



# 2005 Minerals Yearbook

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## GABON

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# THE MINERAL INDUSTRY OF GABON

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The equatorial African Republic of Gabon is located on the Atlantic Ocean coast between Congo (Brazzaville) to the south and Cameroon and Equatorial Guinea to the north. In 2005, Gabon's mineral industry was dominated by crude petroleum and manganese production. Nonfuel mineral commodities produced in the country included cement, diamond, and gold. Other identified mineral resources were columbium (niobium), iron ore, and phosphate rock. The Ministère des Mines, de l'Énergie, du Pétrole et des Ressources Hydrauliques was responsible for the administration of the mineral sector.

## Commodity Review

### Metals

**Columbium (Niobium) and Tantalum.**—Ridge Mining plc of the United Kingdom (formerly known as Cluff Mining plc; the name was changed in May 2004) relinquished its interest in the Mabounie phosphate and columbium (niobium)-bearing carbonatite deposit in central Gabon. Ridge reported that its investment in the Mabounie project was no longer considered to have any value to the company following the shutdown of its columbium (niobium) operations in the Netherlands (Ridge Mining plc, 2006, p. 24, 30; Ridge Mining plc, 2005§<sup>1</sup>).

**Gold.**—In July, SearchGold Resources Inc. of Canada signed a \$4.2 million joint-venture agreement with Managem S.A. (the mining division of Moroccan-based Groupe Ona) to explore and develop the Bakoudou gold project in southeastern Gabon. Managem will be the project operator (SearchGold Resources Inc., 2005a, b).

**Iron Ore.**—Brazil's Companhia Vale do Rio Doce (CVRD), through its Gabonese subsidiary Compagnie Minière Trois Rivières, conducted a technical and economic feasibility study of the Belinga iron ore deposit in northeastern Gabon. CVRD headed a consortium formed by Eramet Group of France, Metallurgical Equipment Importation and Exportation Company (CMIEC) of China, and Sinosteel Gabon Pty Ltd (a subsidiary of Sinosteel Corporation of China). CVRD planned to invest \$15 million in the Belinga project in 2006 (Companhia Vale do Rio Doce, 2006§).

**Manganese.**—Manganese ore was produced at the Moanda Mine in Franceville and shipped 600 kilometers (km) via the Transgabonais railway to the Owenda minerals port in Libreville. Manganese ore production at Moanda, including sinter, increased to about 2.9 million metric tons (Mt) in 2005 from 2.46 Mt in 2004. Compagnie Minière de l'Ogooue S.A. (Comilog), which was a 67% owned subsidiary of Eramet Group, owned the Moanda Mine. Comilog planned to increase production capacity to 3 million metric tons per year (Mt/yr) by the end of 2006 (Eramet Group, 2006).

In 2005, CVRD earmarked \$33 million to explore for manganese in the Franceville and the Okondja regions of southeastern Gabon. The company reported that it had opened a 5-metric-ton-per-hour manganese pilot plant in Franceville and was in the process of evaluating a technical and economic feasibility study for the development of the manganese deposits at Franceville and Okondja (Companhia Vale do Rio Doce, 2006§).

### Industrial Minerals

**Diamond.**—SouthernEra Diamonds Inc. of Canada (formerly known as SouthernEra Resources Ltd.; the name was changed in July 2004) announced the discovery of six additional kimberlite occurrences at its Makongonio exploration project in southern Gabon in addition to the discovery of the first known kimberlite pipe in the country. The company also reported the discovery of a kimberlite dike at its Sud diamond exploration permit, which is located about 60 km northeast of Makongonio, and of two additional kimberlite dikes within its Kango permit. The company's 2006 exploration program will focus on evaluating the economic diamond potential of these discoveries (SouthernEra Diamonds Inc., 2006, p. 14).

Motapa Diamonds Inc. held 100% interest in the Lebiri diamond project in east-central Gabon. After conducting reconnaissance sampling at Lebiri in 2004, the company focused on an airborne magnetic survey of selected high-interest areas in 2005. The company planned to continue to evaluate potential kimberlite targets in 2006 (Motapa Diamonds Inc., 2005a, b).

### Mineral Fuels

**Petroleum.**—Total Gabon S.A. (a joint venture between the Government of Gabon and Total S.A. of France) produced about 36 million barrels of petroleum from its Gabonese oilfields in 2005 (Total S.A., 2006b). The company was the operator of the Anguille, the Gonelle, and the Torpille (100% each), the Avocette (57.5%), and the Baudroie Nord (50%) oilfields and shared a 47.5% interest in the Rabi Kounga oilfield. Total also held a 100% interest in the Rabi pipeline and a 43.84% interest in the Port Gentil petroleum refinery (Total S.A., 2006a, p. 33-35, 51, 54, 64).

Marathon Oil Corporation of the United States operated the Tchatamba Marin, the Tchatamba West, and the Tchatamba South (56% each) oilfields offshore Gabon. In 2005, the company produced about 12,100 barrels per day (bbl/d) of petroleum from these three oilfields (Marathon Oil Corporation, 2006, p. 6).

Vaalco Energy Inc. held a 30.35% interest in the Etame Marine Block offshore Gabon, which hosts the Avouma, the Ebouri, and the Etame oilfields. The company produced about 18,000 bbl/d of petroleum from the Etame oilfield. The Avouma oilfield was expected to go into production at the end of 2006

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

and to produce about 6,600 bbl/d of petroleum (Vaalco Energy Inc., 2006§).

PanAfrican Energy Gabon (a subsidiary of PanOcean Energy Corporation) operated three onshore oilfields—the Obangue and the Tsiengui (92.5% interest each), and the Remboue (92%)—and held a 31.4% interest in the Etame Marin oilfield offshore. In 2005, the company produced a total of about 9,300 bbl/d of petroleum from the four oilfields (PanOcean Energy Corporation, 2006§).

**Uranium.**—In December, Motapa Diamonds announced that the Government had granted the company the exclusive right to explore for uranium in east-central Gabon in an area located about 100 km from the Mounana uranium district. The permit included the right to explore for gold and manganese in addition to uranium (Motapa Diamonds Inc., 2005c).

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TABLE 1  
GABON: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

Commodity <sup>2</sup>	2001	2002	2003	2004 <sup>e</sup>	2005 <sup>e</sup>
Cement, hydraulic <sup>e,3</sup> metric tons	240,000 <sup>r,4</sup>	257,000 <sup>r,4</sup>	260,000 <sup>r</sup>	260,000 <sup>r</sup>	260,000
Clinker <sup>e</sup> do.	300,000	350,000	350,000	350,000	350,000
Diamond, gem and industrial <sup>e</sup> carats	500	500	500	500	500
Gold, mine output, Au content <sup>e,5</sup> kilograms	70	70	70	300 <sup>r</sup>	300
<b>Manganese:</b>					
Metallurgical-grade ore, gross weight (50% to 53% Mn) thousand metric tons	1,758	1,816	1,950 <sup>e</sup>	2,400	2,800
Pellets, battery- and chemical-grade, gross weight (82% to 85% MnO <sub>2</sub> ) do.	33	40	50 <sup>e</sup>	60	59
Total do.	1,791	1,856	2,000	2,460 <sup>4</sup>	2,859 <sup>4</sup>
Natural gas, gross <sup>e</sup> million cubic meters	99	80	79	80	80
<b>Petroleum:</b>					
Crude thousand 42-gallon barrels	98,550	91,980	87,965	87,235 <sup>4</sup>	85,469 <sup>4</sup>
Refinery products do.	6,672	6,500	6,500 <sup>e</sup>	6,300	6,000

<sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. <sup>r</sup>Revised.

<sup>1</sup>Table includes data available through May 26, 2006.

<sup>2</sup>In addition to the commodities listed, a variety of crude construction materials (clays, sand and gravel, and stone) is also produced, but output is not reported, and available information is inadequate to make reliable estimates of output.

<sup>3</sup>Includes cement produced from imported clinker.

<sup>4</sup>Reported figure.

<sup>5</sup>Gold production figures do not include production smuggled out of the country, which, in recent years, was estimated to exceed 400 kilograms per year.

TABLE 2  
GABON: STRUCTURE OF THE MINERAL INDUSTRY IN 2005

(Metric tons unless otherwise specified)

Commodity		Major operating companies and and major equity owners	Location of main facilities	Annual capacity
Cement		Ciments du Gabon (Heidelberg Cement Group, through Scancem International ANS)	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	Artisanal Miners	Eteke region	300 to 700
Manganese		Compagnie Minière de l'Ogooue S.A. (Comilog) (Eramet International of France, 67%; Government, 25%; other, 8%)	Open pit mine at Moanda	2,500,000 <sup>1</sup>
<b>Petroleum:</b>				
Crude	thousand 42-gallon barrels	Total Gabon S.A., 58%; Government, 25%; other, 17%	Anguille, Avocette, Baudroie, Gonelle, Torpille, and Rabi Kounga oilfields	NA
Do.	do.	PanAfrican Energy, 33.90%; Vaalco Gabon Inc., 30.35%; Sasol Petroleum, 30%; Sojitz Corporation, 3.225%; Petro Energy, 2.525%	Etame Marine Block, offshore: Avouma oilfield (under development)	2,400 <sup>2</sup>
Do.	do.	do.	Ebouri oilfield (exploration stage)	--
Do.	do.	do.	Etame oilfield	6,570
Do.	do.	Marathon Oil Corporation, 56%; Tullow Oil plc, 25%; Devon Energy Corporation (% ownership unknown)	Tchatamba Marin oilfield	NA
Do.	do.	do.	Tchatamba West oilfield	NA
Do.	do.	do.	Tchatamba South oilfield	NA
Do.	do.	PanOcean Energy Corporation, operator, 92.5%	Obangue oilfield	1,800
Do.	do.	do.	Tsiengui oilfield	1,800
Do.	do.	PanOcean Energy Corporation, operator, 90%	Remboue oilfield	NA
Do.	do.	PanOcean Energy Corporation, 31.4%	Etame Marin oilfield	2,300
Refinery products	do.	Total Gabon S.A., 58%; Government, 25%; other, 17%	Port Gentil	8,800

NA Not available. -- Zero.

<sup>1</sup>According to Eramet International, production of manganese ore and sinter in 2005 exceeded nameplate capacity owing to ongoing work aimed at increasing production capacity at the Moanda Mine to 3 million metric tons by 2006.

<sup>2</sup>According to Vaalco Energy Inc., the Avouma oilfield was under development in 2005 with a platform scheduled to be set in July 2006 and first petroleum expected by December 2006.