# **Beowulf Mining**



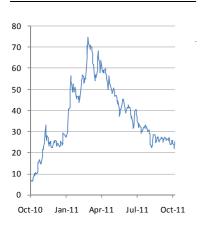
# **Speculative Buy**

**Price: 25.5p** 

Target: 60.0p

**AIM: BEM** 

### Sector: Mining & metals



Source: Bloomberg

#### **Key Data**

Nomad and Broker: Wehsite:	Strand Hanson/ Alexander David www.beowulf
website.	
	<u>mining.net</u>
12m high-low	76.75p – 6.25p
Mkt. cap:	£41.4m
No. of shares:	162.49m
Screen size	40,000 x 40,000
Bid - offer	24p – 26p
No. mkt makers	Eight

#### Analyst

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Beowulf Mining is a mineral exploration and development company, with a portfolio of copper, gold, uranium, molybdenum and iron ore projects in Northern Sweden. The principal focus of its current development are two vast iron ore projects at Ruoutevare and Kallak. These two sites are currently being drilled for continuing exploration, in order to move them towards full development. Test mining is expected to commence in 2012.

- Listed on Ofex (now PLUS) in 2003, Beowulf moved to the AIM market in May 2005. In 2009, the company commissioned a new study from independent consultants which identified an Inferred Mineral Resource of 140 million tonnes, holding 39.1% iron, 5.7 % titanium and 0.2 % vanadium. As the company continued to update these findings with its drill results, the share price reached a peak of some 77p during the first quarter of last year.
- As recently as August this year, the company was able to issue a new statement advising that drilling on the Kallak South iron ore deposit had been completed, with excellent results. Subject to the results from further drilling at Kallak North, the company may announce that Kallak North and Kallak South are potentially one ore body, forming a single large iron ore deposit, which could extend to approximately 4km in length.
- At Ruoutevare, the company has instigated a 4,000 metre drilling campaign, from which it should be able to demonstrate an inferred resource of over 200m tonnes. At Kallak North, the indications suggest 200m tonnes of iron ore, while at Kallak South some 400m tonnes of high grade ore are estimated.
- In addition to these remarkable iron ore properties, Beowulf has four significant copper prospects including an 11,000 hectare JORC-classified copper-gold deposit at Lulepotten. At Grundträsk, it has licences for 43 sq. km. Drill sampling by Barrick Gold, the previous owner, showed this property to contain a large number of metals, including gold and silver. Other projects include potential uranium deposits and nickel.
- A new JORC-compliant resource statement is due to be published later this month, which is very likely to generate new valuation data on Beowulf and to re-focus market attention on the shares. In the mean time, we see substantial intrinsic value in the highly promising iron ore projects. Independent consultants RMG estimated in 2010 that the iron ore assets could generate a total net profit, depending on the price of iron ore, ranging from US\$2.3bn to just under US\$6bn over an estimated mine life of 15 years.

Key reported financials			
Year to December, £000	2009	2010	H1 2011
Revenues	-	-	-
Operating loss	(404.1)	(468.9)	(277.1)
Net financial income (expense)	(6.1)	(5.5)	0.5
Pre-tax profit (loss)	(410.2)	(474.4)	(276.7)
Net cash (debt)	190.3	232.6	510.9
Shareholders' funds	861.3	2,002.3	2,751.7



## The Beowulf assets

#### The Kallak Iron Ore Project

Kallak comprises two sizeable iron ore deposits of high quality quartz banded magnetite type, Kallak North and Kallak South.. The group's ongoing drilling campaign and the assay results have revealed that the two deposits may together hold more than 600 million tonnes of iron ore and as such represent some of the largest undeveloped iron ore deposits in Scandinavia. In order to obtain a full mining licence, Beowulf is now in the process of completing an Environmental Impact Study (EIS) which will be submitted by Beowulf by the end of 2011.

The Kallak iron ore project area is located in the Jokkmokk municipality north of the Arctic Circle approximately 40km west of the Jokkmokk city centre and approximately 80km southwest of the major iron ore mining centre of Malmberget in the Norrbotten County in Northern Sweden. The project covers a total area of 34.21 sq. km.



The project area is occupied by forested, low hilly ground close to the main paved road between Kvikkjokk (Ruoutevare) and Jokkmokk. Local infrastructure is excellent with all-weather gravel roads passing through the project area, and all parts of the site are easily reached by well used forestry tracks. A major hydroelectric power station with associated electric power-lines is located only a few kilometres to the south east. There is no human settlement within the project area, the closest villages being Björkholmen, about two kilometres to the northwest, and Randijaur about three kilometres to the east. The nearest railway line passes approximately 40 kilometres to the east.

The principal land use at present is forestry with the majority of the ground area being owned by a large local forestry company. The vegetation of the region is generally comprised of mature pine, birch and spruce trees. The ground elevation varies between 300 and 450 metres above sea level in an area of



undulating forested or logged ground forming a peninsula surrounded by Lake Parkijaure. The highest point is the Råvvåive mountain at 481 metres in the south east part of the project area.

The iron deposits are more than 300 metres wide. The northern deposit has a confirmed extension of more than one kilometre and the southern deposit has a total length of more than two kilometres. The ores are almost vertically dipping covered with only shallow glacial overburden and as such are highly amenable to potential open pit mining.

Most recently, the company has commenced work with respect to a planned formal application for the transfer of the existing exploration permits for the Kallak project area into an exploitation or mining licence. As outlined in Sweden's Minerals Act, a significant part of this proposed application will involve the commissioning of an Environmental Impact Study (EIS), which will be carried out by the Swedish consulting company Hifab AB, Luleå with experience of similar successful assignments for other mining companies in Northern Sweden. In connection with this work, a number of meetings with the principal municipial authorities of Jokkmokk and locally affected organisations such as Sami village boards, have been held to enable the Company to outline its development plans for the Kallak deposits.

Successful completion of an EIS, together with a Technical Report, and the subsequent granting of an exploitation licence by the Mines Inspector will enable the Company to start pilot mining surveys and collect large scale samples from the Kallak deposits for mining and metallurgical tests. A large quantity of high quality pellet feed material can then be produced for delivery to potentially interested steel customers.



Subject to receiving all the necessary regulatory approvals by the end of 2011, pilot scale test mining and further metallurgical testing, including further DTR studies, are currently intended to commence in 2012 with possible deliveries of large quantities of high quality pellet feed material to potential customers. It is anticipated that a pellet feed product can be produced relatively easily from the Kallak iron ores containing approximately 70% Fe with low levels of contaminants such as sulphur, phosphorous and titanium. Such a high quality pellet feed product is currently in high demand by potential customers.

#### Ruoutevare

The Ruoutevare Magnetite Project consists of one exploration permit covering a total area of 850 hectares located approximately 1,100km north of Stockholm, in Norrbotten County. Beowulf's Kallak project is located close by.



The project area is approximately 180km by road from the nearest potential road-rail loading site, on a railway route. Power accessibility and relative costs are excellent in Sweden, with the Seitevare hydroelectric plant located approximately 75km away by road.

In August 2008, Beowulf announced a maiden JORC code compliant Inferred Mineral Resource estimate for the project. Completed by independent geological consultants Runge Limited, the Inferred Mineral Resource estimate of 140 million tonnes (Mt) grading 39.1% iron (Fe), 5.7% titanium (Ti) and 0.2% vanadium (V) (cut-off grade of 30% Fe) exceeded the initial estimate of between 116-123Mt of mineralisation.

The Ruoutevare magnetite deposit is an out-cropping, flat-lying to gently dipping magnetite rich layer about 150m thick. There appears to be good potential to substantially increase the resource by drilling extensions to the existing resource and by testing other magnetite bearing zones in the vicinity of the deposit.

In 2009 and 2010 a series of metallurgical tests on material from Ruoutevare have been conducted by MINPRO at its research laboratory at Stråssa, Central Sweden. Results from tests conducted on milled ore material have shown that a final sponge iron powder containing up to 95% iron (Fe) with 1.5% titanium (Ti) is obtainable.

In addition to the metallurgical test programme, in July 2009 the Company commissioned RMG to update its 2006 scoping study on Ruoutevare, using the Company's most recent geological and technical data, with the objective of further defining the commerciality of the project. The updated independent conceptual study was completed in February 2010 and showed that Ruoutevare contains a significant resource of iron ore close to the surface and is very amenable to open-pit mining.

On the basis of its conceptual financial analysis, RMG concluded that the project is robust and warrants further drilling and analytical work, and together with Beowulf's Kallak deposits (outlined above) represents one of the largest known remaining iron ore deposits in Scandinavia still awaiting commercial exploitation. RMG stated that the deposit, over a planned 15 year mine life, has the potential to produce net cash flows of, in aggregate, approximately US\$3bn. The Company has recently commissioned RMG to produce a further updated conceptual study on Ruoutevare.

#### **Ballek**

The Ballek project comprises four exploration permits covering a total area of 109.9 sq. km, located in the Västerbotten county in Northern Sweden. In September 2008, Beowulf reported a maiden Inferred Resource estimate, under the JORC code reporting standard, for the Lulepotten copper-gold deposit on the project. This represented the first stage review of known copper resources in the Ballek area following a diamond drilling programme completed by the former joint venture partner, Agricola Resources plc..

The estimate for the Lulepotten deposit outlined a total Inferred Resource of 5.4 million tonnes, grading 0.8% Cu and 0.3g/t Au, representing a total of 43,000 tonnes of contained copper metal and 52,000 ounces of contained gold using a cut-off value of 0.3%total of 49 diamond drill holes, drilled perpendicular to strike and completed on a nominal 50 metre by 50 metre grid.

In September 2009, the Company formed a new joint venture with Australian company Energy Ventures Limited ("EVE") to further explore the Ballek copper targets. By funding and completing a 1,601m, eight hole diamond drilling programme on time, targeted on extensions of the Lulepotten deposit, EVE was entitled to earn-in a 50% interest in the project. Accordingly, a new UK private company, Wayland Copper Limited ("Wayland"), was established to hold the project's exploration permits, which is now jointly and equally owned by Beowulf and EVE.



The drilling results were announced in 2010. As anticipated from geological logging there were a small number of narrow mineralised intervals of about 0.5 metres with copper grades in excess of 1% with some supporting gold grade. Visible copper sulphide mineralisation was observed in three holes. In February 2011, the Company announced that it had assumed the role of operator as EVE had decided to focus its efforts on a series of uranium projects in America. EVE has nevertheless retained its interest in Wayland and continued to assess further exploration drilling targets and development options for the project under Beowulf's operatorship.

#### Grundträsk

The Grundträsk Project is focused solely on gold. During 2010 the company was granted a new licence Grundträsk nr 6, with the previously owned licences Grundträsk nr 2 and nr 3 being relinquished. The project covers a total area of approximately 36km2 located in the Skellefte Mining District of Northern Sweden. There is little outcrop and the land is currently used for forestry. There is good infrastructure in place, with the area being served by a network of forest roads, including the paved main road from Skellefte to Malå, which passes through the licence area. There are no problems with water or electricity with both being available locally. Grundträsk has the potential for a shallow depth gold resource, with gold bearing sulphide mineralisation starting at shallow depths of less than 12 metres, suggesting that any deposit will most likely be amenable to open pit mining.

Results to date indicate the presence of sigmoidal gold bearing structures in the mineralised corridor over a strike length of 800 metres. Drilling has returned gold grades of up to 5.2 metres at 4.28 grammes per tonne, 4.62 metres at 2.8 grammes per tonne, 5.7 metres at 2.53 grammes per tonne and 16.9 metres at 1.86 grammes per tonne.

In 2010 the Company commissioned the consultancy company GeoVista AB, Luleå to conduct an overview of historical diamond drilling by the Company at Grundträsk and reprocess and interpret all available ground geophysical data with a view to outlining the next phase of exploration work by the Company including potential diamond drilling to further define gold targets of possible economic interest.

Their report outlined a number of recommendations for future work. Specifically, a more systematic diamond drilling programme in grid based profiles across the pronounced Induced Polarisation (IP) anomaly, which previous drilling by the Company has proven to host sulphide and gold mineralisation, was recommended. In order to provide better guidance for drilling, it was suggested that three lines of spectral IP with dipole-dipole configuration be carried out across the main Grundträsk IP anomaly to obtain better resolution and sensing of deeper structures.

#### Majves (Jokkmokk)

The target of the Majves project in the Jokkmokk area is an iron oxide copper gold deposit (IOCG). Beowulf has been exploring the area since 2003 and currently retains the single Majves nr 3 licence area. Beowulf has had discussions with a major copper producer about a joint venture on its Jokkmokk properties, but to date no joint venture has been agreed.

#### Geddaur

The Geddaur licences, acquired from Agricola Resources plc in September 2009, are located east and south of the city centre of the municipality of Arjeplog in the Norrbotten county of Northern Sweden. The total licence area of 131.5km2, comprising the Geddaur nrs 1, 2 and 3 licences, joins up with the Ballek licence block. It has excellent infrastructure and easy field area access via a number of good forest roads. The licence areas have high potential to hold two separate styles of mineralisation, one type being copper-gold deposits and the other high grade uranium deposits.

Beowulf plans to further evaluate the uranium prospects in the near future. It is initially envisaged drilling approximately 10 diamond drill holes for a total of around 1,000m



#### Manakjaure

The Manakjaure uranium prospect is located approximately 85km northwest of the city centre of the municipality of Jokkmokk in the Norrbotten county of Northern Sweden. It covers a lightly forested area of 5.4km2 and access is via a forest road from the east.

Historic drilling confirmed the presence of uranium. There are a number of extremely high-grade radioactive boulders in the area identified through groundwork performed by Agricola Resources plc, indicating further different sources of uranium mineralisations than the zones drilled by the SGU. The area is believed to form a viable economic target for uranium.

Based on the available positive historical results, further drilling of this prospect is planned in due course. Although potential further drill sites have been selected, mainly based on available studies of the ground magnetic survey data, Beowulf is currently planning for an initial soil radon cup grid survey to be carried out in 2011 along the anomalous magnetic zones. High soil radon areas will further define potential future drill sites.

#### Riikalahti

The Riikalahti nr 1 licence area covers 1,150 hectares and is targeted on nickel and copper sulphide prospects. It is located approximately 40km north of the town centre of Kiruna in the Norrbotten County of Northern Sweden. The area is relatively lightly forested. Access by field vehicles and drill rigs is best achieved in the winter months as there are no local forestry roads within the licence area.

The prospect area is occupied by a large, layered mafic-ultramafic intrusive approximately 4 by 3 kilometres in size and was discovered and surveyed by the Swedish state-owned company LKAB Exploration AB in the 1970-80s. Some geophysical targets were tested by limited diamond drilling comprising 7 holes totalling 968 metres. Mineralised boulders with grades of up to 0.8% of copper and 0.3% of nickel were found in the area. Scout drilling revealed the best grades in a drill hole in gabbroic rock of 0.35% cobalt, 0.18% nickel and 0.21% copper over a narrow sulphide rich section. This hole also contained 0.43 g/t platinum plus palladium over a 1m section. The historic geochemical surveys indicate extremely high contents of nickel and copper present in large areas mainly in the central part of the licence area. Based on the available historical exploration data and the large size of the potential resource, Beowulf considers that the Riikalahti area is of interest to host potential deposits of nickel.



## Management

#### **Clive Sinclair-Poulton: Executive Chairman**

Aged 55, Mr Sinclair-Poulton studied law at Cambridge, graduating in 1978, before starting a twenty year career in investment banking in London with Citibank and Security Pacific (now Bank of America) as well as stockbrokers Hoare Govett. After founding and then selling a stockbroking firm, Mr Sinclair-Poulton became a founding shareholder and the Executive Chairman of AIM listed themutual.net (now named Progressive Digital Media Group plc). He has been involved in natural resources for fifteen years. More recently, Mr Sinclair-Poulton was a founding member of Tanzania Gold Ltd which, following a reverse take-over, was first renamed Tanzania Gold plc before becoming Bezant Resources plc. He was CEO of AIM listed Bezant Resources plc (AIM:BZT), with copper and gold assets in Tanzania and the Philippines, until he stepped down in February 2008. He is also Executive Chairman of PLUS listed Agricola Resources plc and currently resides in Ireland.

#### Jan-Ola Larsson: Technical Director

Aged 69, Dr Larsson holds a geology degree from Uppsala University and a PhD in geochemistry from Imperial College of Science and Technology, London University. Dr Larsson has over 30 years of varied experience in Canada, Brazil and Sweden. Previously held positions include Head of Geochemistry and Geological Survey of Sweden, LKAB Exploration Company and Barringer Research Limited, and Exploration Manager for Tetron Mineracao S/A and North Star Diamonds AB.

#### **Anthony Scutt ACIS: Non-executive Director**

Aged 71, Mr Scutt is a Chartered Secretary and a Certified Internal Auditor with the U.S. Institute of Internal Auditors. He has 34 years of financial management experience with Shell International Petroleum, working in many parts of the World, including the Malagasy Republic, East and Central Africa, Gabon, Vietnam, Cambodia, the Philippines, and latterly as the Chief Internal Auditor of Shell U.K. Mr Scutt went on to become an investment analyst, writer and investor, and was one of the very first investors and supporters of Beowulf. He is also a non-executive director of Starvest plc, Agricola Resources plc and Non-Executive Director of Oracle Coalfields plc.

#### **Edward Taylor: Non-executive Director and Company Secretary**

Aged 63, Mr Taylor has worked in various accounting, human resources, administration and Company Secretary positions in the natural resources sector. He has worked for Hardy Oil & Gas (now British Borneo Oil and Gas plc), Enterprise Oil plc and LASMO (now AGIP (UK) plc). Mr Taylor is a Director of All Star Minerals plc and Non-executive Director of the following companies: U3O8 Holdings Plc, Valiant Investments Plc, Valiant Financial Media Ltd and Southern Star Mineral Resources Plc. He is also company secretary for Oracle Coalfields Plc.

#### Fred Boman - Production Director

Mr Boman holds an MSc. degree in Mining and Mineral Processing from the Royal Institute of Technology (KTH), Stockholm, Sweden. He has more than 35 years' experience in the mining industry with over 25 years' service in various senior management positions both in Sweden and overseas. His previous positions include Vice President and Head of Engineering and R&D at Boliden AB, President and CEO of Boliden International Mining AB, CEO and President of Midroc Gold Limited and Managing Director of Dragon Mining Sweden AB. He currently serves on the board of a number of private companies and is a member of the Association for Mining and Metallurgical Engineers of Sweden. He is also a qualified person accredited by the Swedish Mining Association.



# **Shareholders**

The key shareholders of Beowulf Mining are as follows:

Principal shareholders	Shareholding
Sunvest Corporation Limited	7.71%
Mrs C C Rowan	6.98%

Source: Beowulf Mining

# Strengths and weaknesses

Strengths	Weaknesses
<ul> <li>The company owns mining rights to what may eventually prove to be one of the largest iron ore deposits in Europe, together with good prospects in a number of other key metals, including copper, uranium, and gold;</li> </ul>	<ul> <li>Beowulf Mining is an early-stage company, and there is still no track record of profitable exploitation of the mineral resource which it operates;</li> </ul>
<ul> <li>Independent expert reports suggest that net profit, from the iron ore deposits could range from US\$2.3bn to just under US\$6bn over an estimated mine life of 15 years;</li> </ul>	<ul> <li>Climatic conditions to the North of the Arctic Circle are hostile. However, the location has many other advantages, including the excellent Swedish infrastructure;</li> </ul>
<ul> <li>Further announcements are likely in the very short term, including a new JORC-compliant estimate of resources covering a major part of the company's assets;</li> </ul>	<ul> <li>The company will need to raise further funds before mining can commence at the major resource blocks at Kallak or Ruoutevare;</li> </ul>
<ul> <li>Management appears to be highly qualified and fully committed to developing and maximising the value of the company's current resources;</li> </ul>	<ul> <li>Commodity prices are volatile, and although the market dynamics for iron ore are generally positive for the longer term, there can be no guarantee that high prices will remain in place;</li> </ul>
<ul> <li>Investors at the current depressed share price have the potential to enjoy significant upside if the exploration programme is successful.</li> </ul>	<ul> <li>At the time of writing, few investment advisers or brokers are actively covering this stock. However, this may change as the news flow accelerates ove coming months.</li> </ul>

Source: HB Markets



# Recommendations

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Buy	The stock or other security is expected to outperform the benchmark stock market index of which it is a component by at least 10% over the twelve months following the date of the publication.
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Hold	The stock or other security is expected to perform in line with the benchmark stock market index of which it is a component or to vary by no more than plus or minus 10% over the twelve months following the date of the publication.
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Sell	The stock or other security is expected to underperform the benchmark stock market index of which it is a component by at least 10% over the twelve months following the date of the publication.

During the three months to  $6^{th}$  October 2011, the number of stocks on which HB Markets has published recommendations was 38, and the recommendations were as follows: Buy - 16; Speculative Buy - 16; Hold - 4; Speculative Hold - 1; Sell - 1..



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