



2014 Minerals Yearbook

GABON

THE MINERAL INDUSTRY OF GABON

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In 2014, Gabon's real gross domestic product (GDP) increased by 4.3% compared with 5.6% in 2013. The economy was largely dependent on world demand for manganese, crude petroleum, and timber, which were the country's principal mineral export commodities. In 2014, the country ranked fourth among the world's leading producers of manganese, accounting for 10% of world production. The country also ranked ninth among Africa's leading producers of crude petroleum, accounting for about 3% of Africa's crude petroleum production. Other nonfuel mineral commodities produced in the country included cement, clay, crushed stone, diamond, and gold. Identified but undeveloped mineral resources included iron ore, lead, niobium (columbium), phosphate rock, platinum-group metals, tantalum, and zinc (Organization of the Petroleum Exporting Countries, 2015, p. 28; Société Equatoriale des Mines, 2015; Corathers, 2016; International Monetary Fund, 2016, p. 24, 28).

Minerals in the National Economy

In 2014, exports of crude petroleum and manganese were estimated to account for about 84% and 10%, respectively, of the total value of exported goods. Exports of goods were estimated to account for about 50% of the total GDP. Gabon exported 3.3 million metric tons (Mt) of manganese ore in 2014, of which about 44% was exported to China; about 15%, to Norway; and about 9% each, to India and the United States (Aloys d'Harambure, Market Research Analyst, International Manganese Institute, unpub. data, November 24, 2015). Gabon's exports to the United States were valued at about \$798 million in 2014 compared with \$1.1 billion in 2013. About 79% of these exports was crude petroleum valued at \$627 million, and about 7.8% was nonferrous metals valued at \$62 million. Imports from the United States were valued at about \$417 million in 2014 compared with about \$308 million in 2013. These included \$42 million worth of drilling and oilfield equipment; \$13 million worth of excavating machinery; \$4.4 million worth of iron and steel products; \$2.5 million worth of coal and other fuels; and \$1.1 million worth of petroleum products. The country exported a total of 82.1 million barrels (Mbbl) of crude petroleum and about 2.5 Mbbl of petroleum refinery products to the world in 2014 (Organization of the Petroleum Exporting Countries, 2015, p. 52, 55; U.S. Census Bureau, 2015a, b; International Monetary Fund, 2016, p. 24, 28).

Government Policies and Programs

In 2014, the mineral sector was governed by the country's Mining Code (law No. 05–2000 as amended by law No. 008–2005). Under the Mining Code, all mineral resources are the property of the state. The Ministère des Mines, du Pétrole et des Hydrocarbures is the Government agency responsible for the general administration and implementation of the law. The Direction Générale des Mines et de la Géologie is responsible for

enforcing health and safety practices in the mineral sector and for ensuring that mining companies abide by the laws and regulations set forth by the Mining Code. Prospecting licenses are granted for a minimum period of 2 years or more but cannot be renewed; exploration licenses are granted for a period of 3 years and can be renewed twice. Mining permits are granted for an initial period of 10 years and may be renewed as many times as necessary for additional periods of 5 years each. Mining licenses are granted for a period of 25 years and can be renewed more than once for 10 years at a time. In 2014, the Government was in the process of revising the country's Mining Code. The revised law had not been put into effect as of yearend 2014 (Droit-Afrique.com, 2015; Global Legal Group, 2015).

In September, the country revised the Hydrocarbon Code by promulgating law No. 11–2014, which replaced former law No. 14–1982. The new Hydrocarbon Code regulates the processing of hydrocarbons and other downstream activities, as well as the exploration and production tax regime. Under the new Hydrocarbon Code, the state is entitled to purchase a maximum 20% participating interest in the share capital of a company applying for an exploitation permit, and a 20% interest in production-sharing contracts (PSCs) must be allocated to the state. The Gabon Oil Co. (GOC) has the option to purchase a 15% interest in company shareholdings or PSCs, but the state retains direct ownership of its participations. The law also sets the corporate tax rate at 35% and the value added tax rate at 0%, gives contract priority to companies incorporated in Gabon, and regulates gas flaring (Linklaters LLP, 2014).

Production

In 2014, production of metallurgical-grade manganese ore decreased by about 5% to 4 Mt from about 4.3 Mt in 2013. Gold production decreased by about 11% to 1,012 kilograms (kg) from 1,136 kg in 2013. Reported production of crude petroleum decreased slightly to 84.4 Mbbl from 85.5 Mbbl in 2013. Production of petroleum refinery products was reported to have increased slightly to 7.55 Mbbl. The production of silicomanganese metal began in 2014. Data on mineral production are in table 1.

Structure of the Mineral Industry

Most of the mineral industry facilities in Gabon are privately owned, although the Government held minority interests in most mining operations. Table 2 is a list of major mineral industry facilities.

Commodity Review

Metals

Gold.—The Bakoudou gold mine, which was operated by Managem Group of Morocco, produced 1,012 kg of gold in

2014 compared with 1,136 kg in 2013. The 11% decline in production was owing to decreased ore grades and the limited availability of mining equipment. The gold mine had an annual gold production capacity of 1,400 kg and employed 400 people. The Government held a 25% interest in the mine, which was located about 60 kilometers (km) southeast of the capital city of Libreville. Management continued exploration work on the Eteke project in the Mouila region. In 2014, the company continued to survey the Mubi Dondo and Dango-Massima prospects and planned to apply for a mining license. Eteke also included the Dango, the Dango-Massima, the Dango West Extension, and the Mubi Dondo prospects (table 1; Management Group, 2015, p. 71; undated).

Other companies exploring for gold in Gabon included Gabon S.A.R.L., a subsidiary of GoldStone Resources Ltd. of the United Kingdom, and Silver Bull Resources Inc. of Canada. GoldStone held two exploration permits—the Oyem and Ngoutou permits—in east-central Gabon (GoldStone Resources Ltd., 2015, p. 4–5, 39).

Iron Ore.—IronRidge Resources Ltd., which was a subsidiary of DRG Global Ltd. of Australia and Assore Ltd. of South Africa, held exploration permits for three iron ore projects—Belinga Sud, Tchibanga, and Tchibanga North. The Belinga Sud permit covered an area of 1,976 square kilometers (km²) south of the Belinga iron ore deposit in the northeast region of the country. The Tchibanga and Tchibanga North (adjacently permitted areas) located in the southeast covered a total area of 3,377 km² and hosted the Mont Pele and Mayombe prospects. IronRidge planned a drilling program to confirm the extent of mineralization (IronRidge Resources Ltd., 2015, p. 2–5, 14).

In 2014, Ferrex Plc continued the development of the Mebaga iron ore project, which was a direct-shipping iron ore project located in northern Gabon. In July, plans for a proposed joint venture between Ferrex Plc and Kumba Iron Ore Ltd. of South Africa were terminated. Ferrex planned to continue exploration of the deposit with a drill program and scoping study. The company had acquired exploration rights to the Mebaga project in late 2012 by securing a majority interest in Resources Equatoriale SARL (Ferrex Plc, 2015, p. 8, 46).

In April, the Government commissioned SRK Exploration Services of the United Kingdom to complete a reserve assessment study, which was expected to be completed by 2016, at which time a formal tender process would be launched. In May, the Government announced initial talks with undisclosed companies concerning the development of the Belinga iron ore deposit. A previous mining concession agreement with China Machinery Engineering Corp. had included infrastructure developments, such as a railway line and a hydroelectric dam (Alves, 2008, p. 17; Business Recorder, 2013; Africa Report, The, 2014; Oxford Business Group, 2016).

Manganese.—Eramet International S.A. of France, which operated the Moanda Mine through its subsidiary Compagnie Minière de l'Ogooué S.A. (Comilog), reported a decrease in production to 3.48 Mt of manganese ore in 2014 from 3.7 Mt in 2013. Production was also lower than the company's 2014 production target of 3.9 Mt of ore owing to a train derailment. During the year, the company began work on a plan for the restoration of the Trans-Gabon rail network. In

August, the Moanda Metallurgical Complex (MMC) began production of silicomanganese metal. A second plant, which was under construction, was designed to produce manganese metal through electrolysis and was expected to begin production by February 2015. The plant, which was located adjacent to the Moanda Mine, had the capacity to produce 20,000 metric tons per year (t/yr) of manganese metal and 65,000 t/yr of silicomanganese metal (Compagnie Minière de l'Ogooué S.A., 2014, p. 4, 17, 22; 2015, p. 1, 3, 10, 17; Eramet Group, 2015, p. 2, 12–13).

Citic Dameng Holdings Ltd. (DAMENG) of China, through its subsidiary Compagnie Industrielle et Commerciale des Mines de Huazhou (CICMHZ), operated the Bembele Mine. In 2014, manganese ore production increased to 591,000 t at an average grade of 31.1% from 2013 production of 514,000 t of ore at an average grade of 31%. CICMHZ exported manganese ore produced at Bembele to customers in China and India. Production at the Bembele concentration plant increased to about 104,600 t of manganese contained in concentrate compared with 98,300 t of manganese contained in concentrate in 2013. Exploration work continued at the Bembele Mine as four holes were drilled in an effort to delineate ore grading greater than 30% manganese. The company continued expansion and maintenance works for roads between the Bembele Mine and the Ndjole transit station in order to complete the transportation system from Bembele to the Port of Owendo (Citic Dameng Holdings Ltd., 2015, p. 40–43, 52).

Industrial Minerals

Cement.—In March, HeidelbergCement Group of Germany sold its 70.46% interest in Société des Ciments du Gabon (Cimgabon) to Ciments de l'Afrique (CIMAFA) of Morocco. Cimgabon was the only cement producer in Gabon in 2014, operating two cements plants and a clinker plant. CIMAFA had begun building a new 500,000-t/yr cement plant in Owendo in June 2013. Dangote, through its subsidiary Dangote Industries Gabon S.A., planned to build a 1.5-Mt/yr cement-grinding plant (International Cement Review Newsroom, 2013; Le Gabon.org, 2014; Dangote Cement plc, undated).

Rare Earths.—In 2014, the company Maboumine, an indirect subsidiary of Eramet, continued the development of the Maboumine rare-earth deposit, which is located about 50 km from Lambarene in the Province of Moyen-Ogooué. The deposit was reported to also contain niobium, tantalum, and uranium. The company continued to develop a hydrometallurgical process to mine these minerals and planned to build a pilot plant on site by yearend 2016. During the year, Maboumine worked to complete a social and environmental impact study for an exploration pit and the pilot plant (Eramet Group, 2014; 2015, p. 13; Maboumine, 2016).

Mineral Fuels

Petroleum.—In 2014, Gabon produced a total of 231,300 barrels per day (bbl/d) of crude petroleum compared with 234,100 bbl/d in 2013 and 242,000 bbl/d in 2012. The Organization of the Petroleum Exporting Countries estimated Gabon's total proven crude oil reserves to be 2 billion barrels.

A total of seven active oil rigs were operating in the country. In July, Eni Gabon SA, a subsidiary of Eni S.p.A of Italy, announced the discovery of gas and condensates at the Nyonie Deep exploration prospect, which is located 13 km offshore in Block D4 and part of the North Gabon Basin. The company reported an initial estimate of about 68 Mt of oil equivalent (Gas and Oil Year, The, 2014, p. 9; Organization of the Petroleum Exporting Countries, 2015, p. 22–23, 28).

In August, Marathon Oil Corp. and Noble Energy Inc. of the United States signed exploration contracts and PSCs with the Gabon Oil Co. Marathon agreed to an exploration and PSC for deepwater Block G13, which spanned 2,700 km². The company expected a seismic program to continue into 2016. Noble agreed to an exploration and PSC for deepwater Block F15, which covered 2,700 km². Noble retained a 60% working interest as the operator, and Woodside Petroleum Ltd. of Australia held the remaining 40%. The agreement included a 4-year period for seismic and drilling exploration. Noble had begun exploration and was in the process of completing an environmental impact assessment. In both projects, the Gabon Oil Co. would assume a 20% interest upon the commencement of production (Holeywell, 2014; Marathon Oil Corp., 2015, p. 10; Noble Energy, Inc., 2015, p. 14).

In 2014, Gabon's Société Gabonaise de Raffinage (SOGARA) refinery production decreased by about 30% owing to a supply shortage of crude oil and a labor strike. As a result, Gabon imported oil from the Ivory Coast to meet its domestic needs. In May, the Gabon Oil Co. signed a contract with Samsung C&T Corp. of the Republic of Korea for the construction of a new oil refinery to be located on Mandji Island near the seaport of Port Gentil. The new 60,000-bbl/d refinery would replace the 21,000-bbl/d SOGARA refinery. About one-third of the new refinery production was expected to be consumed domestically, with the remainder to be exported. Port Gentil is the center of Gabon's petroleum industry, as it hosts a deepwater port and the SOGARA refinery and is also the headquarters for several petroleum companies operating in the country (Gabon Oil Co., 2014; Gas and Oil Year, The, 2014, p. 11; Ministère des Finances et des Comptes Publics, 2014)

Outlook

Foreign direct investment to Gabon is likely to increase as mineral sector reform and planned infrastructure investments through 2016 aimed at developing the country's ports, railways, and road networks continue. Although Gabon will soon benefit from new cement, gold, and manganese revenues, the petroleum sector is likely to remain the driving force of the economy in the short run. The potential development of the Belinga deposit and planned development of the Maboumine deposit by Eramet will require significant investment in infrastructure and skilled labor. Planned infrastructure projects will likely increase consumption of construction materials. Gabon faces several internal and external challenges to the successful diversification and growth of its mining sector. Internally, although a lack of infrastructure and a skilled labor force continues to be limiting factors for investment and growth in the mining sector, the rehabilitation of the country's ports, railways, and road networks will be vital to the growth of the mining sector. Externally, cyclical

world commodity prices could hinder planned investment in the mineral sector.

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TABLE 1
GABON: PRODUCTION OF MINERAL COMMODITIES¹

Commodity ²		2010	2011	2012	2013	2014
Cement and clinker:						
Cement, hydraulic ³	metric tons	223,100	225,700	220,000 ^e	200,000 ^e	180,000
Clinker ^e	do.	160,000	160,000	160,000	160,000	155,000
Gold ⁴	kilograms	--	--	666	1,136	1,012
Manganese:⁵						
Metallurgical-grade ore, gross weight	thousand metric tons	3,201	4,070	3,637	4,297 ^r	4,080
Mn content of ore	do.	1,536 ^r	1,858	1,650	1,967 ^r	1,863
Natural gas ⁶	million cubic meters	332 ^r	373 ^r	384 ^r	420 ^r	420 ^e
Silicomanganese	metric tons	--	--	--	--	4,000 ^e
Petroleum:						
Crude oil ⁷	thousand 42-gallon barrels	92,126	91,615	88,330	85,447	84,425
Refinery products⁶						
Liquefied petroleum gas	do.	174	174	186	197	200 ^e
Gasoline	do.	819	819	862	913	915 ^e
Gas oil ⁸	do.	2,235	2,228	2,355	2,490	2,490 ^e
Kerosene	do.	224	224	240	255	255 ^e
Jet kerosene	do.	515	515	547	579	580 ^e
Residential fuel oil	do.	2,797	2,784	2,937	3,110	3,110 ^e
Total	do.	6,765 ^r	6,744 ^r	7,126 ^r	7,544 ^r	7,550 ^e

^eEstimated; estimated data are rounded to no more than three significant digits. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through December 31, 2015.

²In addition to the commodities listed, clay, crushed stone, diamond, gold produced by artisanal miners, and sand may also have been produced, but available information was inadequate to make reliable estimates of output.

³Includes cement produced from imported clinker.

⁴Represents production from the Bakoudou Mine only.

⁵As reported by the International Manganese Institute.

⁶As reported by the International Energy Agency.

⁷As reported by the Organization of the Petroleum Exporting Countries.

⁸Diesel fuel containing more than .001% sulfur.

TABLE 2
GABON: STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Metric tons unless otherwise specified)

Commodity		Major operating companies and and major equity owners	Location of main facilities	Annual capacity
Cement		Société des Ciments du Gabon S.A. (Cimgabon) [Ciments de l'Afrique (CIMAF), 70.46%]	Cement-grinding plant at Owendo, south of Libreville	240,000.
Do.		do.	Cement-grinding plant at Franceville, southeastern Gabon	170,000.
Clinker		do.	Clinker plant at N'Toum, 40 kilometers east of Libreville	300,000.
Gold	kilograms	Managem Group, 75%, and Government, 25%	Bakoudou Mine, 600 kilometers southeast of Libreville	1,400.
Do.	do.	Artisanal miners	Eteke region	300 to 700.
Manganese		Compagnie Minière de l'Ogooué S.A. (Comilog) (Eramet International S.A., 67.25%; Government, 25.4%; other, 7.35%)	Open pit mine at Moanda	4,680,000 ore, gross weight.
Do.		do.	Sintering plant	600,000.
Do.		Compagnie Industrielle et Commerciale des Mines de Huazhou (CICMHZ) [Citic Dameng Holdings Ltd. (DAMENG)]	Bembele Mine, town of Ndjole in Moyen-Ogooue Province	500,000 ore.
Natural gas	million cubic meters	Total Gabon S.A.	Various locations	35
Silicomanganese		Compagnie Minière de l'Ogooué S.A. (Comilog) (Eramet International S.A., 67.25%; Government, 25.4%; other, 7.35%)	Moanda metallurgical complex	65,000 silicomanganese metal.
Petroleum:				
Crude	thousand 42-gallon barrels	China Petrochemical Corp. (Sinopec) through Addax Petroleum Corp., 88.75%	Dinonga Irondou oilfield	NA.
Do.	do.	China Petrochemical Corp. (Sinopec) through Addax Petroleum Corp., 92%	Remboue oilfield	NA.
Do.	do.	China Petrochemical Corp. (Sinopec) through Addax Petroleum Corp., 92.5%, and Tullow Oil plc, 3.75%	Obangue oilfield	1,800.
Do.	do.	do.	Tsienguï oilfield	1,800.
Do.	do.	China Petrochemical Corp. (Sinopec) through Addax Petroleum Corp., 31.36%; Vaalco Energy Inc., operator, 28.07%; Sasol Petroleum International, 27.75%; Sojitz Corp., 2.98%; PetroEnergy Resources Corp., 2.34%; Tullow Oil plc, 7.5%	Etame marine block, offshore, including: Avouma oilfield	5,200.
Do.	do.	do.	South Tchibala	NA.
Do.	do.	do.	Ebouri oilfield	2,000.
Do.	do.	do.	Etame oilfield	6,570.
Do.	do.	Maurel & Prom S.A., 100%	Banio	20,000.
Do.	do.	Maurel & Prom S.A., 85%; AIC-Petrofi Ltd., 7.5%; Tullow Oil plc, 7.5%	Onal	20,000.
Do.	do.	do.	Omko	NA.
Do.	do.	Perenco Group, 56.25%; Tullow Oil plc, 25%; Oranje-Nassau Energie B.V., 18.75%	Tchatamba Marin oilfield	7,100.
Do.	do.	do.	Tchatamba West oilfield	5,300.
Do.	do.	do.	Tchatamba South oilfield	4,400.
Do.	do.	Royal Dutch Shell plc, 60%, and Addax Petroleum Corp. 40%	Awoun	NA.
Do.	do.	Royal Dutch Shell plc, 94.3%	Toucan	NA.
Do.	do.	Total Gabon S.A., 100%	Anguille	7,700.
Do.	do.	do.	Gonelle	NA.
Do.	do.	do.	Torpille	NA.
Do.	do.	Total Gabon S.A., 57.5%	Avocette	NA.
Do.	do.	Total Gabon S.A., 50%	Baudroie Nord	NA.
Do.	do.	Total Gabon S.A., 47.5%, and Royal Dutch Shell plc, 52.5%	Rabi Kounga	NA.
Do.	do.	Total Gabon S.A., 40%, and Royal Dutch Shell plc, 60%	Atora	NA.
Do.	do.	Total Gabon S.A., 50%, and Vaalco Energy Inc., 50%	Mutamba Iroru	NA.
Do.	do.	Gabon Oil Co., 80%, and Government, 20%	Remboue II	NA.

See footnotes at end of table.

TABLE 2—Continued
 GABON: STRUCTURE OF THE MINERAL INDUSTRY IN 2014

(Metric tons unless otherwise specified)

Commodity		Major operating companies and and major equity owners	Location of main facilities	Annual capacity
Petroleum—Continued:				
Refinery products	million cubic meters	Société Gabonaise de Raffinage S.A. (Total Gabon S.A., 43.8%; Government, 25%; Portofino Assets Corp., 17%; Petro Gabon, 11.7%; ENI S.p.A., 2.5%)	Various locations	7,700.

Do., do. Ditto. NA Not available.