THE MINERAL INDUSTRY OF

NIGER

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Niger was an internationally important uranium producer, annually exporting concentrate containing approximately 3,900 metric tons of yellow cake ($\rm U_3O_8$). The country had a significant area of the West African Birimian greenstone belt under exploration for gold. According to the Ministry of Mines, Niger also had indications of barite, chromite, columbium-tantalum, copper, graphite, iron ore, lead, lithium, monazite, molybdenum, nickel, phosphates, platinum-group metals, silver, talc, titanium, and zinc occurrences (Ministère des Mines, de l'Industrie et de la Technologie, 1997). The output of mining accounted for about 4% of the gross domestic product.

The state owns title to all mineral rights. Law 93-016 and Decree No. 93-044/PM/MMEI/A provide the legal framework for the mining industry. The Government retains 10% free equity in mining ventures with the option to purchase an additional 23% equity in mineral-production ventures. There is a 5.5% royalty on the commercial value of exported minerals.

A set of sixteen 1:100,000 geologic maps of the Liptako region of western Niger was released in 1998. The mapping was funded by the Fonds d'Aide et de Coopération of France. Three greenstone gold belts in the Liptako region were the focus of the gold exploration in Niger, and the Government estimated that production of artisanal gold from the region was about 1 metric ton per year; however, for many junior mining companies, 1998 was a difficult year to raise funds for gold exploration, and the Nigerian gold rush faltered.

Anmercosa Exploration (Niger) Ltd., a subsidiary of Anglo American Corp. of South Africa, acquired 65% interest in a joint venture with Coronation International Mining Corp. of the United Kingdom on the Namaro gold concession. Anmercosa also acquired a 50% interest in Barrick Gold Corp.'s Tialkam gold property. Ashanti Exploration Ltd., a subsidiary of Ashanti Goldfields Co. Ltd. of Ghana, began the year as the operating partner for three joint ventures. Ashanti's joint venture on the Tera gold property with Carlin Resources Corp. of Canada floundered when financial problems forced Carlin to cease all exploration and to reorganize in early 1998. In September, Ashanti withdrew from the joint venture on the Nassile concession of Royalstar Resources Ltd. of Canada. Royalstar wrote off the property's expenses and was considering disposal options. North of the Nassile concession, Ashanti and IAMGOLD Corp. of Canada continued exploration of the Saoura concession.

African GeoMin Mining Development Corp. of the Cayman Islands, a subsidiary of Etruscan Resources Inc. of Canada (formerly Etruscan Enterprises Ltd.), began a feasibility study of the Samira gold deposit on the Tiawa concession. Placer

Dome Inc. of Canada had withdrawn from an option agreement on Samira with Etruscan, and discussions concerning a joint venture on the property with Anmercosa began in 1998. Etruscan and the Office National des Ressources Minières were exploring the Koma Bangou prospect. Etruscan and the Berlant General Trading Establishment of Kuwait were exploring the Kossa gold permit. BF Geomin Mining Development Corp. of Canada, affiliated with Etruscan, acquired the Datambi gold permit. Auspex Minerals Ltd. of Canada wound down exploration of the Koulbaga gold concession. Ressources Robex Inc. of Canada acquired 10% interest in the Tafassasset project, a four-concession gold project, from GeoAfrica Gold Corp. of Canada., a subsidiary of the European Pacific Group of Australia.

Funding problems forced Cornucopia Resources Ltd. of Canada to terminate exploration of the Tera gold concession. EXP Resources Ltd. of Canada was unable to secure financing for its exploration program on the Tin-Awati gold-copper concession of Proma Minerals SA of Norway. Sumitomo Corp. of Japan and Imperial Metals Corp. of Canada were negotiating to farm out their interest in the M'Banga gold concession.

Uranium concentrates were produced by the Société des Mines de l'Aïr (SOMAÏR) and Compagnie Minière d'Akouta (COMINAK) of Niger. Uranium remained the main mineral export of Niger and accounted for about 70% of Niger's foreign exchange earnings (Mining Journal, 1998). SOMAÏR's open pit operations were located northwest of Arlit, approximately 250 kilometers (km) northwest of Agadez. COMINAK's underground operations were located near Akouta, approximately 10 km southwest of the SOMAÏR pits.

Production of industrial minerals and mineral fuels was limited to a few commodities that were consumed domestically. Scancem International AB of Norway acquired 77% equity interest in the Malbaza Cement Works of Societé Nigérienne de Cimenterie from the Government.

Esso Exploration and Production Niger Inc., a subsidiary of Exxon Corp. of the United States, and its partner, Elf Aquitaine Group of France, drilled three exploration wells on the Agadem concession in southeastern Niger. TG World Energy Inc. of Canada, an affiliate of Trego International Inc., was looking for partners to finance drilling on its oil prospecting license in the Ténéré region adjacent to the Esso-Elf permit.

The mineral industry of landlocked Niger depended on road and rail transportation to access the ocean. Highways linked Niamey, the capital of Niger, with ports at Accra, Ghana; Abidjan, Côte d'Ivoire; Cotonou, Benin; Lagos, Nigeria; and Lomé, Togo; and to railroad terminals at Ouagadougou, Burkina Faso (approximately 500 km by highway from

Niamey), and Parakou, Benin (approximately 560 km by highway from Niamey).

Mineral industry operations did not appear to be physically affected by the military mutinies of 1998; however, the turmoil coupled with increased political risk and declining mineral commodity prices did not make fund raising any easier for exploration companies. Uranium will probably remain the most important mineral commodity produced in Niger and the largest foreign exchange earner for the immediate future. Development of additional natural resources, such as gold, iron ore, petroleum, and phosphates, has the potential to provide additional jobs and foreign exchange revenue for the country.

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Major Sources of Information

Ministère des Mines, de l'Industrie et de la Technologie

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 ${\bf TABLE~1} \\ {\bf NIGER:~ESTIMATED~PRODUCTION~OF~MINERAL~COMMODITIES~1/} \\$

(Metric tons unless otherwise specified)

Commodity 2/		1994	1995	1996	1997	1998
Cement, hydraulic		29,200	30,000	29,251 r/3/	30,000	30,000
Coal, bituminous		133,500	135,000	140,000	140,000	145,000
Gold		1	1	1	1	1
Gypsum		1,700	1,800	1,800	1,800	2,000
Salt	thousand metric tons	3	3	3	3	3
Tin, mine output, Sn content		20	20	10	10	10
Uranium, U content		2,975 3/	2,970 3/	3,320 3/	3,497 r/3/	3,731 3/

r/ Revised.

^{1/} Includes data available through July 1999.

^{2/} In addition to the commodities listed, phosphate, tungsten, and a variety of construction materials (clays, limestone, sand and gravel, and stone) were produced; but information was inadequate to make reliable estimates of output.

^{3/} Reported figure.