TUNISIA

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Tunisia is a low-lying country bordered along much of its eastern extent by the Mediterranean Sea. It is the smallest of the north African 'Maghreb' countries and supports a population of only 9.4 million, with all but a small nomadic population confined to the cities. The executive President and National Assembly are elected by universal adult suffrage for five-year periods.

Oil and gas are key factors in the country's economy, which has seen significant growth in industrial GDP in recent years. Tunisia's main oil-producing fields are El Borma, Ashtart, and Sidi el Kilani, and gas is produced from El Borma and the offshore Miskar field. An oil refinery is located at Bizerte and there is a growing chemicals industry.

Non-fuel minerals contribute some 3-4% of the country's GDP, the most important product being phosphate rock, which also underpins the chemicals industry and provides substantial export revenues from fertilisers. Mining of iron ore supports a small but important iron and steel industry and the country also produces zinc and lead.

Phosphate mining occurs primarily in the Gafsa area where the phosphate beds are exposed on the flanks of elongated dome-like anticlinal structures. The beds can frequently be traced for tens of kilometers along one or both flanks of these structures, which extend eastwards for more than 130 km from the Algerian border near Tamerza. Mining is by open pit and underground methods, two of the more recently developed mines being Kefeddour and Moulares. Production is controlled and operated by the parastatal Compagnie des Phosphates de Gafsa, which has nine operating open cast and underground operations in the Gafsa region. Tunisia is second only to Morocco in Africa in terms of its phosphate production, producing almost 8 Mt/y. Estimated reserves are 3,500 - 4,000 Mt of phosphate.

The single most important zinc-lead operation is the Bougrine carbonate-hosted deposit, which was re-opened by Toronto-based Breakwater Resources in 1998 after being closed down by Metall Mining in 1996 in response to low metal prices. The remaining resource was estimated to be 4 Mt at grades of 12.6% Zn and 2.4% Pb. In the early part of 2000, Breakwater also commenced a diamond-drilling programme on the nearby Kebbouch-Sud property about 12 km from BougrineTunisiaAfrica, following up a hole previously drilled by the Tunisian Government which intercepted 10.1% Pb over 14.4 m. Early results released by Breakwater included 2.5% Zn and 0.5% Cu over 12.7 m, 8.7% Zn and 0.8% Cu over 2.6 m, and 5.0% Zn and 0.7% Cu over 31.0 m. Production at Bougrine for the year 2001 was below 2000 production but the total cash costs were reduced to US$0.33/lb of payable zinc. Further improvements were made to the zinc circuit and these combined with the commissioning of the desalination plant resulted in an increase in the zinc concentrate grade from 53.0% in 2000 to 54.3% in 2001.

Vancouver-based Aurora Gold Corp. entered into five option agreements with UK junior explorer High Marsh Holdings Ltd in mid-1999 to acquire 100% interests in five zinc properties located within the same Zones des Domes, a 250 km by 50 km belt of gypsum domes and diapirs, that hosts Bougrine. Aurora intended to explore for replacement-style deposits of galena and sphalerite, accompanied by barite and fluorite. Towards the end of 1999, High Marsh Holdings was awarded a further three exploration licences in the Zone des Domes after evaluation of data from the Tunisian Geological Survey.

In a subsequent development, Vancouver-based Global Consolidated Minerals Ltd acquired the Djebba property from High Marsh Holdings and then, in mid-2000, formed a joint venture with International Bravo Resource Corp. to explore the property for stratabound carbonate-hosted zinc-Pblead mineralisation. The Djebba property extends over 16 km^2 in the Beja district (Atlas Mountains) of north-western TunisiaTunisiaAfrica, about 110 km from Tunis. A previous resource estimate put mineralisation at Djebba at about 2.66 Mt at a grade of 6.14% Zn and 3.34% Pb. Zinc mineralisation has been reported over a strike length of at least 2 km and appears to be open along strike for as much as a further 2 km. International Bravo proposed to review all historical exploration data early in 2001 and then commence a drilling programme. The company can earn an interest of up to 60% in the property by making staged payments and covering exploration expenditures up to mid-2005.

Consolidated Global Minerals (CGM) has been given a three-year option on two operating zinc-Pblead mines in the Zone des Domes metallogenic belt. The option concerns Fej Lahdoum, a 500 t/d capacity operation, presently being run at 150 t/d, which is surrounded by CGM's exploration permits. The mine exploits the Dar N'Hal Nord orebody, estimated to contain reserves of 500,000 t at 13% Pb+Zn. The other mine covered by the option is Bou Jabeur, a 1,000 t/d mine and mill, currently operated at 150 t/d. Reserves at Bou Jabeur are estimated at 4.2 Mt at 1.3% Pb, 3.9% Zn, 30.09% BaSO4, and 8.18% CaF2. CGM must spend C$500,000 in evaluating each of the two mines in order to exercise the option.

In early 2000, Aurora Gold Corp. signed a letter of intent with Billiton UK Resources relating to Aurora's Hammala and Kebbouch exploration permits, some 170 km south-west of Tunis. The property encompasses substantial soil geochemical anomalies overlying strata equivalent to those hosting Bougrine. In early 2001, this agreement was concluded, enabling Billiton to earn up to a 70% interest through exploration expenditure.

Others reported to be active in the region during the past two years include BHP, Cominco, Noranda and the Metal Mining Agency of Japan.