

## **File Note on Kallak prepared by Kurt Budge, CEO**

The purpose of this File Note is to provide details to the reader on the Company's application for an Exploitation Concession for Kallak North, including Environmental Impact Assessment, matters regarding the perceived interaction between Kallak and Laponia and the co-existence between mining and reindeer herding.

The Company announcements included below have been published to shareholders in Sweden and the UK and are based on legal and technical opinions given by the Company's Swedish advisers, facts regarding the Kallak application, and opinions of Swedish state agencies and Swedish authorities.

### **1. Company announcement to shareholders dated 04 December 2017 – Response to the CAB statement dated 30 November 2017**

The Government of Sweden has asked the Company to provide comments on the statement, dated 30 November 2017, made by the County Administrative Board ("CAB") for the County of Norrbotten. In its statement, the CAB recommended that a Concession for Kallak North is not awarded. The deadline for the Company's comments to the Government is the 2 January 2018.

The Company maintains its position that its application has satisfied the requirements of the prescribed process, in accordance with Swedish law.

The CAB has previously stated, on 1 October 2014, that the Company's Environmental Impact Assessment ("EIA") is sufficient with respect to Chapters 3, 4 and 6 of the Environmental Code, and, on 7 July 2015, the CAB wrote to the Government indicating that the Company's application could be permissible with respect to Chapters 3 and 4 of the Environmental Code.

In 2015, the CAB confirmed its support for the Company's application to the Mining Inspectorate, and in October 2015, the Mining Inspectorate recommended to the Government that the Exploitation Concession be awarded.

In addition, on 29 June 2017, the Mining Inspectorate confirmed to the Government that the Company's EIA is consistent, in the detail provided, in meeting the requirements of the Supreme Administrative Court judgement in the case of Norra Kärr.

The Company has continued to invest in the Kallak project based on confirmatory statements made by the Swedish authorities. We are making good progress with the Kallak Scoping Study, and we have plans for drilling the Kallak South Exploration Target and Parkijaure exploration licences in 2018.

### **Economic Case**

Kallak is Sweden's largest known deposit of quartz-banded iron ore for which mining has not started. Testwork carried out in 2015, produced a 'super' high grade magnetite concentrate with over 71 per cent iron content and very low levels of deleterious elements, and a high grade hematite concentrate with over 68 per cent iron content.

The 'super' high grade and purity of the Kallak magnetite concentrate are valuable attributes for key target markets: pellets; Direct Reduction Iron ("DRI") facilities in Europe and the Middle East; and in chemical industry applications. End-users demand higher quality iron units, which benefit manufacturing productivity with improved economy, and deliver environmental benefits.

In July 2015, the CAB supported the economic case for Kallak, and in its analysis referenced the extended production life that the resource at Kallak South could add to a mining operation. In the CAB's latest assessment [30 November 2017], it has made no mention of Kallak South, even though the Company has discussed with the CAB the potential for a 250 million tonne resource, which could support a 25-year mine life. The Company has a valid workplan for drilling the Kallak South Exploration Target in 2018.

The CAB has made no reference to the study by Copenhagen Economics, titled 'Kallak - A real asset, and a real opportunity to transform Jokkmokk', which the Company commissioned to illustrate the 'big picture' impact that Kallak could have on Jokkmokk and the County of Norrbotten. The study shows that Kallak could create 250 direct jobs and over 300 indirect jobs in Jokkmokk, over the period that a mine is in operation, which could be 25 years or more, and generate SEK 1 billion in tax revenues over that period.

In addition, the CAB seems not to recognise the interconnectedness of Kallak, the ambitions of Inlandsbanan, and the Port of Luleå, both of whom are looking to expand their capacity, grow their businesses, further boosting Norrbotten's economy.

### **Area of National Interest ("ANI")**

Sticking to a 14-year mine life for Kallak North, the CAB has now decided to weigh-up one national interest against another, and determined in the favour of reindeer herding.

Since February 2013, Kallak has been designated an ANI for its minerals and metals, affording it protection against competing land use, and measures that may hinder future potential mineral extraction. Kallak's area of 13.6 square kilometres ("km<sup>2</sup>") compares to Jåhkågaska reindeer herding community's 2,640km<sup>2</sup> of grazing land or 0.5 per cent, as a percentage.

Before February 2017, when Sametinget designated national interest for reindeer herding directly on top of Kallak, there were no conflicting national interests for the Concession Area, or for those areas taken by operational facilities necessary to support mining. A fact recognised by the CAB in July 2015 when it supported the Company's application.

### **Reindeer Herding - national interest at Kallak, and Lapponia**

Despite Sametinget's relatively recent designation of national interest for reindeer herding at Kallak, reindeer herding is far from a static activity, and the importance of any specific area varies from year to year. Therefore, the Company has been careful in its analyses to consider the proposed mine's potential impacts on Jåhkågaska tjiellde's reindeer herding activities in their totality, whatever the designation of any specific land area may be. The recent designation does therefore not change anything in our assessment of the potential impacts on Jåhkågaska.

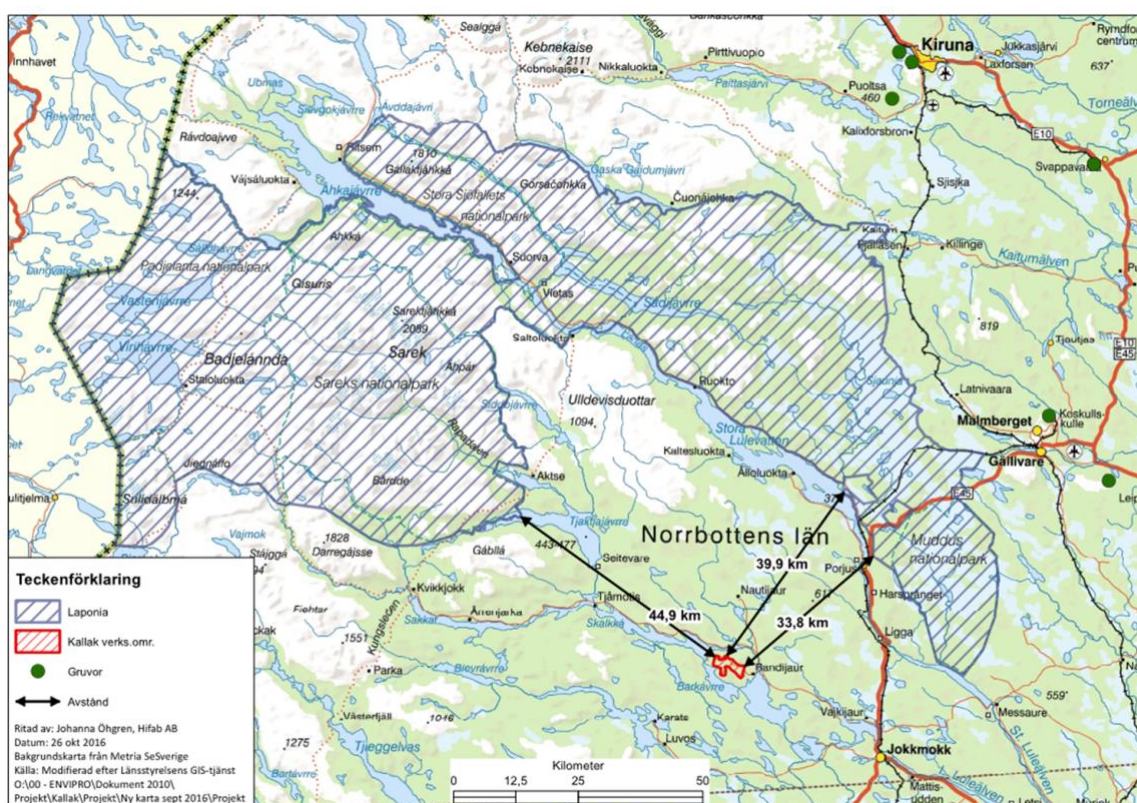
As the Company moves forward with the project, we will work more closely with Jåhkågaska, to learn from their annual reindeer herding management plan ("renbruksplan"), such that we can plan together our mutual activities. Even now, we have ongoing communications with Jåhkågaska, Sirges, Tuorpon, and Slakka, regarding the permitting process, and our Kallak drilling plans for 2018.

Recent comments by Naturvårdsverket ("NV") and Riksantikvarieämbetet ("RAÄ") to the CAB suggested that Kallak poses a risk to nomadic reindeer herding in Lapponia, and as a result threatens Lapponia's World Heritage Status. This is an extreme and highly unlikely scenario, and this can be understood with a reasonable assessment of some pertinent facts:

- Kallak is situated, at the closest point, approximately 34 kilometres away from Lapponia.
- NV and RAÄ have already concluded that operations at Kallak would have no direct impact on Lapponia, and have said that use of existing roads and railways is a positive feature;
- Lapponia's boundary has been established to protect what lies within the boundary, and not to restrict development, such as Kallak, which is located far beyond any conceivable 'buffer zone';
- Kallak represents only about 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 Lapponia over some part of the year; and
- It is an established fact that there are solutions for how to manage the competing land requirements of mining operations (and other industrial activities) and reindeer herding. With regards to migration, for example, reindeer can be moved around an obstacle, such as a mine, using specific fenced corridors, Eco ducts or even trucks. A highly relevant practical case can be found in LKAB-Kiruna-Abisko National Park area. Abisko is like Lapponia, a protected area which is used by reindeer herders. The reindeer herders at Abisko are maintaining their traditional activities, whilst sharing their winter pasture with the industrial activities present around Kiruna and Svappavaara.

When the Company has received specific comments from the CAB, it has addressed them immediately. In November 2014, the Company eliminated the Jelka-Rimakåbbå transport route from its plans, after the CAB expressed concern about the potential risk the use of this route posed to reindeer herding. The CAB has presented no specific issues or questions to the Company since then.

## 2. Kallak – Proximity to Laponia



*Laponia's boundary has been established to protect what lies within the boundary, and not to restrict development, such as Kallak, which is located far beyond any conceivable 'buffer zone'*

The Government concludes (Unescos världsarvskonvention och de svenska världsarvsobjekten Skrivelse 2001/02:171 [https://www.riksdagen.se/sv/dokument-lagar/dokument/skrivelse/unescos-varldsarvskonvention-och-de-svenska\\_GP03171](https://www.riksdagen.se/sv/dokument-lagar/dokument/skrivelse/unescos-varldsarvskonvention-och-de-svenska_GP03171)) that the existing World Heritage sites are adequately protected by existing Swedish laws and regulatory framework. In that same document, the government also says that "...the area covered by a heritage site should be so large as to ensure that exploitations outside its boundaries should have no significant impacts on the core of the Heritage site..."

In a study by LEXLaw (commissioned by the Swedish National Heritage Board (circa 2015) it is stated that none of the heritage sites in Sweden has "absolute protection" – that is, at least part of the heritage site can be used for other purposes.

However, it is concluded that the natural environment related Outstanding Universal Values ("OUV") are protected by the Environmental Act (Miljöbalken), as well as the act concerned with building and planning (Plan- & bygglagen). The same study says that the "immaterial values" (culture, language, tradition etc) are not at all protected by these two laws. This relates to the following Laponia OUV:

*(iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;*

*(v) to be an outstanding example of a traditional human settlement, land use, or sea use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change.*

Beowulf believes that these two OUV's are protected by other Swedish laws, most importantly the reindeer herding law (Rennäringslagen (1971:437)) and the law on national minorities and minority languages (2009:724).

It is worth noting that nine separate reindeer herding coops have part of their pastures in Lapponia, namely: Baste čearru, Unna tjerusj, Sirges, Jåhkågaska tjiellde, Tuorpon, Luokta-Mávas, Udtja, Slakka and Gällivare.

If having part of their pasture in Lapponia would mean that no significant developments be allowed to take place in other pasture lands used by these nine coops, then you would arrive at a fairly absurd situation where a very, very large swath of land would in this way be protected – to avoid indirect impacts on Lapponia.

### **3. Company announcement to shareholders dated 31 March 2017**

**On 27 March 2017, the Mining Inspectorate received comments and opinions from the Swedish National Heritage Board (Riksantikvarieämbetet, "RAÄ") and the Swedish Environmental Protection Agency (Naturvårdsverket, "NV"), with respect to the Company's application for an Exploitation Concession for Kallak North, and the interaction of Kallak and Lapponia.**

On 28 March 2017, the Mining Inspectorate wrote to the Company, and has given the Company the opportunity to submit its own comments and supplementary information further to the NV and RAÄ's comments. The Company has a deadline of 28 April 2017 in which to respond, which it intends to meet.

On 29 March 2017, the Company met with the Mining Inspectorate in Luleå to discuss the next steps in the process. During this meeting, the Company outlined its interpretation of the NV and RAÄ's comments, which is as follows:

- the focus of the response is the effect of Kallak on Lapponia;
- it is acknowledged that Kallak does not directly affect Lapponia;
- it is suggested that the Company should provide more details, to describe the possible indirect effects of a mining operation at Kallak on Lapponia, the interaction of mining and reindeer herding, and matters related to transport; and
- the agencies have failed to be specific, as requested by the Mining Inspectorate, as to where the Company's Environmental Impact Assessment ("EIA") is insufficient in the detail it provides.

The Company intends to write to the Mining Inspectorate and the County Administrative Board ("CAB") for the County of Norrbotten, seeking confirmation that its interpretation of the NV and RAÄ's comments is correct. Thereafter, the Company will prepare a submission and arguments, in conjunction with its expert Swedish consulting and advisory team, precisely demonstrating that the Kallak North EIA is comprehensive in its assessment of the activities

and potential environmental effects associated with a modern and sustainable mining operation at Kallak. As there are no direct effects of Kallak on Laponia, we believe it will be seen that there are no consequential indirect effects.

#### **4. Company announcement dated 8 May 2017**

**On 28 April 2017, the Company presented an analysis of the indirect effects of a mining operation at Kallak on Laponia with respect to reindeer herding, and the effects of transport on Laponia.**

The analysis follows UNESCO guidelines for conducting a Heritage Impact Assessment ("HIA"). Typically, a HIA is not required with an application for an Exploitation Concession, but the Company voluntarily produced one, with the support of its expert Swedish technical team and Swedish Advisory Board.

It has already been concluded, by Naturvårdsverket ("NV") and Riksantikvarieämbetet ("RAÄ"), that a mining operation at Kallak will have no direct impact on Laponia. Kallak is 13.6 square kilometres ("km<sup>2</sup>") compared to Laponia's 9,400km<sup>2</sup> and, at its closest point, Kallak is approximately 34 kilometres ("km") away from Laponia.

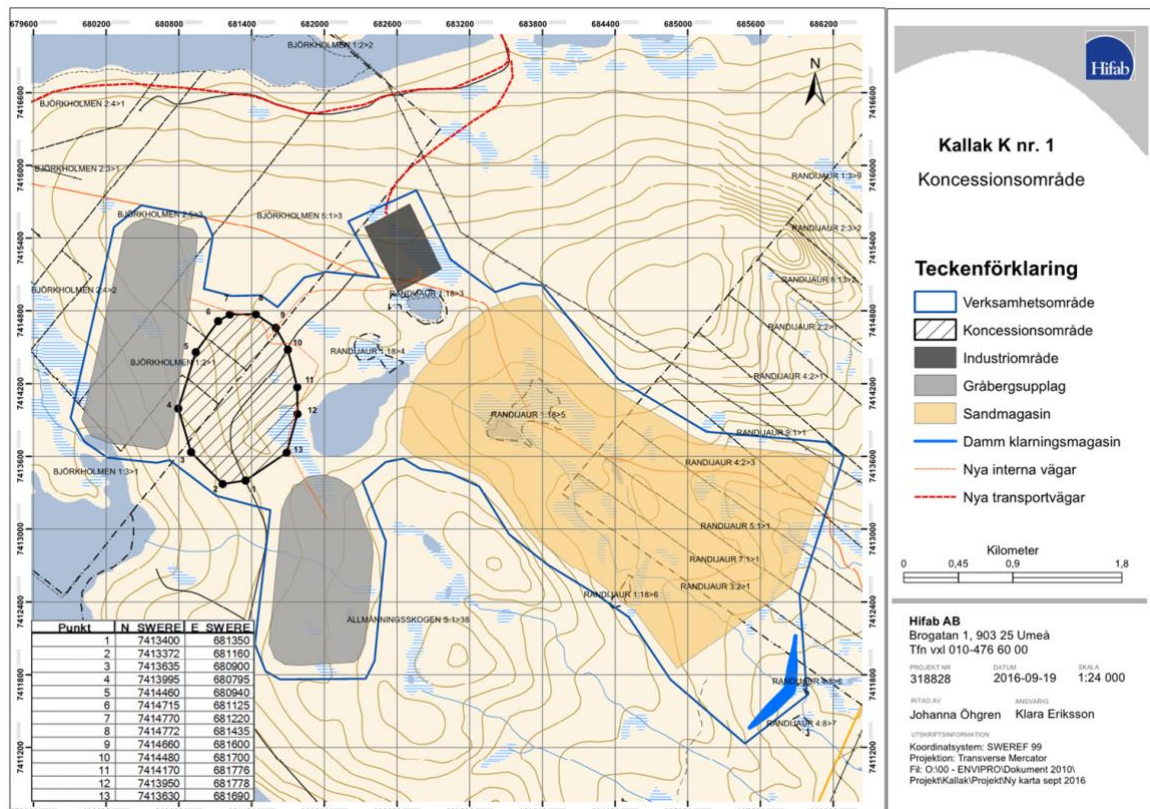
The Company maintains that its studies into reindeer herding support the case that mining and reindeer herding can cooperate and prosper side by side and, to the Company's knowledge, there is no evidence to suggest that they cannot. Kallak's area of 13.6km<sup>2</sup> compares to Jåhkågaska reindeer herding community's 2,640km<sup>2</sup> of grazing land or 0.5 per cent, as a percentage.

With regards to transport, solutions will be optimised, and sensibly controlled by the environmental permitting process, such that there should be no material effect on Laponia, and planning will involve other parties, including Trafikverket and Inlandsbanan. It is the Company's ambition to seek environmentally sensitive solutions with respect to all aspects of the Kallak project.

#### **5. Kallak Environmental Impact Assessment ("EIA")**

The Company's application for an Exploitation Concession includes a technical description:

- covering the Concession Area, the actual deposit to be mined, and the operational facilities necessary to support mining; and
- a comprehensive Environmental Impact Assessment ("EIA"), where all activities and their potential effects have been described



The EIA, which was submitted as part of the Exploitation Concession application by Beowulf's 100 per cent owned Swedish subsidiary, Jokkmokk Iron Mines AB ("JIMAB") in April 2013, and later supplemented in April 2014, has comprehensively studied all aspects of a future mining operation and their associated environmental impacts, with a detailed technical description and site plan.

The EIA includes detailed studies into local reindeer herding activities, and precautionary, protective and compensatory frameworks have been established. These frameworks will be further developed into management plans, in consultation with concerned Sami reindeer herding communities, as the project is advanced.

The supplementary EIA application was a revised and expanded version of the original submission made in April 2013, following the CAB's request in late November 2013 for further information and clarification on certain aspects of the EIA.

JIMAB added certain supplements to the EIA, along with further technical description and commentary. The enhanced report comprised 164 pages, including various figures and tables, with an additional 16 appendices of more than 200 pages in length covering various technical and specialist aspects based on work performed by the Company's expert team of Swedish consultants.

The EIA was supplemented in the following principal areas:

- The reindeer husbandry section was complemented by further analysis commissioned from consultants Swedish Geological AB. It was also supplemented and revised based

on certain comments and information received from the local Sami reindeer herding communities.

- Additional investigations regarding safety aspects for hydroelectric power dams were conducted by Ramboll Sweden AB.
- Questions raised regarding security issues surrounding any tailings dams for the project were further investigated and addressed by Tailings Consultants Scandinavia AB.
- Various comments received on the socio-economic aspects were responded to by Luleå University of Technology.
- Additional investigations concerning local hunting and fishing activities and specialist environmental aspects, including water ecology and water chemistry, were conducted by Pelagia Miljökonsult AB based in Umeå.
- Additional information was gathered regarding Areas of National Interest and other interests of importance in respect of general water management and military defence aspects.
- Additional studies and inventories on the existing natural water sources in the project area were compiled by Hifab International AB, together with reports on dust and air quality issues.
- Further information was obtained on the Laponia World Heritage site located more than 40 kilometres away from the Kallak North Concession Area, as well as on the general tourism industry in the Jokkmokk region sourced from the Destination Jokkmokk organisation.

The methodologies utilised in the enhanced EIA report were generally developed and conducted in accordance with the comments received from the CAB, and reflected the feedback from a constructive meeting held with representatives of the Norrbotten County authorities in March 2014.

## **6. Company response to questions submitted in advance of Beowulf's 2020 Annual General Meeting held on 10 September 2020**

*Question 1: The Sami have maintained an uninterrupted presence in northern Scandinavia since time immemorial. Long before northern Sweden was colonised, reindeer herders roamed the mountains and woodlands, herding their reindeer west towards the mountains in the spring and east towards the winter grazing areas in the autumn. This way of life is still very much how the Sami live today. Reindeer herding is one of the very few indigenous livelihoods that is possible to adopt to a more modern lifestyle, using modern technology but with the same respect for nature and the environment that the Sami have managed to maintain despite extensive colonisation and exploitation of Sami land in all of northern Scandinavia. How is it possible to construct a mine in the middle of the Sami ancient migratory routes, effectively blocking the traditional migration of the reindeer, without inflicting crucial damage to this unique way of life?*

Answer: The history of Northern Sweden and its people cannot easily be summarised in a few sentences. However, it is true that it was inhabited by the Sami since time immemorial, and that their livelihood has long since been tightly tied to reindeer –initially hunting and later herding.

In Sweden, a Sami livelihood based on reindeer herding is protected in law and although only a small minority of those with Sami heritage are engaged in this activity, it is extant over practically all of the areas where it has been historically conducted, approximately 50 per cent of Sweden's land area. This is in contrast to most other colonised territories where



indigenous livelihoods often have been pushed aside and become for various reasons impossible and/or unviable.

In Sweden, a livelihood based on reindeer herding continues to this day, at the same time as the reindeer herding areas have seen extensive economic development. Thus, there are many examples in Sweden where mining and reindeer herding coexist, and where agreements are reached between companies and the reindeer herders, including commercial terms. Also, there has been no case of any reindeer herding cooperative being forced to close because of any form of industrial activity, not just mining.

The Kallak project covers approximately 0.5 per cent of one Sameby's grazing lands and when it comes to practicalities, the mine can be designed to accommodate the needs of reindeer herders and management plans can be developed to enable us to work together. Further, modern reindeer herding requires a functioning modern society, which in turn requires economic opportunities and development.

Kallak is situated in an area of population and economic decline. In this area, the Kallak project would mean significant economic development which supports society at large, the community in Jokkmokk, including the wider Sami community and also reindeer herders and their families. Thus, it is not a case of one activity or the other, both can prosper, livelihoods and culture can be both protected and improved.

*Question 2: With the latest ruling of the Supreme Court in the Girjas case regarding Sami communities' rights in mind, and also knowing that the same conditions are in place in the Kallak area, how is it possible to construct a mine in this area, effectively blocking the communities from fishing and hunting in the proposed mining area?*

Answer: The Girjas ruling is concerned with providing rights to fishing and hunting on state owned land in the westernmost part of Girjas. Girjas has after the ruling committed to ensuring that locally based fishermen and hunters that are not part of Girjas will also in the future be allowed to fish and hunt in these areas. The judgement does not affect the examination of the Kallak application, which is being considered under the Mineral Act and the Environmental Code