Company Announcement, January 10th, 2019

Key Optimised Flotation Circuit Test Work Completed

HIGHLIGHTS:

1. **China's BTMR Laboratories selected to complete technical optimisation of Kvanefjeld flotation circuit**
2. **BTMR also played a key role under Shenghe in the technical overhaul of Mountain Pass rare earth operations in the United States**
3. **Test work now completed by BTMR in China to finalise and de-risk optimised flotation circuit**
4. **New simpler project configurations have been developed and tested**
5. **Optimised grade-recovery produces >22% REO concentrate grades with recovery in excess of 80%**
6. **Pilot plant work planned for 2019**

Managing Director Dr John Mair commented:

"The progress made through 2018 on technical optimisation was excellent, with extensive test work completed in both Australia and China. Shenghe's experience, along with the leading technical input of their consultants has led to significant improvements in flotation performance.

Importantly, these efforts will fast-track and further de-risk project implementation and avoid operational issues encountered by some producing rare earth operations in their start up years.

The optimisation program has resulted in developing the simplest, most efficient flotation circuit possible while minimising impacts."

Optimised Flotation Circuit Finalised

Greenland Minerals Ltd ('GML' or 'the Company') is pleased to update on the completion of test work to finalise and further de-risk the optimised flotation circuit for the Kvanefjeld Project. In 2018 a series of test work programs were conducted to finalise the optimal circuit. This test work program was

overseen by both GML and Shenghe Resources Holding Co Ltd (Shenghe), GML's largest shareholder. Two expert Chinese laboratories separately developed methods that delivered significantly improved performances.

Through mid-2018, representatives from the Institute of Multipurpose use of Mineral Resources (IMUMR) and Baotou Meng Rong Fine Materials Co Ltd (BTMR) laboratories visited Perth to evaluate the flotation process flow sheets developed by each group.

Following the test work in Perth, BTMR was selected to continue the development and validation of their flotation circuit. BTMR has played a key role in the technical overhaul of the Mountain Pass rare earth operation in the USA, where Shenghe is also a shareholder.

Further testwork by BTMR in China has resulted in outstanding simplifications with key highlights including:

- **Circuit operates consistently over a broad temperature range,**
- **No regrinding or de-sliming circuits are required,**
- **Reduced reagent consumption through improvements to the water chemistry without increased capital expenditure,**
- **Reduced reagent consumption assisted by the removal of 80% of fluorine in process water with positive impacts on environmental management.**

These benefits will reduce both operating and capital expenditures, with increased concentrate REO grades at high recoveries. This provides greater flexibility to project implementation and major efficiency of refining mineral concentrates.

-ENDS-

ABOUT GREENLAND MINERALS LTD.

Greenland Minerals Ltd (ASX: GGG) is an exploration and development company focused on developing high-quality mineral projects in Greenland. The Company's flagship project is the Kvanefjeld Rare Earth Project (rare earth elements, uranium, zinc). A pre-feasibility study was finalised in 2012, and a comprehensive feasibility study was completed in 2015 and updated following pilot plant operations in 2016. The studies highlight the potential to develop Kvanefjeld as a long-life, low cost, and large-scale producer of rare earth elements; key enablers to the electrification of transport systems.

GML is working closely with major shareholder and strategic partner Shenghe Resources Holding Co Ltd to develop Kvanefjeld as a cornerstone of future rare earth supply. An exploitation (mining) license application for the initial development strategy has been undergoing review by the Greenland Government through the latter part of 2016 and through 2017.

In 2017-18, GML continues to undertake technical work programs with Shenghe Resources Holding Co Ltd that aim to improve the metallurgical performance, simplify the development strategy and infrastructure footprint in Greenland, enhance the cost-structure, and ensure that Kvanefjeld is aligned with downstream processing. In addition, the Company continues its focus on working closely with Greenland's regulatory bodies on the processing of the mining license application and maintaining regular stakeholder updates.

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Greenland Minerals Ltd will continue to advance the Kvanefjeld project in a manner that is in accord with both Greenlandic Government and local community expectations and looks forward to being part of continued stakeholder discussions on the social and economic benefits associated with the development of the Kvanefjeld Project.

Competent Person Statement – Mineral Resources Ore Reserves and Metallurgy

The information in this report that relates to Mineral Resources is based on information compiled by Mr Robin Simpson, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Simpson is employed by SRK Consulting (UK) Ltd ("SRK") and was engaged by Greenland Minerals Ltd on the basis of SRK's normal professional daily rates. SRK has no beneficial interest in the outcome of the technical assessment being capable of affecting its independence. Mr Simpson has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Robin Simpson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in the statement that relates to the Ore Reserves Estimate is based on work completed or accepted by Mr Damien Krebs of Greenland Minerals Ltd and Mr Scott McEwing of SRK Consulting (Australasia) Pty Ltd. The information in this report that relates to metallurgy is based on information compiled by Damien Krebs.

Damien Krebs is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the type of metallurgy and scale of project under consideration, and to the activity he is undertaking, to qualify as Competent Persons in terms of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 edition). The Competent Persons consent to the inclusion of such information in this report in the form and context in which it appears.

Scott McEwing is a Fellow and Chartered Professional of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Persons in terms of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 edition). The Competent Persons consent to the inclusion of such information in this report in the form and context in which it appears.

The mineral resource estimate for the Kvanefjeld Project was updated and released in a Company Announcement on February 12th, 2015. The ore reserve estimate was released in a Company Announcement on June 3rd, 2015. There have been no material changes to the resource estimate, or ore reserve since the release of these announcements.

Appendix 1. Kvanefjeld Project, JORC 2012 Table 1.

The following section is provided to ensure compliance with the JORC (2012) requirements for the reporting of exploration results

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	The rock material used for the testwork was stockpiled rock extracted from an exploratory adit that runs through the Kvanefjeld mineral resource for approximately 950m. Rock extracted from the adit is stored in series of stockpiles below the adit entrance. Three stockpiles were selected as being representative based on geochemical evaluation, and a 34 tonne bulk sample was collected. A 200 kg sub-sample from the bulk sample was used for this specific testwork program.
Sampling Techniques Continued	*Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	The geochemistry and metallurgical behaviour of the bulk sample used is well understood. The bulk sample material has been used for both laboratory bench-scale testwork and pilot plant work performed in 2012 and 2015 respectively. The metallurgical behaviour of the bulk sample is consistent with that sourced from drill cores.
	Aspects of the determination of mineralisation that are Material to the Public Report. *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	The samples were produced with small scale mining, from a horizontal adit. The horizontal adit was undertaken to produce mine like samples. These samples are logged with horizontal extent and have all been sampled for chemical assay. The location and geochemistry of the adit samples were correlated with the geochemistry from exploration drill cores to ensure representivity.
Drilling Techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	No drilling performed specific to this work.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	No drilling performed specific to this work.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No drilling performed specific to this work.

	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No drilling performed specific to this work.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	No drilling performed specific to this work.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	No drilling performed specific to this work.
	The total length and percentage of the relevant intersections logged.	No drilling performed specific to this work.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	No drilling performed specific to this work.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Dry crushed and rotary split suing a mechanical splitter.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	No drilling performed specific to this work.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All samples were crushed to minus 3 mm before being split out with a rotary sampling device. No grab samples or large rock samples were taken.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Previous metallurgical testwork has been performed on the ore samples to demonstrate their behaviour was representative.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The grain size of the target value mineral is 75 micometers on average. The ore provides was all crushed to minus 3 mm prior to sub-sampling using a mechanical splitter to produce the delivered sample.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Testwork was performed at the technical institute BaoTou MengRong Fine Material Co Ltd (BTMR). They are based in Boutou City, Inner Mongolia. BTMR have significant experience in the beneficiation of rare earth ores. Batch testwork and locked cycle flotation work were performed as part of their services. Chemical analysis of laboratory testwork samples was performed by an external and certified analytical

		laboratory. This ensures independent accreditation of laboratory results. Elemental mass balancing was performed for each of the elements of interest. In particular this pertains to elements REE, U, Zn, Fe, Al, P and Zr. Calculated head assays checks were performed from the testwork products to confirm the accuracy of the elemental assays. The testwork results presented are for the total flowsheet and do not represent the results of a single batch laboratory test.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No site geophysical tools used.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Chemical analysis was qualified by the China Metrology Accreditation (CMA) to ensure quality control procedures and suitable standards were used.
Verification of Sampling and Assaying	*The verification of significant intersections by either independent or alternative company personnel.*	No drilling performed specific to this work.
	The use of twinned holes.	No drilling performed specific to this work.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	No drilling performed specific to this work.
	Discuss any adjustment to assay data.	No drilling performed specific to this work.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	No drilling performed specific to this work.
	Specification of the grid system used.	No drilling performed specific to this work.
	Quality and adequacy of topographic control.	No drilling performed specific to this work.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	No drilling performed specific to this work.

	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	No drilling performed specific to this work.
	Whether sample compositing has been applied.	No drilling performed specific to this work.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	No drilling performed specific to this work.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No drilling performed specific to this work.
Sample Security	*The measures taken to ensure sample security.*	The chain of custody of the samples was managed by GMEL. A whole of journey courier with tracking was used to transport the samples from Greenland to China. Once in a China a customs agent was used to facilitate their transport to the registered laboratories (IMUMR % BTMR).
Audits or Reviews	*The results of ay audits or reviews of sampling techniques and data.*	No additional audits were completed other than the routine quality control tests with standards at the laboratory.