THE MINERAL INDUSTRY OF

NIGERIA

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According to world production data compiled by the U.S. Energy Information Administration (2002), Nigeria ranked 11th in the production of crude petroleum and condensate by volume. Nigeria, which was a member of the Organization of the Petroleum Exporting Countries, remained Africa's largest oil producer in 2001 with about 3% of world production compared with Libya (2%), Algeria (1.8%), and Egypt (0.9%) and was the 5th leading source of U.S. crude oil imports following Saudi Arabia, Mexico, Canada, and Venezuela.

With more than 126 million people, Nigeria was the most populous African nation. The International Monetary Fund (2002§[1]) estimated that the nation's nominal gross domestic product (GDP) was $41.9 billion[2]. The oil sector, which was the cornerstone of the Nigerian economy, provided most Government revenues and accounted for most of the country's export earnings.

Government Policies and Programs

The Department of Petroleum Resources concerns itself with the oil and natural gas segment of the mineral industry. The Ministry of Solid Minerals Development is involved in the promotion, exploration, and development of Nigeria's nonfuel minerals and coal. The Ministry of Power and Steel administers the iron and steel sector.

The Mining and Minerals Decree No. 34, which was enacted in 1999, reaffirms that all mineral rights are held by the Federal Government. Controversy surrounded the requests by individual producing States and local governments that the Federal Government reallocate total control of mineral resources to them. The contention of the coastal States that offshore oil resources (and revenues) should be attributed to them instead of the Federal Government made its way to the Nigerian Supreme Court. The issue remained unresolved at yearend.

In September, the Government announced that dormant mining licenses would be revoked and that new mining licenses would be restricted to companies and individuals with the "necessary experience and means." More than 1,000 licenses were considered to be dormant (Ogidan, 2001§).

Commodity Review

Metals

Aluminum.—Dates for reopening the 193,000-metric-ton-per-year (t/yr)-capacity smelter of Aluminium Smelter Co. of Nigeria Ltd. (ALSCON) at Ikot Abasi were frequently announced during 2001; the facility, which had suspended operations in 1999, remained closed at yearend. Negotiations for a new natural gas fuel contract for the smelter, which had been underway since 2000, were completed in July 2001 when the Nigerian Gas Co. agreed to supply 2.9 million cubic meters per day of natural gas for 3 years at about $0.018 per cubic meter of gas ($0.50 per thousand standard cubic feet). At the beginning of 2001, Ferrostaal AG of Germany, which held 30% equity interest in ALSCON compared with the Government's 70%, was slated to manage the smelter when operations restarted. At midyear, however, the Government began a search for a new technical partner to operate the ALSCON plant and reportedly was considering the construction of a second aluminum smelter (Metal Bulletin, 2001a-d; Daniel, 2001§; Guardian, 2001e§).

Steel.—Most of the production facilities of the primarily Government-owned steel sector were idle in 2001. The Government awarded Vsesojuznoje Importno-Exportnoje Objedieneije Tyazhpromexport of Russia a $500 million contract to complete the Ajaokuta Steel Co. Ltd. plant by 2003 (Steel Times International, 2001). The Government proposed to add a new $100 million 100,000-metric-ton-per-year (t/yr)-capacity steel rail facility at the Ajaokuta complex (Ezereonwu, 2001§). The restoration of mill facilities of the Delta Steel Co. Ltd. plant at Aladja was under contract to Voest-Alpine Industrienlagenbau GmbH & Co. Renovation of Delta's melt shop was scheduled to be completed in 2002 (Metal Bulletin, 2001e). Of the three state-owned steel rolling mills, Katsina Steel Rolling Co. Ltd. restarted operations in April, and Oshogbo Steel Co. Ltd. resumed production in June.

In the Calabar Free Trade Zone, Bao-Yao Iron & Steel Ltd. of China reportedly was building a 180,000- to 200,000-t/yr steel plant. In joint venture with Futurex Nigeria Ltd., Bao-Yao also had a 22,000-t/yr-capacity concrete reinforcing bar plant under construction near Abuja (Metal Bulletin, 2001f; Essien, 2002§; This Day, 2000§).

Industrial Minerals

A number of industrial mineral projects were proposed or under construction in 2001. Cross Rivers State Business Council proposed the establishment of a barite processing plant. Gemstone-cutting plants were proposed for Adamawa and Nawarawa States. The Ondo State Government rehabilitated the Oluwa Glass Factory. The Edo State Government proposed the development of a granite quarry and a marble polishing factory. The Federal Government's Raw Materials Research and Development Council (RMRDC) proposed the establishment of a kaolin processing plant at Gwarzo in joint

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

[2]Where necessary, values for 2001 have been converted from Nigerian naira (NN) to U.S. dollars (US$) at the average rate of NN117=US$1.00.

venture with the Kano State Government. The RMRDC also built a phosphate rock processing plant in Ososun in joint venture with the Ogun State Government and had a soda ash plant under construction in joint venture with the Borno State Government. The Yobe State Government proposed the building of a soda ash processing plant at Yusufari.

Cement.—The Benue State Government disputed Dangote Industries Ltd. of Nigeria acquisition of the controlling interest in the Benue Cement Co. p.l.c. Dangote subsequently initiated a $150 million 11,000-metric-ton-per-day-capacity cement plant in Calabar (Agboh, 2001§; Ben-Akpan, 2002§). After acquiring 40% interest in the Cement Company of Northern Nigeria (CCNN) in 2000, Scancem International ANS of Norway invested more than $7.4 million in the rehabilitation of CCNN's cement plant at Sokoto (Meya, 2001§).

Mineral Fuels

Bitumen.—Development of the bitumen deposits in southwestern Nigeria remained stalled. In 1999, a Government committee had received bids on the 15 bitumen exploration and development blocks offered, but leases were not assigned nor were licenses issued. In 2000, the Government had reviewed the lease sale, and in 2001 the Ministry of Solid Minerals Development initiated an investigation of the bitumen project committee. In August 2001, Conoco Energy Nigeria Ltd. was awarded a year-long contract to undertake a seismic survey of the bitumen project area. The Government anticipated that development leases could be tendered for bids in 2003 (Guardian, 2001b§).

Natural Gas.—Nigeria continued to promote the commercialization of natural gas in order to eliminate the decades-old practice of burning off the gas in the oilfields. In July, the Ministry of the Environment announced that the Government had reset the national deadline for the elimination of flaring natural gas in 2004. In October, however, the Government delayed the proposed target date to eliminate gas flaring to 2008 (Akinmutimi, 2001§; Guardian, 2001c§, d§).

In 2001, the private industry developers of the West African Gas Pipeline continued to attempt to secure buying agreements from the Government-owned power companies in Benin, Ghana, and Togo that were expected to use the gas. The Governments of Algeria and Nigeria proposed to construct a $5 billion to $7 billion 4,000-kilometer natural gas pipeline from Nigeria to coastal Algeria for subsequent transport of Nigerian gas to Europe (Oil & Gas Journal, 2001b).

A third natural gas liquefaction train was under construction at Nigeria Liquified Natural Gas (NLNG) Ltd.'s plant at Finima on Bonny Island. Installation of the fourth and the fifth liquified natural gas (LNG) trains at NLNG were under evaluation. The Government signed memorandums of understanding for feasibility studies of the Brass LNG and the West Niger Delta LNG projects. Brass LNG, which was a 5-million-metric-ton-per-year (Mt/yr)-capacity project under consideration by the joint venture of Nigerian Agip Oil Co. (20% equity interest), Nigerian National Petroleum Corp. (NNPC) (60%), and Phillips Oil Co. Ltd. (20%), was proposed to be operational by 2007 (Phillips Petroleum Co., 2001§). West Niger Delta LNG was to be developed by a joint venture of Exxon-Mobil Producing Nigeria Unlimited, Chevron Nigeria Ltd.—Texaco Overseas Petroleum Co., and Conoco Energy Nigeria. The proposed 9-Mt/yr plant was to be operational by 2008 (Pravda, 2002§). All three LNG projects could be chasing the same customers for long-term gas-supply contracts.

The NNPC and Chevron Nigeria agreed to a joint venture for the construction of a gas-to-liquids projects at Escravos. The 34,000-barrel-per-day (bbl/d) facility was expected to be operational in 2005 (Africa Energy Intelligence, 2001).

Petroleum.—For most of 2001, all four of the NNPC's crude oil refineries were operational. Production from the Kaduna and the Warri refineries was temporarily suspended in late October to repair vandalized crude oil input pipelines (Guardian, 2001f§). Operations at the Kaduna refinery again were suspended in late November to repair damage caused by a fire.

In 2001, the Government released guidelines for the approval and development of privately owned crude oil refineries. A 12,000-bbl/d refinery was proposed to be constructed for Amakpe International Refineries Ltd. at Qua Iboe, Akwa Ibom State (Oil & Gas Journal, 2001a). Akwa Ibom Refinery and Petrochemicals Co. Ltd., which was a joint venture of LYK Engineering Ltd. (51% equity interest), China Petroleum & Chemical Corp. (10%), the Akwa Ibom State Government, and private investors proposed to construct a 100,000-bbl/d refinery in Ikot Abasi, Akwa Ibom State (Guardian, 2001a§).

General background coverage of the oil and gas sector in Nigeria is available from the U.S. Energy Information Administration at their Web site (U.S. Energy Information Administration, 2002§).

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Major Sources of Information

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Other Publications

Nigeria Ministry of Solid Minerals Development, 1996, Solid minerals development in Nigeria: Abuja, Nigeria, Ministry of Solid Minerals Development, 34 p.
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TABLE 1
NIGERIA : ESTIMATED PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity 3/		1997	1998	1999	2000	2001
METALS						
Aluminum		2,500	20,000	16,000	--	--
Columbium and tantalum concentrates:						
Gross weight		60 4/	70	70	80	70
Columbium content		23	30	30	35	30
Gold	kilograms	6	10	10	10	10
Iron and steel:						
Iron ore, gross weight	thousand tons	50	--	--	--	--
Steel, crude	do.	--	2	--	--	--
Lead, metal, refined	do.	4	5	5	5	5
Tin:						
Mine output, cassiterite concentrate:						
Gross weight		150	200	200	300	200
Sn content		100	130	130	200	130
Metal, smelter		100	150	50	25 r/	25
INDUSTRIAL MINERALS						
Barite 5/		4,000	5,000 4/	5,000	5,000	5,000
Cement, hydraulic	thousand tons	2,520	2,700	2,500	2,500	3,000
Clays:						
Kaolin		100,000	110,000	110,000	110,000	110,000
Unspecified		100,000	100,000	100,000	100,000	100,000
Feldspar		1,000	500	500	600	600
Gypsum		300,000	300,000	200,000	200,000 r/	200,000
Nitrogen:						
N content of ammonia	thousand tons	134	167	148	--	--
N content of urea	do.	41	105	100	--	--
Stone:						
Limestone	do.	2,000	2,000	2,000	2,000	2,000
Marble	do.	30	30	30	30	30
Shale	do.	500	500	500	500	600
Topaz	kilograms	1,000	1,700	2,500	2,000	2,000
MINERAL FUELS AND RELATED MATERIALS						
Coal, bituminous		7,000	30,000	30,000	35,000	35,000
Gas, natural:						
Gross	million cubic meters	30,000	30,000	30,000	30,000	35,000
Dry	do.	5,400	6,000	7,000	13,000	21,000
Petroleum:						
Crude	thousand 42-gallon barrels	845,000	788,000	777,000	783,000	823,000
Refinery products:						
Gasoline	do.	47,800	18,300	10,000	25,000	27,000
Jet fuel	do.	3,650	2,200	1,000	2,000	3,000
Kerosene	do.	21,200	6,200	6,000	10,000	12,000
Distillate fuel oil	do.	22,300	18,300	9,000	20,000	21,000
Residual fuel oil	do.	28,100	11,700	12,000	18,000	22,000
Unspecified	do.	15,300	17,500	5,000	15,000	15,000
Total	do.	138,000	74,200	43,000	90,000	100,000

r/ Revised. -- Zero.

1/ Includes data available through November 4, 2002.

2/ Estimated data are rounded to no more than three significant digits; may not add to totals shown.

3/ In addition to the commodities listed, amethyst, aquamarine, bitumen, diamond, emerald, garnet, granite, lead, phosphate rock, ruby, sapphire, soda ash, talc, tourmaline, tungsten, zinc, and zircon are mined, and a variety of crude construction materials (stone, sand and gravel) are produced, but information is inadequate to estimate output.

4/ Reported figure.

5/ Considerably more barite is produced but is considered to be commercially unusable.