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GreenRoc Mining Plc / EPIC: GROC / Market: AIM / Sector: Mining

8 March 2022

GreenRoc Mining plc

("GreenRoc" or the "Company")

Amitsoq Graphite Project Update
Declaration of Maiden Ore Resource

GreenRoc Mining plc (AIM: GROC), a company focused on the development of critical mineral projects in Greenland, is delighted to announce a significant maiden ore resource ("Maiden Resource") at the Amitsoq Graphite Project in southern Greenland ("Amitsoq" or the "Project"), one of the highest-grade graphite deposits in the world.

Highlights

- A maiden combined Indicated and Inferred JORC Resource has been defined at Amitsoq of 8.28 million tonnes (Mt) at an average grade of 19.75%, giving a total graphite content of 1.63 Mt.
- This includes a particularly high-grade contribution from the Lower Graphite Layer of 3.67 Mt at a grade of 21.19%, for 0.775 Mt of contained graphite.
- This Maiden Resource confirms Amitsoq's position as one of the highest-grade graphite deposits globally and supports the Company's objective of fast tracking the Project into the development phase.
- The total graphite content of 1.63 Mt outlined by the Maiden Resource exceeds the upper end of the tonnage range in the previously declared Amitsoq Exploration Target (which implied between 0.408 to 1.620 Mt of contained graphite from the entire target area).
- Over 25% of the contained graphite in the Maiden Resource falls within the higher category of Indicated Resources, providing additional confidence that a more

significant, high-category Resource can be established following the forthcoming Phase 2 drilling campaign.

- Planning and procurement for the Phase 2 drilling campaign at Amitsoq is well underway with appointment of contractors due to be finalised this month.
- The deposit is open along strike (predominantly to the north) and down dip to the west, and this will be tested in the Phase 2 drilling programme this year.
- Metallurgical testing confirms that the Amitsoq graphite can be upgraded to a more than 99.95% pure graphite product, which is the specification requirement for EV lithium-ion batteries (the ultra-high growth sector of the graphite market).

GreenRoc's CEO, Kirk Adams, commented:

"This Maiden JORC Resource launches GreenRoc into the global graphite resource space with one of the highest-grade graphite projects in the world. We now find ourselves in a highly enviable position at Amitsoq following this outstanding maiden result.

"A review of our peers in this sector reveals that deposits with compliant resources above 20% contained graphite grade are scarce. Most graphite projects have average grades in single digit percentages and, according to S&P Global, the average grade of graphite resources worldwide stands at just 8.45%. The implication of our very high average grade at the Amitsoq deposit should not be overlooked, since it reduces the cost of mining and mineral production on a per tonne of concentrate basis, as well as reducing the amount of waste per tonne of ore mined.

"We believe the consistency and true widths of the orebodies at the Amitsoq deposit bode well for future mining and processing operations. Furthermore, it has been shown from previous metallurgical testing that this material can be upgraded to a more than 99.95% pure spherical graphite product, which is the requirement for EV batteries. Global consumption of this type of high purity spherical graphite is forecast to be at least 3 times higher by 2030, and supply shortages are predicted in the near to medium term. The projected future need for high purity spherical graphite, driven by the explosive growth in EV sales, is growing very rapidly.

"Despite the fact that more than half of the Exploration Target area for Amitsoq Island remains undrilled, this Maiden Resource has already exceeded the total resource tonnages predicted in that Exploration Target, as well as surpassing the total contained graphite target for the area. GreenRoc is now in the process of planning and procuring drilling services to drill out the remaining extent of the Exploration Target area at the Amitsoq Island deposit this summer.

"We are confident that the resource on Amitsoq Island will increase in both tonnes and classification following this year's programme to the extent that we hope to have the resource basis to undertake a detailed feasibility study on the deposit. We are also mindful of the additional considerable upside potential still to come from the, as yet undrilled, Kalaaq Deposit to the south of Amitsoq.

"In summary, I believe that this Maiden Resource confirms Amitsoq as one of the leading graphite projects in the world, with both exceptional grades and significant tonnes, and with more to come from the 2022 drilling campaign."

Figure 1. Amitsoq Graphite Project in southern Greenland, showing Amitsoq Island graphite deposit to the north (site of the former graphite mine) and Kalaaq Deposit to the south.

Details

The Maiden JORC Resource at the Amitsoq Island Project was calculated from 10 drill intersections drilled from three drill pads along the island's ridge, to test the down-dip continuation of the Upper Graphite Layer ("UGL") and the Lower Graphite Layer ("LGL"), which outcrop along the eastern face of the island. The assay results from the drilling programme were reported by the Company on 3 December 2021.

Further details in respect of the Resource are set out in Tables 1 and 2.

Table 1. Summary Table of Mineral Resources

Mineral Resource Category	Tonnes (Mt)	Graphitic Carbon (%)	Graphite content (Mt)
Measured	-	-	-
Indicated	2.04	20.65	0.42
Total Measured + Indicated	**2.04**	**20.65**	**0.42**
Inferred	6.24	19.45	1.21
Total Resources	**8.28**	**19.75**	**1.63**

Notes:

1. The Mineral Resource is reported at a graphitic carbon cut-off grade of 0 (zero) % Cg
2. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. Therefore, reporting of tonnage and grade figures reflects this relative uncertainty and figures are rounded to appropriate significant figures. As a result, some error may be incurred when reporting global figures based on rounded values.
3. The Mineral Resource Statement presented above has been reported in accordance with the requirements of the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012 Edition) ("JORC Code 2012 Edition"). The Competent Person who assumes responsibility for reporting of the Mineral Resource is Dr John Arthur who is a Competent Person as defined by the JORC Code 2012 Edition, having more than 5 years' experience that is relevant to the style of mineralisation and type of deposit described herein, and to the activity for which he accepts responsibility. The effective date of the Mineral Resource Statement is 1st March 2022.
4. Resources are not constrained other than by the geological boundary limits of the mineralised unit. At this stage, no consideration has been made as to what tonnes and grade would be reasonably

expected to be extracted profitably. Notwithstanding this, the Competent Person considers the distance constraints in both the dip and strike directions to be a reasonable approximation and expectation of potential mining extents.

5. Mineral Resources which are not Ore Reserves do not have demonstrated economic viability. The estimate of Mineral Resource reported may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
6. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to the Indicated Mineral Resource in this estimate and must not be converted to an Ore Reserve. It is reasonably considered that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
7. Currently, no Ore Reserves have been established for the Amitsoq Project.

Figure 2. High-grade LGL intercept in AM-DD-005

Table 2 breaks down the Resource by graphite layer and Resource category.

Table 2. Breakdown of Resources per Graphite Layer

Mineral Resource Category	Tonnes (Mt)	Graphitic Carbon (%)	Graphite content (Mt)
Upper Graphite Layer			
Indicated	0.59	18.97	0.111
Inferred	4.02	18.61	0.748
TOTAL UGL RESOURCE	**4.61**	**18.65**	**0.859**
Lower Graphite Layer			
Indicated	1.45	21.32	0.309
Inferred	2.22	20.97	0.466
TOTAL LGL RESOURCE	**3.67**	**21.19**	**0.775**

Figure 3. High-grade LGL intercept in drill hole AM-DD-015

Table 3 displays the highly consistent nature of the graphite grades intersected so far in the drilling. The Resource is unchanged from a 0% cut-off grade to a 13% cut-off grade and only displays a marginal drop off of Resources when using a 15% cut-off grade. This bodes well for the resilience of the deposit in the face of potentially fluctuating graphite prices and operational cost profiles.

Table 3. Sensitivity Table

	Mineral Resource Category								
Cut-Off Grade (Cg%)	Measured			Indicated			Inferred		
	Tonnes (Mt)	Graphitic Carbon (Cg%)	Graphite Content (Mt)	Tonnes (Mt)	Graphitic Carbon (Cg%)	Graphite Content (Mt)	Tonnes (Mt)	Graphitic Carbon (Cg%)	Graphite Content (Mt)
Base	-	-	-	2.04	20.65	0.42	6.24	19.45	1.21

Case (0% Cg)									
13	-	-	-	2.04	20.65	0.42	6.24	19.45	1.21
15	-	-	-	2.02	20.70	0.42	6.23	19.45	1.21
17.5	-	-	-	1.91	20.95	0.40	6.03	19.55	1.18

Figures 4 and 5 show the extent of the Resource categories in plan and cross-section views.

Figure 4. Plan view of Resource categories

Figure 5. East-West Cross section showing the relationship of the graphite layers and Resource categories

This announcement contains inside information for the purposes of the UK Market Abuse Regulation and the Directors of the Company are responsible for the release of this announcement.

Glossary

cut-off	The minimum grade required for a mineral or metal to be economically mined (or processed). Material found to be above this grade is considered to be ore, while material below this grade is considered to be waste.
Exploration Results	Exploration Results include data and information generated by mineral exploration programmes that might be of use to investors but which do not form part of a declaration of Mineral Resources or Ore Reserves.
Exploration Target	An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade (or quality), relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource.
graphitic	of, relating to, resembling, or having the structure of graphite.
graphitic carbon	Carbon may be present in rocks in various forms including organic carbon, carbonates or graphitic carbon. Carbon in rocks may be reported as fixed or total carbon (i.e. organic carbon + carbon in carbonate minerals + carbon as graphite) or as graphitic carbon (i.e. total carbon - (organic + carbonate carbon)).
Indicated Resource	Indicated Resources are economic mineral occurrences that have been sampled (from locations such as outcrops, trenches, pits and drill holes) to a point where an estimate has been made, at a reasonable level of confidence, of their contained metal, grade, tonnage, shape, densities, physical characteristics.
Inferred Resource	An Inferred Resource means that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence

	and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.
JORC	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code') is a professional code of practice that sets minimum standards for Public Reporting of minerals Exploration Results, Mineral Resources and Ore Reserves.
Maiden Resource	The first Mineral Resource estimate to be completed on a project.
Mineral Resource	A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
metallurgical testing	Metallurgical testing typically uses microscopy to provide important information about the structure and properties of metal and alloy samples.
Ore Reserves	The economically mineable part of a Measured or Indicated Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments, which may include feasibility studies, have been carried out, and include consideration of and modification by realistically assumed, mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction can reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.
spherical graphite	Used as the anode in lithium-ion batteries. Natural flake graphite is first purified and shaped into small spheres, at which point the material is referred to a High Purity Spherical Graphite ("HPSG"). After shaping, the natural flake graphite is purified by chemical leaching to remove impurities and raise the carbon content to above 99.95% C.
strike	The direction and length of a geological feature (for example, a vein or rock formation) measured on a horizontal surface.

Forward Looking Statements

This announcement contains forward-looking statements relating to expected or anticipated future events and anticipated results that are forward-looking in nature and, as a result, are subject to certain risks and uncertainties, such as general economic, market and business conditions, competition for qualified staff, the regulatory process and actions, technical issues, new legislation, uncertainties resulting from potential delays or changes in plans, uncertainties resulting from working in a new political jurisdiction, uncertainties regarding the results of exploration, uncertainties regarding the timing and granting of prospecting rights, uncertainties regarding the timing and granting of regulatory and other

third party consents and approvals, uncertainties regarding the Company's or any third party's ability to execute and implement future plans, and the occurrence of unexpected events. Actual results achieved may vary from the information provided herein as a result of numerous known and unknown risks and uncertainties and other factors.

Without prejudice to the generality of the foregoing, uncertainties also exist in connection with the ongoing Coronavirus (COVID-19) pandemic which may result in further lockdown measures and restrictions being imposed by Governments and other competent regulatory bodies and agencies from time to time in response to the pandemic, which measures and restrictions may prevent or inhibit the Company from executing its work activities according to the timelines set out in this announcement or indeed from executing its work activities at all. The Coronavirus (COVID-19) pandemic may also affect the Company's ability to execute its work activities due to personnel and contractors testing positive for COVID-19 or otherwise being required to self-isolate from time to time.

Competent Person Declaration

The information in this release that relates to Exploration Results and Mineral Resources has been reviewed by Dr John Arthur. Dr Arthur is a Fellow of The Geological Society of London and a Chartered Geologist (FGS CGeol no. 1005744) and 28 years' experience in the minerals and mining industry.

Dr Arthur 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 targets, Exploration Results, Mineral Resources and Ore Reserves'', also known as the JORC Code. The JORC code is a national reporting organisation that is aligned with CRIRSCO. Dr Arthur consents to the inclusion in the announcement of the matters based on his information in the form and context in which they appear.

****ENDS****

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About GreenRoc

GreenRoc Mining Plc is an AIM-quoted company which is developing mining projects in Greenland in critical and high-demand minerals. Led by a group of highly experienced mining industry professionals, GreenRoc has a portfolio of 100% owned projects: Amitsoq (Graphite); Thule Black Sands (Ilmenite); Melville Bay (Iron Ore); and Inglefield (Multi-Element).

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