



**ASX ANNOUNCEMENT** 

20<sup>TH</sup> FEBRUARY 2023

# GLOBAL LEADER WOOD APPOINTED FOR VANADIUM PROJECT PYROMETALLURGY

Detailed engineering work for the Australian Vanadium Project processing plant pyrometallurgical circuit

### **KEY POINTS**

- As AVL advances the development of its world class vanadium project, it has appointed leading engineering firm Wood Minerals and Metals to finalise engineering design for the AVL vanadium pyrometallurgical processing plant under Early Contractor Involvement (ECI).
- Completion of ECI will position AVL to select key suppliers, place long lead orders and finalise the execution strategy for the pelletisation and roasting area of the vanadium extraction process.
- The ECI process will run through until Q2 2023.

Australian Vanadium Limited (ASX: AVL, "the Company" or "AVL") is pleased to announce that Wood Minerals and Metals has been appointed to undertake Early Contractor Involvement (ECI) services for the Australian Vanadium Project ("the Project") pyrometallurgical processing plant. Wood has extensive experience with the Project and is qualified to deliver high quality results, as AVL progresses to the final design for the plant which will be located at Tenindewa east of Geraldton.

CEO, Graham Arvidson comments, "AVL has worked with Wood for several years and has been impressed by the high quality of technical work that the team has undertaken. Having someone who fully understands the pyrometallurgical requirements for vanadium processing is essential for a successful outcome. We are very pleased to be working with the Wood team on this ECI phase for the processing plant."

The ECI process will run through until Q2 2023, developing the design and execution strategy for the pelletisation and roasting area of the vanadium extraction process. This will involve updating and finalising the process design criteria, as well as revisiting the estimated capital expenditures (capex) and operating expenditures (opex) and updating the materials take-off (MTO) as necessary.



Preferred vendors will be identified and pre-qualified for supply of key pyrometallurgical equipment as part of the process to expedite long lead time and critical equipment.

The Project is based on a high-grade V-Ti-Fe Mineral Resource<sup>1</sup> located in the Murchison Province, approximately 43kms south of the mining town of Meekatharra in Western Australia and 740km north-east of Perth (see Figure 1).

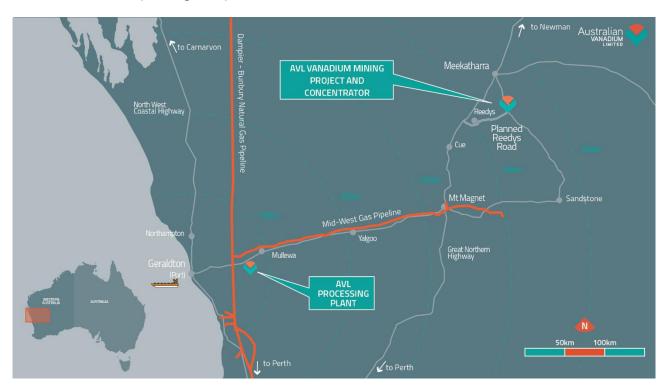


Figure 1 The Australian Vanadium Project Site Locations

Open cut mining and a concentrator will be located south of Meekatharra and a vanadium pentoxide processing plant will be located inland from the port city of Geraldton. The Project will produce a vanadium concentrate at the resource site and complete production of high purity vanadium for the energy storage, titanium master-alloy, vanadium chemical and steel markets, as well as an iron titanium (FeTi) coproduct for export through Geraldton, at the processing plant.

As outlined in the recent announcement regarding a Term Sheet signed with Neometals,<sup>2</sup> the processing plant offers an opportunity for the Company to process concentrate from other vanadium magnetite projects and provide a processing hub for critical and battery mineral projects in the region.

For further information, please contact:

# **Graham Arvidson, CEO**

+61 8 9321 5594

<sup>&</sup>lt;sup>1</sup> See Appendix 1 for Mineral Resource details

<sup>&</sup>lt;sup>2</sup> See ASX announcement dated 25<sup>th</sup> January 2023 'Critical Minerals Collaboration Signed with Neometals'



This announcement has been produced in accordance with the Company's published continuous disclosure policy and has been approved by the Board.

### ABOUT AUSTRALIAN VANADIUM LTD

AVL is a resource company focused on vanadium, seeking to offer investors a unique exposure to all aspects of the vanadium value chain – from resource through to steel and energy storage opportunities. AVL is advancing the development of its world-class Australian Vanadium Project at Gabanintha. The Australian Vanadium Project is one of the most advanced vanadium projects being developed globally, with 239Mt at 0.73% vanadium pentoxide (V<sub>2</sub>O<sub>5</sub>), containing a high-grade zone of 95.6Mt at 1.07% V<sub>2</sub>O<sub>5</sub> and an Ore Reserve of 30.9Mt at 1.09% V<sub>2</sub>O<sub>5</sub> comprised of a Proved Reserve of 5Mt at 1.11% V<sub>2</sub>O<sub>5</sub> and a Probable Reserve of 20.4Mt at 1.07% V<sub>2</sub>O<sub>5</sub>, reported in compliance with the JORC Code 2012 (see ASX announcement dated 1st November 2021 'Mineral Resource Update at the Australian Vanadium Project' and ASX announcement dated 6th April 2022 'Bankable Feasibility Study for the Australian Vanadium Project').

VSUN Energy is AVL's 100% owned renewable energy and energy storage subsidiary which is focused on developing the Australian market for vanadium redox flow batteries for long duration energy storage. VSUN Energy was set up in 2016 and has since become world-renowned for its VRFB expertise. AVL's vertical integration strategy incorporates processing vanadium to high purity, manufacturing vanadium electrolyte and working with VSUN Energy as it develops projects based on renewable energy generation and VRFB energy storage.



### **APPENDIX 1**

The Australian Vanadium Project – Mineral Resource estimate by domain and resource classification using a nominal  $0.4\%~V_2O_5$  wireframed cut-off for low-grade and nominal  $0.7\%~V_2O_5$  wireframed cut-off for high-grade (total numbers may not add up due to rounding).

Zone	Category	Mt	V <sub>2</sub> O <sub>5</sub> %	Fe %	TiO <sub>2</sub> %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	LOI %
	Measured	11.3	1.14	43.8	13.0	9.2	7.5	3.7
HG	Indicated	27.5	1.10	45.4	12.5	8.5	6.5	2.9
	Inferred	56.8	1.04	44.6	11.9	9.4	6.9	3.3
	Subtotal	95.6	1.07	44.7	12.2	9.1	6.8	3.2
LG	Indicated	54.9	0.50	24.9	6.8	27.6	17.1	7.9
	Inferred	73.6	0.48	25.0	6.4	28.7	15.4	6.6
	Subtotal	128.5	0.49	24.9	6.6	28.2	16.1	7.2
Transported	Inferred	14.9	0.66	29.0	7.8	24.5	15.1	7.8
	Subtotal	14.9	0.66	29.0	7.8	24.5	15.1	7.8
Total	Measured	11.3	1.14	43.8	13.0	9.2	7.5	3.7
	Indicated	82.4	0.70	31.7	8.7	21.2	13.5	6.2
	Inferred	145.3	0.71	33.0	8.7	20.7	12.0	5.4
	Subtotal	239.0	0.73	33.1	8.9	20.4	12.3	5.6

The Australian Vanadium Project - Ore Reserve Statement as at April 2022, at a cut-off grade of 0.7%  $V_2O_5$ .

Ore Reserve	Mt	V <sub>2</sub> O <sub>5</sub> %	Fe%	TiO <sub>2</sub> %	SiO <sub>2</sub> %	LOI%	V <sub>2</sub> O <sub>5</sub> production kt	Ore Reserve	Mt
Proved	10.5	1.11	61.6	12.8	9.5	3.7	70.9	Waste	238.5
Probable	20.4	1.07	63.4	12.2	9.2	3.0	152.9	Total Material	269.4
Total Ore	30.9	1.09	62.8	12.4	9.3	3.2	223.8	Strip Ratio	7.7



# ASX CHAPTER 5 COMPLIANCE AND CAUTIONARY AND FORWARD-LOOKING STATEMENTS

### ASX Listing Rules 5.19 and 5.23

## **ASX Listing Rule 5.19**

The information in this announcement relating to production targets, or forecast financial information derived from a production target, is extracted from the announcement entitled 'Bankable Feasibility Study for the Australian Vanadium Project' released to the ASX on 6<sup>th</sup> April 2022 which is available on the Company's website www.australianvanadium.com.au.

The Company confirms that all material assumptions underpinning the production target, or the forecast financial information derived from a production target, in the original market announcement continue to apply and have not materially changed.

# **ASX Listing Rule 5.23**

The information in this announcement relating to exploration results and mineral resource and ore reserve estimates for the Australian Vanadium Project is extracted from the announcement entitled 'Bankable Feasibility Study for the Australian Vanadium Project' released to the ASX on 6<sup>th</sup> April 2022 which is available on the Company's website <a href="https://www.australianvanadium.com.au">www.australianvanadium.com.au</a>.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement, and that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed. 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 announcement.

### **Forward-Looking Statements**

This release may contain certain forward-looking statements with respect to matters including but not limited to the financial condition, results of operations and business of AVL and certain of the plans and objectives of AVL with respect to these items.

These forward-looking statements are not historical facts but rather are based on AVL's current expectations, estimates and projections about the industry in which AVL operates and its beliefs and assumptions.

Words such as "anticipates," "considers," "expects," "intends," "plans," "believes," "seeks," "estimates", "guidance" and similar expressions are intended to identify forward looking statements and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those risks or uncertainties inherent in the industry in which AVL operates.

These statements are not guarantees of future performance and are subject to known and unknown



risks, uncertainties, and other factors, some of which are beyond the control of AVL, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. Such risks include, but are not limited to resource risk, metal price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the countries and states in which we sell our product to, and government regulation and judicial outcomes. For more detailed discussion of such risks and other factors, see the Company's Annual Reports, as well as the Company's other filings.

AVL cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of AVL only as of the date of this release.

The forward-looking statements made in this announcement relate only to events as of the date on which the statements are made.

AVL will not undertake any obligation to release publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this announcement except as required by law or by any appropriate regulatory authority.