

# THE MINERAL INDUSTRY OF

# JAMAICA

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In 1999, Jamaica's real gross domestic product decreased for the fourth consecutive year. The 0.4% decrease was a slight improvement from the 0.5% (revised) decrease in 1998. The mining sector decreased by 1.2%. Construction and manufacturing also decreased by 1.6% and 1.4%, respectively (Planning Institute of Jamaica, 2000, p. 3.5).

Domestically, bauxite and alumina, which continued to dominate the mining and quarrying sector, represented 96.4% of the total value at current prices (Planning Institute of Jamaica, 2000, p. 3.3). Together, bauxite and alumina were Jamaica's largest source of foreign income after tourism (James, 1999). Internationally, Jamaica continued to rank among the leading producers of bauxite and alumina despite being displaced by China as the third world's leading producer of bauxite and alumina (Plunkert, 2000); it produced 9.2% of the world bauxite and 7.4% of the world alumina. Jamaica also produced cement, gypsum, secondary lead, lime, limestone, petroleum refinery products, salt, and other construction materials. Performance of the mineral sector was mixed during 1999. Output of alumina, gypsum, lime, limestone, marl and fill, and sand and gravel increased but that of bauxite, cement, marble and petroleum products decreased (table 1).

Exports of alumina, bauxite, and gypsum, which represented 55.3% of total exports and reexports of about \$1.24 billion, remained at the same level of those of 1998 despite a 31% decrease in the value of exported bauxite and an 11% decrease in the value of exported gypsum. Those decreases were offset by an increase of 4.3% in the export value of alumina, which was the bulk of the traditional mining exports (Planning Institute of Jamaica, 2000, p. 4.2).

The Ministry of Mines and Energy is the Government agency responsible for the mining sector of Jamaica. Its Mines and Geology Division supports the Ministry through research and ensures compliance with the law by regulating mining and quarrying. Legislation governing the mineral sector includes The Mining Act, The Mining Regulations, The Minerals (Vesting) Act, The Mines and Health Regulations, The Bauxite and Alumina Encouragement Act, The Quarries Control Act, The Quarries Regulation, and The Gunpowder and Explosive Act (Mines and Geology Division, 1998, p. 29). The Jamaica Bauxite Institute is responsible for monitoring and regulating the bauxite industry. It serves as the Government adviser in all matters concerning the subsector.

Production of minerals in Jamaica was led by the private sector, but the Government was a partner or has minority equity in several mineral producing companies. Large international companies, such as Alcoa Inc., Aluminium Company of Canada (Alcan), Kaiser Aluminum Corp., and Norsk Hydro A/S, through

their Jamaican subsidiaries, sometimes in partnership with the Government or with each other, produced all bauxite and alumina produced in Jamaica (table 2).

In 1999, total bauxite production (crude bauxite for exports plus bauxite converted to alumina) decreased by 7.6% to about 11.7 million metric tons (Mt). Output of crude bauxite, however, decreased by 30.7% to 2.8 Mt. The main reason for the decrease was an explosion in July at the Kaiser Aluminum and Chemical Corp.'s Gramercy alumina refinery in Louisiana; before the accident this refinery received about 60% of Jamaica's crude bauxite exports from Kaiser Jamaica Bauxite Co. Ltd. The remaining 40% of crude bauxite was exported to the Reynolds Metals Company refinery in Texas (Jamaica Gleaner, May 19, 2000, Kaiser fulfils Ukraine deal, accessed August 4, 2000, at <http://www.jamaica-gleaner.com/gleaner/20000519/Business/Business5.html>). The accident represented a loss of \$27 million in sales to Jamaica (Mining Journal, 2000b). For the remainder of the year, Jamaican bauxite capacity utilization decreased to 35%, and employment in the bauxite and alumina subsector decreased by 5.8% (Planning Institute of Jamaica, 2000, p. 9.3). In addition to the Gramercy accident, employment was affected by the companies' efforts to improve efficiency, which began early in the year when Kaiser reduced its workforce by 93 employees, which was 13% of its total permanent and temporary workforce (Mining Journal, 2000a).

In April, in an effort to improve production efficiency, Jamaica Alumina Co. (Jamalco) and Alumina Partners of Jamaica (Alpart), two of the bauxite and alumina producers in Jamaica, agreed to form a joint venture to merge their bauxite mining operations. The merger, which went into effect in July, was possible because both companies will be mining bauxite in South Manchester Parish by 2001. This joint venture required Jamalco to construct 16 kilometers (reported as 10 miles) of railroad to connect the existing railroad at Parnassus with a new railhead in St. Jago, which also will be built by Jamalco as part of the agreement. Alpart will manage the mining operations for the joint-venture partners (Jamaica Gleaner, April 28, 1999, Bauxite companies to merge in July, accessed March 31, 2000, at URL <http://www.jamaica-gleaner.com/gleaner/19990428/business/b1.html>). The joint venture did not extend to the companies' alumina plants. In November, the Jamaican Cabinet approved the merger. Australian-based company Walker Eltin was awarded the mining and infrastructure construction contract (Jamaica Gleaner, November 25, 1999, Alpart, Jamalco get go-ahead for joint venture, accessed March 31, 2000, at URL <http://www.jamaica-gleaner.com/gleaner/19991125/business/b4.html>).

Late in the year, Alpart and Jamalcan began a 12-week feasibility study on also merging their bauxite operations located

in St. Ann, St. Elizabeth, St. Catherine, and Manchester Parishes. The purpose of the study was to evaluate an option to maintain and improve their position internationally with competition from lower cost producers in such countries as Australia and Brazil, which produced bauxite at about two-thirds of what it costs Jamaica to produce a metric ton of bauxite (Jamaica Gleaner, November 2, 1999, Local bauxite firms study merger, accessed August 4, 2000, at URL <http://www.jamaica-gleaner.com/gleaner/19991102/index.html>). Both efforts, the merger of Alpart and Jamalco and the feasibility study by Alpart and Jamalco were announced as the two of the world largest aluminum companies Alcoa and Alcan, both with subsidiaries in Jamaica, were merging operations with other aluminum companies. This had the result of reducing Jamaica's operations production capacity as a percentage of the newly merged entities (James, 1999).

In November, in an effort to encourage expansions in the bauxite and alumina industry, the Government of Jamaica agreed to reduce the bauxite levy by excluding from any additional production capacity created by plant expansion (Jamaica Gleaner, November 16, 1999, Unions give, want some back, accessed August 4, 2000, at URL <http://www.jamaica-gleaner.com/gleaner/19991116/index.html>).

In April, the Government of Jamaica sold its 43% stake in the Caribbean Cement Co. Ltd., which was the only cement producer in Jamaica, to Trinidad Cement Limited of Trinidad and Tobago. Trinidad Cement paid \$29.4 million to the National Investment Bank of Jamaica (Jamaica Gleaner, April 22, 1999, Carib cement sale official, accessed August 4, 2000, at URL <http://www.jamaica-gleaner.com/gleaner/19990422/business/b7.html>). Later in the year, Trinidad Cement increased its share of Caribbean Cement to 74%. Production of cement decreased for the second consecutive year to 503,713 metric tons (t). This was a 9.7% decrease compared with that of 1998. Cement sales, however, increased by 7.9% to 601,594 t (Planning Institute of Jamaica, 2000, p.10.3). At yearend, the company announced plans to increase production to more than 600,000 t, to reduce production costs by 28%, to increase workforce productivity by 43%, and to achieve Natural Resources Conservation Authority environmental standards by the first quarter of 2000 (Jamaica Gleaner, December 26, 1999, TCL Group plans regional expansion, accessed August 4, 2000, at URL <http://www.jamaica-gleaner.com/gleaner/19991226/business/b6.html>).

In June, Rugby Jamaica Lime and Minerals Ltd., a partnership of Rugby Group plc, of the United Kingdom and Clarendon Lime Limited of Jamaica, began construction of a lime plant in Halse Hall, Clarendon Parish (Jamaica Gleaner, Limestone potential hailed, June 17, 1999, accessed August 11, 2000, at URL <http://www.jamaica-gleaner.com/gleaner/19990617/business/b2.html>). The \$25 million plant, which was being built at the Jamalco alumina refinery property, had a planned capacity of 130,000 metric ton per year (t/yr) (British Rugby Group plc, December 9, 1998, Rugby Jamaica Lime and Minerals Ltd., press release, accessed May 5, 1999, at URL <http://www.rugbygroup.co.uk/cgi-bin/index.html&footer=newsfooter.html>). Under a long-term contract, Rugby Jamaica would supply Jamalco's lime requirements of 85,000 t/yr. Initial production was scheduled for early 2000.

Production of refinery products from Petrojam Ltd., which was Jamaica's only refinery, decreased by almost 30% to 3.6 million barrels (Mbbbl). The refinery, which was closed from January to March, had reduced production in August because of a fire. Jamaica imported crude petroleum from Mexico and Venezuela under the San José Accord. In addition, it imported petroleum products directly through Petrojam and the bauxite and alumina producers and other oil-marketing companies. Incomplete data indicate that total crude and refinery imports exceeded 22.8 Mbbbl and were valued at \$223 million (Economic and Social Survey Jamaica 1999, 2000, p. 13.6).

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## Other Sources of Information

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TABLE 1  
JAMAICA: PRODUCTION OF MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Commodity		1995	1996	1997	1998	1999
<b>Aluminum:</b>						
Bauxite, dry equivalent, gross weight	thousand tons	10,858	11,863	11,987	12,646	11,688
Alumina	do.	3,030	3,199	3,414	3,440	3,570
Cement, hydraulic		522,047 r/	556,509 r/	588,287 r/	557,991 r/	503,713
Gypsum		208,020	338,875	263,662	154,451	235,900
Lead, refined (secondary) e/		800	800	800	800	800
Lime		170,000 e/	245,000 e/	199,419	227,300	230,000 e/
Petroleum refinery products	thousand 42-gallon barrels	5,323	4,742 r/	5,255 r/	5,142 r/	3,607
Salt		19,730	17,866	16,498	15,606	19,090
Silica sand		16,300	15,790	12,089	6,128	9,400
<b>Stone:</b>						
Limestone	thousand tons	3,385	3,351	3,350	3,201	3,300
Marble, cut and/or polished		2,800	2,000	1,500	750	400
Marl and fill	thousand tons	3,920	4,116	4,198	3,900	4,490
Sand and gravel	do.	1,800	1,836	1,928	1,839	2,060

e/ Estimated. r/ Revised.

1/ Table includes data available through August 10, 2000.

TABLE 2  
JAMAICA: STRUCTURE OF THE MINERAL INDUSTRY IN 1999

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina	Jamaica Alumina Co. (Jamalco) [(Alcoa Inc., 50%, Clarendon Alumina Production Ltd. (Government), 50%)]	Halse Hall plant at Clarendon, Clarendon Parish	1,000
Do.	Alumina Partners of Jamaica (Alpart) (Kaiser Aluminum Corp., 65%; Hydro Aluminum Jamaica AS, 35%)	Nain, St. Elizabeth Parish	1,450
Do.	Jamalcan [Alcan Jamaica Co. (Division of Alcan Aluminium Ltd.), 93%; Government, 7%]	Kirkvine, Manchester Parish, and Ewarton, St. Catherine Parish	1,200
Bauxite	Jamalcan Bauxite Mines	St. Ann and St. Catherine Parishes	3,000
Do.	Jamaica Bauxite Mining Ltd. Lydford Mines	Lydford, St. Ann Parish	2,500
Do.	Jamalco Bauxite Mines	Mocho Mountains, Clarendon Parish	2,500
Do.	Kaiser Jamaica Bauxite Co. Ltd.	Kirkvine, Manchester Parish; Water Valley, Discovery Bay, St. Ann Parish	4,500
Cement	Caribbean Cement Co. Ltd. (Trinidad Cement Limited, 74.1%)	Rockfort, St. Andrews Parish	700
Gypsum	Jamaica Gypsum and Quarries (Caribbean Cement Co. Ltd.)	St. Andrews Parish	NA
Lime	Jamalcan (Alcan Jamaica Co., 93%; Government, 7%)		NA
Do.	Rugby Jamaica Lime and Minerals Ltd. (Rugby Group plc, 61%; Clarendon Lime Limited, 39%) 2/	Halse Hall, Clarendon Parish	130 1/
Petroleum products	Petrojam Ltd. (Petroleum Development Ltd., 70%; Government, 30%)	Kingston, St. Andrews Parish	35,500 3/

NA Not available.

1/ Production scheduled for 2000.

2/ Rugby Group plc was acquired by RMC Group plc in early 2000.

3/ 42-gallon barrels per day.