THE MINERAL INDUSTRY OF

EQUATORIAL GUINEA

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The Republic of Equatorial Guinea consists of a number of islands and the Rio Muni enclave on the African mainland. Equatorial Guinea's rapid economic growth since 1996 has been associated with successful offshore petroleum development. Described as a "future African Kuwait," the nation has attracted the attention of international petroleum companies because of its prospective offshore petroleum plays (Africa Energy Intelligence, 2001; Johnston, 2001§[1]).

In 2001, the gross domestic product (GDP) of Equatorial Guinea was estimated to be $1.9 billion, and the population was estimated to be 486,000 (International Monetary Fund, 2002§; U.S. Central Intelligence Agency, 2002§). A wide range of estimated values for the GDP has been published; estimates for 2000 ranged from $1.44 billion (International Monetary Fund, 2002§), $1.34 billion (World Bank, 2002§), to $960 million at purchasing power parity (U.S. Central Intelligence Agency, 2002§).

Government Policies and Programs

Mineral resources are the property of the State. Exploration and production contracts are administered by the Ministry of Mines and Energy. In 2001, the Mining Law (Decree Law No. 9/1981) was under revision. Most nonfuel minerals exploration contracts were available as 1- to 3-year exploration licenses on permits up to 500 square kilometers (km²). Exploration licenses for diamond could be issued for areas up to 1,000 km² (Ministry of Mines and Energy, 2001a§).

Oil and natural gas exploration and production were regulated by Decree Law No. 7/1981, as amended (see table 2). The model petroleum-production-sharing contract was revised in 1998. Initial exploration contracts could be drawn up for 5-year periods, divided into a 3- and a 2-year subperiod, with two 1-year extensions. In 2001, annual surface rents during exploration were $0.50 per hectare in water depths of greater than 200 meters (m) and $1.00 per hectare for concessions in less than 200 m of water. During development, surface rents on deepwater concessions rose to $1.00 per hectare. The minimum royalty on petroleum production was 10%, with a 16% maximum. Production sharing was based on a stepped scale. The Government reserved the right to participate in exploration and production ventures. The income tax rate started at 25% with a maximum of 45% (Ministry of Mines and Energy, 2001b§).

Decree Law No. 9/2001 established a national oil company. Reportedly, there were suggestions that the new company, which has been reported in the literature as Petroguinea or Petrogesa (Petroleo de Guinea Ecuatorial) and Geopetrole (Guinea Ecuatorial de Petroleo), would renegotiate existing petroleum licenses (Asociación para la Solidaridad Democrática con Guinea Ecuatorial, 2001§).

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

Commodity Review

The Rio Muni enclave was reopened for exploration in 2001 when the minerals concession, recently held by UMC Equatorial Guinea Corp.—which was an affiliate of Ocean Equatorial Guinea Corp.—expired at the end of 2000. Mineral and geologic surveys of Rio Muni had identified occurrences of a number of minerals, most notable gold and titanium-bearing sands (Ministerio de Minas y Energia, 2000, p. 19-20). The Ministry estimated that artisanal miners produced about 500 kilograms per year of gold (Leahy and Abeso, 2001§).

In 2001, the joint venture of CMS Oil & Gas Ltd., Samedan of North Africa, Inc., Globex International, and the Government successfully drilled the Alba-9 and the Estrella-1 condensate and natural gas wells. During 2000 and 2001, the production capacity of the joint venture's Alba Field in the Gulf of Guinea had been increased to nearly 2.5 billion cubic meters per year (Noble Affiliates Inc., 2001, p. 10). The field supplied natural gas at the rate of about 2.8 million cubic meters per day to Atlantic Methanol Production Co. LLC's (AMPCO) 2,500-metric-ton-per-day-capacity methanol plant. About 21 million cubic meters per year of natural gas was used by the 10.4-megawatt Punta Europa electricity generating plant. After April 2001, natural gas not consumed by AMPCO, the Punta Europa powerplant, or the Punta Europa condensate plant was reinjected offshore. Previously unused gas had been flared.

AMPCO had began operations in April and was producing commercial grade methanol by May. The AMPCO plant was owned by Atlantic Methanol Capital Co., which was a joint venture of CMS Energy Corp. and Samedan, (90% equity interest) and the Government (10%). In November, Marathon Oil Co., which was a subsidiary of the USX Corp., announced that it would acquire CMS Energy's and CMS Oil & Gas' interests in Equatorial Guinea for $993 million in January 2002 (Oil & Gas Journal, 2001b).

The joint venture of Mobil Equatorial Guinea Inc., Ocean Energy Inc., and the Government continued the development of the Zafiro Field on Block B with six successful wells. Zafiro, which was the largest oilfield in Equatorial Guinea, produced about 47 million barrels of oil in 2001. Also in 2001, the Oreja Marina-1 well on Block C and the Los Loros-1 well and another exploration well on Block D were drilled, plugged, and abandoned.

The partnership of Triton Equatorial Guinea, Inc., which was a subsidiary of Triton Energy Ltd., and Energy Africa Ltd. drilled, plugged, and abandoned the F-1 exploratory hole on Block F. In August 2001, Amerada Hess Corp. bought Triton Energy for about $3.2 billion (Amerada Hess Corp., 2001). At yearend, drilling of the F-2 exploratory well was underway.

Development of the Ceiba Field on Block G continued. Triton Equatorial Guinea and Energy Africa drilled the Ceiba-7, Ceiba-8, Ceiba-9, and Ceiba-10 wells, a mix of production and water-injection wells, and production was increased to about 50,000 barrels per day (bbl/d) from 38,000 bbl/d at the beginning of the year (Cottrill, 2001; Amerada Hess Corp., 2002). The Ceiba Field plans call for 12 production wells and 4 water-injection wells (Brian Maxted, oral commun., May 16, 2002). In 2001, crude oil from the Ceiba Field, which was in about 700 m of water, was piped about 6 kilometers to the 60,000 bbl/d-of-liquids-production-capacity floating production, storage, and offloading (FPSO) *Sendje Berge* that was anchored in about 100 m of water (Offshore Engineer, 2001; Oil & Gas Journal, 2001a; Triton Energy Ltd., 2001§). Production capacity limitations of the *Sendje Berge* lead to the conversion of the very large crude carrier *Berge Hus* to a FPSO which was designed with 160,000 bbl/d-of-liquids-production-capacity (Amerada Hess Corp., 2002). The converted vessel was renamed the FPSO *Sendje Ceiba* and was scheduled to replace the *Sendje Berge* in January 2002 (Oil & Gas Journal, 2001c).

Triton Equatorial Guinea also successfully drilled the G-5 exploration well, which was renamed the Okume-1; the G-6 exploration well, which was renamed the Oveng-1; and the Okume-2, Okume-3, Okume-4, and the Oveng-2 appraisal wells.

In 2001, Roc Oil Co. Ltd. and the Atlas Group commissioned a three-dimensional seismic survey on Block H. Triton Equatorial Guinea acquired 25% interest, and Sasol Petroleum International acquired 10% interest in Block L from Chevron Equatorial Guinea Ltd.

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Major Source of Information

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TABLE 1
EQUATORIAL GUINEA: ESTIMATED PRODUCTION OF MINERAL COMMODITIES 1/

(Thousand 42-gallon barrels unless otherwise specified)

Commodity 2/		1997	1998	1999	2000	2001
Crude oil and condensate		21,000	30,000	33,000	39,000	69,000
Gold	kilograms	500	500	500	500	500
Liquified petroleum gases		450	660	800	800	800
Methanol	metric tons	--	--	--	--	600,000
Natural gas 3/	million cubic meters	44	78	83	98	790

-- Zero.

1/ Includes data available through May 1, 2002.

2/ In addition to the commodities listed, Equatorial Guinea presumably produced a variety of crude construction materials (clay, gravel, and sand).

3/ Marketed gas estimate. Total natural gas production was estimated to be about 3 billion cubic meters in 2001 and 800 million cubic meters in 2000.

TABLE 2
EQUATORIAL GUINEA: PETROLEUM LICENSES IN FORCE IN 2001

License	Major equity owners
Alba block/Alba Field	Marathon Oil Co. (which was a subsidiary of USX Corp. of the United States), 52.38%;1/ Samedan of North Africa, Inc. (Noble Affiliates Inc. of the United States), 33.75%; Globex International (Globex Energy, Inc. of the United States) 10.87%; the Government 3%.
Block B	Mobil Equatorial Guinea Inc., (ExxonMobil Corp. of the United States) 71.25%; Ocean Equatorial Guinea Corp. (Ocean Energy Inc. of the United States), 23.75%; the Government, 5%.
Block C	Mobil Equatorial Guinea Inc., 47%; Ocean Equatorial Guinea Corp., 37.6%; SK Corp. of the Republic of Korea, 9.4%; the Government, 6%.
Block D	Marathon Oil Co., 37.6%;1/ Ocean Equatorial Guinea Corp., 37.6%; Mobil Equatorial Guinea Inc., 24.8%.
Block E	TotalFinaElf Group of France, 70%; Braspetro (Petróleo Brasileiro Internacional S.A. of Brazil), 30%.
Block F	Triton Equatorial Guinea, Inc. (Amerada Hess Corp. of the United States), 85%;2/ Energy Africa Ltd. of South Africa, 15%.
Block G (Ceiba Field)	Triton Equatorial Guinea, Inc., 85%; Energy Africa Ltd., 15% (Triton Equatorial Guinea, Inc., 80.75%; Energy Africa Ltd., 14.25%; the Government, 5% carried interest).
Block H	Roc Oil Co. Ltd. of Australia, 60%; the Atlas Group (Atlas Petroleum International Ltd. of Nigeria and Osborne Resources Ltd.), 40%.
Block I	Atlas Petroleum International Ltd., 100%.
Block J	Do.
Block K	Vanco Equatorial Guinea, Ltd. (Vanco Energy Co. of the United States), 100%.
Block L	Chevron Equatorial Guinea Ltd. (ChevronTexaco Corp. of the United States), 65%; Triton Equatorial Guinea, Inc., 25%; Sasol Petroleum International (Sasol Ltd. of South Africa), 10%.
Block N (under negotiation)	Petronas Carigali Overseas Sdh. Bhd. (Petroliam Nasional Bhd. of Indonesia), 60%; Ocean Equatorial Guinea Corp., 30%; Vanco Equatorial Guinea, Ltd., 10%. The Government, through the state oil company, Guinea Ecuatorial de Petroleo, can acquire a 15% carried interest in Block N.

1/ Interest formerly held by CMS Oil and Gas (Equatorial Guinea) Ltd., which was a subsidiary of CMS Energy Corp. of the United States.

2/ During 2001, Amerada Hess Corp. of the United States acquired Triton Energy Ltd. of the United States, which owned Triton Equatorial Guinea, Inc.