

11 April 2024

## OFF-TAKE MOU WITH LARGE VANADIUM NITRIDE PRODUCER

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### HIGHLIGHTS

- ◆ **VANADIUM RESOURCES LIMITED (ASX: VR8; DAX: TR3) (“VR8” or the “Company”)** enters into a Memorandum of Understanding (“MOU”) with Panjin Hexiang New Materials Technology Co., Ltd. (“Hexiang”)
- ◆ Hexiang is one of China’s largest vanadium nitride producers
- ◆ The MOU envisions the purchase of 4,000 tonnes per annum of vanadium pentoxide (V<sub>2</sub>O<sub>5</sub>) for an initial 5-year term with an option to extend for a further 5 years
- ◆ The MOU represents approximately 37% of VR8’s planned V<sub>2</sub>O<sub>5</sub> production in Phase 1
- ◆ This MOU underlines the continued demand for vanadium products in the mainland China market
- ◆ VR8 is concurrently in discussions for further offtake MOUs and agreements with Chinese, Japanese, Korean and European end-users and traders for the balance of its planned production in Phase 1 of approximately 7,000 tonnes per annum

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**Vanadium Resources Limited (ASX: VR8; DAX: TR3) (the “Company”)** is pleased to announce that it has signed an MOU for production from its Steelpoortdrift and Tweefontein vanadium operations in South Africa.

The non-binding MOU provides for the supply of 4,000tpa of V<sub>2</sub>O<sub>5</sub> flake over a period of five years with an option for Hexiang to extend a further five years. This represents approximately 37% of VR8’s planned annual V<sub>2</sub>O<sub>5</sub> flake production capacity of ~11,000tpa<sup>1</sup> for the initial Phase 1 operation. The MOU with Hexiang provides a framework for further negotiations in relation to price, product quality and other offtake parameters.

**Commenting on the MOU, Mr John Ciganek, Chief Executive of VR8 said:**

*“Through this strategic MOU, VR8 has provided additional evidence in support of our progress in the project debt and equity markets. VR8 is attracted to Hexiang’s processes to take vanadium pentoxide and produce vanadium-nitrogen alloys for use in the steel industry which forms the majority of the vanadium market. VR8 retains production capacity to explore offtakes in other locations or into the vanadium redox flow battery (“VRFB”) market. Hexiang recognises the strategic value of the Steelpoortdrift and Tweefontein Vanadium Project based on its size, low CAPEX, lowest quartile OPEX, location, access to infrastructure and advanced stage of development. We are very much looking forward to converting the MOU into an Offtake agreement”.*

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<sup>1</sup> Refer to ASX Announcement dated 4 October 2023 “DFS delivers A\$1.9Bn NPV confirming World Class Project”.

## ABOUT HEXIANG

**Panjin Hexiang New Materials Technology Co., Ltd.** was established in 2018, is located in Panjin City, Liaoning Province. Hexiang is predominantly engaged in the production and sale of vanadium-nitrogen alloy materials, non-ferrous metals and chemical products. Hexiang has grown into one of China's largest vanadium-nitrogen alloy manufacturers with an annual production capacity of 3,200 tons of vanadium-nitrogen alloy products.

Vanadium-nitrogen alloy is an alloy additive that can replace ferro-vanadium for the production of micro-alloyed steel. The addition of vanadium nitride to steel can improve its mechanical properties, such as strength, toughness, ductility and thermal fatigue resistance, and enhances its weldability. To achieve the same strength, adding vanadium nitride saves 30-40% of the vanadium content<sup>2</sup> (as compared to ferro-vanadium), thereby reducing costs. Vanadium-nitrogen alloy is used in structural steel, tool steel, pipe steel, steel bars and cast iron.

Hexiang is a major supplier to the surrounding steel mills with long-term cooperative relationships with a number of well-known Chinese steel groups ensuring stable sales. It is also a major vanadium pentoxide importer and exporter in China, with all the necessary licences and established connections with existing producers. Hexiang is ISO 9001 certified and its products are exported to Europe, India, the UAE and other countries.

Hexiang has strong technical skills and leading equipment patents. In cooperation with experts and professors from top domestic universities, the company has developed and produced kinds of vanadium-nitrogen alloys, using vanadium pentoxide as the raw material. The production process has been developed to an internationally advanced level with two vanadium-nitrogen alloy equipment production lines including nitrogen protection technology from CETC48 fully automatic push plate kilns, for which Hexiang has obtained national patents in China. The company's facilities cover an area of 40,000 square metres.

*This announcement has been authorised for release by the directors of Vanadium Resources Limited.*

For further information, please visit <https://vr8.global> or contact:

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<sup>2</sup> Website: <https://www.ferrosialloy.com/news/Basic-knowledge-of-vanadium-nitrogen-alloy.html>

### Disclaimer

Some of the statements appearing in this announcement may be in the nature of forward looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which VR8 operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward looking statement. No forward looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside VR8's control.

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### Competent Person's Statement and Compliance Statements

The information in the referenced announcements 1 and 3 footnoted below that relates to Exploration Results, including the Mineral Resources contained within the Production Target (and forecast financial information derived from the production targets) at the Steelpoortdrift project has previously been released to the ASX. The Company confirms that it is not aware of any information or data that materially affects the information included in the market announcement, and that all material assumptions and technical parameters underpinning the announcement continue to apply. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

- 1) ASX: VR8 4 October 2022, DFS delivers A\$1.9Bn NPV confirming World Class Project
- 3) ASX: VR8 4 October 2022, VR8 Updates Mineral Resource and Ore Reserve for the Steelpoortdrift Vanadium Project

### Mineral Resources

The Company confirms it is not aware of any new information or data that materially affects the information included in the 4 October 2022 (*VR8 updated mineral resource and ore reserve for the Steelpoortdrift Vanadium Project*) Vanadium Resource estimate and all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 04 October 2022. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

### Ore Reserves

The Company confirms that it is not aware of any new information or data that materially affects the information included in the Ore Reserves Statement and that all material assumptions and technical parameters underpinning the estimates in the Ore Reserves Statement continue to apply and have not materially changed. The Information that has been presented in this report has been extracted from the announcement dated 4 October 2022 (*VR8 updated mineral resource and ore reserve for the Steelpoortdrift Vanadium Project*). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

## APPENDIX 1 – MINERAL RESOURCE ESTIMATE

The Resource statement as reported on the 4 October 2022<sup>3</sup> was updated and is as follows:

### Mineral Resource Estimate (as at 30 April 2022)

CLASSIFICATION	VOLUME (M m <sup>3</sup> )	QUANTITY (Mt)	QUALITY % V <sub>2</sub> O <sub>5</sub> (In-situ)	CONTAINED V <sub>2</sub> O <sub>5</sub> (Mt)	QUALITY % Fe <sub>2</sub> O (In-Situ)	CONTAINED Fe <sub>2</sub> O (Mt)
Measured	43.77	145.46	0.72	1.05	22.47	32.68
Indicated	98.75	327.29	0.70	2.29	22.80	74.62
Inferred	63.41	207.38	0.68	1.40	22.90	47.49
<b>Total Mineral Resource</b>	<b>205.93</b>	<b>680.13</b>	<b>0.70</b>	<b>4.74</b>	<b>22.76</b>	<b>154.80</b>

Source: Sound Mining, 2022

Notes:

- Stated at a cut-off grade of 0.45% V<sub>2</sub>O<sub>5</sub>;
- The Mineral Resources are stated on a 100% attributable basis for VanRes, of which VR8 owns 86.49%;
- The Mineral Resources are inclusive of Ore Reserves; and

Reported in-situ with any apparent computational errors due to rounding not considered significant.

## APPENDIX 2 – ORE RESERVE

The updated Ore Reserve statement as at 30 September 2022 .

### Ore Reserves as at 30 September 2022

CLASSIFICATION	QUANTITY (Mt)	QUALITY (% V <sub>2</sub> O <sub>5</sub> RoM)	CONTAINED V <sub>2</sub> O <sub>5</sub> (Mt)
Proved Ore Reserves	30.23	0.70%	0.21
Probable Ore Reserves	46.62	0.72%	0.34
<b>Total Ore Reserves</b>	<b>76.86</b>	<b>0.72%</b>	<b>0.55</b>

Source: Sound Mining, 2022

Notes:

- The Ore Reserves are stated at a price of USD9.50/lb;
- The Ore Reserves are stated on a 100% attributable basis for VanRes, of which VR8 owns 86.49%;
- The LoM was restricted to a production forecast of 25 years whereafter the mining licence will need to be renewed.
- The Ore Reserves are reported at the point of delivery for processing;
- The Quantity is reported in metric tonnes and the Grade reported as a percentage of contained V<sub>2</sub>O<sub>5</sub>;
- Any apparent computational errors due to rounding are not considered significant;
- The Ore Reserves may be subject to legal, political, environmental or other risks;
- Losses that could occur as a result of transportation of content or Flake are considered to be negligible; and
- 39% of the Ore Reserves are in the Proved category and no Inferred Mineral Resources included in the Ore Reserve estimate.

<sup>3</sup> Refer to ASX Announcement 4 October 2022 “VR8 Updates Mineral Resource and Ore Reserve for the Steelpoortdrift Vanadium Project”