



# 2009 Minerals Yearbook

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## EQUATORIAL GUINEA

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# THE MINERAL INDUSTRY OF EQUATORIAL GUINEA

By Philip M. Mobbs

Offshore oil and natural gas production dominated Equatorial Guinea's mineral industry. In 2009, the hydrocarbon sector [crude oil, liquefied natural gas (LNG), and natural gas condensate] accounted for about 72% of the country's nominal gross domestic product. Most of Equatorial Guinea's hydrocarbon production was exported. Clay, gravel, sand, and volcanic rock output was used by the domestic construction sector, and some of the liquefied petroleum gas (LPG) output was consumed locally (Baker, Milkov, and Ribeiro, 2010, p. 3).

Mineral resources are the property of the Government. Mineral exploration and production activity are governed by law No. 9/2006, which is the Mining Law, and law No. 8/2006, which is the Hydrocarbon Law. Contracts for hydrocarbon exploration and production are administered by the Ministerio de Minas, Industria y Energía. Law No. 7/2003 and amendments form the Environmental Law.

## Production

In 2009, methanol production increased by about 21% and natural gas production rose by 16%. The Banque des Etats de l'Afrique Centrale (2010) reported that crude petroleum output decreased by about 11% in 2009 compared with that of 2008 (table 1).

## Structure of the Mineral Industry

Hydrocarbon exploration and production activity was governed by production-sharing contracts held by joint ventures of international oil companies and the Government. Guinea Ecuatorial de Petróleos (GEPetrol), which was the national oil company, operated some exploration-stage production-sharing contracts and managed the state's interest in other crude oil exploration and production contracts. Sociedad Nacional de Gas de Guinea Ecuatorial (Sonagas), which was the Government's natural gas company, managed the Government's interest in products derived from natural gas output, such as LNG, LPG, and methanol.

## Commodity Review

### *Mineral Fuels*

**Natural Gas and Petroleum.**—United States-based Exxon Mobil Corp. (2009, p. 57; 2010, p. 59) reported that crude oil production from the Zafiro field on Block B decreased significantly compared with that of 2008. Mobil Equatorial Guinea Inc., which was a subsidiary of ExxonMobil, started a new drilling program and was in discussions with the Government about the development of the Zafiro field's natural gas resources. Gasol plc (2009) of the United Kingdom reported that it had acquired a 50% interest in SONAF G.E. S.A. from African Gas Development Corp., which was Gasol's major

shareholder. SONAF was a joint venture with Sonagas. SONAF had been established to collect, process, and sell natural gas from Block B of the Zafiro Development Area.

Marathon Oil Corp. (2009, p. 6-7; 2010, p. 4) of the United States reported that the sale of condensate from the Alba natural gas field increased by about 13% in 2009 compared with that of 2008. Natural gas from the Alba field was stripped of condensate and LPG at the Alba plant. The LNG plant and the methanol plant used portions of the resultant dry gas (after the extraction of the liquids) as feedstock. Any remaining gas was piped back to the Alba field and reinjected.

In 2009, the Government approved the development plan for the Aseng prospect (formerly the Benita prospect) on Block I that had been submitted by Noble Energy Inc. of the United States. Production from the initial development phase of the planned Aseng project was expected to start in 2012 at about 50,000 barrels per day. Noble also evaluated the development of the Belinda condensate and natural gas project and the Diega condensate and natural gas prospect on Block O, and the Carmen oil prospect on Block I (Noble Energy Inc., 2010, p. 10).

## Outlook

In the past two decades, improved deepwater production technology, increased petroleum exploration, and the international demand for crude oil and natural gas have transformed the area around Equatorial Guinea into a notable hydrocarbon region. The international demand for LNG, LPG, and methanol have provided the impetus for the development of the infrastructure necessary to produce and process natural gas, despite the very limited local market. Petroleum production from Equatorial Guinea was expected to continue to decline in the short term, but the development of hydrocarbon discoveries on Blocks B, I, O, and P has the potential to partially offset the decline by 2013.

## References Cited

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- Marathon Oil Corp., 2009, Form 10-K—2008: U.S. Securities and Exchange Commission, 140 p.
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TABLE 1  
EQUATORIAL GUINEA: ESTIMATED PRODUCTION OF MINERAL COMMODITIES<sup>1,2</sup>

(Thousand 42-gallon barrels unless otherwise specified)

Commodity <sup>3</sup>		2005	2006	2007	2008	2009
Gold	kilograms	200	200	200	200	200
Liquefied petroleum gas		3,035 <sup>4</sup>	7,562 <sup>4</sup>	8,022 <sup>4</sup>	8,000	8,000
Methanol	metric tons	1,110,000	752,000	1,098,000 <sup>4</sup>	795,000 <sup>r</sup>	960,000
Natural gas:						
Gross	million cubic meters	2,300	NA <sup>r</sup>	NA <sup>r</sup>	NA <sup>r</sup>	NA
Net <sup>5</sup>	do.	678 <sup>4</sup>	438 <sup>4</sup>	4,100 <sup>r</sup>	6,800 <sup>r</sup>	7,900
Petroleum, crude and condensate		131,400 <sup>r,4</sup>	125,400 <sup>r,4</sup>	128,100 <sup>r,4</sup>	127,600 <sup>r,4</sup>	113,000

<sup>r</sup>Revised. do. Ditto. NA Not available.

<sup>1</sup>Estimated data are rounded to no more than three significant digits.

<sup>2</sup>Table includes data available through May 3, 2010.

<sup>3</sup>In addition to the commodities listed, Equatorial Guinea presumably produced a variety of crude construction materials (clay, gravel, and sand), but available information is inadequate to make reliable estimates of output.

<sup>4</sup>Reported figure.

<sup>5</sup>Includes natural gas that was compressed to liquefied natural gas, used to produce methanol by Atlantic Methanol Production Company L.L.C., or used as rig or processing plant fuel.

TABLE 2  
EQUATORIAL GUINEA: STRUCTURE OF THE MINERAL INDUSTRY IN 2009

(42-gallon barrels unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Gold	kilograms	Artisanal placer operations	Aconibe, Coro, and Mongomo	500
Liquefied natural gas	metric tons	Equatorial Guinea LNG Holdings Ltd. [Marathon Equatorial Guinea Production Ltd., 60%; Sociedad Nacional de Gas de Guinea Ecuatorial (Sonagas), 25%; Mitsui & Co. Ltd., 8.5%; Marubeni Corp., 6.5%]	Punta Europa	3,700,000
Liquefied petroleum gas		Alba Plant LLC [Marathon Oil Co., 52%; Noble Energy Equatorial Guinea Ltd., 28%; Sociedad Nacional de Gas de Guinea Ecuatorial (Sonagas), 20%]	do.	6,000,000
Methanol	metric tons	Atlantic Methanol Production Co. L.L.C. [Marathon Equatorial Guinea Methanol Ltd., 45%; Samedan Methanol, 45%; Sociedad Nacional de Gas de Guinea Ecuatorial (Sonagas), 10%]	do.	1,100,000
Natural gas	million cubic meters	Joint venture of Marathon Oil Co., 63%; Noble Energy Equatorial Guinea Ltd., 34%; Guinea Ecuatorial de Petr�leos (GEPetrol), 3%	Alba field, Alba Block	8,000
Petroleum:				
Condensate		do.	do.	16,800,000
Crude		Joint venture of Mobil Equatorial Guinea Inc., 71.25%, and Guinea Ecuatorial de Petr�leos (GEPetrol), 28.75%	Zafiro field, Block B	102,000,000
Do.		Joint venture of Hess Equatorial Guinea, Inc., 80.75%; Tullow Equatorial Guinea Ltd., 14.25%; Guinea Ecuatorial de Petr�leos (GEPetrol), 5%	Ceiba field, Block G	12,500,000
Do.		do.	Okume Complex (includes the Ebano, the Elon, the Okume, and the Oveng reservoirs), Block G	12,000,000

Do., do. Ditto.