



DEPARTMENT OF GEOLOGY



MINERAL RESOURCES AUTHORITY

A woman with blonde hair in a ponytail, wearing a pink jacket, is using a handheld rock hammer to examine a rock face. The background is a large, textured rock wall. A blue diagonal line separates the top image from the text below. In the bottom right corner, there is a circular inset image showing a yellow surveying instrument on a tripod next to an orange bag on the ground.

WE

...are educated and experienced geologists

...are experts in Greenland's geology, mineral potential, gemstones, exploration history and research

...know what is going on through close contact with exploration companies working in Greenland

...carry out exploration-relevant research and produce new geoscience data

...are improving free access to Greenland's geoscience data


...are GIA-trained experts in gemstones with key expertise in small-scale mining

...promote exploration investment in Greenland internationally

...are the primary organization for communicating geoscience with the public in Greenland

...are engaged in public awareness through popular geoscience publications and education

...speak Greenlandic, Danish, and English



THE DEPARTMENT OF GEOLOGY IS THE PRIMARY GEOSCIENCE ADVISOR ON MINERAL RESOURCES TO THE GOVERNMENT OF GREENLAND, MUNICIPALITIES, AND THE PUBLIC

GEOLOGICAL ADVICE

We advise the Government of Greenland on mineral strategy, and laws and regulations relating to exploration and mining. Together with other authorities, we also assess all applications for exploration and mining licences, and field activities. We are in direct contact with international exploration and mining companies, and investors about Greenland's mineral potential and opportunities. Small-scale miners also seek advice from us on areas to prospect for gemstones. We give advice to the public, media and educational institutions about Greenland's geology, mineral potential, and the status of the mineral industry within Greenland. How are we doing all this? We are a team with the most up-to-date knowledge on exploration and the geology of Greenland.



DATA DELIVERY

Geoscience data is one of Greenland's key assets. It is the foundation for basic research and education, which develops knowledge and competences of the public. Geoscience data also promotes new exploration investment by identifying exploration targets and decreasing financial risks.

This is where we come in. A core mission of our Department is to strengthen our performance in delivering geoscience data. To do this, we are building local expertise and sustainable data management systems. We are building simple, secure, efficient, Greenland-based data management systems to provide better, open access to Greenland geoscience data for everyone. This allows us to take on management of the full life cycle of Greenland exploration data. Companies submit all their exploration and mining data directly to us, and after handling and archiving the data, we deliver it back to the public to the highest standards. We also deliver all geoscientific data from our projects open-access.



GEOLOGICAL MAPPING AND REGIONAL GEOSCIENCE STUDIES

We work in the field to produce modern geological maps of Greenland, to drive new exploration investment.

We commission and publish topographic base maps that are necessary baselines for our maps and which are also useful for fishers, hunters, sailors, tourist-operators, and all kinds of land-use applications. We fund regional studies of areas with the potential to generate new investment. Those studies include remote sensing surveys, geophysical surveys, geological mapping, and mineral prospectivity studies.

GEOCHEMISTRY AND GEOCHRONOLOGY

Geochemistry is the study of the chemical composition of rocks – important data for explorers. Together with research partner, GEUS, we deliver online a large stream sediment dataset for most of Greenland, and we are working on delivering company exploration geochemical data online.

Geochronology is the study of how old rocks are, data that are directly relevant to explorers. Together with research partner Curtin University, we have developed an online, open-access geochronology database of all published ages of rocks in Greenland. Our first academic publication from the database was published, open-access, in the high-ranking journal *Geology* in 2019.

DRILL CORE MANAGEMENT

Drill core is an extremely valuable resource for explorers. By request, companies deliver the cores drilled in Greenland to the Government of Greenland. The drill cores are stored in our two core store facilities, and we give access to explorers and scientists to view and sample the cores. Our store in Kangerlussuaq holds over 100 km of drill core that dates from the 1960s to the present, from prospects all over Greenland. In Narsarsuaq we have around 7 km of drill core from rare earth element and gold prospects and deposits in South Greenland. Access to the core library can be arranged by contacting us.

**“GREENLAND HOST
A WIDE RANGE
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EVALUATION OF GEMSTONES

Greenland host a wide range of different and, in some cases, unique gemstones of international interest. These include rubies, tugtupite, nuummite, amazonite, greenlandite, and many more. Two of our in-house geologists are trained through the Gemmological Institute of America (GIA) – the number one world-renowned institution in the gemstone industry. Our skilled geologists can give first-class evaluations of a wide range of gemstones. Aside from their work assessing gemstone quality for locals and for the government, they have also put together an online database of Greenland's gemstones.

UJARASSIORIT – MINERAL HUNT

For almost thirty years, the Government of Greenland has hosted the Ujarassiorit mineral hunt. Amateur rock-hunters, who are residents in Greenland, can enter the competition by sending a rock to us, free of charge through the post. The aim is to find previously unknown mineralised rocks, potentially identify new exploration targets for investment, and spark the public's interest in geology. For the best samples there are large cash prizes! Every year our geologists assess hundreds of samples sent from treasure-hunters all over Greenland.



LOCAL AND INTERNATIONAL PARTNERSHIPS

Our strength is our closeness and immediate contact with people working in the mineral resources industry in Greenland – the companies, the government, the local service providers, the scientists, and the public. We build on this strength by cooperating with Greenlandic and international agencies with specific expertise for our geoscience projects. By working with people with the right expertise, we bring co-funded geoscience projects to Greenland. This builds local expertise and knowledge for the benefit of the Greenlandic society. We have collaborated with Asiaq, the Geological Survey of Denmark and Greenland (GEUS), the United States Geological Survey (USGS), the US Department of State, and various university researchers and consultants from Europe, Canada, Asia and Australia.





PUBLICATIONS

We are committed to produce and deliver free, open-access data, which includes all of our geoscientific publications. Our geologists are co-authors to academic papers in some of the best international geoscience journals, all published open-access. That means that everyone can go online and read about our work, free of charge.

We are actively publishing newsletters, and fact sheets on the exploration and mining industry. We are also the main organization that publishes geoscientific popular publications and educational materials for the Greenlandic public. These include Greenland-specific geology books and guidebooks, popular science brochures and articles.



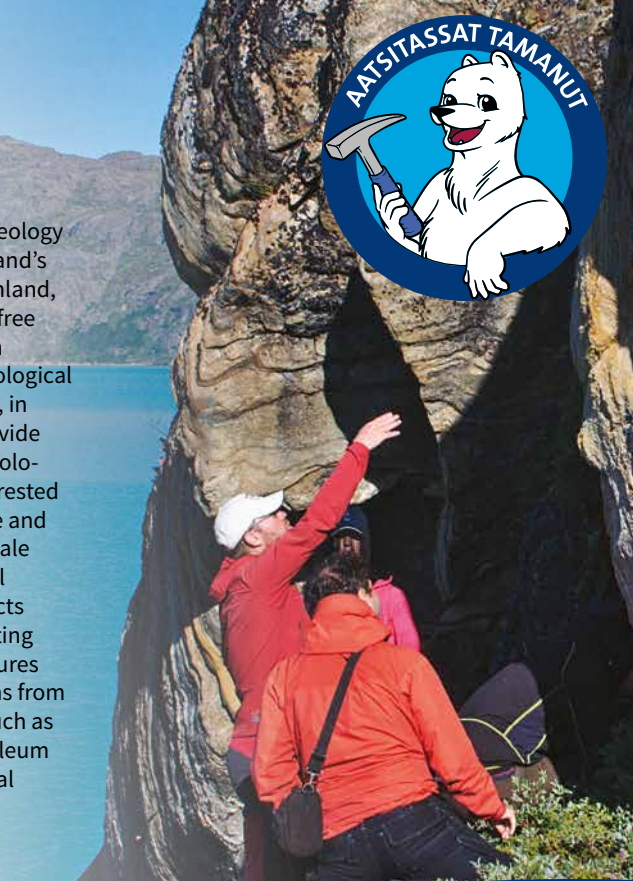
MARKETING

Greenland is prospective for new, and potentially large, mineral deposits of many kinds. Greenland has low investment risks and a competitive operational framework. These are the messages we bring to the mineral exploration and investment industry worldwide. We actively promote Greenland's potential, and target key audiences in Europe, Canada, USA, and Australia. We do this through social media, technical and information materials, one-to-one meetings with relevant companies, resources media interviews, articles, advertising, talks, and booths and seminars at major resources events, such as the annual convention of the Prospectors and Developers Association of Canada (PDAC) in Toronto.



EDUCATIONAL AND PUBLIC OUTREACH

We actively promote education about the geology of Greenland. In 2019, we published Greenland's first children's book on the geology of Greenland, in Greenlandic and Danish, and provided it free of charge to every schoolchild and school in Greenland. We are publishing a series of geological guidebooks for different parts of Greenland, in Greenlandic, Danish and English. These provide local geoscience information to amateur geologists, tourists, tour guides, and anyone interested in their local environment. We also organise and actively participate at seminars for small-scale miners. These seminars include educational courses for the small-scale miners on subjects such as mineral prospecting, gemstone cutting and mineral photography. We also give lectures on prospecting and geology upon invitations from various organisations all over Greenland, such as the Greenland School of Minerals and Petroleum in Sisimiut, the University of Greenland, local museums and schools.



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GOVERNMENT OF GREENLAND



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