



**VENUS METALS**  
CORPORATION LIMITED

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## TEST WORK ADVANCES WITH NEW INITIATIVES FOR YOUANMI VANADIUM – TITANIUM - IRON OXIDE ORES

VMC announced a JORC 2012 Measured, Indicated and Inferred Oxide Resource of 134 million tonnes grading 0.34% V<sub>2</sub>O<sub>5</sub>, 6.27% TiO<sub>2</sub> and 21.33% Fe (Table 1) (refer ASX release dated 20th March 2019).

Table 1. JORC 2012 Youanmi Vanadium Oxide Mineral Resource Estimate - March 2019

Youanmi Vanadium Resource Model 15-03-2019 (Oxide Only)										
Cutoff	Resource	Volume	Tonnes	Density	V2O5	TiO2	Fe	SiO2	Al2O3	V2O5 Metal
V2O5%	Class	BCM Millions	Millions	t/m3	%	%	%	%	%	Tonnes
0.10	Measured	11,995,000	31,548,000	2.63	0.33	5.87	21.21	33.07	16.50	104,100
0.10	Indicated	20,671,000	54,365,000	2.63	0.33	6.28	21.30	32.82	17.33	181,400
<b>0.10</b>	<b>Meas+Ind</b>	<b>32,667,000</b>	<b>85,913,000</b>	<b>2.63</b>	<b>0.33</b>	<b>6.13</b>	<b>21.26</b>	<b>32.91</b>	<b>17.02</b>	<b>285,400</b>
0.10	Inferred	18,563,000	48,820,000	2.63	0.36	6.53	21.45	32.32	15.99	173,400
<b>0.10</b>	<b>Total</b>	<b>51,229,000</b>	<b>134,733,000</b>	<b>2.63</b>	<b>0.34</b>	<b>6.27</b>	<b>21.33</b>	<b>32.70</b>	<b>16.65</b>	<b>458,900</b>

(Widenbar and Associates, 2019)

Vanadium pentoxide recoveries of up to 81.8% have been achieved using beneficiation and sulphuric acid leach of crushed oxide samples (refer ASX release dated 29th January 2019). VMC is now expanding the metallurgical research to examine the recovery of all three valuable components of iron, vanadium and titanium in the Youanmi Oxide Ores in two separate research programmes.

### **1. METALLURGICAL RESEARCH PROJECT** (co-funded by the Commonwealth Government)

Venus Metals (VMC) is pleased to announce that it has entered into a metallurgical research contract with Associate Professor Aleks Nikoloski and his team at Murdoch University to advance the Youanmi Vanadium Oxide project.

The prime objective of the study is to develop information that will guide the development of a novel process for iron, titanium and vanadium recovery from the Youanmi oxide ore. The process should enable Venus Metals to make an informed decision on the opportunities presented by this large exploitable resource.



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The \$100,000 study is being co-funded by the Commonwealth Government under Innovation Connections Project grant on a 55% Venus / 45% Commonwealth funding basis. Professor Nikoloski and lead researcher Dr Rorie Gilligan will manage the project with an extensive program of combined pyrometallurgical and hydrometallurgical process options for the Youanmi Oxide ores.

The pyrometallurgical approach is different from the acid leach only approach and is designed to test the recovery of all three valuable components being iron, vanadium and titanium in the Youanmi Oxide Ores.

Facilities at the Murdoch School of Engineering and Information Technology are ultra-modern, very comprehensive and world class, enabling full metallurgical testing to be carried out on one site.



Professor Nikoloski in front of a portion of the comprehensive test plant infrastructure at Murdoch University.



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## Who we are



- Associate Professor Aleksandar Nikoloski – Head of the MPI group
  - 21 years experience in R&D in various unit operations and commodities
  - Highly experienced in hydrometallurgical pilot plant process development
  - Long term Academic Chair of Chemical and Metallurgical Engineering at MU
  - Previously Process Engineer/Chemist at BHP Billiton



- Dr Rorie Gilligan - Postdoctoral Research Fellow
  - 7 years R&D experience focused mostly on uranium, vanadium and lithium hydrometallurgy
  - Completed a PhD project on brannerite leaching in 2017
  - Recent work includes vanadium and cobalt projects
  - Experienced with leaching processes and solids characterisation (SEM, EDX, XRD)

## **2. BULK YOUANMI OXIDE SAMPLES DESPATCHED TO CHINA FOR TESTING**

Venus Metals executives met with senior Chinese executives in the vanadium, iron and steel making industries in Hong Kong in March 2019. Strong interest was shown in the Youanmi iron-vanadium-titanium oxide ores for feedstock in the various industries known to the Chinese executives.

Following appropriate confidentiality agreements being signed, Venus has dispatched a 100 kg bulk sample to China for testing purposes.

Venus Metals executives plan to be in China shortly to progress this initiative with the relevant Chinese executives.

## **3. SUMMARY**

Mr Matt Hogan, Managing Director of Venus commented “ We are very pleased to have been able to get the Murdoch Research team contracted to progress our metallurgical studies on the Youanmi vanadium oxide project. We have a world class measured resource, the effort now needs to go into further extraction studies. We also look forward to our visit to China as part of this potential commercialization process”



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### **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Venus Metals Corporation Limited planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Venus Metals Corporation Ltd believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

### **Competent Person's Statement**

The information in this release that relates to the Youanmi Vanadium Project is based on information compiled by Mr Barry Fehlberg, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Fehlberg is Exploration Director of Venus Metals Corporation Limited. Mr Fehlberg has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves'. Mr Fehlberg consents to the inclusion in the release of the matters based on his information in the form and context that the information appears.

For further information please contact

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