

THE MINERAL INDUSTRY OF

TUNISIA

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Petroleum production and processing, phosphate rock output with its derivative products, and base metal mining formed the most important segments of the Tunisian mineral industry in 1995, accounting for about \$0.5 billion in revenue¹.

The Tunisian legal system is based on French civil law and Islamic law. The laws governing hydrocarbon exploration and production were updated on June 12, 1990, by the Tunisian Parliament. This amendment, law No. 90-55, was designed to encourage foreign companies to engage in oil and gas exploration and development in Tunisia. By yearend 1995, 40 hydrocarbon exploration licenses were in force. The Government's hydrocarbon interests were overseen by the Enterprise Tunisienne d'Activités Pétrolières (ETAP), which maintained an interest in each licensed tract, of which 34 were joint-venture agreements and 6 were under production-sharing contracts.

In the interest of accelerating privatization, a new investment decree was ratified in mid-1995 that permitted foreign investors to buy up to 30% of Tunisian companies without prior authorization.

Appreciable increases in Tunisia's base metals industry were reported in 1994 and 1995 with the commissioning of the Bougrine zinc-lead mine. Encouraged by favorable world market prices, phosphate rock output increased by approximately 13%, while stocks were reduced from nearly 2 million metric tons (Mt) to 1 Mt. Production of crude oil, however, continued a slow decline in 1995. (*See table 1.*)

The European Union dominated Tunisian trade, accounting for more than 75% of imports and exports. France was Tunisia's main trading partner, accounting for more than 30% of total trade. Exports of phosphate and derivatives increased by 15% to 3.68 Mt in 1995 from 3.2 Mt in 1994.

Petroleum accounted for about 7% of total Tunisian export revenues. Exports totaled \$5,070 million in 1995. The value of mineral and derivative exports increased to \$523.4 million from \$472 million in 1994. Zinc concentrate exports were reported at 79,000 metric tons (t) compared with 18,000 t in 1994. Lead concentrate exports totaled 9,000 t against 565 t in 1994. About one-third of Tunisia's export earnings is absorbed in debt servicing. External debt is equivalent to more than 60% of the gross domestic product.

Phosphate rock extraction in Tunisia was entirely controlled and operated by the Government parastatal Compagnie des Phosphates de Gafsa (CPG), the largest

company in Tunisia. Le Groupe Chimique Tunisien controls phosphate processing through its Tunisian-owned Société Industrielle d'Acide Phosphorique et d'Engrais and Société Arabe des Engrais Phosphates et Azotes. Société Minière du Nord-Ouest operated a lead-zinc-barite mine at Boujabeur and a zinc mine at Hassine. The parastatal Société du Djebel Djerissa produced iron ore from the underground mine at Djerissa and the open pit operations at Tamera and Douaria. Hydrocarbon exploration and production was overseen by a series of production-sharing agreements between foreign operators and the Tunisian Government-controlled ETAP, usually with ETAP holding a 45% to 50% equity.

The zinc-lead mine at Bougrine commenced production in 1994 employing about 300 workers and operated by Société Minière de Bougrine (SMB), a subsidiary of Canada's Metall Mining Corp. Bougrine is approximately 170 kilometers (km) southwest of Tunis. The operation is an underground mine utilizing drift and fill and sublevel mining. Bougrine is the only private-sector mining project in Tunisia. Metall Mining Corp. estimated metal content of ore at about 20% to 30% zinc and 5% lead. The concentrates are shipped to Europe to the primary customer, Germany's Metallgesellschaft AG.

Tunisian phosphate rock mining and processing improved in 1995. Mining was primarily in the Gafsa region from a variety of open pit and underground sources. In spite of closing three of its less profitable underground mines between 1991 and 1995, CPG announced losses of \$210,000 in 1995. This was at least due in part to the increased cost of imported raw materials such as sulfur, up by 23%, and ammonia, up by 28%.

Operated by the United Kingdom's British Gas Tunisia, the Miskar natural gasfield came on-stream in May 1995 at an initial rate of 2.2 million cubic meters per day and was due to reach its target rate of 4.5 million cubic meters per day by early 1996. However, production was suspended in early 1996 because of technical problems at the Hannibal processing plant. The Trans-Mediterranean Pipeline (TransMed), delivering Algerian natural gas to Italy since 1983, supplied Tunisia between 600 and 800 million cubic meters of natural gas annually as transit fees through 1994 and increased to 1,500 million cubic meters in fees in 1995. The transit fees are expected to increase as further usage is made of the newly expanded TransMed. The fee scale for the transit of Algerian natural gas through Tunisia was set at

5.25% on a volume of up to 12.5 billion cubic meters per year, 6% for the next 2 billion cubic meters per year, and 6.75% for volumes in excess of 14.4 billion cubic meters per year.

Increased domestic consumption and declining output from larger oilfields continued to stress the hydrocarbon sector. The El-Borma Field, operated by Italy's Azienda Generali Italiana Petroli (Agip), remained Tunisia's largest crude oil producer. Output averaged 33,000 barrels per day (bbl/d) in 1995. The offshore Ashtart Field, operated by France's Société Nationale des Pétroles d'Aquitaine, accounted for 17,500 bbl/d; however, the field is expected to yield 20,000 bbl/d in 1996 as the result of a \$210 million secondary development program.

Petroleum refining is confined to a single 35,000-bbl/d-capacity refinery at Bizerte, operated by the Société Tunisienne des Industries de Raffinage. The refinery output accounts for approximately one-half of the nation's petroleum product requirements. In September 1995, the Government entered into agreement with Groupement des Industries Pétrolières for the construction of a 120,000-bbl/d-capacity refinery at La Skhirra, about 280 km south of Tunis.

Tunisian crude petroleum reserves have been reported at 410 million barrels. Reserves of natural gas were reported at 30 billion cubic meters. Metall Mining Corp. estimated minable reserves at Bougrine at 5.3 Mt grading 11.7% zinc and 2.6% lead.

A total of 2,260 km of railway was the primary mode of transportation of phosphate rock to chemical plants and seaports. Highways within Tunisia total 17,500 km. Crude oil pipelines are 797 km long, and natural gas pipelines total 742 km. Tunisia has an electrical generation capacity of about 1.5 megawatts. Combined cycle power stations, which generate electricity from natural gas, remained a construction priority in Tunisia.

The mineral industry is an integral part of the country's economic future. Investments in heavy industry and a new export-directed economic policy combined with Tunisia's advantageous low labor costs and proximity to European and Middle Eastern market should enable Tunisia to evolve as a regional manufacturing center. Economic and technical cooperation with the members of the European community should substantially increase as Tunisia concluded an Association Agreement with the European Union in July 1995. The agreement provided for the creation of a free trade area for a 12-year period.

¹Where necessary, values have been converted from Tunisian dinars (TD) to U.S. dollars at a rate of D0.98=US\$1.00.

Major Sources of Information

National Office of Mines

Department de Geologie
95 Avenue Mohamed V
1002 Tunis Le Belvedere
Tunisia

Compagnie des Phosphate de Gafsa

Cité Bayech
Gafsa 2100
Tunisia

Société Tunisienne d'Expansion Minière

Rue Mongi Slim
Le Kef, Tunisia

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TABLE 1
TUNISIA: PRODUCTION OF MINERAL COMMODITIES

(Metric tons unless otherwise specified)

Commodity 1/		1991	1992	1993	1994	1995 e/
METALS						
Iron and steel:						
Iron ore and concentrate, gross weight	thousand tons	295	291	299	288 r/	224 2/
Fe content	do.	156	151	153	129	122 2/
Metal:						
Pig iron	do.	172 r/	158 r/	165 r/	154 r/	162 2/
Steel, crude	do.	193	181	183 r/	184 r/	201 2/
Lead:						
Mine output, Pb content		1,285	1,362	863	4,608	11,256 2/
Metal: e/						
Primary 3/		750	913	863 r/	2,507 r/	10,450
Secondary		250	250	250	656	800
Total		1,000	1,160	1,113 r/	3,163 r/	11,250 2/
Silver metal, primary e/	kilograms	900	900	900	900	1,000
Zinc, ore		12,000 r/	4,090	2,389	23,379 r/	80,446 2/
Zn content		5,144 r/	2,310	1,350	13,000 r/	44,244 2/
INDUSTRIAL MINERALS						
Barite		22,366 r/	30,179	15,289	15,700	7,872 2/
Cement, hydraulic	thousand tons	4,009 r/	3,999 r/	4,269 r/	4,606 r/	4,998 2/
Clays, construction e/	do.	350	350	350	350	350
Fertilizers:						
Triple-superphosphate	do.	714	783	651	830	818 2/
Phosphoric acid	do.	806	864	858	986	1,018 2/
Diammonium-phosphate	do.	577	680	749	741	830 2/
Ammonitrate	do.	244	219	182	112	193
Fluorspar, acid grade 4/		37,580	13,750	1,399	676	1,856 2/
Gypsum e/		100,000	100,000	100,000	100,000	100,000
Lime e/	thousand tons	650	600	600	600	600
Phosphate rock:						
Gross weight	do.	6,353	6,455 r/	5,476 r/	5,565 r/	7,241 2/
P ₂ O ₅ content e/	do.	1,880	1,890	1,630	1,700	2,150 2/
Salt, marine	do.	441	460	435	414	481 2/
MINERAL FUELS AND RELATED MATERIALS						
Gas, natural:						
Gross e/	million cubic meters	236	250 r/	250 r/	354 r/	335 2/
Dry	do.	200	200 r/	200 r/	250 r/	250 2/
Petroleum:						
Crude	thousand 42-gallon barrels	38,690	40,259	35,770	33,660 r/	32,690 2/
Liquefied petroleum gas	do.	1,622 r/	1,648 r/	1,460 r/	1,545 r/	1,465 2/
Gasoline	do.	2,295 r/	2,440 r/	2,448 r/	2,917 r/	2,846 2/
Kerosene	do.	1,159 r/	1,183 r/	1,141 r/	1,057 r/	1,035 2/
Distillate fuel oil	do.	3,916 r/	3,723 r/	3,678 r/	4,003 r/	4,297 2/
Residual fuel oil	do.	3,530 r/	2,896 r/	3,004 r/	3,876 r/	4,300 2/
Other e/	do.	400	400	400	448 2/	568 2/
Total	do.	12,922 r/	12,290 r/	12,131 r/	13,846 r/	14,511 2/

e/ Estimated. r/ Revised.

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

2/ Reported figure.

3/ From domestic and imported ores.

4/ Zriba and Djedidi mines closed since 1992, all production from Boujabeur.