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6 August 2021

Jangada Mines plc

Positive Metallurgical Pilot Scale Test Results Support the Development of the Pitombeiras Ferrovanadium Project to Production

Jangada Mines plc ("Jangada" or "the Company"), a natural resources company, is pleased to announce positive bench and pilot scale metallurgical test results on ferrovanadium-bearing titanomagnetite samples from the Company's 100%-owned Pitombeiras Ferrovanadium ("FeV") Project. The pilot scale metallurgical tests have been conducted at Brazil's most prestigious and established mineral and metallurgy institute, Fundação Gorceix, located in Ouro Preto, Minas Gerais, Brazil. With over 80 years of experience, particularly working with major iron ore companies, Fundação Gorceix is an ISO 9001:2008 accredited Institution and independent of Jangada Mines plc.

The bench and pilot scale test works yielded excellent results through magnetic separation using dry and wet concentration routes to produce a ferrovanadium-rich concentrate, supporting the operation for a saleable FeV-rich magnetite concentrate containing a minimum of 62% Fe and additional credit from 1.2% contained V_2O_5.

Highlights

- Pilot plant scale metallurgical tests have confirmed that the magnetite responded very well to wet magnetic separation, generating mass recoveries of 52.6% for oxidized ore material, 41.8% for transition ore material and 53.1% for fresh rock
- Metallurgical recoveries varied from 58.8% to 73.0% Fe and 70.5% to 87.55% V_2O_5, with low SiO_2 and Al_2O_3 content
- High-grade nature of Fe material associated with prevailing Fe international benchmark prices (IODEX62%) and premiums paid above Fe 62%, makes Jangada's potential concentrate product highly attractive, which could lead to a highly economical operation
- Favourable results to be incorporated into ongoing Definitive Feasibility Study ('DFS'), expected to be completed in Q3 2021
- Results support continued development of Pitombeiras project to production

Brian McMaster, Chairman of Jangada, said: *"Today's announcement represents a further exciting step forward in the development of Pitombeiras. The metallurgical tests performed on a pilot plant scale are*

highly encouraging and confirm that Jangada is on the right path of project development. The quality of our FeV product associated with prevailing iron ore prices, should highly benefit the Pitombeiras Project's economics and we are in fast-track mode towards our objective to become a producer in H1 2022. These metallurgical test results, along with recently reported upsized mineral resources estimates, are now being incorporated into the ongoing Definitive Feasibility Study; meanwhile, the team has been working on quoting capex and opex with already identified suppliers. The favourable results also provide us with the necessary information to further advance the negotiations with potential traders and possible local buyers. It has been a busy time at Jangada and we are very excited to share developments as they unfold."

Further Information:

Jangada collected volumetric samples from surface outcrops and executed one twin drill hole for bench and pilot scale metallurgical testworks, which have been conducted in three laboratories, including: 1) Fundação Gorceix (based in Ouro Preto, Minas Gerais – Brazilian's iron ore reference laboratory); 2) Metso Brasil Indústria e Comércio Ltda (based in Sorocaba, SP-Brazil) and 3) Motta de Lafões Geologia (based in Belo Horizonte, MG-Brazil). Petrographic and mineralogical studies have also been completed to support the metallurgical testworks.

The metallurgical tests commissioned by Jangada have processed ore materials from the Pitombeiras project in bench and pilot plant scale using dry and wet magnetic routes. It has been demonstrated that the ferrovanadium-bearing magnetite rocks respond quite positively to wet magnetic separation after being classified, milled, and concentrated to < 0.2mm granulometry.

Considering the weathering/oxidation nature of the Pitombeiras FeV mineralization, three different types of rock materials have been tested: the Oxidized surficial material, the Transition zone and the Fresh rock. The mass recovery in pilot plant scale of the magnetic fractions from these three materials were 52.6%, 41.8% and 53.1%, respectively, yielding metallurgical recoveries varying from 58.8% to 73.0% Fe and 70.5% to 87.55% V_2O_5.

Table 1: Pilot Plant Metallurgical Tests Results

Sample	Mass Recovery	Grade (%)					Metallurgical Recovery (%)	
	(%)	Fe %	SiO_2 %	Al_2O_3%	MgO %	V_2O_5 %	Fe %	V_2O_5 %
Oxidized	52.6	66.00	0.8	1.6	0.4	1.30	63.80	70.50
Transition	41.8	63.60	2.2	2.0	0.7	1.30	58.80	74.00
Fresh (*)	53.1	63.30	2.6	2.4	1.1	1.20	73.00	87.50
(*) Fresh ore was submitted to a cleaner stage								

Figure 1: FeV-rich magnetite concentrate (left) and magnetite-poor reject (right) from Pitombeiras' metallurgical test on a fresh rock material.

The high-grade nature of Pitombeiras Fe material associated with prevailing Fe international benchmark prices (IODEX 62%Fe CFR China) and premiums paid above Fe62%, makes Jangada's potential concentrate product highly attractive, which could drive a highly economical operation. The results also establish that the magnetic recoveries produce a low SiO_2 and low Al_2O_3 product, which is highly sought after as well.

A pilot operation under the trial mining licence can be developed with a starter open pit operation utilising a contract mining fleet of hydraulic excavators, front-end loaders, 30 tonnes haul trucks, rotary drill rigs and ancillary equipment. The selected beneficiation process route is composed by crushing and screening, and dry and wet magnetic concentration.

Competent Person Statement

The technical information in this announcement has been reviewed by Mr. Paulo Ilidio de Brito, who is a member of the Australian Institute of Geoscientists (MAIG #5173) and a member of AusIMM - The Australasian Institute of Mining and Metallurgy (MAusIMM #223453). Mr. Brito is a senior professional geologist with +35 years of experience in the mining industry, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Mr. Brito also meets the requirements of a competent person under the AIM Note for Mining, Oil and Gas Companies. Mr. Brito has no economic, financial or pecuniary interest in the Company and he consents to the inclusion in this document of the matters based on his technical information in the form and context in which it appears.

The Metallurgical Tests presented in this announcement is the responsibility of Mr. Marcos Goossens, Senior Manager, Metallurgy. and a Qualified Person as defined by NI 43-101 guidelines. Mr. Goossens has over 40 years of multi-disciplined mining experience, with expertise on mining processing, metallurgy, product development and quality acquired from key roles on small to major iron ore operations, among other minerals.

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For further information please visit www.jangadamines.com or contact:

Jangada Mines plc	Brian McMaster (Chairman)	Tel: +44 (0) 20 7317 6629
Strand Hanson Limited (Nominated & Financial Adviser)	James Spinney Ritchie Balmer	Tel: +44 (0)20 7409 3494
Brandon Hill Capital (Broker)	Jonathan Evans Oliver Stansfield	Tel: +44 (0)20 3463 5000
St Brides Partners Ltd (Financial PR)	Isabel de Salis	Tel: +44 (0)20 7236 1177