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Results of Metallurgical Test Work

BLENCOWE RESOURCES PLC

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Results of Metallurgical Test Work by SGS Lakefield

98% TGC Underlines Exceptional Qualities of End Products

Highlights:

- Concentrate grades consistently ranged at the top end of the spectrum, between 97-98% TGC (versus an internal target of 94% TGC)
- Low impurities
- Approximately 40% of the end product presents as jumbo/XL/large flakes and 60% as medium/smaller flakes
- the process requires no primary crushing or grinding of the ore which offers a material advantage over hard-rock graphite deposits, both in terms of lower capital expenditure and lower operating costs
- offtake discussions can be advanced rapidly with latest test work

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Blencowe Resources Plc, is pleased to announce that metallurgical test work on its Orom-Cross graphite project in Northern Uganda has been successfully completed by SGS Lakefield, generally regarded as one of the leading technical consultants in the world on matters concerning graphite concentrates. This work is critical to understanding the quality of the end-product(s) that Orom-Cross can deliver to market as a high grade graphite concentrate, as well as what the process flow will look like to achieve this.

Scope of Metallurgical Testwork

The critical issues to determine quality of end product are (1) high TCG concentrate, with anything over 94% considered good and anything above 97% considered excellent, (2) low impurities, and (3) flakes sizes. As example +32 mesh Super Jumbo (97% TGC) will sell for over US$2,500/tonne in comparison to -100 mesh Small flakes (97% TGC) selling for circa US$700/t.

Blencowe appointed SGS Lakefield in Canada to undertake metallurgical testwork on material gathered from its 69 hole, 1950 metre 2020 diamond drilling programme, which covered both the Northern Syncline and Camp Lode areas.

The metallurgical test program was designed to deliver the following Key Objectives:

- To confirm if a 95-97% TGC (Total Graphite Content) pure concentrate is possible. Entry level concentrate is generally accepted as 94% TGC and each 1% above that attracts a significant premium on price in the market.
- To confirm what impurities (specifically Thorium and Vanadium) may exist within the concentrate, and at what levels.
- To confirm ~80% recovery is achievable for this concentrate.
- To confirm the liberation process in order to maintain as high a percentage of Jumbo/XL/Large flakes within the concentrate as these attract the highest prices in the market.
- To confirm the process flow diagram for plant design as part of the forthcoming Feasibility Study.
- To deliver bulk concentrate to allow Blencowe to initiate discussions with potential off-take partners.

Results of Metallurgical Testwork

Blencowe is pleased to announce that all 5 Key Objectives have been met and/or exceeded in this round of testwork, specifically:

- Concentrate grades consistently ranged at the top end of the spectrum, between 97-98% TGC.
- Low, or in most cases, no impurities were found within the concentrate.
- Open cycle and locked cycle floatation test produced excellent recoveries between 80-90%.
- Approximately 40% of the end product presents as jumbo/XL/large flakes and 60% as medium/smaller flakes.
- A simple, neat process flow indicates a standard processing facility that can easily be designed and later expanded to meet strong anticipated growth ahead in the demand for graphite.

Overall the metallurgical test-work undertaken to date shows a robust flowsheet capable of repeatable metallurgy for a wide range of feed samples from Orom-Cross. This consistency is very important in delivering an end product of the

highest quality.

Offtake Discussions

Blencowe is now better positioned to advance discussions with strategic groups in the knowledge it can deliver a range of high grade end products, and it can now deliver samples as required to provide evidence for further due diligence or local testing. Blencowe anticipates using already identified specialist consultants, with considerable experience in graphite sales and marketing, to provide advice and support as to where to sell its products moving forward.

Processing and Plant Design

A total of eight rougher and cleaner flotation tests were carried out on the *Master Composite* (being a combination of Northern Syncline and Camp Lode samples) that culminated in a flowsheet which is atypical of similar graphite projects. The flowsheet consists of a flash and rougher flotation stage followed by a primary cleaning circuit with a polishing mill followed by three stages of cleaner flotation. The intermediate concentrate is classified and then further upgraded in secondary cleaning circuits with stirred media mills (SMM) followed by cleaner flotation.

The proposed flowsheet was employed in a locked cycle test (LCT) to determine the metallurgical response under closed circuit conditions.

The final Master Composite concentrate graded 97.3% TGC, with a 90.1% TC (total carbon) recovery, which exceeded the company's expectations and places the project at the higher end of its peers.

The size fraction analysis results of the combined concentrate of the LCT are presented in Table 1.

At the end of the metallurgical program the suitability of the flowsheet and conditions of the proposed flowsheet were evaluated on four separate composites, which represented the high grade and low grade samples in each of the Northern Syncline and Camp Lode zones. The purpose was to understand the consistency of all graphite within Orom-Cross and also to evaluate the priority areas to mine in the event of a wide range of results.

The results show a remarkably consistent end product over both zones and also within the higher and lower in situ grades. Consistency is very valuable in these circumstances, both for mine planning as well as processing.

Combined concentrate grades ranged between 94.7% TGC for the Camp Lode high-grade composite to 98.1% TGC for the Camp Lode and North Syncline low-grade composites. The open circuit recoveries of the North Syncline and Camp Lode high-grade composites were 80.9% and 88.4% TC respectively. Despite the lower head grades of the North Syncline and Camp Lode low-grade composites, the open stage recoveries for the two samples remained high at 80.9% and 80.4% TC respectively.

Table 1: Size Fraction Analysis of Combined Concentrate of LCT

Particle Size		Assays	Distribution	Flake Category
Tyler mesh	(µm)	% C(t) (TGC)	% C(t)	
+32	+500	98.1	1.5	Super Jumbo
-32 + 48	-500 + 297	98.0	12.3	Jumbo
-48 + 80	-297 + 177	97.7	22.6	Large
-80 + 100	-177 + 149	97.5	9.6	Medium
-100 + 200	-149 + 74	97.0	27.0	Small
-200	-74	96.6	13.0	Amorphous
-325		95.7	13.9	

The above table highlights that Blencowe will be able to produce a range of high quality end products from Orom-Cross.

- 36.4% as Super Jumbo/Jumbo/Large flakes with an average 98% TGC.
- 63.6% as Medium/Small/Fines with an average 97% TGC.

The design of the processing plant is based on the SGS test-work and best practice in similar operations. Importantly, the process requires no primary crushing or grinding of the ore which offers a material advantage over hard-rock graphite deposits, both in terms of lower capital expenditure and lower operating costs. The basic flowsheet is shown below in Figure 1:

http://www.rns-pdf.londonstockexchange.com/rns/0494F_1-2021-7-13.pdf

Figure 1: Proposed Orom Flowsheet

Blencowe will mandate an experienced engineering firm to begin formal plant design and this work is expected to be included as part of the Pre-Feasibility Study.

Cameron Pearce, Executive Chairman's Statement:

"We are absolutely delighted to share these exceptional metallurgical test results for Orom-Cross. They highlight the fact that we have a very high quality of end products that we will produce, which should not only be in higher demand but should also deliver higher prices. In all facets these results have exceeded our expectations and they underline the world class potential of Orom-Cross.

Our ongoing drilling programs recently delivered our first 16Mt JORC Resource which we are in the process of upgrading via 2,000m further infill drilling, and we know that we have literally billions of tonnes of graphite at Orom-Cross which we can continue to develop as and when required. Now our metallurgical test results have added considerable weight to this by showing what an impressive range of end products we can deliver. The next step is to engage in more detail with strategic groups that have been waiting for the test work result and to begin reviewing the project economics of the mine.

Orom-Cross continues to emerge as a world class graphite project in a safe location. As we begin to outline the economics of Orom-Cross the full potential of what can be achieved will become abundantly clear."

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Background

Orom-Cross is a potential world class graphite project both by size and end-product quality, with a high component of more valuable larger flakes within the deposit. A 21-year Mining Licence for the project was issued by the Ugandan Government in 2019 following extensive historical work on the deposit and Blencowe is moving into the studies phase shortly as it drives towards first production.

Orom-Cross presents as a large, shallow open pitable deposit, with an estimated overall resource between 2-3 billion tonnes of graphite. Development of the resource is expected to benefit from a low strip ratio and free dig operations thereby ensuring lower operating and capital costs.

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