

## NEW DIAMOND PROSPECTIVE AREA IN GREENLAND

Avannaa Resources Ltd, operating in Greenland via its fully owned subsidiary Avannaa Exploration Ltd, reports 18 February 2008 (Nicholas Rose, CEO) that it has diamond-  
tested a dyke in the vicinity of Ataa Sund, central West Greenland, within its licence area no. 2007/52. The 39 kg sample was analysed for its diamond content by SGS Lakefield, Canada, and yielded 102 diamonds with a total weight of 0.013 carat. One stone can be characterized as a macrodiamond with dimensions of 0.83 x 0.66 x 0.53mm, translucent and white with graphite inclusions, while the remaining 101 stones all are microdiamonds. In terms of colour, 95 stones are white and 7 are off white, and in terms of clarity, 62 stones are transparent and 60 translucent. The majority of the stones (76) are crystal fragments suggesting a high probability that larger stones are present. The discovery significantly extends the regional extent of diamond-prospective bedrock in West Greenland, which has primarily focused on the Maniitsoq - Sarfartoq belt 300 kilometers to the south of the Ataa region.

Avannaa will follow up on this discovery in 2008 by bulk sampling the diamondiferous dyke itself and by detailed

evaluation of an alluvial diamond target also within its 2007/52 licence area including sampling of up to 500 tonnes of channel facies sands and gravels of the Atane Formation on eastern Disko. The company will also be prospecting for other dykes and plugs of kimberlitic affinity in the Ataa Sund region, where Avannaa has applied for an exploration licence via a newly formed subsidiary Avannaa Diamonds Ltd. The company's other activities in 2008 are targeted at gold and nickel in several existing and new licences in West Greenland.

To process sands and gravels on its alluvial diamond project, Avannaa has acquired a light modular plant specially designed for the Atane Formation sediments by Gekko Systems, Australia. This includes a 2 ton/hr in-line pressure jig (IPJ600) equipped with a 5 ton/hr feed trommel and concentrate sorting screens. A high capacity vibrating grease table, with a pre-cleaning scrubber, designed for Avannaa by Gondwanaland Diamonds (South Africa), will make a final processing of the concentrate before delivery to SGS Lakefield for diamond identification and characterisation. The combined processing plant will allow recovery of 0.6 to 12 mm diameter diamonds.

### Background for the exploration in the Ataa area

The Atane formation sediments yielded a number of indicator garnets during exploration by Charter Consolidated during the late 1970's and their potential as an exploration target for diamonds was enhanced after GEUS collected additional G9, G10 and G10D garnets and two microdiamonds from the sediments during 2005 and 2006. The potential for finding economically viable alluvial deposits has been further strengthened by the recent discovery of a diamondiferous dyke in bedrock to the east of the licence area, located in the presumed eroded source regions of the Atane Fm sediments.

The dyke is thought to be one of many dykes of kimberlitic-lamproitic affinity of presumed Proterozoic age that occur in the Ataa area north of Ilulissat. The geology of the region is dominated by late Archaean gneisses and tonalite/granodiorite intrusions and enclaves of Archaean supracrustal belts. The dyke was originally found by GEUS during the late 80's and was identified as having diamond potential through a study of its xenolith assemblage.

Bernstein, S. Knudsen, C., Bird, D.K., Bruun, M. 2007: Placer diamonds in unconsolidated sands of the Cretaceous Atane Fm, Disko Island, West Greenland, Danmarks og Grønlands Geologiske Undersøgelse Rapport 2007/13.



A test run with part of the modular plant: a high capacity, vibrating grease table, developed for Avannaa by Gondwanaland Diamonds, South Africa. Courtesy: Avannaa Resources.

## Positive outlook enhanced for the Storø and the Qussuk gold prospects in West Greenland

On 30 January, NunaMinerals A/S was pleased to announce that the company had received the final assay results from the Company's 2007 drilling campaign. "These results confirm NunaMinerals' positive expectations regarding the significance and continuity of the gold mineralised zones at Storø in West Greenland", says NunaMinerals President Ole Christiansen. "The significant increases in gold grades shown by these more representative analyses greatly increase the possibility that a financially viable gold deposit lies under the Qingaaq Ridge. We are very excited about the potential of the Storø gold mineralisation." Additional assays of drill sections from 2005 to 2007 by screened metallics were completed in order to account for the presence of coarse gold in the mineralised zones. The best sections returned grades of up to 52.2 g/t over 2 m; the highest gold grades ever recorded from drill cores on Storø.

NunaMinerals was also pleased to provide an update on its exploration activities at the 351 km<sup>2</sup> Qussuk property in the Nuuk Fjord region. Qussuk was a focal site for the company's activities in the 2007 field season and the property is now recognised as a highly promising environment for gold-copper mineral deposits (see also MINEX 31, p.5-6).

Three significantly mineralised areas have to date been identified within the meta-volcanic supracrustal belt. The 'Plateau' area is located along a topographical ridge 700 m above sea level. Surface samples have returned up to 35.8 g/t gold and 0.4% copper. Visible gold was discovered in the 'Plateau' area for the first time in 2007, reports Ole Christiansen, President/CEO.

The 'Blue Fox' area is situated right on the coast in a local fold zone exposed along 250 m. Grab samples from this area have returned up to 21.7 g/t gold and 0.3% copper.



The 'Swan' area of the Qussuk prospect. Channel sampling in the distinct 30 m to 80 m wide band of leached meta-volcanics. Analyses of surface channel samples returned up to 6.5 g/t gold in a 2 m profile, and as much as 0.5 % copper. Courtesy: NunaMinerals.

The 'Swan' area represents the northern part of the prospect. Surface channel samples returned up to 6.5 g/t gold in a 2 m profile, and as much as 0.5 % copper. Native copper has been recognised as mm-sized flakes in rocks from this zone.

A highly sensitive, deep-penetrating airborne geophysical combined magnetic and time domain transient electromagnetic (TDEM) survey was completed by SkyTEM ApS in June 2007 with a helicopter flying low-level grid lines at 100 m spacing.

Preliminary evaluation of the corrected electromagnetic data has identified a number of distinct high-conductive buried anomalies, characteristic of typical sulphide-rich mineralisation. An alignment of four apparently strata-bound conductive lenses has been recognised in the southern 'Plateau' area, buried within a strike length of 2.2 km. These anomalies coincide with outcropping gold and copper mineralisation. Neither of these conductors has been found to crop out on the surface. As support for an upcoming drill programme, targeted 3D-modelling of the electromagnetic geophysical data is currently being implemented at SkyTEM.

## NunaMinerals signs US\$ 6 million deal for their Amikoq property with Impala Platinum Holdings Ltd.

NunaMinerals A/S announced on 15 January 2008 that it has entered into an 'Option and Joint Venture Agreement' with respect to the 124 km<sup>2</sup> Amikoq platinum property in the northern part of the Nuuk fjord area with Impala Platinum Holdings Limited ('Implats') of South Africa.

Implats is the world's second largest producer of platinum and is involved in all aspects of the PGM industry, including mining, smelting, refining and marketing. Under the Option Agreement, incrementally over three phases Implats will be able to earn a 60% interest in the property's platinum group elements and/or nickel-copper mineralization by funding US\$ 5 million of exploration expenditures on the property over four years.

On the Joint Venture date, Implats will pay NunaMinerals a lump sum of US\$ 1 million for deemed historical expenditures incurred by NunaMinerals on the property prior to the agreement date. Implats can earn an initial 20% interest - the phase 1 interest - by funding US\$ 1 million of exploration expenditures on the property within 18 months and an overall 40% interest - the phase 2 interest by funding a further US\$ 2 million of exploration expenditures on the property within 3 years.

NunaMinerals discovered the Amikoq layered intrusion 75 km north of Nuuk in 2005. The intrusion, which is up to 3 km wide, outcrops over a strike extent of approximately 40 km.

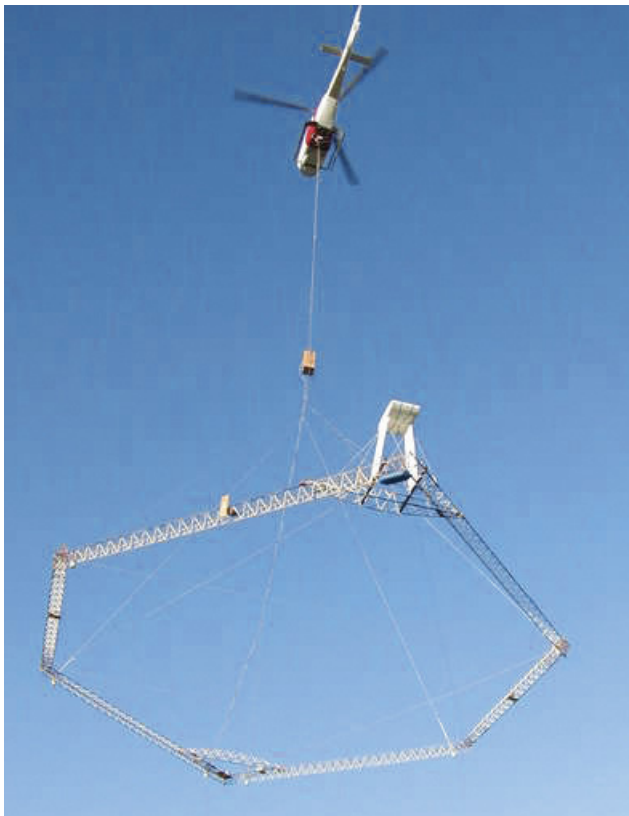
“We are very pleased to be working with one of the world’s foremost platinum producers to explore our Amikoq platinum property,” says Ole Christiansen, President of NunaMinerals”.

## Zirconium mine in South Greenland is approaching

The 10 January it was announced on the website of the Greenland Government that the Australian based company Rimbal Pty Ltd./ Westrip Holdings (“Rimbal”) is approaching with a feasibility study and mining plan of the deposit of the zirconium-rich mineral eudialyte at the locality ‘Kringlerne’ in South Greenland.

Several attempts to exploit the zirconium resource hidden in the locality have been carried out since the late 1880s, most recently in 1989. Recently, exploration has been resumed by Rimbal PTY LTD. The resource for the deposit down to sea level is estimated by the company at 2.95 billion tonnes with a cut off of 1% ZrO<sub>2</sub>. Average grades of the ore are 2.79% ZrO<sub>2</sub>, 0.03 % Ta<sub>2</sub>O<sub>5</sub>, and 0.25% Nb<sub>2</sub>O<sub>5</sub>, and 0.7% RE<sub>2</sub>O<sub>3</sub> and 0.2% Y<sub>2</sub>O<sub>3</sub>.

Rimbal expects to mine an annual 1 million tonnes of ore in an open pit operation. Up to 80 people will be employed during the mining activity, 60 of these from the local work force. Milling of the ore is planned to be carried out close to the mine site and the milling plant will be connected by road to the nearby town of Qaqortoq. A 15 km



Demonstration by the SkyTEM deep-penetrating helicopter-borne geophysical combined magnetic and time domain transient electromagnetic (TDEM) equipment. Courtesy: SkyTEM.

road, necessary power plants, power lines and camp facilities are expected to be ready for production in 2010. The mine operations will be run by the subsidiary ‘Tanbreez Mine A/S’, to be established soon.

### The Zirconium potential in South Greenland

Zirconium resources of the magmatic Gardar province are located within the southern part of the Ilimaussaq alkaline complex, which is dominated by a rhythmic, layered sequence of the local rock kakortokite in three subtypes. They are referred to as red, black and white kakortokite. The kakortokite sequence is named Kringlerne and consists of 29 defined layers. Individual layers of kakortokite are up to 3 m thick. Zirconium is hosted in the rock forming mineral eudialyte that contains 8–14% ZrO<sub>2</sub>, 2–6% RE<sub>2</sub>O<sub>3</sub> and 1% Nb<sub>2</sub>O<sub>5</sub>.

The Mesoproterozoic magmatic Gardar province encompasses three main phases of rifting and associated intrusion of nepheline-syenite magmas. The Ilimaussaq complex measures 17 x 8 km and the exposed thickness is about 1700 m. The age of this Late Gardar intrusion is 1180–1150 Ma.

## Visible gold takes the prize in the annual mineral hunt

Ujarassiorit – the national mineral hunt for amateur geologists – has now closed for the year 2007. This year a total of 840 rock samples were submitted and 251 of these were analysed.

A rock sample from the Nuuk area, West Greenland, containing visible gold was awarded the 1st prize of DKK 55,000 tax-free. Besides having a very high gold content (about 0.7 % gold), the sample also had high values of silver, lead, zinc, copper, manganese, mercury and arsenic. The sample was discovered in an area in the Nuuk Bay where this type of occurrence has not previously been found. The sample was taken from a rock found lying on the beach and is therefore not necessarily from the site of discovery.

### Two winning samples for the 2nd prize were:

- A rock sample with a high gold content found at Sermiligaaq, East Greenland.
- A rock sample with high values of molybdenum and manganese found near Kangaatsiaq, West Greenland.

### Three winning samples for the 3rd prize were:

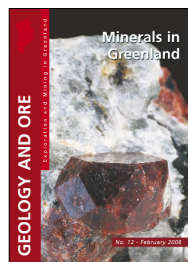
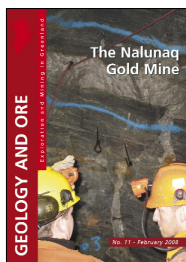
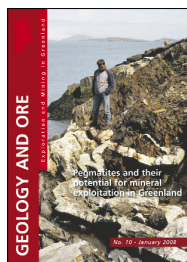
- A rock sample from the Kulusuk area, East Greenland, with a high content of gold and copper.
- A rock sample from the Oqaatsut area, West Greenland, with high values of iron, lanthanum and gallium.
- A rock sample from the Nuuk area, West Greenland, with corundum crystals of the sapphire type.

### Two winning samples for the 4th prize were:

- A rock sample from the Alluitsup Paa area, South Greenland, with high gold and copper values.
- A rock sample from the Sermiligaaq area, East Greenland, with high gold values.

Ujarassiorit is a national mineral hunt for amateur geologists. Ujarassiorit is run by the Bureau of Minerals and Petroleum, the Greenland Home Rule, [www.bmp.gl](http://www.bmp.gl).

## New issues of the series 'Geology & Ore' and Fact Sheets with themes on 'Greenland exploration and mining'



New issues have been published in the series 'Geology & Ore' and 'Fact Sheets' (on Greenland mineral resources). The publications can be obtained free of charge from GEUS. E-mail [minex@geus.dk](mailto:minex@geus.dk) for a copy.

- 2008 Geology & Ore No.10: Pegmatites and their potential for mineral exploitation in Greenland, 12 pp
- 2008 Geology & Ore No.11: The Nalunaq Gold Mine, 12 pp
- 2008 Geology & Ore No.12: Minerals in Greenland, 12 pp
- 2008 Fact Sheet No.16: Banded iron formation (BIF) deposits, 2 pp
- 2008 Fact Sheet No.17: Mineral potential of the Thule Basin, 2 pp



## PDAC 2008 Trade Show in Toronto - Greenland welcomes visitors

The Greenland tradition of participating in the annual PDAC conference and trade show in Toronto, Canada will continue in 2008 with more presentations and activities. You are invited to visit our booth (0417), on 2–5 March 2008. The exhibition and material will focus on exploration targets and future mines in Greenland as well as on general information on the mineral resources potential. Stop by and meet the experts, who will be ready to tell you about geology, licensing and logistics in Greenland.

## News from BMP/GEUS: DODEX for professionals in the international exploration and mining industry.

In a continued effort to provide relevant services concerning Greenland's mineral potential, GEUS and BMP has developed a new online facility, DODEX (Geoscience DOcuments and Data for EXploration in Greenland) for professionals in the international exploration and mining industry. The system was programmed during the autumn of 2007 and will be opened to the public during March 2008. DODEX will provide easy access to all non-confidential company geoscience reports received by authorities in Greenland and Denmark. The database contains full references and downloadable pdf-files of the reports and is searchable by both alphanumeric and geographical criteria. The digitisation and scanning of reports is in progress and planned to finish by the end of 2009, at which time DODEX will contain all reports, relevant GEUS publications and more. Password protected entry to DODEX is possible for selected compilers at GEUS and BMP. All other users will be in a read-only mode when using the database free of charge. The reports can be read on-screen or downloaded as required.

Opening date and web-address will be announced during the PDAC (booth 0417).

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