

GREENLAND

By The Bureau of Minerals and Petroleum (BMP)/Geological Survey of Denmark and Greenland (GEUS)

Exploration spending in 2001 amounted to DK108.9 million, the highest level since 1997. At the end of 2002, exploration licences in force covered a total area of around 6,000 km².

At Kirkespirdalen, in south Greenland, it seems that Greenland's first gold mine is becoming a reality. Nalunaq A/S is a joint venture between the Greenland company, NunaMinerals A/S (18%) and the Canadian company, Crew Development Corp. (82%). Since 1998 there have been 15,000 m of diamond drilling and 3,750 m of underground tunnelling, of which 2,750 m are within the mineralised structure. There are four adits to date. They are at levels 300, 350, 400 and 450 m above sea level. The adit, at 350 m above sea level is the longest, with a length of 600 m. The measured and indicated gold resource is 483,900 oz with an inferred gold resource of 281,300 oz. The average gold content in the ore has been calculated at 25 g/t.

Greenland is experiencing renewed interest as a target for diamond exploration. After a few years of modest activity, diamond exploration was resumed in 2001, and in 2002 several areas in west Greenland with known kimberlite occurrences were re-investigated. BHP Canadian Diamonds Co., Hudson Resources Inc. and New Millennium Resources NL are involved in these investigations in the west Greenland kimberlite province. A compilation of released company data from earlier diamond exploration in west Greenland, as a joint BMP and GEUS report available on DVD, has been issued.

The ongoing demand for niobium and tantalum on the world market is reflected in the exploration activity in Greenland. Since 2000, the Australian company, New Millennium Resources NL, has had an exploration licence covering the Sarfartoq carbonatite complex, 65 km south of Kangerlussuaq. The estimated resource is 35,000 t averaging 11.3% niobium pentoxide (Nb₂O₅). The drilling programme carried out in 2002 was not completed due to mechanical commissioning problems. The geological programme included a detailed mapping of the site of the known ore, and two additional pyrochlore occurrences were identified.

The UK company Angus & Ross plc, which since 2000, has had an exploration licence covering the alkaline Motzfeldt centre in south Greenland, conducted an extensive diamond drilling programme in 2001 in order to map the extent of the tantalum occurrences in the complex. In 2002 the field work was completed, with surface sampling and mapping in the vicinity of earlier located anomalies. The 2002 field work has served to reinforce the company's view of the potential for the Motzfeldt centre to be a world-class tantalum resource. Previous surveys undertaken by the Geological Survey of Denmark

and Greenland (GEUS) estimated that within the Motzfeldt centre there is an estimated resource of 50 Mt of ore with a grade of 0.03-0.1% Ta₂O₅.

The Greenland-based company NunaMinerals A/S has reported from its licence areas east Greenland near the town of Tasiilaq, in southwest Greenland near the capital Nuuk and in the Disko Bay area of west Greenland, that the evaluation of existing knowledge has been continued in 2002.

Since 1992, the governments of Greenland and Denmark have financed regional airborne surveys of large parts of Greenland. With the completion of Aeromag 2001 in west Greenland and subsequent release of data on March 1, 2002, there is now a continuous magnetic coverage of south and west Greenland from the southernmost point Nuna Isua to the town of Upernavik.

During the summer of 2002 a new hyperspectral survey was carried out in central west Greenland under a contract with BMP. The survey operations were primarily directed towards the kimberlite province in the area close to the international airport at Kangerlussuaq. The project also encompassed spectral measurements on the ground and in the laboratory. The data are expected to be released in 2003.