



GREENLAND MINERAL EXPLORATION NEWSLETTER

MINEX 39 · March 2011

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Avannaa Resources takes leading position for sediment-hosted copper in North Greenland

Avannaa Resources Ltd has built up a leading position in North Greenland, targeting sediment-hosted copper of the Zambian copper-belt style. On 14 February 2011 Avannaa reported that it has exclusive exploration rights over 4,498km² in licenses 2010/32 and 2011/30 and that it has taken all of the prospective ground.

During 2011 Avannaa will conduct an extensive field-work programme comprising remote sensing, acquisition of airborne hyperspectral data and ground testing of existing and new mineralisation targets. Field teams will operate out of a nearby airbase at Station Nord.

J.C. Christensen Land is located in North Greenland at around 82°N and about 150 km south of the Citronen Fjord lead-zinc deposit. Copper mineralisation was first discovered in Neoproterozoic sandstones by GEUS scientists in 1995. Other than this visit, the region had been completely neglected until Avannaa conducted its first field season in 2010. The geological environment is directly analogous to the Zambian copper belt.

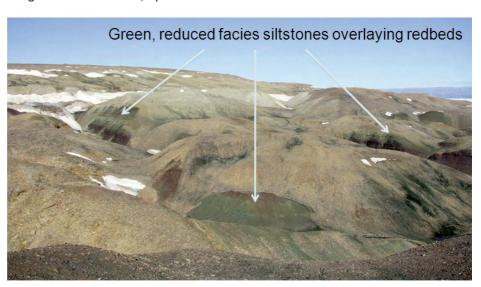
Chip samples through mineralised breccias returned 0.8-3.4% copper together with 33-79 g/t silver, across a 4.5m width. Grab samples returned up to 12.5% copper and 385 g/t silver. These results are considered extremely positive and the mineralisation provides compelling evidence of mobilisation of copper and efficient precipitation mechanisms. Copper is suggested to originate from the



Copper mineralisation in sandstone, J.C. Christensen Land. Photo Avannaa.

underlying 1000 m thick sequence of Zig-Zag Dal basalts and dolerites and from several thousands of meters of redbeds belonging to the Independence Fjord and Hagen Fjord Groups. It is likely that mobilisation of the copper was caused by circulating saline brines from evaporites in the Independence Fjord Group.

Exploration director Stefan Bernstein said, "The region has very similar geology and mineralisation systems to the Kantangan Supergroup in the Zambian copper belt. Above the mineralised breccia zones, rest the green, reduced siltstones of the Campanuladal Formation which make ideal trap-sites for copper. The Campanuladal Formation is virtually unexplored and we consider that the area has potential to host large tonnage copper deposits. We are making substantial efforts to prove this."



Green, reduced facies siltstones overlaying redbeds within J.C. Christensen Land covers more than 6,000km². Photo Avannaa.

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Two drill sites at the Isua deposit, illustrating the field conditions near the Inland Ice margin. Photo: Claus Østergaard.

Avannaa will present further information about copper exploration in Greenland at the PDAC in Toronto at booth 2217A.

Scoping study results for 15Mtpa operation at Isua

London Mining Plc announced on 21 February 2011 the results of a scoping study completed by SNC Lavalin for a 15 million tonnes per annum (Mtpa) mining operation at the Isua project in Greenland.

Isua is located 150km north-east of Nuuk and 100km from a proposed deep seawater port. Isua will produce a premium quality 70% Fe pellet feed concentrate with low impurities and benefits from its position in the warmer

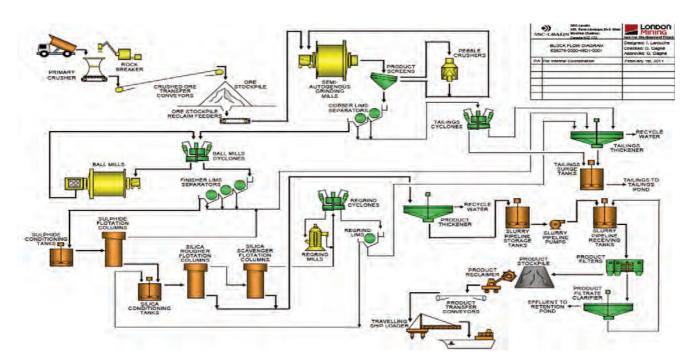
south-west corner of Greenland, which allows for year round shipping.

In March 2010 London Mining reported a JORC resource estimate completed by Snowden Mining Industry Consultants of 951Mt at 36% Fe. A pre-feasibility study (PFS) for a 10Mtpa open pit and processing operation from an initial 490Mt open pit mine plan was completed by SNC Lavalin in June 2010. The June 2010 PFS considered a 10Mtpa operation with a 21-year initial mine life and estimated capital expenditure of USD 1.7 billion.

The scoping study considers a 15Mtpa open pit and processing operation with a 15-year initial mine life for estimated capital expenditure of USD 2.0 billion, representing a 22% reduction in capital intensity. Operating costs have increased from USD 27 to USD 29 per tonnemostly due to a 20% increase in fuel costs.

The new scoping study and detailed work undertaken for the 10Mtpa PFS forms the basis of a 15Mtpa bankable feasibility study (BFS) which has already commenced and is scheduled to be completed by the end of 2011.

CEO Graeme Hossie said, "Isua will be a significant new producer from an important new iron ore province. We anticipate production of 15Mtpa premium quality iron ore concentrate to start in early 2015, with an estimated USD 2.5 billion – USD 4.5 billion post tax NPV underlining the value of the project. Isua compares favourably to other planned new capacity based on resource size, capital intensity, scale and lead time to first production. We have the full support of the Government of Greenland and are reviewing options around the optimal funding structure for construction. This includes the introduction of a strategic partner following the BFS which is expected by the end of 2011."



Simplified plant process flow diagram showing the main process equipment (London Mining Plc). The process consists of a single crushing circuit feeding three parallel grinding, magnetic separation and flotation processing lines. The concentrate from all of the lines is combined in one product thickener feeding the product slurry pipeline to the port facilities. The tailings are also combined in one tailings thickener, prior to their discharge into the tailings pond.

Update on the feasibility study for the Citronen Zinc Project

Ironbark Zinc Limited released on 21 January 2011 the information that it has concluded the resource estimate, process design and key project engineering aspects within the ongoing feasibility study for its 100%-owned Citronen base metal project in Greenland. These are critical components of the feasibility study. Final mine optimisation and financial modelling is currently being conducted.

The release of the study has been delayed by a number of factors, including a delayed resource estimate and changes in the mining schedule, as well as problems arising from utilising combinations of open pit and underground mining operation interfaces. The updated resource estimate was delayed as a result of the late delivery of the final survey results. The results to date confirm the relevance of the Citronen Project as a large-scale and long-life mining operation that is situated within the stability of a first world Government regime.

Socioeconomic impact assessment begins at ruby project

On 31 January 2011 True North Gems Inc. announced that the Socioeconomic Impact Assessment (SIA) process will begin with stakeholder workshop consultation on 6 February in Nuuk and 7 February in Qeqertarsuatsiaat, Greenland. The SIA process, being coordinated by Danish/Greenlandic consultants Grontmij I Carl Bro A/S, will form a part of the company's exploitation (mining) permit application for the Aappaluttoq Ruby Project located in the Qeqertarsuatsiaat district of southern West Greenland.



Citronen base camp (Ironbark Zinc Ltd.).



Landing strip at the Citronen camp (Ironbark Zinc Ltd.).



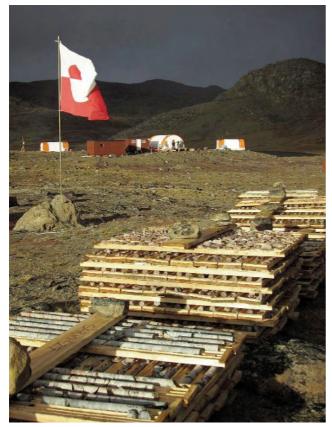
Drill rig near the Citronen camp (Ironbark Zinc Ltd.).



Selection of cores from drill site SAR 10-36 at locality ST1 showing coarse-grained REE minerals (Hudson Resources).



Float from locality ST1 at the Sarfartoq prospect (Hudson Resources).



The Sarfartoq drill camp 2010 (Hudson Resources).

In conjunction with the stakeholder meetings, True North Gems has prepared a Project Brief setting out the strategy for development at Aappaluttoq so that the stakeholders may assess the project and its potential for both positive and negative impacts. The Company has also prepared a Ruby and Pink Sapphire Introduction, also available in Greenlandic and Danish, which is designed to assist in understanding the nature of the gemstones to be mined at Aappaluttoq.

Nicholas Houghton, CEO and President of True North Gems stated, "We are pleased to begin the SIA process and begin direct discussions with the people of Greenland regarding the benefits of this project. I believe that all the people of Greenland will benefit from the project, whether from direct training and employment, through spin-off benefits of the activities, or from the increased tourism that world marketing of Greenland rubies will bring. I look forward to a constructive process of maximizing the benefits we can provide and building an enduring relationship with the people of Greenland."

Hudson commences metallurgical work on the Sarfartoq REE project

Hudson Resources Inc. announced on 1 February 2011 that metallurgical testwork has commenced on the ST1 Zone of the Company's Sarfartoq rare earth element (REE) project in southern West Greenland. The testwork is being conducted by Hazen Research Inc. in Golden, Colorado. Results of the metallurgical test programme are expected in the first half of 2011.

James Tuer, Hudson's President, stated, "We are very pleased to be commencing metallurgical test work on the ST1 Zone. The results of this work will be an important component in our Preliminary Economic Assessment (the "PEA"), which we plan to initiate in the first half of 2011. The PEA, together with infill drilling and baseline environmental and additional engineering studies, will be included in an application for a 30-year mineral exploitation license with the Bureau of Minerals and Petroleum in Greenland, which we plan to file in 2012."

Hudson recently announced an NI 43-101 resource estimate for the Company's ST1 Zone, which defined 14.1M tonnes averaging 1.51% total rare earth oxides (TREO) using a cutoff of 0.8%. The ST1 Zone represents one of the industry's highest ratios of neodymium and praseodymium to TREO, totaling 25%. The ST1 Zone contains over 40 million kilograms of neodymium oxide. Neodymium oxide (FOB China) is currently selling for approximately USD114/kg.

The ST1 Zone is a carbonatite-hosted rare earth deposit. Recent analyses of the ST1 material suggest that the rare earths, composed of synchysite-(Ce), synchysite-(Nd), bastnasite-(Ce) and monazite-(Ce), are found mainly in the hematized (iron rich) portions of the carbonatite material. As a result, Hudson is undertaking tests to determine whether magnetic separation and optical sorting could be an effective method to generate a preliminary concentrate.

Mineralogical work recently completed at the ST40 Zone, which, to date, assays the industry's highest known ratio of neodymium oxide to TREO at 45%, shows that the rare earths are present in synchysite and zhonghuacerite-(Nd). The only other known occurrence of zhonghuacerite is the Bayan Obo rare earth mine in China which is the world's largest REE mine. In 2009, Hudson intercepted 10.2 meters of 1.35% TREO in Hole SAR09-03 within the ST40 Zone, which included 0.63% neodymium oxide. The ST40 Zone is located three kilometers to the east of the ST1 Zone. Further drilling is planned on and between the ST40 and ST1 targets in 2011.

Highlights of Ram Resources' Motzfeldt project trenching results

Ram Resources Limited ("Ram or the Company") is pleased to advise results from trenching carried out during the drilling programme undertaken at its Motzfeldt Project in South Greenland in September 2010, as released on 27 January 2011. The trenching was carried out along the line of the drilled holes running east to west across the Aries target.

- Anomalous mineralisation has been found at surface up to 270 m from the westernmost drill hole at Motzfeldt Project, with the best result returning 1.69% Total Rare Earth Oxide ("TREO") +Y₂O₃, 5,040 ppm Nb₂O₅, 1.23% ZrO₂ and 385 ppm Ta₂O₅ over 5 m in trench channel samples
- Further confirmation that higher grade Rare Earth Elements ("REE") results trend to the west of the drilled area and higher Ta-Nb values occur in the east of the drilled area
- Trench SRK_TR1 averaged 1,720 ppm Nb₂O₅ and 88 ppm Ta₂O₅ over its 30 m length
- Trench SRK_TR1A averaged 4,150 ppm TREO+Y₂O₃ over its 70 m length

Progress of the trenching was inhibited by the small excavator available, which only had limited power and reach. Work commenced on SRK_TR1, the start of which is located on the line of drilling close to drill holes SRK_14 and SRK_14B. However, due to the slow progress, work on this was halted and relocated to the west of the line of drilling as there is less geochemical data in this area. Sampling was completed at 5 m intervals along the line of the trench, with a total of 20 samples taken.

These were submitted to OMAC laboratories for assay via ICP. The best results are shown in the table. The purpose of the trenching was to obtain geochemical data to determine the extent of mineralisation, and to obtain surface data that could be correlated to mineralised drill hole intersections at depth. The results of the trenching support the geological interpretation from the drilling. A trend is suggested of higher TREO mineralisation and comparatively lower Ta-Nb grade on the western side of the Aries target, whilst to the east the grade of Ta-Nb is higher.

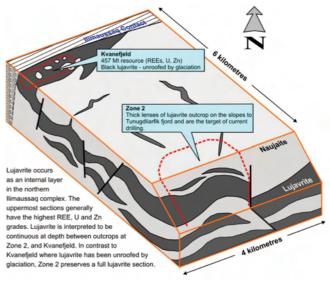
Sample ID	Interval m	Nb ₂ 0 ₅	Ta ₂ 0 ₅ ppm	Zr0 ₂ ppm	TREO+Y ₂ 0 ₃
SRK_TR1					
667004,000	10-15	2,499	124,000	10,550	3,334
667005,000	15-20	2,195	119,000	8,410	3,029
SRK_TR1A					
667012,000	15-20	674,000	30,000	13,398	3,885
667013,000	20-25	692,000	38,000	5,823	4,042
667015,000	30-35	1,260	79,000	7,751	5,051
667019,000	50-55	5,042	386,000	30,301	16,906

Table with assay results from mineralised 'Aries' zone.

The mineralised zone at Aries was thought to be 200-300 m wide. However trench SRK_TR1A was sampled in an area to the west with no previous geochemical results, and the positive grades here may have extended the mineralised zone to 400 m wide, with REE mineralisation potentially remaining open to the west. Trenching/surface sampling needs to be continued between trench SRK_TR1A and the boreholes in order to establish grade continuity.

GMEL reports regional multielement drill intercepts

On 18 January 2011, Greenland Minerals and Energy Limited (GMEL) was pleased to report multi-element drill intercepts (rare earth element, uranium, zinc) from regional targets in the northern Ilimaussaq Complex, in Greenland. The initial drill intercepts confirm that extensive mineralization occurs up to 7km away from the Kvanefjeld resource. Assay results were released after GMEL received a permit in December 2010 to fully evaluate the Kvanefjeld multi-element project. All results presented in this announcement are from holes drilled in 2008 and 2009. Results from the 2010 field season will be finalised in the coming weeks.



Block diagramme showing the new area within the Ilimassaaq area (after GMEL).



3D topographical map of the llimassaaq area (GMEL).

The northern Ilimaussaq Complex is already host to substantial rare earth element (REE), uranium and zinc resources at Kvanefjeld. The regional targets represent outcropping, or near-surface occurrences of lujavrite that form part of an interconnected ore system extending over several kilometres. Lujavrite is an unusual rock-type that is host to the resources at Kvanefjeld. Three main target areas have been identified and are referred to as Steenstrupfjeld, Zone 2 and Zone 3.

The Company added on 17 February 2011 that it has identified an upper lens at Zone 2 that locally exceeds 160m in thickness, and is of a higher grade tenor than resources defined at Kvanefield.

Upcoming drill campaigns in 2011 will now aim to establish initial resources at these new target areas with an emphasis on pursuing higher grade material.

The Government of Greenland clarifies the current zero-tolerance policy regarding uranium

With the recent media coverage of Greenland's uranium policy, Naalakkersuisut (the Government of Greenland) would like to clarify that the current zero-tolerance policy regarding uranium will continue to apply. The press coverage seems to be related to the fact that on 9 September 2010 Naalakkersuisut approved a clarifying addition to the rules which regulate exploration for mineral resources.

This clarification means that companies which have found and demarcated mineral resources containing radioactive elements can apply for a licence to prepare assessments of the environmental impact and social sustainability.

In making this addition to the Standard Terms, Naalakkersuisut hopes to bring about more knowledge about the health and safety issues regarding radioactive elements in occurrences where the actual goal is other metals than the radioactive ones. This addition is in line with Naalakkersuisut's ambition to secure more knowledge about the consequences of exploration and exploitation of radioactive elements.

The addition to the rules explicitly states that a licence to complete such environmental impact assessments etc. does not give right to a licence to explore for or exploit radioactive elements.

Greenland's uranium policy remains therefore unchanged and the zero tolerance for exploration and exploitation of radioactive elements continues intact.

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BMP-GEUS Workshop on the assessment of Greenland REE deposits

The Greenland Bureau of Minerals and Petroleum (BMP) and the Geological Survey of Denmark and Greenland (GEUS) conducted a workshop from 30 November to 2 December 2010 on the assessment of undiscovered Rare Earth Element (REE) deposits in Greenland as part of the ongoing assessment of selected deposit models and commodities in Greenland.

The workshop made use of a standardized process in which 22 invited 'experts' (geologists) discussed and assessed the possibility of finding deposits in pre-defined areas ('tracts'). Data, literature and maps related to the known REE mineralisations in Greenland and the pre-defined areas were compiled and made available to the participants before the workshop.

The data gathered will provide the basis for the overall assessment, together with the discussions and estimates, and the results will soon be documented in a public GEUS report. The report may eventually function as a strategic commitment for combined efforts by the BMP and GEUS to evaluate the Greenland REE potential.

Lead-Zinc sulphides take the prize in the annual mineral hunt competition

Ujarassiorit – the national mineral hunt for amateur geologists – has now ended for 2010, and the winners have received their awards.

This year approximately 686 rock samples were submitted and 212 of these were analysed. The chemical analyses have revealed several samples with base and precious metals.



The 1st prize winner rock sample



The 1st prize winner receives DKK 55,000 tax-free; Edvard Christiansen from Qeqertarsuaq. The sample is a massive sulphide ore with high values of lead (>5,000 g/t), zinc (>10,000 g/t), gold (0.86 g/t) and silver (>100 g/t). The sample was collected from a locality east of Kangersuatsiaq at Kangeq.

2nd-prize winner of Ujarassiorit 2010

The 2nd prize of DKK 25,000 tax-free went to Johannes Kristensen from Upernavik, who submitted a weathered rock sample enriched in vanadium (1,220 g/t), molybdenum (338 g/t) and platinum (0.35 g/t). The sample is from the Naajaat area north-east of Upernavik.

3rd-prize winners of Ujarassiorit 2010

Two 3rd prizes of DKK 10,000 tax-free were awarded:

- A sulphide-rich gneiss with high copper and molybdenum values (4,810 g/t copper and 360 g/t molybdenum). The sample is from Ameralik at Nuuk and was submitted by Hans Jørgen Løvstrøm from Nuuk.
- A sulphide-rich gneiss with a high lanthanium content (1,300 g/t). The sample also contains 7,430 g/t copper, 10.2 g/t silver, 0.06 g/t gold and 12.4% iron. The sample is from Kapisillit and was submitted by Bendt Josefsen from Kapisillit.



4th-prize winners of Ujarassiorit 2010

Four 4th prizes, each of DKK 5,000 tax-free were awarded:

- An iron ore comprising 36.1% iron and 1,230 g/t vanadium. The sample is from Nassuttooq south of Attu and was submitted by Ole I. Frederiksen from Attu.
- An iron ore with a content of 21.4% iron and 8,290 g/t manganese. The sample was collected at Oqaatsortalik at Kobberminebugten by Efraim Titussen from Qaqortoq.
- A lime-rich rock sample with manganese veins containing 12,300 g/t manganese. The sample is from the
 Qaanaaq area and was submitted by Pauline Qaerngaaq
 from Qaanaaq.
- A gneiss with iron sulphides and an iron content of 21.7% and 4,030 g/t lanthanum. The sample is from Narsaq, and was submitted by Nuka Amalie Jensen from Nuuk.

Ujarassiorit is the national mineral hunt competition for amateur geologists and it has run for more than 20 years. Residents of Greenland can submit rock samples for further geological examination, free of charge, at any post office.

The Ujarassiorit programme is run and financed by the Bureau of Minerals and Petroleum of the Greenland Government. For more information about Ujarassiorit please visit www.ujarassiorit.gl.





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Greenland Day at the PDAC in Toronto 6–9 March 2011

'Greenland Highlights' will be the theme for the Greenland Day Sessions. The Bureau of Minerals and Petroleum (BMP) and the Employers Association of Greenland has the pleasure to present two, half-day sessions covering the latest results from exploration in Greenland and how to do business in Greenland.

The morning session, presented by the BMP and the Geological Survey of Denmark and Greenland, will have special focus on the new stream sediment data from SE-Greenland. The newest data from the 2010 field campaign will be released at the meeting. Highlights from the SW-Greenland campaign (2008-2010) and the latest news of sediment-hosted copper in North Greenland will also be presented.

You are also invited to visit the Greenland booth (#417) at the Trade Show on 6 to 9 March. The exhibit will focus on geological environments and the potential for location of Cu-resources, Greenland Ni and REE potentials among others. Stop by the booth and meet the

experts, who will be ready to tell you about the 'hot' themes of Greenland resources.

To sign up for the presentation, please send your contact information to the BMP by e-mail (bmp@nanoq.gl) or fax (+299 32 43 02). A full programme can be viewed at the BMP website www.bmp.gl.

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

2011, Geology & Ore No.18:

Sediment-hosted copper in Greenland, 12 pp.

2011, Geology & Ore No.19:

Iron ore potential in Greenland, 12 pp.

2010, Fact Sheet No. 24:

PGE deposits in Greenland, 2 pp.

2011, Fact Sheet No. 25:

Zinc potential in Greenland, 2 pp.



GEOLOGICAL SURVEY OF DENMARK AND GREENLAND (GEUS)

Øster Voldgade 10 · DK-1350 Copenhagen K · Denmark

Tel: +45 38 14 20 00 • Fax: +45 38 14 20 50 • e-mail: minex@geus.dk • homepage: www.geus.dk

BUREAU OF MINERALS AND PETROLEUM (BMP)

Government of Greenland • P.O. Box 930 • DK-3900 Nuuk • Greenland Tel: +299 34 68 00 • Fax: +299 32 43 02 • e-mail: bmp@nanoq.gl • homepage: www.bmp.gl

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