

## AVL receives R&D Refund

*Grant refund of \$113.6k repaid under Research & Development Tax Incentive Scheme*

Australian Vanadium Limited (ASX: AVL, “the Company” or “AVL”) is pleased to announce that it has received \$113,660 from the Australian Federal Government’s Research and Development (R&D) Tax Incentive Scheme for the 2016/17 tax year.

Administered jointly by the Australian Taxation Office and the Department of Industry, Innovation and Science, the scheme encourages companies to engage in R&D benefiting Australia, by providing a tax offset for eligible activities.

AVL’s R&D work for the period was focused on development of processing techniques to produce vanadium from a poly-metallic ore for vanadium redox flow batteries (VRFB) and steel applications.

The work was a continuation of the previous year’s R&D activities and included research on vanadium electrolyte creation and analysis of the performance of the VRFB that the Company installed in Busselton, Western Australia. The VRFB battery has been running flawlessly since its installation in October 2016 and AVL has been able to assess how it performs in a range of different temperatures and analyse other key metrics that the built-in battery management system provides.

The Company is in the process of submitting a claim for the 2017/18 period which covers further work on these R&D activities and additional processing research and development work related to the recovery of vanadium products from the Australian Vanadium Project, AVL’s lead project. The Project is currently the subject of a Definitive Feasibility Study due for completion at the end of 2019.

For further information, please contact:

**Vincent Algar, Managing Director**

+61 8 9321 5594

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### ASX ANNOUNCEMENT

Australian Vanadium Limited

ASX: AVL

FRA: JT7.F

ABN: 90 116 221 740

T: +61 8 9321 5594

F: +61 8 6268 2699

E: [info@australianvanadium.com.au](mailto:info@australianvanadium.com.au)

W: [australianvanadium.com.au](http://australianvanadium.com.au)

### Street Address:

Level 1, 85 Havelock Street  
West Perth WA 6005

### Postal Address:

Level 1, 85 Havelock Street  
West Perth WA 6005

### Projects:

The Australian Vanadium Project –  
Vanadium  
Blesberg, South Africa –  
Lithium/Tantalum/Feldspar  
Nowthanna Hill – Uranium/Vanadium  
Coates – Vanadium



## About Australian Vanadium

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. The Australian Vanadium Project is currently one of the highest-grade vanadium projects being advanced globally with 183.6Mt at 0.76% vanadium pentoxide ( $V_2O_5$ ), containing a high-grade zone of 96.7Mt at 1%  $V_2O_5$  with an Ore Reserve of 9.82Mt at 1.07%  $V_2O_5$  Proved and 8.42Mt at 1.01%  $V_2O_5$  Probable Resource, reported in compliance with the JORC Code 2012 (see ASX announcement dated 19 December 2018 ‘Gabanintha Pre-Feasibility Study and Maiden Ore Reserve’)

AVL has developed a local production capacity for high-purity vanadium electrolyte, which forms a key component of VRFB.

AVL, through its 100%-owned subsidiary VSUN Energy Pty Ltd, is actively marketing VRFB in Australia.

**Table 1 – The Australian Vanadium Project – Mineral Resource estimate at November 2018 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	Classification	Mt	$V_2O_5$ %	Fe %	$TiO_2$ %	$SiO_2$ %	$Al_2O_3$ %	LOI %
HG 10	Measured	10.2	1.11	42.7	12.6	10.2	8.0	3.9
	Indicated	12.1	1.05	43.8	11.9	10.6	7.6	3.5
	Inferred	74.5	0.97	42.1	11.2	11.6	7.6	3.4
	<b>Sub-total</b>	<b>96.7</b>	<b>1.00</b>	<b>42.4</b>	<b>11.4</b>	<b>11.3</b>	<b>7.7</b>	<b>3.5</b>
LG 2-5	Measured	-	-	-	-	-	-	-
	Indicated	28.6	0.50	24.6	6.9	27.5	17.9	8.6
	Inferred	53.9	0.49	25.3	6.7	27.5	16.4	7.3
	<b>Sub-total</b>	<b>82.5</b>	<b>0.49</b>	<b>25.1</b>	<b>6.8</b>	<b>27.5</b>	<b>16.9</b>	<b>7.7</b>
Transported 6-8	Measured	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-
	Inferred	4.4	0.65	28.2	7.2	24.7	16.7	8.5
	<b>Sub-total</b>	<b>4.4</b>	<b>0.65</b>	<b>28.2</b>	<b>7.2</b>	<b>24.7</b>	<b>16.7</b>	<b>8.5</b>
Total	Measured	10.2	1.11	42.7	12.6	10.2	8.0	3.9
	Indicated	40.7	0.66	30.3	8.3	22.5	14.8	7.1
	Inferred	132.7	0.77	34.8	9.2	18.5	11.5	5.1
	<b>Sub-total</b>	<b>183.6</b>	<b>0.76</b>	<b>34.3</b>	<b>9.2</b>	<b>18.9</b>	<b>12.1</b>	<b>5.5</b>

**Table 2 - Ore Reserve Statement as at November 2018, at a cut-off grade of 0.8%  $V_2O_5$**

Reserve classification	t	$V_2O_5$ %	Co ppm	Ni ppm	Cu ppm	S %	$SiO_2$ %	$Fe_2O_3$ %	$V_2O_5$ produced t
Proved	9,820,000	1.07	172	571	230	0.06	9.47	58.7	65,000
Probable	8,420,000	1.01	175	628	212	0.08	10.07	59.5	56,000
<b>Total</b>	<b>18,240,000</b>	<b>1.04</b>	<b>173</b>	<b>597</b>	<b>222</b>	<b>0.07</b>	<b>9.75</b>	<b>59.1</b>	<b>121,000</b>

## Competent Person Statement — Mineral Resource Estimation

The information in this announcement that relates to Mineral Resources is based on and fairly represents information compiled by Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd) and Mr Brian Davis (Consultant with Geologica Pty Ltd). Mr Davis is a shareholder of Australian

Vanadium Limited. Mr Barnes and Mr Davis are members of the Australasian Institute of Mining and Metallurgy (AusIMM) and Mr Davis is a member of the Australian Institute of Geoscientists, both have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Barnes is the Competent Person for the estimation and Mr Davis is the Competent Person for the database, geological model and site visits. Mr Barnes and Mr Davis consent to the inclusion in this announcement of the matters based on their information in the form and context in which they appear.

#### **Competent Person Statement — Ore Reserves**

The scientific and technical information in this announcement that relates to ore reserves estimates for the Project is based on information compiled by Mr Roselt Croeser, an independent consultant to AVL. Mr Croeser is a member of AusIMM. Mr Croeser has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a competent person as defined in the JORC 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Croeser consents to the inclusion in the announcement of the matters related to the ore reserve estimate in the form and context in which it appears.