

THE MINERAL INDUSTRIES OF CAMEROON AND CHAD

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CAMEROON

Despite the continued decline of crude oil production, the petroleum sector remained the most significant segment of the mineral industry of Cameroon, followed by the production of aluminum. Other mineral and mineral product output, which included cement, sand, and stone, played a minor role in Cameroon's economy. In 2002, the gross domestic product (GDP) at current [2002] prices was estimated to be more than \$9 billion (International Monetary Fund, 2003a¹). The contribution of the oil sector to the national economy has diminished as petroleum output has dwindled from the peak production reached in the late 1980s and as the economy has diversified. In 2002, the oil sector accounted for less than 5% of GDP.

The Ministère de Mines, de l'Eau et de l'Energie was responsible for the administration of the mineral industry in accordance with the Mining Law of 2001 and the Petroleum Code of 2000. In October 2002, the International Court of Justice ruled on the longstanding dispute between Cameroon and Nigeria concerning the Bakassi Peninsula and demarcated the international boundary from Lake Chad to the Gulf of Guinea (International Court of Justice, 2002[§]). Prior to the Court's redrawing of the national borders, Cameroon had an area of 475,440 square kilometers and an estimated population of more than 16 million people in 2002 (U.S. Central Intelligence Agency, 2002a[§]).

Compagnie Camérounaise de l'Aluminium (Alucam) [a joint venture of Pechiney of France (58%) and the Government (42%)] processed imported alumina at the 95,000-metric-ton-per-year aluminum smelter at Edéa (Pechiney, 2003, p. 32). Société Camérounaise de Transformation de l'Aluminium (a subsidiary of Alucam) operated an aluminum rolling mill at Edéa. Geovic Cameroon, S.A. (a subsidiary of Geovic, Ltd. of the United States) completed drilling and began a feasibility study on its cobalt-nickel project in southeastern Cameroon. At the beginning of the year, Société Anonyme de Rutile d'Akonolinga S.A. (SERAK) held the rights to the Akonolinga rutile deposit that expired in October 2002. During 2002, the Government attempted to reduce its 48% interest in SERAK to comply with the Mining Law of 2001 that limited the Government's participation in mining ventures to 10% equity interest. The Bureau de Recherches Géologiques et Minières of France also attempted to divest its 52% interest in SERAK. Cimenteries du Cameroun (in which the Lafarge Group of France held 56.73% ownership) operated a cement plant at Garoua and a clinker-grinding operation near Douala with production capacity of about 1.1 million metric tons per year (Lafarge, 2003, p. F-98).

Cameroon's undeveloped mineral deposits included bauxite, cobalt, diamond, granite, iron ore, natural gas, nepheline syenite, nickel, rutile, tin, and uranium. The Government placed increased emphasis on increasing the production and use of natural gas and on reducing the common practice of flaring gas produced in association with crude oil. The Government also targeted the Isongo, Kita, Logbada, Matanda, and Sanaga Sud gasfields for development.

State-owned Société Nationale des Hydrocarbures (SNH) was involved in hydrocarbon exploration and production with Addax Petroleum Cameroon Ltd. (a subsidiary of Addax Petroleum Group of Switzerland), the local subsidiary of Amerada Hess Corp. of the United States, Euroil Ltd. (a subsidiary of BowLeven plc of the United Kingdom), Fusion Oil and Gas NL (a subsidiary of Fusion Oil and Gas plc of Australia), Mobil Producing Cameroon (a subsidiary of Exxon Mobil Corp. of the United States), Pecten Cameroon Co. [owned by Pecten Producing Co. of the United States (80% interest) and SNH (20%)], Perenco Cameroon S.A. (a subsidiary of Perenco Group of France), Petronas Carigali Overseas Sdh. Bhd. (a subsidiary of Petroliam Nasional Bhd. of Malaysia), Phillips Petroleum Co. Cameroon (a subsidiary of ConocoPhillips Co. of the United States), RSM Production Corp. (a subsidiary of Grynberg Petroleum Co. of the United States), TotalFinaElf Exploration and Production Cameroon (a subsidiary of TotalFinaElf S.A. of France), and Tullow Cameroon Ltd. (a subsidiary of Tullow Oil plc of the United Kingdom). Société Nationale de Raffinage, in which the Government held a 66% equity interest, managed the crude oil refinery at Limbe, which was undergoing a capacity expansion.

In 2002, Amerada Hess acquired 80% interest in the Ntem block from Fusion; Perenco acquired CMS Oil and Gas Co.'s interests in the Ebodje, Ebome, and Moudi concessions; and the joint venture of Mobil Producing, Perenco, and SNH began production from the offshore D1B field.

Esso Exploration and Production Chad Inc. and Cameroon Oil Transportation Co. S.A. were responsible for the construction of the Chad-Cameroon oil export pipeline in Cameroon. In 2002, most of the pipeline [about 870 kilometers (km)] that traversed Cameroon had been welded and buried. Reclamation of the pipeline right-of-way, installation of a 12-km submarine extension of the pipeline to an offshore mooring facility, and conversion of an oil tanker to a floating storage and offloading vessel were expected to be completed in 2003.

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

CHAD

The mineral industry has become a significant segment of Chad's economy with the development of petroleum resources of the Doba Basin. In 2002, the rate of growth of the nation's GDP was estimated to be 10.9%, and the GDP was estimated to be \$1.9 billion. Annual GDP growth was expected to exceed 50% in 2004 when exportation of crude oil was scheduled to begin (International Monetary Fund, 2003a§, b§). Revenues from petroleum development were expected to be funneled into investment in the building, education, health, and transportation sectors. Chad had about 450 km of paved road, no railroads, and about 2,000 km of navigable waterways. It had an area of 1.259 million square kilometers and an estimated population of about 9 million in 2002 (U.S. Central Intelligence Agency, 2002b§).

In January, the Government and the rebel group Mouvement pour la Démocratie et la Justice au Tchad (MDJT) signed a ceasefire and peace agreement. The MDJT armed rebellion had adversely affected activity in the northern Borkou Ennedi Tibesti region of the country for 3 years. Also in 2002, the Government held talks with the Alliance Nationale pour la Résistance, which was the rebel group which operated in eastern Chad, and with the Government of the Central African Republic, which charged the Government of Chad with assisting former Central African Republic military forces accused of participating in an attempted coup in 2001 and which anticipated political difficulties with potential oilfield development in the Salamat Basin that straddled the Central African Republic-Chad border.

Mineral production in Chad included gold produced by local artisanal miners from placer deposits in the Mayo Dala Département and by Global Resources Corp. (a subsidiary of Afko Corea Ltd.) at the Ganboké alluvial operation; gravel, sand, and silt from the Chari and the Logone Rivers; limestone from the Louga quarry; natron (soda ash) from Lake Chad south and east of Liwa; and crushed rock from the Mani quarry at Dandi. Clay used in the manufacture of brick was mined from numerous pits. Salt was mined from various locations.

A consortium of Esso Chad (40% equity interest), Petronas (35%), and Chevron Overseas Petroleum Inc. (25%) continued their Chad/Cameroon export pipeline and Doba Basin oilfield development project. In addition to the delineation and water injector wells drilled in 2002, 38 production wells were drilled, and the entire length (about 180 km) of the Chadian portion of the 1,070-km export pipeline had been welded and buried. In 2003, the Chadian pipeline was scheduled to be connected to the Cameroonian section of the pipeline (Esso Exploration and Production Chad Inc., 2003§).

On the permit H concession, Encana Corp. of Canada (formerly Alberta Energy Co. Ltd. prior to its April 2002 merger with PanCanadian Energy Corp.) concluded an exploration agreement with Cliveden Petroleum Co. Ltd., which held 65% interest in the concession that it had farmed in from Trinity Energy Resources, Inc. of the United States in 1999. An exploration well was expected to be drilled in 2003.

The redevelopment of the Sedigui oilfield continued fitfully. Field facilities and a 325-km pipeline from the field to a planned oil refinery at Farcha, which is near N'Djamena, reportedly was completed, but the construction of the 5,000-barrel-per-day-capacity refinery had stalled in 2001 (Africa Energy Intelligence, 2001, 2002). In 2002, the Government was negotiating with new investors to build and operate the refinery.

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Major Sources of Information

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TABLE 1
CAMEROON: ESTIMATED PRODUCTION OF MINERAL COMMODITIES^{1,2}

(Metric tons unless otherwise specified)

Commodity ³	1998	1999	2000	2001	2002
Aluminum metal, primary	81,600 ⁴	90,410 ⁴	86,384 ⁴	80,900 ^{r,4}	80,000
Cement, hydraulic	740,000 ⁴	850,000 ⁴	890,000 ⁴	930,000 ⁴	950,000
Clay	10,000	13,472 ⁴	21,558 ⁴	22,000	22,000
Gold, mine output, Au content kilograms	1,000	1,000	1,000	1,000	1,000
Petroleum:					
Crude thousand 42-gallon barrels	38,300 ^r	34,700 ^r	32,100 ^r	29,200 ^r	28,000
Refinery products do.	14,000 ^r	12,000 ^r	15,000 ^r	12,000 ^r	12,000
Pozzolana, ash for cement	500,000	631,740 ⁴	604,960 ⁴	600,000	620,000
Sand	30,000	36,658 ⁴	35,078 ⁴	35,000	40,000
Silica sand	15,000	16,088 ⁴	--	--	--
Stone:					
Limestone	100,000	168,411 ⁴	258,517 ⁴	260,000	260,000
Marble	20,000	24,065 ⁴	21,165 ⁴	20,000	20,000

^rRevised. -- Zero.

¹Includes data available through April 21, 2003.

²Estimated data are rounded to no more than three significant digits.

³In addition to the commodities listed, a variety of industrial minerals and construction materials (aggregate, gypsum, and stone) are produced, but information is inadequate to make reliable estimates of output.

⁴Reported figure.