



SAVANNAH
RESOURCES PLC

AIM: SAV

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AN ENERGY METALS GROUP

Savannah Resources Plc

Metallurgical test work Confirms that High Quality Saleable Quartz and Feldspar Products can be Generated as a Co-product with Spodumene Lithium Mina do Barroso Lithium Project

Savannah Resources plc (AIM: SAV, FWB: SAV and SWB: SAV) ('Savannah' or the 'Company'), the AIM quoted resource development company, which is focused on becoming Europe's most significant producer of lithium spodumene concentrates from its Portuguese Mina do Barroso Project ('Mina do Barroso', 'MdB' or 'the Project'), is pleased to announce that its ongoing metallurgical test work has successfully produced saleable quartz and feldspar products.

HIGHLIGHTS

- **High quality, saleable quartz and feldspar co-products produced** from ongoing metallurgical test work programme
- Co-products will be produced from further processing of the tail material from the spodumene concentration process
- Initial indications are that the following products can be produced and market studies by First Test Minerals have been completed to provide some indicative pricings for the products:
 - **Feldspar** ($\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Li}_2\text{O}$ grades >12%) **potential price range of US\$65-100/tonne**
 - **Quartz** (99.6% pure) **potential price range US\$60-100/tonne**
 - **Bulk Tail** ($\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Li}_2\text{O}$ grades >7%) **potential price range of US\$40-45/tonne**
 - All products have **low levels of potential impurities**, below maximum limits specified by customers
- Importantly, the potential **pricing of the products** which can be produced have been identified as being **significantly higher, by First Test Minerals, than those conservative values used in the recent Scoping Study** of US\$39/tonne for feldspar and US\$33/tonne for quartz
- **Test work for co-product and specifications independently evaluated and confirmed** by ceramics industry expert, First Test Minerals Ltd

- Bulk co-products currently being generated for further evaluation by potential customers and **preliminary offtake discussions are underway** with a number of potential parties
- **Significant environmental benefit** from the sale of co-products, reducing the potential size of the footprint of any potential operation
- **Sale of co-products to prove economically beneficial for the Company, through the diversification of asset products**

Savannah's CEO, David Archer said: "The area in which we operate is a major quarrying region for ceramic materials which supply the vibrant ceramics industries in both Portugal and Spain. Importantly, having multiple product streams means we are maximising the value adding potential of the Project while also reducing the volume of non-saleable material that will need to be emplaced on site in contoured and vegetated landforms. I look forward to providing further updates as we progress our Feasibility Study towards delivery in 2019."

Environmental Advantages

The production of quartz and feldspar products for the ceramics industry will mean that the Company will reduce the volumes of non-saleable material that will need to be emplaced on site in contoured and vegetated landforms. This is a very positive outcome and is part of Savannah's ongoing commitment to design a project which minimises any potential environmental impacts.

Details of Metallurgical Test Work Programme

Savannah has completed a series of floatation tests on a bulk sample of pegmatite material from the Mina do Barroso project which has successfully generated saleable feldspar and quartz co-products in batch test work. Further bulk test work is planned to produce bulk mica, feldspar and quartz samples for evaluation by potential customers.

The test work was managed by Savannah's owners' team representatives, with the results evaluated by First Test Minerals ('First Test') which is an independent consultancy with significant experience in the ceramics and glass industry who deal with the raw products (such as feldspar and quartz) that are currently used in these industries. First Test conducted a review of the current market based on the product specifications to generate the pricing ranges for the various products generated.

Feldspar

The feldspar concentrate produced from the floatation test work contains $\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Li}_2\text{O}$ grades >12% (**Table 1 and Figure 1**) which First Test have advised has the potential to be used in tableware, glaze, sanitaryware and glass. Penalty elements in the feldspar concentrate, such as iron, were below the limits specified by customers. First Test's analysis shows this feldspar product has the potential to sell from US\$65-100/tonne depending primarily on final grind size.

Table 1. Feldspar product assay results

Product	Grade (%)					
	Li ₂ O	Fe ₂ O ₃	Na ₂ O	K ₂ O	SiO ₂	Li ₂ O+Na ₂ O+K ₂ O
Feldspar Concentrate	0.20	0.09	8.00	3.95	66.88	12.15

Figure 1. Photo of the feldspar concentrate produced from test work programme



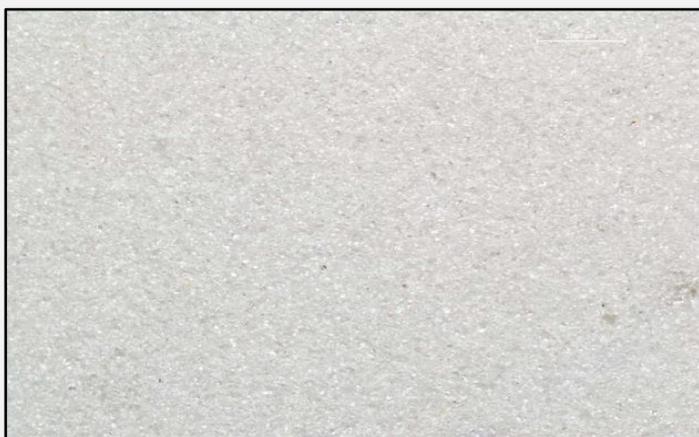
Quartz

The quartz concentrate produced has an SiO₂ grade of 99.6% which First Test stated has the potential to be used in ceramics and glass (**Table 2 and Figure 2**). Penalty elements in the quartz concentrate, such as iron, were below the limits specified by customers for a number of applications. First Test's analysis shows this quartz product has the potential to sell from US\$60-100 /tonne, depending primarily on final grind size, with further upside on increased grade product.

Table 2. Quartz product assayed results

Product	Grade (%)				
	Li ₂ O	Fe ₂ O ₃	Na ₂ O	K ₂ O	SiO ₂
Quartz Concentrate	0.02	0.02	0.05	0.03	99.61

Figure 2. Photo of the quartz product produced from test work programme



Combined Tailings Product

Savannah also has the option of selling its tailings (combined feldspar and quartz concentrate) without further upgrading or processing (**Table 3**) at a potential price of US\$40-45 / tonne.

Table 3. Combined feldspar / quartz tailings chemical grades are shown below.

Product	Grade (%)					
	Li ₂ O	Fe ₂ O _e	Na ₂ O	K ₂ O	SiO ₂	Li ₂ O+Na ₂ O+K ₂ O
Combined Feldspar / Quartz	0.13	0.07	4.77	2.35	80.13	7.24

Potential Product Pricing

Conservative feldspar and quartz prices of US\$39/tonne and US\$33/tonne respectively were used by the Company during the Scoping Study, prior to Savannah generating saleable co-products and engaging First Test. This recent test work has highlighted the significant potential upside of the co-products with initial market reviews conducted by First Test of the product specifications indicating:

- Feldspar (Na₂O+K₂O+Li₂O grades >12%) potential price range of US\$65-100/tonne
- Quartz (99.6% pure) potential price range US\$60-100/tonne
- Bulk Tail (Na₂O+K₂O+Li₂O grades >7%) potential price range of US\$40-45/tonne

Further Work

Work is continuing to further evaluate and develop the potential co-products from the production of the spodumene concentrate. This work programme includes:

- Bulk test work to generate samples of each of these co-products for customer evaluation
- Further evaluation on the potential for a mica co-product is underway to determine its suitability for its use as a building material like cements for plasterboard. Initial research by the Company suggests these products can be valued at over US\$500/t
- A trade-off study to confirm potential sale quantities of the individual products along with expected capital and operating costs to generate the individual co-products is currently underway
- Preliminary discussions with potential offtake partners to better understand the size of the market and customer needs is also underway

First Test Minerals Ltd – Co Product Consultants (www.firsttestminerals.com)

First Test Minerals provide comprehensive testing of non-metallic minerals and expert advice on market development, specialising in clay minerals such as kaolin, halloysite, ball clays and smectites plus non-plastic minerals such as feldspars, micas, silicas and aggregates. Owner/Director Frank Hart BSc (combined honours in Geology & Chemistry) has extensive experience in industrial minerals gained through 40 years of direct involvement in technical evaluation and quality control. Mr Hart spent 28 years in kaolin extraction as Technical Manager at Goonvean Ltd, where he was

responsible for all geological and chemical aspects of mining and refining from five open cast quarries and for quality control of the different kaolin, sand and aggregate products. Goonvean also mined China Stone, the sole UK source of feldspar for many years, with major sales in bone china and porcelain. Mr Hart also managed a testing facility for other companies investigating new deposits; this included kaolin and halloysite samples from Canada, USA, Sweden, Korea, Australia and Africa.

Competent Person Statement

The information in this announcement that relates to exploration results is based upon information compiled by Mr Dale Ferguson, Technical Director of Savannah Resources Limited. Mr Ferguson is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (JORC Code). Mr Ferguson consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

The information in this announcement that relates to metallurgical test work is based upon information compiled by Mr Peter Adamini, Senior Metallurgist of Independent Metallurgical Operations. Mr Adamini is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (JORC Code). Mr Adamini consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

Regulatory Information

This announcement contains inside information for the purposes of Article 7 of Regulation (EU) 596/2014.

****ENDS****

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About Savannah

Savannah is a diversified resources group (AIM: SAV) with a portfolio of energy metals projects - lithium in Portugal and copper in Oman - together with the world-class Mutamba Heavy Mineral Sands Project in Mozambique, which is being developed in a consortium with the global major Rio Tinto. The Board is committed to serving the interests of its shareholders and to delivering outcomes that will improve the lives of the communities we work with and our staff.

The Company is listed and regulated on AIM and the Company's ordinary shares are also available on the Quotation Board of the Frankfurt Stock Exchange (FWB) under the symbol FWB: SAV, and the Börse Stuttgart (SWB) under the ticker "SAV".