



TECHNOLOGY
METALS AUSTRALIA LIMITED

ASX Announcement

22 May 2019

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Directors

Michael Fry:
Chairman

Ian Prentice:
Managing Director

Sonu Cheema:
Director and Company Secretary

Issued Capital

67,554,167 ("TMT") Fully Paid Ordinary Shares

20,000,000 Fully Paid Ordinary Shares classified as restricted securities

14,888,750 – Quoted Options ("TMTO") exercisable at \$0.40 on or before 24 May 2020

20,598,334 – Unquoted Options – various exercise prices and dates

ASX Code: TMT, TMTO

FRA Code: TN6



MOU WITH CNMC (NINGXIA) ORIENT GROUP CO., LTD

HIGHLIGHTS

- NON-BINDING MEMORANDUM OF UNDERSTANDING ("MOU") EXECUTED WITH CNMC NINGXIA ORIENT GROUP COMPANY LTD ("CNMNC").
- CNMNC'S SPECIAL MATERIALS DIVISION PRODUCES FERRO VANADIUM (FEV) AND VANADIUM NITROGEN ALLOYS (VN) FOR USE IN THE CHINESE STEEL INDUSTRY.
- MOU ESTABLISHES THE FRAMEWORK FOR A BINDING V₂O₅ OFFTAKE AGREEMENT ("AGREEMENT") TO BE FINALISED IN THE COMING MONTHS.
- KEY AGREEMENT PARAMETERS DEFINED IN THE MOU INCLUDE MINIMUM OFFTAKE VOLUMES, PRICING STRUCTURE AND TERM OF AGREEMENT (REFER PAGE 2).
- DETAILED HIGH-QUALITY DEFINITIVE FEASIBILITY STUDY BASED ON PRODUCTION OF HIGH PURITY V₂O₅ ON TRACK FOR DELIVERY IN MID 2019.

BACKGROUND

Technology Metals Australia Limited (ASX: TMT) ("**Technology Metals**" or the "**Company**") is pleased to announce the execution of a non-binding Memorandum of Understanding ("**MoU**") with CNMC Ningxia Orient Group Company Ltd. ("**CNMNC**") in relation to establishing a binding V₂O₅ offtake agreement over vanadium production from the Gabanintha Vanadium Project ("**Project**").

CNMNC, a rare metal manufacturer headquartered in Shizuishan, Ningxia Province, Peoples Republic of China, was established in 1965 and is a controlled subsidiary of China Nonferrous Metal Mining (Group) Co., Ltd. ("**CNMC**"). CNMNC's vanadium alloy production business, CNMC Ningxia Orient Group Special Materials Co., Ltd., produces vanadium nitrogen alloys ("**VN**") and ferrovanadium ("**FeV**") for use in the Chinese steel industry.

TMT and CNMNC have agreed to use their best endeavours to negotiate a definitive and binding offtake agreement ("**Agreement**") for the supply and purchase of vanadium pentoxide (V₂O₅) product that the Company intends to produce from the Project.

Managing Director Ian Prentice commented: "We are very excited to have entered into this agreement with CNMNC, a China Nonferrous Metal Mining (Group) company, as a key step in establishing a strong and supportive customer base for the development of the high quality globally significant Gabanintha Vanadium Project. The very high purity of the Gabanintha vanadium pentoxide (V₂O₅) product provides a clear competitive advantage for the Project".

KEY TERMS DEFINED IN THE TMT – CNMNC MOU

The MoU between TMT and CNMNC establishes a framework for ongoing discussions and negotiations aimed at delivering a definitive and binding offtake agreement ("**Agreement**") over the coming months. Key terms that have been defined and agreed upon in the MoU are:

- Initial minimum annual quantity of V₂O₅ to be purchased of 2,000Tpa on a take-or-pay basis,
- CNMNC to purchase such quantity of product that is available, up to 2,000Tpa, during the ramp-up and commissioning phase of the Project,
- Pricing to be negotiated based on the Metal Bulletin V₂O₅ Pricing Index incorporating a floor and ceiling price structure,
- Sales to be based on FOB at Port of Fremantle or similar,
- Minimum term of three (3) years with an option to renew for an additional three (3) years, and
- Consideration for CNMNC to refer TMT to its parent entity, CNMC, to discuss additional Project support, including scope for financing and/or EPC arrangements

The next steps to progress towards finalising the Agreement include due diligence to be completed by both parties in conjunction with the progression of the Gabanintha Definitive Feasibility Study ("**DFS**") and further refinement and agreement of the key off take terms.

The MoU is effective until 1 October 2019 unless the parties mutually agree to formally terminate or extend the term.

Mr Yi Junping, Party Secretary & Deputy General Manager of CNMNC Special Materials Co., Ltd. said, "We are very pleased to be establishing this relationship and engaging in offtake discussions with Technology Metals Australia as they progress the development of the very high quality, low-cost Gabanintha vanadium project".

ABOUT CNMC (NINGXIA) ORIENT GROUP CO., LTD.

CNMC (Ningxia) Orient Group Co., Ltd. (CNMNC) is a top ten producer of vanadium alloys in China, producing both vanadium-nitrogen and ferrovandium alloys for the domestic steel industry. CNMNC is the largest producer of tantalum and niobium alloys in China and is headquartered in Shizuishan, Ningxia, China (see www.cnmnc.com).

CNMNC has more than 3,200 employees and was established in 1965, and it was restructured in 2003 with registered capital of RMB 2.3 billion. CNMNC is a controlled subsidiary company under China Nonferrous Metal Mining (Group) Co., Ltd. (CNMC). CNMC was founded in 1983 and is a large-scale enterprise under the management of the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council. Its major businesses include the development of nonferrous metal mineral resources, construction engineering, and relevant trade and technological services. CNMC is headquartered in Beijing, China and was rated AAA by China Chengxin International Credit Rating (see www.ccx.com.cn) in November 2018.

CNMNC is engaged in research, development and production of vanadium, tantalum, niobium, and high-tech alloy products, and has won more than 100 national, provincial and ministerial level scientific and technological awards in mainland China.

ABOUT VANADIUM

Vanadium is a hard, silvery grey, ductile and malleable speciality metal with a resistance to corrosion, good structural strength and stability against alkalis, acids and salt water. The elemental metal is rarely found in nature. The main use of vanadium is in the steel industry where it is primarily used in metal

alloys such as rebar and structural steel, high-speed tools, titanium alloys and aircraft. The addition of a small amount of vanadium can increase steel strength by up to 100% and reduces weight by up to 30%. Vanadium high-carbon steel alloys contain in the order of 0.15 to 0.25% vanadium while high-speed tool steels, used in surgical instruments and speciality tools, contain in the range of 1 to 5% vanadium content. Global economic growth and increased intensity of use of vanadium in steel in developing countries will drive near term growth in vanadium demand.

An emerging and likely very significant use for vanadium is the rapidly developing energy storage (battery) sector with the expanding use and increasing penetration of the vanadium redox batteries ("VRB's"). VRB's are a rechargeable flow battery that uses vanadium in different oxidation states to store energy, using the unique ability of vanadium to exist in solution in four different oxidation states. VRB's provide an efficient storage and re-supply solution for renewable energy – being able to time-shift large amounts of previously generated energy for later use – ideally suited to micro-grid to large scale energy storage solutions (grid stabilisation). Some of the unique advantages of VRB's are:

- a lifespan of 20 years with very high cycle life (up to 20,000 cycles) and no capacity loss,
- rapid recharge and discharge,
- easily scalable into large MW applications,
- excellent long term charge retention,
- improved safety (non-flammable) compared to Li-ion batteries, and
- can discharge to 100% with no damage.

Global economic growth and increased intensity of use of vanadium in steel in developing countries will drive near term growth in vanadium demand.

For, and on behalf of, the Board of the Company,

Ian Prentice
Managing Director
Technology Metals Australia Limited

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About Technology Metals Australia Limited

Technology Metals Australia Limited (ASX: TMT) was incorporated on 20 May 2016 for the primary purpose of identifying exploration projects in Australia and overseas with the aim of discovering commercially significant mineral deposits. The Company's primary exploration focus is on the Gabanintha Vanadium Project located 40 km south east of Meekatharra in the mid-west region of Western Australia with the aim to develop this project to potentially supply high-quality V₂O₅ flake product to both the steel market and the emerging vanadium redox battery (VRB) market.

The Project consists of seven granted tenements (and two Mining Lease applications). Vanadium mineralisation is hosted by a north west – south east trending layered mafic igneous unit with a distinct magnetic signature. Mineralisation at Gabanintha is similar to the Windimurra Vanadium Deposit, located 270km to the south, and the Barrambie Vanadium-Titanium Deposit, located 155km to the south east. The key difference between Gabanintha and these deposits is the consistent presence of the high grade massive vanadium – titanium – magnetite basal unit, which results in an overall higher grade for the Gabanintha Vanadium Project.

Data from the Company's 2017 and 2018 drilling programs including 111 RC holes and 53 HQ and PQ diamond holes at the Northern Block and 23 RC holes (for 2,232 m) at the Southern Tenement) has been used by independent geological consultants CSA Global to generate a global Inferred and Indicated Mineral Resource estimate, reported in accordance with the JORC Code 2012 edition, for the Project. The Resource estimate confirms the position of the Gabanintha Vanadium Project as one of the highest grade vanadium projects in the world.

Table 1: Global Mineral Resource estimate for the Gabanintha Vanadium Project as at 27 March 2019

Material Type	Classification	Tonnage (Mt)	V ₂ O ₅ %	Fe%	Al ₂ O ₃ %	SiO ₂ %	TiO ₂ %	LOI %	P%	S%
Massive Magnetite	Measured (North)	1.2	1.0	44.7	6.2	10.4	11.4	0.0	0.009	0.2
	Indicated (North)	18.5	1.1	49.1	5.2	5.8	12.9	-0.1	0.007	0.2
	Inferred (North)	41.0	1.1	47.7	5.6	7.1	12.6	0.3	0.008	0.2
	Inferred (South)	10.4	1.1	49.1	4.9	5.9	12.6	-0.4	0.004	0.3
	Total Inferred	51.5	1.1	48.0	5.5	6.9	12.6	0.1	0.007	0.2
	Massive Global	71.2	1.1	48.2	5.4	6.7	12.7	0.1	0.007	0.2
Disseminated / Banded Magnetite	Indicated (North)	10.3	0.6	28.6	13.1	25.5	7.5	3.0	0.030	0.2
	Inferred (North)	38.5	0.5	27.1	12.7	27.4	6.9	3.3	0.027	0.2
	Inferred (South)	11.1	0.6	30.2	11.9	23.4	7.7	2.4	0.012	0.4
	Total Inferred	49.6	0.6	27.8	12.5	26.5	7.1	3.1	0.024	0.2
	Diss / Band Global	59.9	0.6	27.9	12.6	26.4	7.2	3.1	0.025	0.2
Combined	Global Combined	131	0.9	39.0	8.7	15.7	10.1	1.4	0.015	0.2

Data from the Global Mineral Resource and the recently completed PFS on the Gabanintha Vanadium Project were used by independent consultants CSA Global to generate a maiden Probable Ore Reserve estimate based on the Indicated Mineral Resource of 21.6 Mt at 0.9% V₂O₅ located within the Northern Block of tenements at Gabanintha.

Table 2: Ore Reserve Estimate as at 31 May 2018

Reserve Category	Tonnes (Mt)	Grade V ₂ O ₅ %	Contained V ₂ O ₅ Tonnes (Mt)
Proven	-	-	-
Probable	16.7	0.96	0.16
Total	16.7	0.96	0.16

- Includes allowance for mining recovery (95%) and mining dilution (10% at 0.0 %V₂O₅)
- Rounding errors may occur

Capital Structure	
Tradeable Fully Paid Ordinary Shares	67.554m
Escrowed Fully paid Ordinary Shares ¹	20.00m
Fully Paid Ordinary Shares on Issue	87.554m
Unquoted Options (\$0.25 – 31/12/19 expiry)	14.59m
Unquoted Options (\$0.35 – 12/01/21 expiry)	2.75m
Quoted Options (\$0.40 – 24/05/20 expiry)	14.889m
Unquoted Options (\$0.40 – 24/05/20 expiry)	3.258m

¹ – 20 million fully paid ordinary shares subject to voluntary escrow until 30 June 2019.

Forward-Looking Statements

This document includes forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Technology Metal Australia Limited's planned exploration programs, corporate activities and any, and all, statements that are not historical facts. When used in this document, words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should" and similar expressions are forward-looking statements. Technology Metal Australia Limited believes that it has a reasonable basis for its forward-looking statements are; however, forward-looking statements involve risks and uncertainties and no assurance can be given that actual future results will be consistent with these forward-looking statements. All figures presented in this document are unaudited and this document does not contain any forecasts of profitability or loss.

Competent Persons Statement

The information in this report that relates to Exploration Results are based on information compiled by Mr Ian Prentice. Mr Prentice is a Director of the Company and a member of the Australian Institute of Mining and Metallurgy. Mr Prentice has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code

for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("**JORC Code**"). Mr Prentice consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr Grant Louw. Mr Louw is a Principal Consultant with CSA Global and a Member of the Australian Institute of Geoscientists. Mr Louw has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("**JORC Code**"). Mr Louw consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information that relates to Ore Reserves is based on information compiled by Mr Daniel Grosso and reviewed by Mr Karl van Olden, both employees of CSA Global Pty Ltd. Mr van Olden takes overall responsibility for the Report as Competent Person. Mr van Olden is a Fellow of The Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition). The Competent Person, Karl van Olden has reviewed the Ore Reserve statement and given permission for the publication of this information in the form and context within which it appears.

The information in this report that relates to the Processing and Metallurgy for the Gabanintha project is based on and fairly represents, information and supporting documentation compiled by Damian Connelly who is a Fellow of The Australasian Institute of Mining and Metallurgy and a full time employee of METS. Damian Connelly has sufficient experience 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("**JORC Code**"). Damian Connelly consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.