Kiniero Mine, which is located about 650 km east of Conakry near the town of Kouroussa. The company was owned by Semafo Inc. of Canada (85%) and the Government (15%). The Kiniero Mine produced about 1,900 kg (reported as 61,416 troy ounces) of gold in 2005 compared with about 1,300 kg (reported as 41,049 troy ounces) in 2004 (Semafo Inc., 2006, p. 9).

Guinea hosted the Mount Nimba and the Simandou iron ore deposits in the southeastern part of the country. The iron content of these banded iron formation deposits was estimated to be between 66% and 68%. Lateritic iron deposits occured in Lowland-Guinea and included the Kaloum Peninsula deposit in Conakry and other deposits in Forecariah. Other iron ore occurrences were identified in Upper-Guinea, Mid-Guinea, and Forested-Guinea (Ministry of Mines and Geology, 2005c).

Guinea's main diamond deposits were located in Kerouane, Kissidougou, and Macenta along the Baoule, the Diani, and the Milo Rivers. Other diamond occurrences were identified in

[1]References that include a section mark (§) are found in the Internet References Cited section.

Forecariah and Kindia. The country's diamond resources were estimated to be between 25 and 30 million carats. Diamond was mined from alluvial, eluvial, and kimberlite deposits (Ministry of Mines and Geology, 2005b). Guinea was a participant in the Kimberley Process. Artisanal and small-scale mining was mainly concentrated in the Banankoro area in Kerouane, on lands reserved by the Government in the Aredor-FCMC SA concession, and in Kindia. Aredor-FCMC mined along the Boule River and its tributaries and produced on average between 12,000 and 38,000 carats per year. Diamond was exported through the National Bureau of Expertise (BNE), which evaluated the diamond and issued Certificates of Origin in compliance with the Kimberley Process. BNE collected a 3% tax on diamond exports (Ministry of Mines and Geology, 2005b).

Murchison United NL hired SRK Consulting of the United Kingdom to carry out field visits to a number of areas (not identified) in Guinea, Niger, and Mali to determine prospects for uranium mining. SRK completed their visit to Guinea in 2005 and recommended further investigation of the Bohudu, the Firawa, and the Sesse areas within the country. Following SRK's recommendation, Murchison applied for and was granted three prospecting licenses for these areas. Murchison reported that, although it had applied for exploration licenses in Guinea, it would not proceed with an exploration program in the country unless SRK's review of identified areas in Niger and Mali provide significant encouragement (Murchison United NL, 2005, p. 8; 2005§).

Guinea did not produce or refine petroleum. The country was dependent upon imports for its petroleum requirements.

More-extensive coverage of the mineral industry of Guinea can be found in the 2003 and 2004 U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International—Africa and the Middle East, which are available on the Internet at URL http://minerals.usgs.gov/minerals/pubs/country.

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TABLE 1
GUINEA: PRODUCTION OF MINERAL COMMODITIES[1]

(Thousand metric tons unless otherwise specified)

Commodity[2]		2001	2002	2003[e]	2004[e]	2005[e]
Alumina:						
Production:						
Hydrate		--	44	8	10 [r]	10
Calcined		644	680	730	877 [r]	730
Shipments, calcined		644	724	738	887 [r]	740 [3]
Bauxite:						
Mine production:						
Wet basis[4]		17,267	17,480	17,044	17,200	17,300
Dry basis[e, 5]		15,100	15,300	15,000	15,254 [r, 3]	15,200
Calcined		75	--	--	--	--
Shipments (dry basis):						
Metallurgical		13,842	14,087	13,939	14,100 [r]	14,100
Calcined		77	--	--	--	--
Cement		315	360	360	360	360
Diamond[6, 7]	thousand carats	364	491	666	740	550
Gold[7]	kilograms	16,205	16,815	16,622	11,100 [r]	15,300
Salt[e]		15	15	15	15	15

[e]Estimated; estimated data are rounded to no more than three significant digits. [r]Revised. -- Zero.

[1]Table includes data available through August 8, 2006.

[2]In addition to the commodities listed, Guinea produced modest quantities of crude construction materials (clays, sand and gravel, and stone), but information is inadequate to make reliable estimates of output.

[3]Reported figure.

[4]Metallurgical ore plus calcinable ore estimated to be 13% water.

[5]Data are for wet-basis ore estimated to be 13% water reduced to dry basis estimated to be 3% water.

[6]Production is approximately 70% to 80% gem quality.

[7]Figures include artisanal production.

TABLE 2
GUINEA: STRUCTURE OF THE MINERAL INDUSTRY IN 2005

(Metric tons unless otherwise specified)

Commodity		Major operating companies	Location of main facilities	Annual capacity
Alumina		Alumina Company of Guinea (ACG) [Russian Aluminum Group (RUSAL), 85%, and Government, 15%]	Friguia plan, Fria	780,000.
Bauxite		Compagnie des Bauxites de Guinée (CBG) [Government, 49%, and Halco Mining Inc., 51% (Halco Mining was a consortium formed by Alcoa Inc., 45%; Alcan Inc., 45%; and Dadco Group, 10%)]	Kamsar and Sangaredi	14,000,000.
Do.		Compagnie des Bauxites de Kindia (CBK) [Russian Aluminum Group (RUSAL), 100%]	Debele Mine, Kindia	3,000,000.
Do.		Alumina Company of Guinea [Russian Aluminum Group (RUSAL), 85%, and Government, 15%]	Friguia Mine, Fria	2,800,000.
Cement		Ciments de Guinée (Holcim Ltd., 51%, and Government, 44%)	Conakry plant	360,000.
Diamond	carats	Aredor-First City Mining Company (Government, 15%, and Trivalence Mining Corporation, 85%)	Aredor Mine	38,000.
Do.	do.	Artisanal miners	Mainly in Banankoro	700,000.
Gold		Société Ashanti de Guinée (AnglogoldAshanti Ltd., 85%, and Government, 15%)	Siguiri Mine	9,000,000 ore; 9,300 gold.
Do.		Société Minière de Dinguiraye (Guinor, 85%, and Government, 15%)	Lero-Karta Mine	1,100,000 ore; 3,500 gold.
Do.		Société d'Exploitation Minière d'Afrique de l'Ouest Guinée (Semafo Inc., 85%, and Government, 15%)	Kiniero Mine	400,000 ore; 1,700 gold.