

THE MINERAL INDUSTRY OF SURINAME

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The Surinamese economy is supported by the bauxite and alumina industries, which accounted for about 80% of the country's export revenues or \$300 million. Suriname's gross domestic product (GDP) was \$1.2 billion¹ in 1994, the last year for which data were available. Mining in general accounted for about 4% of GDP. During the period 1991-94, Suriname accounted for 6% of U.S. alumina imports and ranked third behind Australia, 73% and Jamaica, 10%.

In the mineral sector, Suriname was interested in attracting foreign investment via joint ventures, particularly in the diamond, gold, kaolin, sand, and stone industries; the Nation sought to obtain environmentally sound modern mining technology and to establish a very competitive mineral industry. A lack of financing hindered exports, and the absence of environmental measures increased deforestation in the vicinity of bauxite mining areas and gold placer operations. Bauxite and alumina continued to dominate the industry's annual output. Gold, petroleum, and sand production were expected to increase in the near term. (*See table 1.*)

Suriname's privately owned multinational companies mined bauxite and processed alumina and aluminum. In 1995, Suriname's output of some 3.3 million metric tons (Mt) of bauxite made it the sixth largest producer worldwide. The Paranam plant controlled by Suriname Aluminum Co. (SURALCO, 55%) a subsidiary of Alcoa Inc. (ALCOA) of the United States and NV Billiton Maatschappij (Billiton, 45%), a medium-sized bauxite refinery and aluminum smelter 25 km south of Paramaribo, produced 1.6 Mt of alumina and 32,000 t of aluminum. By the end of 1995, Billiton and ALCOA were conducting additional drilling for the second stage of a bankable feasibility study on the Bakkuis bauxite project. The project is a joint venture between Billiton Maatschappij Suriname, owned by Billiton-Gencor Group, and SURALCO. Suriname's bauxite reserves were estimated by SURALCO at 575 Mt.

Gold concessions were negotiated with N.V. Grassalco, the state-owned company. Gold was produced by numerous small placer operators and sold to the Government. Golden Star Resources Ltd. of Canada (GSR), continued gold exploration during the year. The Guiana Shield, according to recent reports, is an area of intense exploration for gold in northern South America. Gold mineralization similar to that in neighboring French Guiana occurs in the Precambrian Paramaka formation of Suriname, and gold placers are

worked by garimpeiros (small-scale independent miners) south and east of the South Benzdorp Area; their estimated gold production could amount to 30 kilograms per year. Reportedly, Canarc Resource of Canada (CANARC) acquired an 80% interest in the Sara Creek concession covering 22,500 hectares (ha) in east-central Suriname about 150 km north of Paramaribo. CANARC was conducting feasibility studies for a large surface gold-mining operation at Sara Creek. GSR and Cambior Inc. (Cambior) announced mine reserves of 24 Mt grading 1.4 g/t of gold on the Gross Rosebel property. Gold Vessel Resources (GVR), a subsidiary of Saint Genevieve Resources of Canada, signed an agreement with Surinamese interests to participate in three gold properties. Two of them comprised 20,000 ha in the Sipalvini District, where small-scale gold mining was being conducted. Also, GVR and partner Margo Mining Co. applied for permits to explore 65,000 ha on properties held by GSR near Gross Rosebel. GVR applied for five permits to explore a 259-square-kilometer area near the western border with Guyana.

The state-owned oil company, Staatsolie Maatschappij NV (STAATSOLIE), reported that about 5,000 barrels per day (bbl/d) of heavy, sweet crude oil were produced from the Tambaredjo and Borneo fields east of Paramaribo. The company is expected to increase output at Tambaredjo to 6,500 bbl/d by late 1996. STAATSOLIE continued with the construction of a 55-km pipeline from the Catharina Sophia Field at Tambaredjo to the Suriname River export terminal at Tout Lui Faut, 5 km south of Paramaribo. The Tout Lui Faut canal was proposed as the site of the STAATSOLIE refinery. STAATSOLIE reported that Tambaredjo and Borneo fields have proven reserves of 25 million barrels (Mbbbl), with an additional 40 Mbbbl as probable reserves.

SURALCO and Billiton will control the bauxite mining operations, with GSR, Cambior, KWG Resources, and CANARC involved in gold exploration. STAATSOLIE will continue to be involved in the development and production of petroleum. (*See table 2.*)

Because mineral rights continued to be vested in the State, exploration rights are granted by the Government. The primary mineral produced was bauxite, although gold, nickel, platinum, and tin deposits also occurred. The bauxite-alumina-aluminum industry will probably continue to be the single most important sector in the Surinamese economy. However, the Government continues to be interested in the

development of nontraditional exports to increase foreign currency earnings. Also, located on the eastern portion of the Guyana Shield greenstone belt, Suriname apparently was ready to receive the spillover from the recent gold activity in Brazil, Guyana, and Venezuela. Thus, foreign investors will pay closer attention to the gold deposits in the Suriname's extension of the Guyana Shield.

¹Where necessary, values have been converted from Surinamese guilders or florins (Sf) to U.S. dollars at the rate of Sf1.785=US\$1.00 (Jan. 1995).

Major Sources of Information

Geologisch Mijnbouwkundige Dienst
Kleine Waterstraat 2-6
Paramaribo, Suriname

Staatsolie Maatschappij Suriname NV
Industrieterrein 21, Flora
P.O. Box 4069
Paramaribo, Suriname

Major Publications

International Bauxite Association, Kingston, Jamaica:

IBA Quarterly Review.

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

U.S. Department of the Interior, U.S. Bureau of Mines: Mineral Commodity Summaries, annual.

U.S. News and World Report: New World of Nations, annual.

TABLE 1
SURINAME: PRODUCTION OF MINERAL COMMODITIES e/ 1/

(Thousand metric tons unless otherwise specified)

| Commodity | 1991 | 1992 | 1993 | 1994 | 1995 |
|-------------------------------|----------------------------|----------|-------|-------|-------|
| Aluminum: | | | | | |
| Bauxite, gross weight | 3,200 | 3,250 2/ | 3,300 | 3,300 | 3,300 |
| Alumina | 1,510 | 1,600 | 1,600 | 1,600 | 1,600 |
| Metal, primary | 29 | 32 | 30 | 32 | 32 |
| Cement, hydraulic | 50 | 50 | 50 | 50 | 50 |
| Clays: Common | 16 | 16 | 20 | 20 | 20 |
| Gold, mine output, Au content | kilograms | 30 | 300 | 300 | 300 |
| Petroleum, crude | thousand 42-gallon barrels | 1,500 | 1,500 | 1,500 | 1,500 |
| Sand and gravel: | | | | | |
| Gravel | 35 | 35 | 35 | 35 | 35 |
| Sand, common | 160 | 160 | 160 | 160 | 160 |
| Stone, crushed and broken | 50 | 50 | 50 | 50 | 50 |

e/ Estimated.

1/ Includes data available through Apr. 1996.

2/ Reported figure.

TABLE 2
SURINAME: STRUCTURE OF THE MINERAL INDUSTRY FOR 1995

(Thousand metric tons unless otherwise specified)

| Commodity | Major operating companies and major equity owners | Location of main facilities | Annual capacity |
|-----------|--|--|--------------------|
| Alumina | Suriname Aluminum Co. (SURALCO) [ALCOA, USA, 55%; and NV Billiton Maatschappij (Billiton), 45%] | Refinery at Paranam, District of Para | 2,000 |
| Aluminum | SURALCO, (100%) | Smelter at Paranam, District of Para | 50 |
| Bauxite | do. | Mines at Coermotibo and Accaribo, District of Marowijne | 2,000 1,500 |
| | Billiton 76%; SURALCO, 24% | Accaribo Mine, District of Para | 1,000 |
| Cement | Vensur N.V. (private, 100%). | Paramaribo, District of Para | 60 |
| Gold | No major operating companies | South and east Suriname | NA |
| Petroleum | Staatsolie Maatschappij Suriname NV (Government, 100%) | Tambaredjo, District of Saramacca | 1,825 |

NA Not available.