

THE MINERAL INDUSTRY OF MAURITANIA

By Bernadette Michalski

Iron ore mining and beneficiation was the dominant mineral industry in Mauritania, and has accounted for approximately one-third to one-half of export earnings since the mid-1980's and reportedly accounted for 40% of export earnings in 1995. Gold recovery from the Akjoujt copper mine tailings continued throughout the year, but was drawn to a close in early 1996 as the tailings stockpile was depleted. Cement and salt also were produced. The nation's sole petroleum refinery, operating on imported crude oil, supplied about one-half of the country's petroleum product requirements. Mining accounted for 12% of the gross domestic product.

The Ministry of Mines and Industry's Office of Geological Research continued several exploration programs during 1995. Principal activities were focused on gold exploration in the Tassiast, Tijirit, and Inchiri regions.

Production of the nation's foremost mineral commodity, iron ore, fell in 1992 because of declining reserves and technical difficulties at the El Rien Mine concentrator. Output improved with the opening of the Roueissa/d'Khailat Mine in late 1992 and the M'Haoudat Mine in 1994 which for the most part provided direct shipping ores averaging 65% iron content. (*See table 1.*)

Mauritania's iron ore shipments totaled 11.5 million metric tons (Mt) in 1995. All but 0.4 Mt were delivered to the steel mills of the European Union. Other mineral exports were gold and possibly small quantities of plaster products.

Petroleum product imports were approximately 1.5 million barrels, accounting for almost one-half of consumption; the remainder was supplied from the refining of imported crude oil. Other mineral industry imports included about 125,000 metric tons per year (t/yr) of aluminum and copper semimanufactures, 3,000 t/yr of sulfuric acid, 2,000 t/yr of phosphate fertilizer, and about 12,000 t/yr of salt.

Australia's General Gold Resources NL was planning a joint-venture project for the recovery of copper- gold-cobalt resources at Akjoujt. The company also obtained a prospecting permit in a 20,000 square kilometer area in south Mauritania. Field work on this project commenced in November 1995.

Ashton Africa Ltd. of Australia signed a diamond exploration contract covering a site in northern Mauritania.

Iron ore mining operations were conducted by Société Nationale Industrielle et Minière (SNIM) in northwestern Mauritania. The first production from the M'Haoudat

deposit, 60 kilometers (km) northeast of Zouirat and 30 km from the existing railway at El Rhein, was realized in April 1994. According to SNIM, optimum output from this ore body was planned at 6 million metric tons per year (Mt/yr) with sufficient reserves to maintain this production level for 20 years.

The Alexandria National Iron & Steel Co. and the Holding Co. for Metallurgical Industries, both of Egypt, along with Enterprise Nationale de Siderurgie and Ferphos, both of Algeria, have joined SNIM in signing a protocol agreement on the construction of an iron ore pelletizing plant to satisfy demands of direct-reduction plants in several neighboring Arab countries. The plant's capacity was planned at 5 Mt/yr of pellets with a 68% iron content. The project involves mining and beneficiation at Ayouj, 30 km north of F'Derik and 650 km from the Port of Nouadhibou. Mining is anticipated at the rate of 11 Mt/yr.

Salt is recovered from coastal areas near Nouakchott. Production, however, does not meet the fishing industry's heavy requirements; as a result, salt imports average 12 Mt/yr.

Although commercially promising phosphate rock deposits have been discovered in remote regions of southern Mauritania, lack of essential infrastructure continues to hamper their development.

Mauritania's sole petroleum refinery, Nouadhibou, was owned by the Société Mauritanienne d'Industrie de Raffinage and operated under the technical management of Naftal, an Algerian oil corporation. The 20,000 barrels per day capacity refinery, operating entirely on imported crude oil, supplied more than one-half of Mauritania's demand for refined products.

Iron ore reserves, according to SNIM, are 155 Mt of hematite ore ranging from 60% to 68% iron and 531 Mt of magnetite ore ranging from 36% to 40% iron. In addition to these proven reserves, probable iron ore reserves in the western Guelbs amount to 980 Mt.

A major barrier toward investment and development was the nation's limited infrastructure, which renders all but the largest deposits uneconomic. There were four paved roads in Mauritania: from the port of Nouakchott to the copper deposits at Akjoujt in the north, from Nouakchott to Nema in the east, from Nouakchott to Rosso in the south, and from Boghe to Kaedi on the southern border. The sole railroad in Mauritania was owned and operated by SNIM for the

transport of iron ore from the mines to the export terminal. The 1.435-meter standard-gauge railroad extends more than 700 km from M'Haoudat to the port at Nouadhibo.

Mauritania has considerable mining potential. Existing and proposed mining operations suggest an improved outlook for the nation's economy. Increased production, however, is largely dependent on world iron ore prices which fortunately registered an increase of about 6% in 1995. Factors bearing on the availability of financial support for the mineral economy include the border disputes between the Governments of Senegal and Mauritania, the nation's heavy external debt burden, and significant fiscal balance-of-payments deficits.

Mauritania, assisted by the World Bank, was preparing to overhaul its mining sector policies to attract more foreign investment with the objective of diversifying the economic base and increasing employment while strengthening the technical skills of the labor force. The Ministry of Mines and Industry was revising the mining code and reinforcing and

restructuring the state institutions involved in mining and geology. The mining code revision was scheduled to be part of a major reform of the Nation's judicial and regulatory systems slated for completion by 1997.

¹Where necessary, values have been converted from Mauritanian ouguiya (UM) to U.S. dollars at the rate of UM125.9=US\$1.00.

Major Sources of Information

Mauritanian Office for Geological Research (OMRG)

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TABLE 1
MAURITANIA: PRODUCTION OF MINERAL COMMODITIES 1/

Commodity 2/		1991	1992	1993	1994	1995 e/
Cement	metric tons	105,000 r/	122,000 r/	111,000 r/	374,000 r/	375,000
Gold	kilograms	--	826	1,264	1,738	2,000
Gypsum	metric tons	2,839	3,300 r/	3,240	4,230 r/	10,100
Iron and steel: Iron ore:						
Gross weight	thousand metric tons	10,246 r/	8,835 r/	9,360	11,400	11,500
Iron content e/	do.	6,500	5,330	5,700	7,000	7,000
Petroleum refinery products:						
Liquefied petroleum gas	thousand 42-gallon barrels	371	441	418	415 e/	415
Gasoline	do.	1,785	1,912	1,938	1,925 e/	1,925
Kerosene	do.	425	448	471	470 e/	470
Distillate fuel oil	do.	1,044	1,129	1,099	1,100 e/	1,100
Residual fuel oil	do.	2,097	2,344	2,357	2,355 e/	2,355
Other	do.	685	636	635	640 e/	640
Total	do.	6,407 r/	6,910 r/	6,918 r/	6,905 r/ e/	6,905
Salt e/	metric tons	5,500	5,500	5,500	5,500	5,500

e/ Estimated. r/ Revised.

1/ Table includes data available through Nov. 15, 1996.

2/ In addition to the commodities listed, modest quantities of crude construction materials (clays, sand and gravel, and stone) presumably were produced, but output was not reported quantitatively, and available information was inadequate to make reliable estimates of output levels.