



**27 November 2020**

## **Beowulf Mining plc**

("Beowulf" or the "Company")

### **Kallak Update**

Beowulf (AIM: BEM; Spotlight: BEO), the mineral exploration and development company, provides an update on matters regarding its Kallak iron ore project.

#### **Constitutional Committee Review**

The Constitutional Committee ("KU"), which has been reviewing the Swedish Government's handling of the Company's application for an Exploitation Concession for Kallak North met 26 November 2020 and made the following statement (translation):

*"KU has examined the application for a processing concession for Kallak. In the Government case, no visible administrative measures were implemented for almost three years. This means a delay that is not acceptable, according to KU.*

*It also appears that the applicant has on several occasions asked the Ministry of Trade and Industry for a meeting. The Ministry has then stated that this is not possible because the issue concerns a forthcoming Government decision and is a matter under consideration.*

*KU notes that the Ministry management's statement does not seem to be in line with what the Prime Minister has stated. The Government Offices thus seem to lack a common approach to the possibility for parties in administrative matters to have a meeting with the responsible ministry."*

While the KU's statement will have no bearing on the final decision, the Company now hopes that a decision will be 'forthcoming'.

#### **UNESCO Review**

The Company will be writing to Ministry of Enterprise and Innovation regarding the United Nations Educational, Scientific and Cultural Organization ("UNESCO") review of the Kallak project. It is noteworthy that, on behalf of UNESCO, ICOMOS International and IUCN have already provided comments on Kallak in February 2016.

In the case of Kallak, the Operational Guidelines for the Implementation of the World Heritage Convention (the "Guidelines") do not require a Heritage Impact Assessment ("HIA") to be prepared, nor do the Swedish requirements for being granted an Exploitation Concession. Voluntarily, the Company prepared an HIA which was submitted to the Mining Inspectorate in April 2017.

It is worth remembering that Kallak is at its closest point 33.8 kilometres from Lapponia. Kallak is 13.6 square kilometres, which is an area less than 0.15 per cent of Lapponia's 9,400 square kilometres.

Using terminology from the Guidelines, Kallak is not 'in' Laponia. It is not situated within a 'buffer zone' nor does it fall under any 'management system' for Laponia.

As such, since 2006, Beowulf's subsidiary Jokkmokk Iron Mines has been able to apply for exploration licences at Kallak and been permitted to invest, explore and develop the Kallak Iron Ore Project over 14 years, defining a potential resource of up to 250 million tonnes and making an application for an Exploitation Concession. Kallak could support mining for a period of 25 years or more and transform Jokkmokk's economic future.

In March 2017, Naturvårdsverket and Rikssantivarieämbetet confirmed that Kallak would have no direct impact on Laponia.

Considering indirect effects and reindeer herding, there are nine separate reindeer herding coops with part of their pastures in Laponia, namely: Baste čearru, Unna tjerusj, Sirges, Jåhkågaska tjiellde, Tuorpon, Luokta-Mávas, Udtja, Slakka and Gällivare.

Kallak represents ~ 0.5 per cent of Jåhkågaska's available pasture lands, and Jåhkågaska's 4,500 reindeer make up less than ten per cent of the total number of reindeer that are present in Laponia over some part of the year.

In Sweden, mining and reindeer herding can and do coexist. In the Company's knowledge there is no evidence to the contrary.

**Sven Otto Littorin, Chairman of Beowulf, commented:**

*"The Ministry's recent move to consult UNESCO, as a means to satisfying all partners in Government that the Company's application is good and meets the requirements, seems to have anticipated the KU's findings.*

*"The Company voluntarily produced an HIA in April 2017, and while we believe the Government should have reached its decision three or four years ago, on the basis of that report, we can be patient for a little while longer. The Company has done all it needs to do to be awarded a permit for Kallak.*

*"In the past, Kallak has created strong feelings and some anxiety. At the same time, we cannot choose where the ore is located. At the end of the day, the question is whether we should mine 'pure ore' in Sweden or import 'dirty ore'. If we choose the latter, then we export our needs to countries that may be incapable of meeting the standards that we aspire to, such as fossil-free supply chains, and we don't deliver on the vision expressed by the Prime Minister in recent days of building green communities, reducing emissions and creating new jobs.*

*"Gigantic LKAB, the state-owned iron ore company, is investing now to renew its installed technology, which will take time to do, to achieve its net-zero ambition by 2045. Relatively speaking, we are a small entrepreneurial company that can build everything right from the start and achieve the goal of being a fossil-free producer within five years.*

*"While the issue of Kallak is somewhat politically charged, I like to work with these challenges and I would, most of all, like to work with the community in Jokkmokk, to make the town a national centre for sustainable and skills-developing mining in collaboration with partners, such as Luleå University of Technology. It would mean a lot to the municipality and create hundreds of long-term jobs for decades to come."*

**Swedish translation of the Chairman's comments:**

*"Departementets senaste besked, att rådgöra med UNESCO för att se till att hela regeringen är överens om att företagets ansökan uppfyller alla villkor, ser ut att ha varit ett sätt att förekomma KUs granskning.*

*"Företaget lämnade frivilligt in en "Heritage Impact Assessment" i april 2017 och även om vi anser att regeringen borde ha fattat sitt beslut för tre, fyra år sedan baserat på den rapporten, kan vi vara tålmodiga ytterligare ett tag. Företaget har gjort allt i sin makt för att få bearbetningskoncessionen för Kallak beviljad.*

*"Kallak har historiskt väckt känslor och oro. Samtidigt kan vi inte välja var malmen ligger. Till syvende och sist handlar frågan om vi ska bryta "ren malm" i Sverige eller importera "smutsig malm" från utlandet. Om vi väljer det sistnämnda flyttar vi vår efterfrågan till länder som inte har samma ambition att möta höga miljökrav inom t ex fossilfria försörjningskedjor som vi har. Därmed blir det svårt att nå den vision som statsministern uttryckte nyligen; att bygga gröna samhällen med minskade utsläpp och fler, nya jobb.*

*"Gigantiska statliga LKAB ska ställa om sin åldriga teknik i syfte att nå sin nollvision till 2045. Vi är ett litet entreprenöriellt bolag som kan göra rätt från början och därmed nå vårt mål att bli en fossilfri producent redan inom fem år.*

*"Även om frågan är politiskt laddad gillar jag utmaningen och jag skulle helst av allt vilja göra Jokkmokk till nationellt kompetens- och innovationscentrum för hållbar gruvnäring i samverkan med, bland andra, Luleå tekniska universitet. Det skulle betyda mycket för kommunen och skapa hundratals arbetstillfällen de kommande decennierna."*

## **About Kallak**

The Kallak iron ore deposit is located approximately 40 kilometres ("km") west of Jokkmokk in the County of Norrbotten, Northern Sweden, 80 km southwest of the major iron ore mining centre of Malmberget, and approximately 120 km to the southwest of LKAB's Kiruna iron ore mine. The first Exploration Licence for Kallak was awarded by the Mining Inspectorate of Sweden in 2006.

A Mineral Resource Estimate for Kallak North and South, based on 27,895 metres of drilling conducted between 2010-2014, 131 drillholes, was finalised on 28 November 2014.

Following the guidelines of the JORC Code, 2012 edition, an Indicated Resource of 118.5 million tonnes ("Mt") at 27.5 per cent iron content ("Fe") and an Inferred Resource of 33.8 Mt at 26.2 per cent Fe was defined. In addition, there is an exploration target of 90-100 Mt at 22-30 per cent Fe.

In April 2013, the Company applied for an Exploitation Concession for Kallak North (the "Concession") and in October 2015, the Mining Inspectorate recommended to the Swedish Government that the Concession be awarded. The Company is still waiting on the Swedish Government to take a decision.

## **Market Leading Potential – RNS dated 17 September 2020**

[https://polaris.brighterir.com/public/beowulf\\_mining\\_plc/news/rns/story/x8l7kjr](https://polaris.brighterir.com/public/beowulf_mining_plc/news/rns/story/x8l7kjr)

Highlights:

- Testwork on Kallak ore has produced an exceptionally high-grade magnetite concentrate at 71.5 per cent iron ("Fe") content with minimal detrimental components.
- This would make Kallak the market leading high-grade product among known current and planned future producers.
- The next best magnetite product is LKAB's (the state-owned Swedish iron ore company), which produces magnetite fines ("MAF") with a target specification of 70.7 per cent Fe and is regarded as unique, until now, due to its exceptionally high iron content.
- Kallak magnetite concentrate would reduce the carbon footprint of traditional steel manufacturing, improve energy efficiency in any downstream process and reduce waste. Magnetite has inherent energy content, which ultimately results in lower energy demand for steel manufacturing when compared to current common practice.
- Globally, the feedstock for steelmaking is 80 per cent hematite and 20 per cent magnetite. The demand for high-quality feedstock and therefore magnetite should increase as producers look to protect the environment by improving energy efficiency, minimizing waste and the impact of waste disposal.

### **Economic Potential**

In response to the Government's request, in the middle of 2015, for the County Administrative Board for the County of Norrbotten (the "CAB") to provide comments on the national economic assessment for Kallak, the CAB's findings were as follows:

- Mining is economically relevant and that the Kallak North project generates economic benefits at local, regional and national levels, including direct and indirect jobs, tax revenues, and more broadly across mining equipment and services sectors in Sweden.
- The Concession Area applied for by the Company creates no conflicts where national interests are considered.
- The Concession is designated as an Area of National Interest ("ANI") for minerals.
- The Company should work with communities that could be affected by the development of a mining project, in order to eliminate or mitigate any impacts, including reindeer herders and Sami villages.
- The Company should consider in its ongoing studies the potential impact of its mining activities on tourism and transport infrastructure.

In 2017, Copenhagen Economics produced a 'Big Picture' study for Kallak ("the Study" or "the Kallak Study"):

[https://beowulfmining.com/wp-content/uploads/2018/10/Copenhagen-Economics\\_Presentation\\_SEP17\\_Swedish.pdf](https://beowulfmining.com/wp-content/uploads/2018/10/Copenhagen-Economics_Presentation_SEP17_Swedish.pdf)

The Study built on the work carried out by the Company and others, including the 2015 independent socio-economic study initiated by Jokkmokks Kommun, completed by consultants Ramböll, which in its findings concluded that a mining development at Kallak would create direct and indirect jobs, increase tax revenues and slow down population decline, and the 2010 study by the Economics Unit of Luleå University of Technology, 'Mining Investment and Regional Development: A Scenario-based Assessment for Northern Sweden'.

Copenhagen Economics had previously reviewed the attractiveness of the Swedish mining sector on a number of parameters, including licensing and regulation, commissioned by the Swedish Agency for Growth Policy Analysis, part of the Government of Sweden.

The Study demonstrated that the economic effect of Kallak is 'not just about a mine'. A mining project would economically transform Jokkmokk and support other major capital expenditure

and economic activity e.g. Inlandsbanan, Luleå Hamn, Vattenfall etc, spreading the benefits, through Norrbotten and beyond.

When it comes to Kallak's economic effect on Jokkmokk, the Study highlights were as follows:

- A mining operation at Kallak has the potential to create 250 direct jobs and over 300 indirect jobs in Jokkmokk, over the period that a mine is in operation.
- These jobs could be sustained over a period of 25 years or more, if the Kallak South deposit is mined after the Kallak North deposit, and further deposits at Parkijaure can be defined.
- The Company will seek to establish a 'Task Force' with Jokkmokks Kommun and local employment agencies, so that between now and the start of operations, plans are developed and implemented to make sure as many as possible jobs are available to people living in Jokkmokk.
- Kallak has the potential to generate SEK 1 billion in tax revenues, considering the case where 70 per cent of the mine's workforce are based locally, with annual tax revenues of SEK 40 million over a 25-year mine life.
- These tax revenues would help to develop and sustain public services and infrastructure in Jokkmokk, which are at risk due to a lack of new investment and job creation in the community, a declining population, and an ageing population.

### **About Beowulf Mining plc**

Beowulf's strategy is to build a sustainable and innovative mining company, which creates shareholder value by developing mining assets in partnership with communities, delivering production and generating cash flow, and in so doing meets society's ongoing need for metals.

Beowulf is developing a high-quality asset base, which is diversified by geography and commodity, enabling it to simultaneously advance several projects up the mining value curve.

The Company's first priority remains the award of the Exploitation Concession for Kallak North, and thereafter completing the Scoping Study. The introduction of a strategic partner/investor who understands the value of Kallak as a high-quality asset, which could be in production within four to five years, is an ongoing consideration, but does not preclude the Company from continuing to add value to Kallak in the meantime.

Fennoscandian Resources ("Fennoscandian"), the Company's graphite business, is pursuing a strategy to develop a resource/production base of natural flake graphite that can provide 'security of supply' and enable Finland to achieve its ambition of self-sufficiency in battery manufacturing. The Company is a recipient of Business Finland funding, which is supporting Fennoscandian to move downstream, and develop its knowledge in processing and manufacturing value-added graphite products.

The Company owns 46.1 per cent of Vardar, a UK registered exploration company with a focus on the metal endowed Balkan region. Vardar holds exploration licences for the Mitrovica and Viti projects in Kosovo. Both projects are located within the Tethyan Belt, a major orogenic metallogenic province for gold and base metals which extends from the Alps (Carpathians/Balkans) to Turkey, Iran and Indochina, and contains several world class discoveries. The Tethyan Belt of south-east Europe can be regarded as Europe's chief copper-gold (lead-zinc-silver) province.

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**Cautionary Statement**

Statements and assumptions made in this document with respect to the Company's current plans, estimates, strategies and beliefs, and other statements that are not historical facts, are forward-looking statements about the future performance of Beowulf. Forward-looking statements include, but are not limited to, those using words such as "may", "might", "seeks", "expects", "anticipates", "estimates", "believes", "projects", "plans", "strategy", "forecast" and similar expressions. These statements reflect management's expectations and assumptions in light of currently available information. They are subject to a number of risks and uncertainties, including, but not limited to , (i) changes in the economic, regulatory and political environments in the countries where Beowulf operates; (ii) changes relating to the geological information available in respect of the various projects undertaken; (iii) Beowulf's continued ability to secure enough financing to carry on its operations as a going concern; (iv) the success of its potential joint ventures and alliances, if any; (v) metal prices, particularly as regards iron ore. In the light of the many risks and uncertainties surrounding any mineral project at an early stage of its development, the actual results could differ materially from those presented and forecast in this document. Beowulf assumes no unconditional obligation to immediately update any such statements and/or forecasts.