2014 Minerals Yearbook

EQUATORIAL GUINEA [ADVANCE RELEASE]

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The Mineral Industry of Equatorial Guinea

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Offshore crude oil and natural gas production dominated Equatorial Guinea's mineral industry activity. By yearend 2014, Equatorial Guinea had not recovered from the 2013 recession caused by declining hydrocarbon revenues from low oil prices and decreased crude oil production. In 2014, the gross domestic product (GDP) (at constant 2005 prices) decreased by 3.1% to \$9.0 billion from \$9.3 billion. Hydrocarbons accounted for about 70% of the GDP, 86% of Government revenue, and 92% of exports. Most of the country's hydrocarbon production was exported, although some liquefied petroleum gas (LPG) output was consumed locally. Mined clay, gravel, rock, and sand were used by the domestic construction industry (African Development Bank Group, 2015; International Monetary Fund, 2015, p. 5, 24–25; World Bank, The, 2015).

Mineral resources are the property of the Government, and contracts for hydrocarbon and mineral exploration and production are administered by the Ministry of Mines, Industry and Energy. Hydrocarbon and mineral exploration and production activity are governed by the Mining Law (law No. 9/2006) and the Hydrocarbon Law (law No. 8/2006). Law No. 7/2003 and amendments form the Environmental Law, which is administered by the Ministry of Mines, Industry, and Energy for the hydrocarbon and mining industries.

Production

The country's mineral sector was based on the production of mineral fuels from offshore fields, such as condensate, crude oil, and natural gas. In 2014, the production of methanol, LPG, and natural gas decreased by 12%, 8%, and 1%, respectively. Crude and condensate oil production increased by 5%. Equatorial Guinea produced gold and a variety of crude construction materials (clay, gravel, rock, and sand) but available information is inadequate to make reliable estimates of output (table 1).

Structure of the Mineral Industry

Hydrocarbon exploration and production activity was governed by production-sharing contracts held by the Government and joint ventures of international oil companies. Guinea Ecuatorial de Petróleos (GEPetrol), which is 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 is the Government-owned natural gas company, managed the Government's interest in products derived from natural gas output, such as liquefied natural gas (LNG), LPG, and methanol.

Commodity Review

Industrial Minerals

Nitrogen.— In February, the Ministerio de Minas, Industria y Energia announced that Archean Fertilizer Pte Ltd. (a subsidiary of the Archean Group of India) would begin a feasibility study of an integrated petrochemical complex at Riaba, Bioko Island. The complex would produce ammonia and urea from natural gas produced from Blocks O and I. Archean Fertilizer planned to complete a project feasibility study (Ministry of Mines, Industry and Energy, 2014.

Mineral Fuels

Natural Gas and Petroleum.—The consortium of Marathon Oil Co. of the United States, Noble Energy Equatorial Guinea Ltd., and GEPetrol produced condensate and natural gas from the Alba field. Condensate and LPG were removed by Alba Plant LLC on Bioko Island. The dry gas was sold to Atlantic Methanol Production Co. L.L.C., which produced methanol, and to Equatorial Guinea LNG Holdings Ltd., which liquefied the natural gas for shipment. In 2014, Marathon's construction of a natural gas compression platform continued, and the platform was expected to be operational in 2016. The natural gas compression platform would be the third platform on the Alba field and was expected to extend the life of the field by 8 years. Noble Energy, Inc. of Texas and its partners produced condensate and natural gas from the Alen field. Condensate was stripped from the natural gas stream and the natural gas was reinjected into the reservoir. In 2014, the Alen field produced condensate at the rate of 25,700 barrels per day (bbl/d). Production of crude oil at the four-well Aseng field decreased by about 19% to a rate of about 40,700 bbl/d from about 50,000 bbl/d in 2013 owing to recurring gas compression problems (table 2; PA Resources AB, 2014, p. 23; 2015, p. 10, 21; Marathon Oil Corp., 2015, p. 9).

In 2014, Exxon Mobil Corp. of the United States reported that crude oil production from the Zafiro field on Block B was about 32,000 bbl/d, which was a 6% decrease compared with output in 2013. Hess Corp. of the United States reported that crude oil output from the Ceiba field and the Okume complex decreased by 2% to 43,000 bbl/d in 2014. Hess continued a 14-well infill drilling program at the Okume complex, which was expected to offset the field's decline rate (Exxon Mobil Corp., 2014, p. 36; 2015, p. 37; Hess Corp., 2015, p. 4, 7; Tullow Oil plc, 2015, p. 53).

Ophir Energy plc of the United Kingdom continued exploration on Block R. In September, Ophir announced that drilling at the Silenus East exploration well had encountered an estimated 11 billion cubic meters of natural gas. The company estimated that the Silenus area contained 34 billion cubic meters of natural gas. In October, after a drill stem test at the Fortuna gasfield achieved a constrained flow rate of 1.7 million cubic meters per day, Ophir estimated Fortuna gasfield's recoverable resources to be 37 billion cubic meters of natural gas. The company estimated total recoverable resources in Block R to be 96 billion cubic meters of natural gas. Consequently, Ophir expanded the planned capacity of the floating LNG plant to 3.0 million metric tons per year. The plant would process natural gas produced from the Block R field. Initial production from the floating LNG plant was scheduled for 2019. Ophir and GEPetrol held an 80% and a 20% operating interest in Block R, respectively (Ophir Energy plc, 2014a, b; 2015, p. 26).

Outlook

Petroleum extraction from Equatorial Guinea is expected to decrease in volume owing to the convergence of lower international oil prices and the depletion of producing reservoirs. The development of additional hydrocarbon resources could potentially offset the decrease in the volume of oil production in the short term. Economic growth in the short to medium term is likely to be constrained by dependence on oil export revenue. Equatorial Guinea faces several obstacles to successful economic diversification, which include regional transportation and electricity interconnections, cyclical world commodity prices, and social sector investment (International Monetary Fund, 2015, p. 1–3).

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TABLE 1
EQUATORIAL GUINEA: ESTIMATED PRODUCTION OF MINERAL COMMODITIES[1, 2]

(Thousand 42-gallon barrels unless otherwise specified)

Commodity[3]		2010	2011	2012	2013	2014
Liquefied petroleum gas		4,000	7,500	7,500	7,500	6,900
Methanol	thousand metric tons	860	1,000	1,000	1,010	885
Natural gas[4]	million cubic meters	6,500	7,100 r	6,900 r	7,200 r	7,100
Petroleum, crude and condensate		100,000	92,000 r	99,000 r	97,000 r	102,000

[r]Revised

[1]Estimated data are rounded to no more than three significant digits.

[2]Table includes data available through May 20, 2014.

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

[4]Represents sales. At the Alba field, liquid hydrocarbons were removed from gross natural gas production; unsold gas was reinjected into the reservoir for pressure maintenance. Produced natural gas from other offshore fields was flared or reinjected.

TABLE 2
EQUATORIAL GUINEA: STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Thousand 42-gallon barrels unless otherwise specified)

Commodity		Major operating companies and major owners	Location of main facilities	Annual capacity
Gold	kilograms	Artisanal placer operations	Aconibe, Coro, and Mongomo	NA
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.	7,700
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%; and Guinea Ecuatorial de Petróleos (GEPetrol), 3%	Alba field, Alba Block	8,000
Petroleum:				
Condensate		Joint venture of Marathon Oil Co., 63%; Noble Energy Equatorial Guinea Ltd., 34%; and Guinea Ecuatorial de Petróleos (GEPetrol), 3%	do.	24,000
Do.		Joint venture of Noble Energy, Inc., 44.65%; Guinea Ecuatorial de Petróleos (GEPetrol), 28.75%; Glencore Exploration (EG) Ltd., 24.94%; Atlas Petroleum International Ltd., 1.38%; and PA Resources AB, 0.28%	Alen field, Block O	13,000
Crude		Joint venture of Hess Equatorial Guinea, Inc., 80.75%; Tullow Equatorial Guinea Ltd., 14.25%; and Guinea Ecuatorial de Petróleos (GEPetrol), 5%	Ceiba field, Block G	12,500
Do.		do.	Okume complex (includes the Akom North, the Ebano, the Elon, the Okume, and the Oveng fields), Block G	20,000
Do.		Joint venture of Mobil Equatorial Guinea Inc., 71.25%, and Guinea Ecuatorial de Petróleos (GEPetrol), 28.75%	Zafiro field, Block B	102,000
Do.		Joint venture of Noble Energy, Inc., 40% working interest; Atlas Petroleum International Ltd., 29% working interest; Glencore Exploration (EG) Ltd., 25% working interest; Osborne Resources Ltd.,[1] 6% working interest; and Guinea Ecuatorial de Petróleos (GEPetrol), 5% carried interest	Aseng field, Block I	23,000

Do., do. Ditto. NA Not available.

[1]A subsidiary of PA Resources AB.