Greenfields Exploration

GREENLAND PROSPECTOR AND DEVELOPER OF THE YEAR 2019

PRESS RELEASE

SIGNIFICANT NEW EXPLORATION PROJECT

Perth, 7 July 2020. Greenfields Exploration Limited ('Greenfields', 'GEX' or the 'Company') is pleased to announce that an application for a new Special Exploration Licence in Greenland has advanced through initial approvals and is now in the public consultation phase. The application covers 6,472km^2 in Northern Greenland (Figure 1) and is prospective for sedimentary-hosted copper (Cu), silver (Ag), and magmatic copper. In a similar approach to the Frontier project, GEX used a minerals system approach to identify prospective areas that have been historically overlooked. By identifying and locating the necessary ingredients for a deposition event, GEX is taking a 'bottom-up', methodical approach to mineral exploration.

The new project will continue Greenfields' approach of challenging established ways of thinking to target significant discoveries. This approach, applied on the successfully partnered 'Frontier' project, has already led to Greenfields being recognised as the Greenland Developer of the Year.

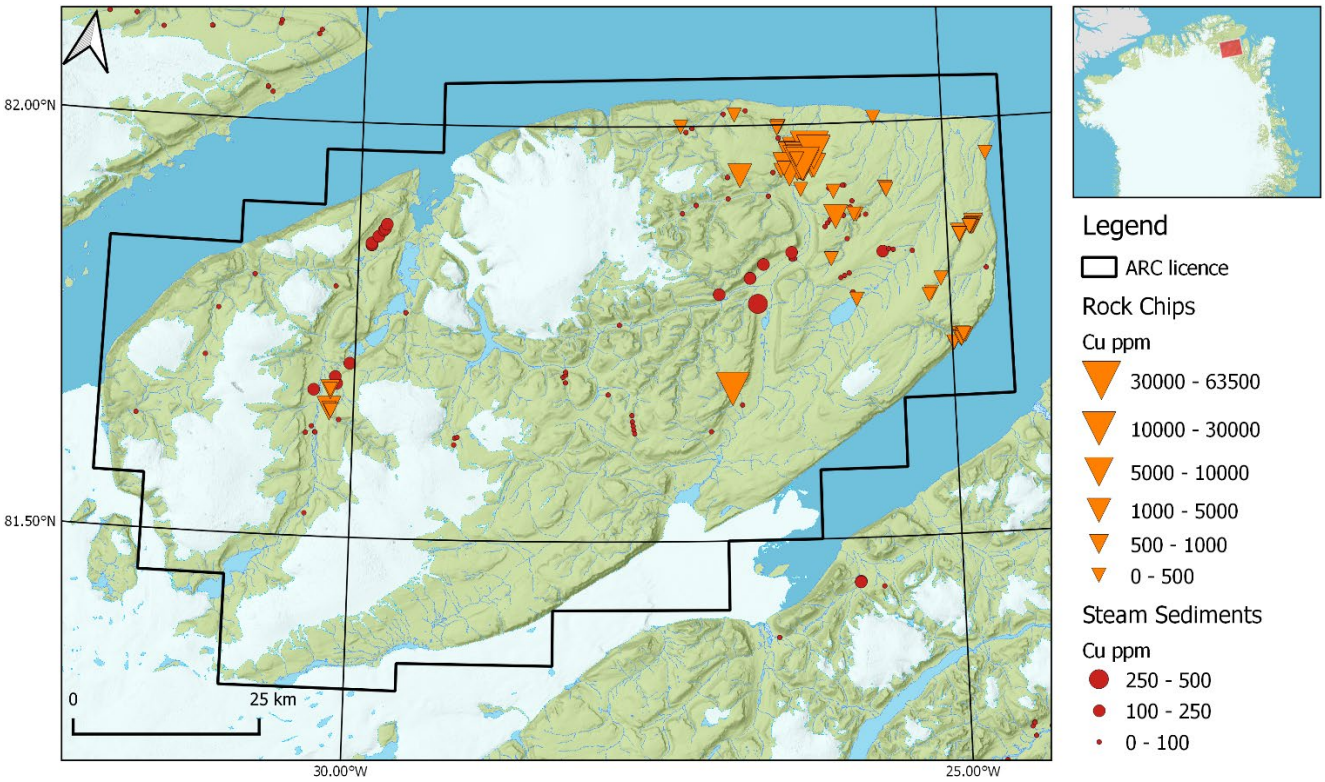


Figure 1: ARC licence application showing historical geochemical results

The new application for a Special Exploration Licence has been dubbed the Arctic Rift Copper project (**'ARC'**).

- The project extends over a very large area prospective for sedimentary-hosted copper (Figure 2). The 'Discovery' prospect is a little-explored breccia zone that is interpreted to be a feeder structure for a sediment-hosted deposit. Historical results from this breccia show promising results, with:

- 0.39% Cu and 14.2 g/t Ag across 16 m, including:
- **12.5% Cu, 385g/t Ag** peak assay in a zone dubbed 'Black Earth'. Significantly, this 0.75 to 3.0m thick zone has a minimum grade of 0.62% Cu and 27 g/t Ag (Figure 3.).

The Discovery prospect is mapped over a minimum of 2km along strike and is open in all directions.

- The ARC project contains copper targets across several settings within the mineral system, including the interpreted source of the copper, basalt rocks. Native copper occurs in the basalts as both primary magmatic and hydrothermal enrichment. Significantly, 80% of the regional geochemical samples contain native copper, with clasts up to 1kg (Figure 4) being located in the field. The prevalence and size of the native copper makes the source rocks a significant target for investigation.
- The area is thought to be analogous to the Michigan Upper Peninsula which has an endowment of approximately 5 million tonnes of contained copper, mostly concentrated in a 40km long area, hosted by both basalt and sediments and occurring as native copper.
- The project is located 130km south of the world-class Citronen deposit. Based on geochemistry and structural analysis, the Company believes that Citronen may have formed by the same processes that are observed in the ARC. As such, Greenfields is encouraged by the scale of the setting and considers it to bode well for the potential to host world-class deposits within the ARC.

Figure 2: Copper-oxide staining in a target sedimentary sequence

Figure 3: High-grade chalcocite-rich 'Black Earth' zone

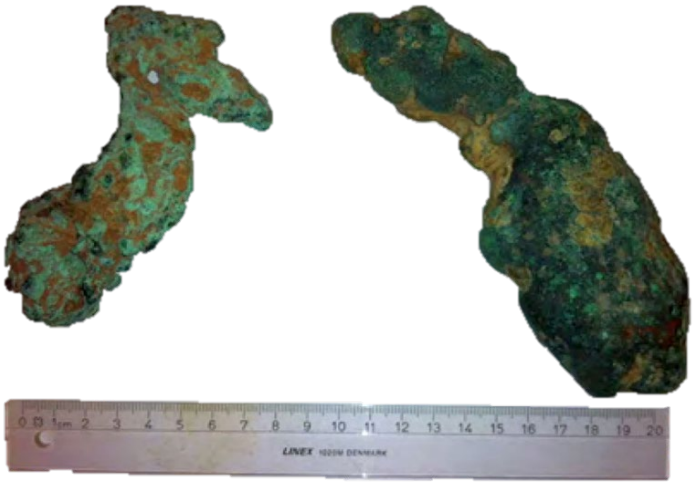


Figure 4: Native copper weighing up to 1 kg

Jon Bell, Managing Director of Greenfields, said:

"We are always looking for the next opportunity to unlock big value, and once again Greenland presents that opportunity to us. The ARC project has strong evidence to suggest that a large-scale copper deposition event has occurred and is still waiting to be discovered. The historical results suggest there are economically viable targets even aside from the sedimentary horizons which will be our primary target. This creates a somewhat unusual situation where the source rocks and pathways to a 'classic' sediment-hosted deposit are directly observable in the field, and economic targets in their own right. This allows us to build up a holistic understanding of the system at the same time as fast-tracking to a discovery. We're looking forward to refining and testing our hypothesis over the coming months."

Now that the Greenfields application has been approved, the licence enters a three-week public consultation phase. Greenfields welcomes the opportunity to engage with the Greenlandic government and people and is confident that its strong track record will give comfort that GEX is the right party to develop this highly prospective area.

The ARC licence, once granted, will carry **no exploration obligations until 2021**. This is thanks to the Greenland Government's strong response to the COVID-19 pandemic, where all expenditure obligations were annulled for 2020. Greenfields will use the rest of the year to further refine its understanding of the area.

Consistent with previous years, the Company offered to sponsor the public mineral hunt ('Ujarassiorit'). However, due to the application for the ARC licence, the sponsorship has been withdrawn by the Government to avoid any perception of undue influence. While the sponsorship is needed, Greenfields is impressed and considers it further vindication as to why Greenland is perceived to be amongst the least corrupt countries in the world.

"While this year has been very challenging for an international explorer like us, the downtime has given us the opportunity to closely examine historical results in a new light. We've taken the time to systematically review a huge collection of historical data and reporting, and the ARC project quickly demanded our attention. As a company, we target prospects with the potential for world-class deposits. These will continue to have value into the future regardless of short-term disturbances, and we look forward to adding value in the months to come," says Dr Bell.

To assist in this project expansion and consistent with its operating model, Greenfields has launched a lean capital raise to finance initial geological work on the ARC Project. This is the first capital raising the company has conducted since its initial seed round in 2018. "*We've always been proud of maintaining a tight capital structure,'* says Dr Bell, '*and this raise is aimed at generating a significant new asset for the company. We have a lot of supporters around the world and we're pleased that we can offer some of them the opportunity to directly take a stake in Greenfield's work."*

Once the ARC licences are granted, in combination with the Frontier project, GEX will hold an economic interest in approximately 28% of all area under licence in Greenland.

For more information please contact Lindsay Dick:
Email: lindsaydick@gexpl.com.
Telephone: 08 6270 6318
Website: www.gexpl.com

ABOUT THE COMPANY

Greenfields Exploration Limited is an Australian exploration incubator. The Company identifies and securing rights to undervalued projects, and then partners with other companies to advance them to the next stage. The intent is to build a portfolio of minority interests as a means of diversifying risk and maximizing the upside to discovery potential.

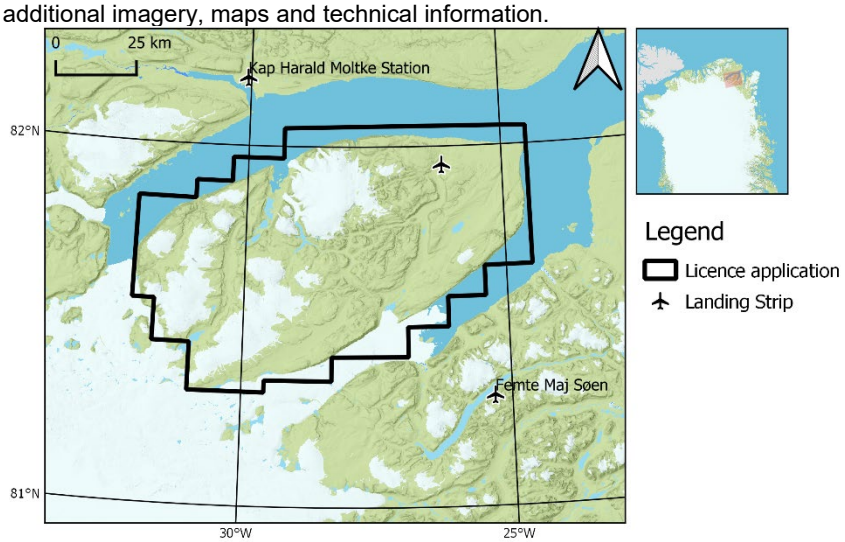
COMPETENT PERSON'S STATMENT

The information in this announcement relating to exploration targets and exploration results are based on information reviewed and checked by Dr Jonathan Bell who is a professional member of Australian Institute of Geoscientists (#3116).Dr Bell is a full-time employee of Greenfields and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves". Dr Bell consents to the inclusion in the documents of the matters based on this information in the form and context in which it appears.

FORWARD LOOKING STATMENTS

This announcement may contain certain "forward-looking statements" which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have reasonable basis. However, forward looking statements are subjected to risks, uncertainties, assumptions and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward looking statements. Readers should not place undue reliance on forward looking information. the Company does not undertake any obligation to release publicly any revisions to any "forward-looking statements" to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

JORC Table 1, section 2	
Criteria	Arctic Rift Copper project
Mineral tenement and land tenure status	The Arctic Rift Copper project ('ARC') comprises a single Special Exploration Licence ('SEL') application (identifier: M-MLSA-279). The spatial area of the application is 7,340km^2, the boundary of which is defined by the points: 82° 3' N, 29° 18' W 82° 3' N, 24° 30' W 81° 40' N, 24° 30' W 81° 40' N, 25° 25' W 81° 35' N, 25° 25' W 81° 35' N, 26° 8' W 81° 30' N, 26° 8' W 81° 30' N, 26° 54' W 81° 25' N, 26° 54' W 81° 25' N, 28° 20' W 81° 21' N, 28° 20' W 81° 21' N, 29° 35' W 81° 19' N, 29° 35' W 81° 19' N, 31° 0' W 81° 27' N, 31° 0' W 81° 27' N, 31° 42' W 81° 34' N, 31° 42' W 81° 34' N, 32° 7' W 81° 51' N, 32° 7' W 81° 51' N, 31° 0' W 81° 54' N, 31° 0' W 81° 54' N, 30° 18' W 81° 58' N, 30° 18' W 81° 58' N, 29° 18' W Once fjords and water are excluded, the Company estimates that mineral rights to approximately 6,472km^2 will be conveyed to it. A SEL confer an exclusive right to explore for mineral for three years at a reduced holding cost, provided each licence covers more than 1,000km^2. After three years, the holder of Special Exploration Licence has the right to convert the area, whole or in part, to conventional Exploration Licences. The fee for licence application is AUD1,092 and upon granting of the licence, a further AUD6,726 is payable. The minimum expenditure obligation for a SEL is DKK500/km^2 indexed to Danish CPI as at January 1992. The Company estimates that upon granting of the licence, the expenditure requirement will be approximately AUD1,195,000 per annum. However, the Government has waived all expenditure obligations for 2020 and as such, the holding cost of the licence will be zero until 31 December 2021. The obligation for 2021 will be calculated on 1 January 2022 based on the area under licence on the preceding day. Furthermore, Greenfields intends to materially reduce the licence area before this time. Any expenditure above the minimum regulatory requirement can be carried forward for a maximum of three years.
Exploration done by other parties	The ARC was subject to commercial exploration by Avannaa Resources Limited ('Avannaa') in 2010 and 2011. In its first year, Avannaa focussed its work in a small area in the northern part of the licence area known as Neergaard North. This work focussed on historical government and academic work that had identified highly-anomalous copper mineralisation. In 2010, the work included geochemical soil sampling, rock chipping and trenching of high-grade material associated with a NW-SE trending fault breccias. Based on the success of the 2010 program, Avannaa undertook a much larger regional reconnaissance program in 2011. This program involved a heli-supported geochemical sampling program over a very large area designed to test the copper prospectivity of various stratigraphic positions, as well as extending the length of the 'Discovery Zone' identified in 2010. Both aspects of this program were successful in that the Discovery Zone was shown to have a minimum strike length of 2km before disappearing under cover, and that certain stratigraphic horizons show copper anomalism over a significant lateral extent. However, much of the extended area explored by Avannaa locates to the southwest of the ARC and is now located in a Government mandated no-go zone for mineral exploration.
Geology	The ARC locates near a triple junction demarcated by three passive margins. This triple junction is associated with the formation of an ascending mantle plume in Mesoproterozoic (1,600M to 1,000M years ago) times. In more recent times, this mantle plume traversed underneath Greenland and is currently expressed as the deep-mantle tapping Icelandic mantle plume. The ARC contains a sequence of Mesoproterozoic aged sediments sandstones belonging to the Independence Fjord Basin that have been intruded by highly-altered dolerites, and overlain by 1.2km of Mesoproterozoic-aged flood basalts ('Zig-Zag Dal' basalts). In turn, the basalts are overlain by 1.1km Neoproterozoic-aged (1,000M to 541M years ago) clastic and carbonate sediments belonging to the Hagen Fjord Group. The lower portion of the Hagen Fjord Group is dominated by sandstones and siltstones, and the upper part by limestone and dolomites. There are distinctly different states of oxidation/reduction within the Hagen Fjord group and are considered to fit the classic 'deposit model' setting.

JORC Table 1, section 2 Criteria	Arctic Rift Copper project
	The metamorphic grade of the Zig-Zag Dal basalts is of the prehnite-pumpellyite facies, and the Hagen Fjord Group sediments show lower grade metamorphism. Due to the location within a passive margin, there is good preservation aside from mechanical erosion. Commercially interesting copper mineralisation occurs in both the basalts and Hagen Fjord Group sediments. The basalts are known to contain magmatic copper, and native copper is commonly found in the surrounding drainage systems. Significantly, the native copper specimens recovered by Avannaa in 2010 weigh up to 1kg. Greenfields considers that the age, setting and mineral composition makes the Zig-Zag Dal copper analogous to the Michigan Upper Peninsula deposits, and a likely source of copper for the anomalies reported in the overlying sediments. The fault breccias that transect the basalts and Neoproterozoic sediments are interpreted by the Company to represent fluid pathways as there are zones of intense potassium alteration within the surrounding quartz dominated sedimentary rocks. These breccias, which are up to 25m wide show copper mineralisation. The chalcocite and chalcopyrite copper bearing minerals are significant as they demonstrate that sulphur has been added into the fluids derived from the sulphur-undersaturated basalts. A source of sulphur is generally considered an important factor in the sediment-hosted copper deposit model. Other important components of the deposit model are also reported, including pseudomorphed gypsum (a source of sulphur, and copper mobilising salts), hydrogeologic seals, and contrasting oxidation states. Copper sulphides occur in the predicted geological lithological settings. The age of the mineralising event is not presently known. However, the Company notes that Government researchers identify that the chemistry of the fluids associated with the world-class Citronen deposit 130km to the north, are the same as those observed within the ARC once the background lithologies are removed as a variable. As Citronen sits higher in the stratigraphic sequence (Ordovician aged host rocks, 485.4 to 443.8M years ago), this may make the entire ARC sequence above the Zig-Zag Dal basalts prospective for sediment-hosted copper. The basal flows of the Zig-Zag Dal basalts show a marked depletion in nickel. While no commercial investigation appears to have ever been made, such a depletion suggests that the nickel may have been deposited into sulphides and conceptually, as nickel sulphide deposit. An interactive Government portal that contains the geology, and supporting reports can be accessed via: http://www.greenmin.gl/home.seam .
Drill hole information	No drilling has occurred within the ARC.
Data aggregation methods	All historical results presented in this release are based on those published by third parties. Greenfields has made a point of reporting the weighted-averages and has avoided individual high-grade results that may not be representative of the mineral system (e.g. a 53.8% Cu and 2,480 g/t Ag sample derived from a single float sample near the 'Black Earth' within the Discovery Zone).
Relationship between mineralisation width and intercept lengths.	The reported historical trenching results are presented on a true-width basis.
Diagrams	A relevant geological map is presented in the main body of this document, and a topographical an logistical map below. The Company is currently compiling a detailed Technical Assessment report that will provide additional imagery, maps and technical information. 
Balanced reporting	Greenfields has sourced and reasonably presented the relevant results, where available. The reader is cautioned that geochemical rock chip samples, by their nature, are not representative samples. Geochemical rock chip samples are erratically collected, lack scale and design. Geochemical results must be viewed as empirical evidence of anomalism, and not as a representative indication of mineralisation. Furthermore, due to the historical nature of the samples, it is not possible at the time of publication, to perform checks and balances on the numbers quoted in the literature. The planned Technical Assessment report will contain all available data.

JORC Table 1, section 2	
Criteria	Arctic Rift Copper project
Other substantive exploration data	In 1998, the Government conducted an airborne electromagnetic survey over the northern half of the ARC. The flight lines were carried out at an altitude of 120m above ground on a 400m line spacing. The geophysical data is freely available on the Government portal. Sediment-hosted copper deposit typically do not respond to any geophysical method and as such, the data is not suited to direct-detection. Electromagnetic surveys are suited to direct-detection of nickel sulphide deposits however the prospective basal portion of the Zig-Zag Dal basalts are not covered in the survey.
Further work	Despite the highly encouraging results and strong indications of a large mineral system, the ARC is at a very early stage of exploration. Additional geochemical surveying is warranted across the entire project area. Greenfields understands that the majority of the historical work has focussed on the sedimentary rocks, however it opines that a better understanding of the mineralisation within the well exposed, postulated source rocks will be important to identifying areas of potential mineralisation that are obscured by cover. A project wide gravity and magnetic survey would be beneficial in mapping out the basalts under cover, the dolerites and any large-scale features that may otherwise be obscured but important to controlling the deposition of metals. Given the significant advances in commercially available satellite technology since 2010/2011, the project area can be first pass evaluated using such remote methods.

JORC Table 1, section 1	
Criteria	Arctic Rift Copper project
Sampling techniques	Assay data presented in this document largely relates to historical geochemical sampling of trench samples, rock chips, grab samples, and stream sediments. For the 2010 work by Avannaa: "*A total of 202 samples were collected during the field program. Of these, 199 samples were bagged and send to Actlabs, Ancaster Canada for chemical analyses. Some 182 of these samples represent mineralisations, whereas the rest were taken as reference samples. To access the grade of copper and silver mineralisation at J.C. Christensen Land* [GEX: effectively the entire ARC licence]*, semicontinuous chip lines were undertaken through the most pronounced mineralised rocks. The length of individually chip line samples varies but the standard length is 0.5 m or 1.0 m. The entire chip line lengths presented in this report are all estimated as true stratigraphic thickness across the samples structure. Ten chip lines were laid out, resulting in a total of 117 chip samples. A representative hand sample of each chip line section was collected for reference*". The weight of the samples send for chemical analyses were usually in the 1.5 to 2.4kg range, and chip lines were typically taken over 0.5m to 1.0 m lengths. In 2011, Avannaa collected 249 rock samples and 227 stream sediment samples across a 4,051km^2 licence package. The rock samples were submitted to ALS laboratories for wet-assay analysis, however the stream sediment samples were only subject to hand-held XRF analysis. The weight of the 2011 samples are typically in the 200g to 300g range. Standards and duplicates were used in both the 2010 and 2011 programs.
Drill techniques	No drilling has ever occurred within the ARC.
Logging	No drilling has ever occurred within the ARC, and as such no logging records exist.
Sub-sampling techniques and sample preparation	The Company is unaware of any sub-sampling techniques or sample preparation.
Quality of assay data and laboratory tests	Avannaa used commercial assay-labs that supply quality certificates as part of the deliverable. Greenfields has no concern about the representivity of the wet assays. However, XRF information should be treated with caution due to the small sample window available to hand-held devices and the need for in-field calibrations depending on the order of magnitude of the element quanta. Furthermore, as stream sediments may be highly variable and elements of interest having very low levels of detection, the company is wary of the 2011 stream sediment XRF readings.
Verification of sampling and assaying	No third-party verification of the historical assay results has been undertaken.
Location of data points	The data locations and topographic control are based on information that is publicly disclosed by the Government. Grids are based on UTM Zones 26 and 27N using the WGS84 Datum.
Data spacing and distribution	The geochemical sampling is erratically distributed and based visual anomalism or physical/topographical availability. Much of the licence area is under cover which often prevents a grid approach.
Orientation of data in relation to geological structure	Historical assays appear to have been collected across geological features as opposed to length wise. The Company considers this to be appropriate practice.
Sample security	Greenfields has no information on the measures taken to ensure sample security. Given the age of the drilling, and the low-plausibility of sample tampering, the Company has no cause for concern.
Audits or reviews	Greenfields is unaware of any audits or reviews that have been carried out within the ARC.