

THE MINERAL INDUSTRY OF

GUYANA

By David B. Doan¹

Guyana continued as a significant producer of bauxite in 1994, output having amounted to an estimated 2.1 million tons (Mmt), or about 2% of the world's bauxite output. Other mineral production included diamond and gold, the latter having extended its sharp upward trend during the year. International attention to the Guiana Shield and investment in exploration for gold proceeded steadily, along with increasing exploration interest in diamond.

The People's Progressive Party administration completed its 2nd year in office, overseeing an improving economy. During 1994, Guyana's gross domestic product (GDP) grew by 9%, but with an inflation rate of 15%, according to the Commissioner of Geology and Mines. GDP itself was projected to be about \$1.5 billion² based on preliminary estimates, reflecting some acceleration in the production of gold. Per capita income by the end of 1994, at about \$650, was up \$50 from that of the previous year.

In that all mineral rights are vested in the state, concessions are negotiated with Government agencies. These are the Bauxite Industry Development Co. Ltd. (BIDCO) for bauxite, the Guyana Geology and Mines Commission for gold and diamond, and the Guyana Natural Resources Agency for oil.

The Guyana Gold Board (GGB), established in 1982, has been the sole official buyer of unprocessed gold. Its rule that miners must carry their gold to a single point, Georgetown, to effect a sale has engendered logistical difficulties. Offering a sale, smelting and assaying the metal, and certifying the result has been very time consuming. Changes for reducing hardship and increasing efficiency were under discussion by the GGB.

The Government continued to seek private investment for exploitation of mineral deposits. The Mining Act of 1989 limited small- and medium-scale mining to Guyanese citizens only, which led immediately to problems of definition of size. Foreigners were restricted to large-scale mining, except in the case where a claim operator specifically requested foreign technical assistance and the Guyana Geology and Mines Commission supported the work permit application. Foreigners caught illegally mining in the interior were subject to charges and forfeiture of all equipment. Although joint ventures between local and foreign companies were encouraged, 100% foreign ownership of Guyanese operations was allowed. The Government proposed to increase productivity, reduce debt, and tender the bauxite industry to local and foreign investors by 1994.

Environmental review of new projects was the

responsibility of the Guyana Agency for Health Sciences Education, Environment, and Food Policy. Guyana's interior is sparsely populated and densely forested, with considerable expanses of attractive wilderness, including rivers and streams. Emerging environmental problems included mercury contamination of soils and waters resulting from gold recovery by both individual entrepreneurs and dredges. Larger dredges tended to contaminate by siltation and other disturbances of riverine habitat. Microbial contamination of rivers near mining camps has been detected, but is considered easily remedied or prevented.

Bauxite production dropped slightly compared with that of the previous year, as bauxite was already a glut on world markets, according to officials of the Inter-American Development Bank. Guyana was the fourth largest bauxite producer in Latin America after Brazil, Jamaica, and Suriname. (*See table 1.*) Declared gold production (the amount sold to the GGB) soared compared with output of the previous year. Traditionally, miners had smuggled much of their recovered gold into Brazil or Venezuela. Since 1990, however, the GGB has paid miners for gold using the current exchange rate rather than the unrealistic old official rate (G\$50=US\$1 in 1990), thus reducing the attractiveness of smuggling. A small amount of silver, equivalent to approximately 5% of gold output, was recovered during refining of the gold.

Bauxite and gold accounted for about 40% of the country's exports. The Foreign Minister of Guyana proposed to help revive the Guyana-Brazil Joint Commission to discuss, among other topics, closer trade relations and the possibility of a free trade zone in Guyana exclusively for trade with Brazil. Piracy near the Port of Georgetown, affecting almost all shipping, forced shipowners to buy special coverage for the Guyana leg of any voyage.³

The entire bauxite industry was overseen by BIDCO. Bauxite mining and processing were done by BIDCO's subsidiary, Guyana Mining Enterprise Ltd. (Guymine), or under contract to Guymine; however, Minproc Engineering of Sydney, Australia, assumed management of the bauxite industry from Guymine in 1993. Guymine's operations were split into Linden Mining Co. (Linmine) and Berbice Mining Co. Several international companies were actively involved in the bauxite industry (*See table 2*). The domestic private sector dominated the production of gold and diamond. Five companies held large-scale mining licenses. There were also about 20 prospecting licenses for gold and precious stones and a number of license applications on file. Local

subsidiaries of private foreign firms carried out petroleum exploration, with little discernible success.

Production of metallurgical bauxite increased slightly in 1994, but this was offset by a sharp decrease of more than 35% in output of calcined refractory bauxite compared with 1993. Linmine's Kara Kara and Northeast Dorabece bauxite mines were projected to be mined out in 1 to 2 years. In the absence of new financing, the management contract with Minproc (Australia) for operation of Linmine expired at yearend 1994, but Minproc succeeded in restoring Linmine's capacity to about 400,000 metric tons per year (mt/a). Officials expressed concern over the release of Guyanese bauxite from the U.S. National Defense Stockpile, the effect on market prices, and the decreased demand for Guyanese bauxite.

Although most gold and diamond mined in previous years involved small-scale river dredging operations, Cambior Inc. and Golden Star Resources pressed for larger-scale production in 1994 at the Omai open pit gold mines, spread over about 40 square kilometers (km²), resulting in further increases of output compared with that of 1993. For the country overall, production increased by more than 13% to nearly 10.9 mt for 1994.

Besides its minority interest in Omai, Golden Star was pressing the exploration of its placer deposit concession near Mahdia. South American Goldfields, which had owned the Peter's Mine, Akaiwong, Aurora, Five Star, and Quartz Hill properties, merged with Golden Star to form Golden Star Resources Ltd. Sutton Resources Ltd. of Vancouver, British Columbia, pressed its drill work on the Marudi Hill prospect in southern Guyana.

During 1993, Golden Star also continued work on its alluvial diamond evaluation program at Red Hill Loop, Eping, and Apaikwa.

Baracara Quarries and Toolsie Persaud Ltd. produced gravel near Bartica. The Government's Teperu-Itabu Quarry was being reopened in response to overwhelming demand for construction materials, and consideration was given to using Omai gold mine waste rock for aggregate and boulders.

Guyana's problems in maintaining its infrastructure, particularly the availability of electricity, severely limited the country's economic activity. Mining areas relied mainly on barges, helicopters, light aircraft, and riverboats for movement of material. Besides 6,000 km of navigable waterways, Guyana had 187 km of railroad, part of it connecting the Linden bauxite mines to the Linden plant, as well as 7,665 km of roads, mostly gravel or dirt. Guyana had 48 usable airports, 12 of them having lengths of 1,220 to 2,439 meters, and 5 having permanent surfaces. The country

also had 253 megawatts of installed electrical generating capacity.

Guyana has diversified the formerly bauxite-oriented mineral industry by its 7-year gold and diamond promotion program. The intensive, internationally funded exploration activity has resulted in increased gold production, which is expected to rise further. Large-scale gold operations, such as those of the Omai Mine, will significantly boost the Nation's economy.

¹Text prepared May 1995

²Where necessary, values have been converted from Guyanese dollars (G\$) to U.S. dollars at an imputed average exchange rate of G\$145=US\$1.00.

³Journal of Commerce, June 30, 1994, p. B4.

Major Sources of Information

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Guyana Natural Resources Agency
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Georgetown, Guyana
Telephone: (592) 2-66549
Fax: (592) 2-71211

Major Publications

American Embassy, Georgetown: Minerals Questionnaire, annual.

Guyana Geology and Mines Commission: Mineral Resources of Guyana, 1985, 14 pp.

International Bauxite Association: IBA Quarterly Review, quarterly.

U.S. Department of Commerce, International Trade Administration: Foreign Economic Trends and Their Implications for the United States, Guyana, annual.

TABLE 1
GUYANA: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

Commodity 3/		1990	1991	1992	1993	1994 e/
Aluminum: Bauxite, dry equivalent, gross weight	thousand metric tons	1,420	2,200	2,380	2,130	2,100
Diamond	carats	17,800	21,900	44,800	50,000	34,000
Gold, mine output, Au content	kilograms	1,500 e/	1,840	2,480	9,610	11,800 4/
Stone, crushed e/	metric tons	42,000	55,000	72,500 4/	75,000	136,000

e/ Estimated.

1/ Previously published and 1994 data are rounded by the U.S. Bureau of Mines to three significant digits.

2/ Includes data available through June 1, 1995.

3/ In addition to the commodities listed, a variety of crude construction materials (clays and sand) and semiprecious stones was also produced. Available information was inadequate to make an estimate of production.

4/ Reported figure.

TABLE 2
GUYANA: STRUCTURE OF THE MINERAL INDUSTRY FOR 1994

(Thousand metric tons, unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Bauxite	Guyana Mining Enterprise Ltd. (Guymine) (Government, 100%)	Kara Kara, Northeast Dorabece, and East Montgomery Mines, MacKenzie, Linden, West Demerara District	3,500
Do.	do.	Block 2 Manaka, North, South mines. Kwakwani, East Berbice District	1,500
Do.	do.	Processing plant at Linden	900
Do.	do.	Processing plant at Everton, East Berbice District	700
Do	C. A. Dayco (private, Venezuela, 100%) (Guymine contract)	Kwakani area	500
Do.	Green Mining Inc. (Green Construction Co., United States, 100%) (Guymine contract)	Dacouria mine, Linden	NA
Do.	Aroaima Mining Co. (Government, 50%; Reynolds International, United States, 50%)	Aroaima, East Berbice District	1,500
Alumina	Guymine	Alumina refinery at Linden (presently closed)	300
Gold	kilograms Omai Gold Mines Ltd. (Cambior Inc., Canada, 65%; Golden Star Resources, Canada, 30%; Government of Guyana, 5%)	Omai mine, Mazaruni-Potaro District	300
Gravel	Baraca Quarries (private)	Quarry near Bartica, Mazaruni-Potaro District	100
Silica sand	Minerals and Technology Ltd. (Minerals and Chemicals of Texas, United States)	Sand hills, Demerara River, West Demerara District	300

NA Not available.