

GREENLAND

MINEX News

GREENLAND MINERAL EXPLORATION NEWSLETTER

Greenland MINEX News No. 6

February 1995

Geological & exploration briefs

Commercial exploration and drilling, 1994

new exciting results

The 1994 summer season's field activities were carried out according to schedule. Drilling took place at two localities. Falconbridge Ltd. completed a drilling programme in the Disko Bay area, West Greenland, while Platinova A/S carried through diamond drilling in Peary Land, North Greenland.

Falconbridge

Falconbridge completed a diamond drilling programme for a large tonnage Norilsk type Ni-Cu-Pt deposit in the Tertiary basalt province in West Greenland after several years of field exploration. Although no definite results have yet been reported, it is understood that no intersections of significant mineralisation were detected.

Platinova

Platinova A/S continued diamond drilling to further delineate a major bedded zinc-lead deposit at Citronen Fjord in Peary Land,

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North Greenland. A total of 9,600 m were drilled at approximately 300 m centres in 43 holes. The drilling has tested, in a preliminary manner, the southernmost 3 km of a 10 km long mineralised trend between two sets of surface showings. According to the released data the deposit consists of three successive

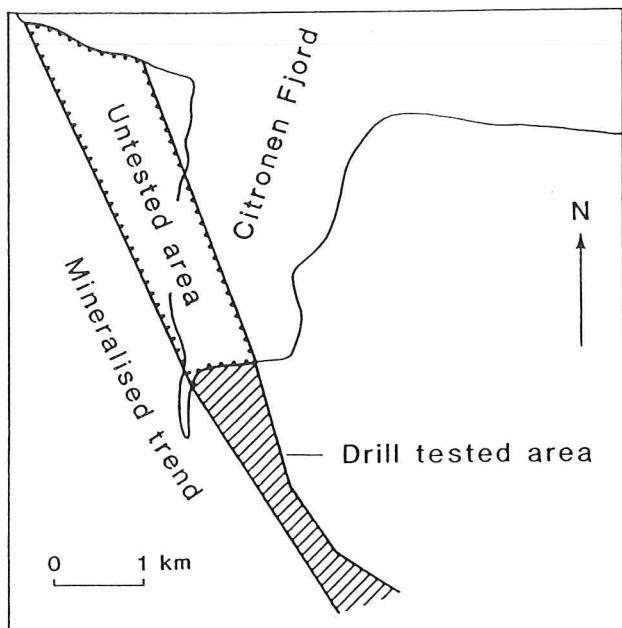
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Platinova A/S Peary Land zinc project. Modified from Platinova A/S press release 1994.

sub-horizontal layers of zinc-bearing sulphide. So far a 12 Mt resource has been identified on average grading 8 % zinc and 1 % lead, including a zone with higher content of zinc, averaging 12 %. A provisional estimate of its tonnage is given as 5 Mt. A separate horizon beneath these two main zones contains 7.5 Mt with a grade of 7 % zinc and less than 1 % lead. The best zinc mineralisation encountered to date occurs near the northern limit of the drill tested area with zinc grade increasing towards the north. Drilling is planned to be continued in 1995.

Nunaoil

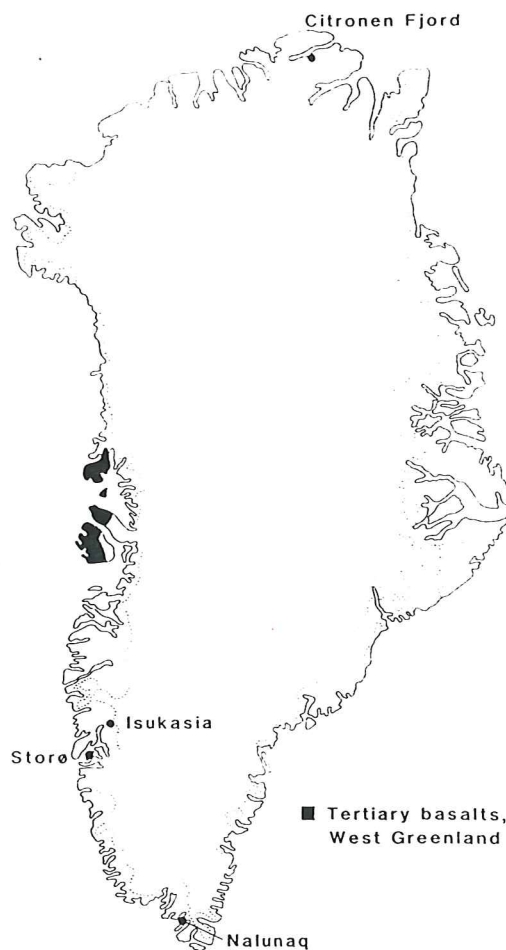
Nunaoil A/S has concentrated its efforts in South and West Greenland and has continued the exploration of an earlier reported gold finding at Nalunaq in South Greenland which was drilled in 1993. Nunaoil has continued detailed structural and geological studies on the prospect and have highlighted new drill targets.

A new gold target was identified on Storø in West Greenland. Chip sampling of 200 m of a gold-mineralised zone returned maximum

values of 91 ppm Au over a width of 4.0 m, 42 ppm Au over 2.5 m and 24 ppm Au over 2.0 m. This is the first time that gold mineralisation of some significance has been found in the Archaean supracrustal successions of the so-called Akulleq terrane. The zone which is open in both ends will be investigated further in 1995.

Finally Nunaoil implemented a geophysical survey at Isukasia in West Greenland and outlined two 1000 m long EM conductors in an area covered by glacial debris. Scattered showings of Cu, Zn and Fe sulphides were encountered suggesting a possible VMS-type deposit in the area.

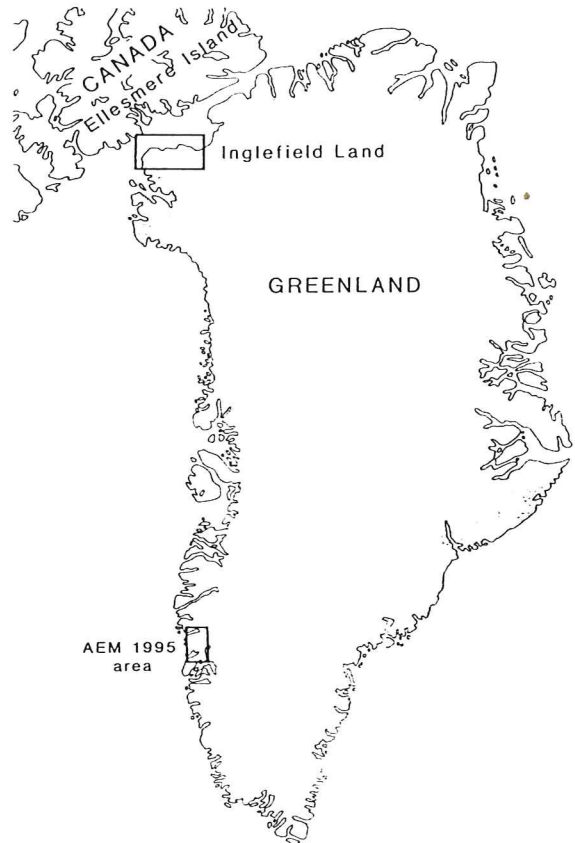
commercial activities from 60°N to 83°N



Project AEM Greenland 1994-98

successful 1994 opening, 1995 plans

As previously described in MINEX, the five-year airborne geophysics project AEM Greenland 1994-1998 got off the ground with a survey of Inglefield Land in North-West Greenland. Inglefield Land is part of the Canadian-Greenland shield exposing an E-W trending tract of Proterozoic crystalline rocks that is flanked to the south and north by Archaean blocks. In July - August 1994 a very successful field campaign was carried out by Geoterrex Ltd, Ottawa, under a contract with the Geological Survey of Greenland. Approximately 17,000 line kilometres of high quality GEOTEM electromagnetic and high sensitivity magnetic data were acquired. Line spacing was 400 metres and the sensors were less than 100 metres off the ground. The data are released by GGU to the public 1st February 1995.



data available from GGU

The digital data and the Geoterrex project report can be ordered from the Geological Survey of Greenland.
Price: 18,000 DKK (excl. VAT).

GGU has also published an Open File Report containing a discussion of some of the main results:

Airborne electromagnetic and magnetic survey of Inglefield Land, North-West Greenland by R.W. Stemp and L. Thorning, 1995, *Open File Ser. 95/1, Grønlands geol. Unders.* Available from GGU.

1995 plan

The next target for the project is an area around Maniitsoq/Sukkertoppen in West Greenland. This survey will also be flown by Geoterrex Ltd. during the summer of 1995 with the same instrumentation. Survey parameters will be similar, although the more varied topography may pose some difficulties at a few places.

The selected area is situated on the northern verge of the Archaean craton of West Greenland. Granulite facies orthogneisses of tonalitic to enderbitic composition, intercalated with folded layers and enclaves of supracrustal

(continued next page)

sequences, dominate in the north. The southern part of the area comprises mainly amphibolite facies rocks: grey foliated biotite and hornblende gneiss that includes a tonalitic intrusive complex.

Several norite bodies of assumed late Archaean age also occur in the amphibolite facies rocks believed to belong to the so-called Akia terrane, a subdivision of the Archaean in West Greenland. Moreover, the Maniitsoq area lies within a province of recurrent alkaline magmatism. It includes a number of carbonatite plugs with associated monchiquitic dykes and kimberlites. A regional compilation of existing geoscience data was published in 1990, and a reconnaissance geochemical programme has recently been completed. The data from the AEM 1995 survey is planned to become available early in 1996.

Further reading:

Reconnaissance geochemical mapping of the Maniitsoq region (65° to 66°N, 51°45' to 53°30'W), southern West Greenland by A. Steenfelt, A. Petersen & E. Dam, 1994. *Open File Ser., Grønlands geol. Unders.* 94/5, 15 pp., 44 figs. Available from GGU. Price DKK 68.00.

Geological map of Greenland 1:500 000: Sheet 2, Frederikshåb Isblink - Søndre Strømfjord. Descriptive text by F. Kalsbeek & A. A. Garde, 1989, *Grønlands geol. Unders.*, 36 pp. Available from GGU. Price DKK 180.00 (including coloured folded map)

Regional compilations of geoscience data from the Nuuk - Maniitsoq area, southern West Greenland by A. Steenfelt, L. Thorning & T. Tukiainen, 1990. *Thematic Map Ser., Grønlands geol. Unders.* 90/1, 9 pp., 57 maps with legends. Available from GGU. Price DKK 2600.00.

A new "Geological map of Greenland"

Since the first issue of a 1:2 500 000 scale "Tectonic/geological map of Greenland" in 1970, the accumulated knowledge of the geological framework of Greenland has greatly increased. GGU has now released an entirely revised "Geological map of Greenland" at the same scale. The topography for this new map is based on the UTM projection of zone 24 with WGS 84 datum; the central median is 39°W. A topographical map of Greenland also at the scale of 1 : 2 500 000 was recently published by Kort- og Matrikelstyrelse (KMS), i.e. National Survey and Cadastre, Denmark.

As an aid to understanding the geological build-up of Greenland, the legend to the new "Geological map of Greenland" includes a visualization of the progressive development of crust formation and orogenic phases from Early Archaean to the Phanerozoic. An interpretation of the geology of offshore areas is also shown, based mainly on shipborne and airborne geophysical surveys with offshore sedimentary basins, magnetic anomalies and transform faults etc. depicted.

Greenland is dominated by the Inland Ice, the central ice sheet which reaches an altitude of around 3200 m and a maximum ice thickness of 3300 m. Surface and subsurface contours for the ice sheet are given based on altimetric satellite and airborne radar survey data respectively.

The "Geological map of Greenland" is currently available in two versions:

- an unfolded 96 by 120 cm "wall map"
- a folded map in A4 format.

A book comprising 12 segments of the map, including the legend, and a descriptive text, is in preparation.

To obtain your copy of the new "Geological map of Greenland", unfolded or folded version, please contact Geological Survey of Greenland or agents in North America, U.K. or Germany.

order form
attached to this issue of MINEX News

Regulatory & licensing information

Exploration licences

status

Exploration licences location map next page

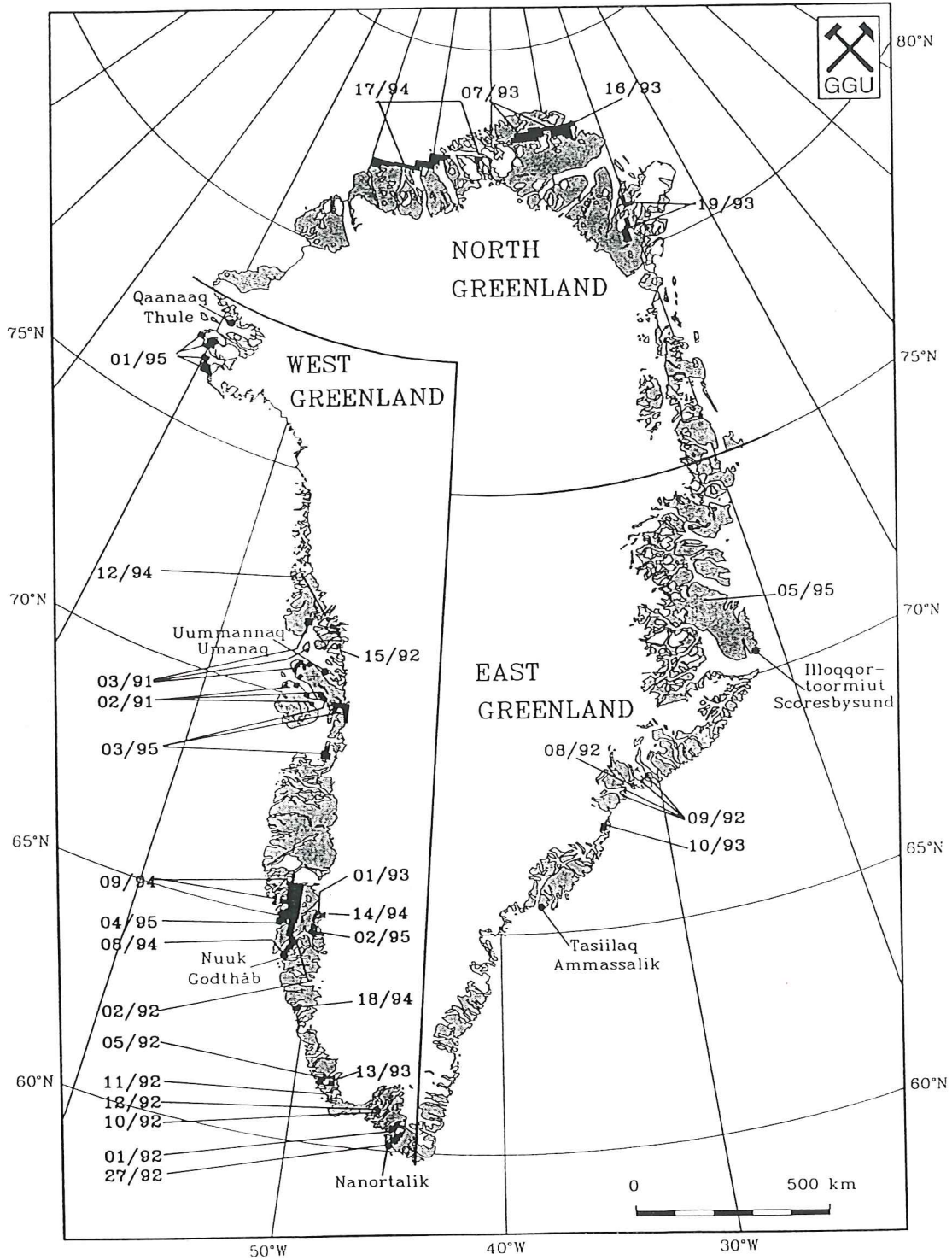
Licences	Area	Licences	Area
02/91: Falconbridge Greenland A/S	345 km ²	13/93: Laurel Point Pty. Ltd.	168 km ²
03/91: Falconbridge Greenland A/S	671 km ²	16/93: Cominco Resources International Ltd	1024 km ²
01/92: Nunaoil A/S	376 km ²	19/93: Platinova A/S	1025 km ²
02/92: Nunaoil A/S	83 km ²	08/94: Nunaoil A/S	316 km ²
05/92: Nunaoil A/S	175 km ²	09/94: Nunaoil A/S	181 km ²
08/92: Platinova A/S	29 km ²	12/94: Cominco Resources International Ltd.	408 km ²
09/92: Platinova A/S	85 km ²	14/94: RTZ Mining and Exploration Ltd.	71 km ²
10/92: Highwood Resources Ltd.	34 km ²	17/94: Platinova A/S	1025 km ²
11/92: Ivittuut Minerals A/S	5 km ²	18/94: Valhalla Mining Ltd.	168 km ²
12/92: Mineral Development International A/S	58 km ²	01/95: Nunaoil A/S	1201 km ²
15/92: RTZ Mining and Exploration Ltd.	97 km ²	02/95: Nunaoil A/S	326 km ²
27/92: Nunaoil A/S	232 km ²	03/95: Nunaoil A/S	1332 km ²
01/93: Nunaoil A/S	178 km ²	04/95: Cominco Resources International Ltd.	4332 km ²
07/93: Platinova A/S	1929 km ²	05/95: Platinova A/S	6 km ²
10/93: Quadrant Resources Pty. Ltd.	216 km ²		

New licences

Since the last issue of MINEX the following new exploration licences (exclusive) have been or are in the process of being granted:

- Licence no. 17/94 to Platinova A/S (operator) and Nanisivik Mines Ltd. for 2 subareas at Keltie Bugt in North Greenland totalling 1025 km².
- Licence no. 18/94 to Valhalla Mining Ltd. (domiciled in British Virgin Islands) for an area at Fiskensæset in West Greenland totalling 168 km².
- Licence no. 01/95 to Nunaoil A/S for 4 subareas at Thule in North Greenland totalling 1201 km².
- Licence no. 02/95 to Nunaoil A/S for an area at Ivisartoq in West Greenland totalling 326 km².
- Licence no. 03/95 to Nunaoil A/S for 3 subareas at Disko Bugt in West Greenland totalling 1332 km².
- Licence no. 04/95 to Cominco Resources International Ltd. (operator) and Cominco Ltd. for an area at Søndre Isortoq in West Greenland totalling 4332 km².
- Licence no. 05/95 to Platinova A/S for an area at Malmbjerget in central East Greenland totalling 6 km².

Exploration licences, February 1995



Surrendered licences

The following exploration licences have been surrendered:

- Licence no. 03/92 for areas at Nordre Strømfjord in West Greenland.
- Licence no. 13/92 for areas at Navarana Fjord in North Greenland.
- Licence no. 14/92 for areas at Nyeboe Land in North Greenland.
- Licence no. 02/93 for areas at Lersletten in West Greenland.
- Licence no. 12/93 for areas at Amitsoq in West Greenland.
- Licence no. 07/94 for areas at Arsuk in West Greenland.

Amendments of existing exploration licences

By relinquishment the following exploration licence areas were reduced at the end of 1994:

- Licence no. 02/91 was reduced from 1075 km² to 345 km².
- Licence no. 03/91 was reduced from 1153 km² to 671 km².
- Licence no. 15/92 was reduced from 123 km² to 97 km².
- Licence no. 27/92 was reduced from 368 km² to 232 km².
- Licence no. 16/93 was reduced from 1072 km² to 1024 km².

The following exploration licence areas were increased:

- Licence no. 08/94 was increased from 110 km² to 316 km².
- Licence no. 14/94 was increased from 21 km² to 71 km².

The following exploration licence was transferred:

- Licence no. 11/92 from Municipality of Ivittuut to the company Ivittuut Minerals A/S.

Licence terms for Inglefield Land

As described on page 3 detailed airborne electromagnetic and high sensitivity magnetic data are now available from Inglefield Land in North-West Greenland at low cost.

On this basis it has been decided that the possibility - which otherwise exists only in North and East Greenland - of granting special exploration licences for large areas (at

least 1000 km²) with reduced exploration commitments will not apply for Inglefield Land.

Thus only normal exploration licences with normal exploration commitments will be granted in Inglefield Land, still however without any limitation on the size of licence area.

New Ministry

In September 1994 the Danish Ministries of Energy and of Environment were amalgamated into the Ministry of Environment and Energy. Thus, the tasks regarding mineral resources in Greenland now rest with the Minister for Environment and Energy.

The Mineral Resources Administration for Greenland (MRA), the Geological Survey of Greenland (GGU) and the Greenland Environmental Research Institute (GM) are all part of the new ministry. The Act on Mineral Resources in Greenland is unchanged.

The new GEOLOGICAL MAP OF GREENLAND

Basic map price in Denmark is 125 Danish kroner (DKK) incl. VAT. Prices elsewhere vary widely due to handling and bank charges, local taxes (VAT in the European Union) and high international postage rates. For single copies of the map, customers are advised to take advantage of stocks held by agents where possible. PLEASE state with all ORDERS whether UNFOLDED or FOLDED version is required.

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Omni Resources, 1004 South Mebane Street, P.O. Box 2096, Burlington, NC 27216-2096, U.S.A.
Tel.: 910 227 8300 Fax: 910 227 3748

Telberg Geological Map Service, P.O. Box 290, Sag Harbour, NY 11963, U.S.A.
Tel.: 516 725 0780 Fax: 516 725 0918

U.K.

British Geological Survey, Sales Desk, Keyworth, Nottingham NG12 5GG.
Tel.: 0115 936 3241 Fax: 0115 936 3488

EUROPE

GeoCenter, Internationales Landkartenhaus, Postfach 80 08 30, D-70508 Stuttgart, Germany.
Tel.: 0711 788 9340 Fax: 0711 788 9354

ALSO AVAILABLE DIRECT FROM

The GEOLOGICAL SURVEY OF GREENLAND

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