ASX ANNOUNCEMENT

# Quarterly Activities Report
## Period ending 30th June 2019

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## HIGHLIGHTS

### The Australian Vanadium Project

- Positive results from pilot study drilling further demonstrated consistency of economically recoverable vanadium magnetite at The Australian Vanadium Project.
- High purity vanadium pentoxide ($V_2O_5$) produced with AVL standard process flowsheet.
- Process innovation testing showed an increase in vanadium yield to over 94%; a 6% increase from Pre-Feasibility Study (PFS) estimates.
- Memorandum of Understanding (MOU) signed with Westgold Resources for co-operation on supply of Life-of-Mine (LOM) water requirements.
- Pilot scale testwork component of Definitive Feasibility Study (DFS) currently underway; Crushing, Milling and Beneficiation (CMB) program on target.
- Four new pelletised roast/leach tests confirm high recoveries. Vanadium extraction varied from 93.6% to 96.6%.
- Pelletising and pot grate roasting bench program underway at CSIRO to determine optimum parameters for pyrometallurgical pilot scheduled for September.
- Critical water resource drilling completed and preparatory work for environmental approval applications is accelerating.

### Energy Storage

- Planned installation of a 50MW/200MWh vanadium redox flow battery in South Australia announced, demonstrating growth in the energy storage market.
- Vanadium Redox Flow Battery (VRFB) global orders and activity increasing as the techology's abilities become more widely understood.

### Corporate

- Increased marketing of Australian Vanadium Ltd continues to draw interest from investors and media both locally and internationally, with successful conference and investor presentations in China and UK.
- At 30 June 2019, AVL held cash of $4.4 million, which is being applied to project development.

31.07.2019

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**Australian Vanadium Limited**

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**Projects:**

**The Australian Vanadium Project** – Vanadium
**Coates** - Vanadium
**Blesberg** – Feldspar
**Nowthanna Hill** - Uranium/Vanadium

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## *Management Comment*

*Australian Vanadium Limited's high-grade Australian Vanadium Project ("the Project") near Meekatharra has progressed further towards production during the June quarter with the commencement of a crucial 30-tonne pilot scale study which is providing the Company with increased confidence in the processing design. Water resource drilling and relationships with local mining companies such as Westgold Resources are enabling AVL to establish reliable alternative sources for water for the Project. Work in the September quarter will focus on finalising the pilot scale study components of the PFS, updating the Mineral Resource, advancing offtake discussions and building strong relationships with potential financial partners. Activity in the online Project data room continues to grow, with more potential partners actively assessing this world class Project.*

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Activities for the quarter ended 30th June 2019 for Australian Vanadium Limited ("AVL" or "the Company") are as follows:

## THE AUSTRALIAN VANADIUM PROJECT

### *Drilling Results*

ASX Announcement, 18 July 2019

Positive results from pilot study drilling at The Australian Vanadium Project demonstrated further consistency of the Project geology and target mineralisation. Key points from the July 2019 announcement are as follows:

- 30 large diameter diamond core holes were completed at the Project in April 2019 for use in ongoing pilot scale test work.
    - Material from 14 of the holes was used primarily for high-priority DFS pilot scale processing;
    - Assay results from 16 successful depth-extension holes targeting mineralisation below the base of the PFS life of mine pit have been received.
- A high-grade vanadium-rich zone grading over 1.2% $V_2O_5$ is identified consistently at depths below previous drilling, supporting previous work.
- Best intersections include
    - 18m at 1.17% $V_2O_5$ and 73.4% $Fe_2O_3$ from 109m in 19MTDT004;
    - 11.67m at 1.20% $V_2O_5$ and 75.5% $Fe_2O_3$ from 129.65m in 19MTDT011;
    - 5m at 1.23% $V_2O_5$ and 61.2% $Fe_2O_3$ from 101m in 19MTDT015; and
    - 17m at 1.17% $V_2O_5$ and 61.3% $Fe_2O_3$ from 20.2m in 19MTDT016.
- Results will be included in a resource upgrade due to commence in the September quarter
- Program focused on development area in northern 2km of total 11.5km of AVL held deposit strike.
- Pilot scale metallurgical test program underway to confirm details of processing circuit for final DFS design.
- Hydrology drilling, DFS engineering and environmental approval support work ongoing.

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***Figure 1 Diamond drill rig on site at The Australian Vanadium Project***

Assays have been received for 14 of the 18 vertical diamond tails and will be used to complete a revised Mineral Resource Estimate. The drill holes targeted extensions to the resources at the bottom of and below the current pit design, where the deposit remains open at depth.

Managing Director Vincent Algar commented, "The massive magnetite intersections show consistent high grades in this program, which are hallmarks of AVL's Project and are further supported by this drilling. The deeper holes reported will now be integrated into the resource and mine planning. The pit depths in the PFS were often constrained by the drilling depth and the subsequent resource model. These drill holes will support new, de-risked resources that can feed the DFS mine schedule."

### *Testwork*

ASX Announcement, 28 May 2019

High-purity 99.4% vanadium pentoxide ($V_2O_5$) was produced from pre-pilot testwork, confirming the outstanding quality of AVL's standard mine product when in operation.

The initial benchscale metallurgical testwork program was undertaken to optimise the refinery flowsheet for the Australian Vanadium Project. Results identified improvements to the PFS design and showed that higher vanadium recoveries and lower reagent usage can be anticipated in the planned pilot scale testing, which will be used to support the final DFS design.

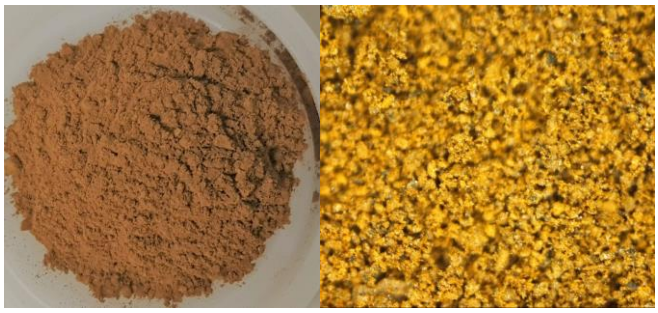

***Figure 2 AVL's $V_2O_5$ product (right hand side image of product under microscope)***

The standard AVL process commences with physical crushing, milling and magnetic separation of ore to make a concentrated product, followed by a soda ash roast and further refining to produce a high quality $V_2O_5$ product. This constitutes typical alkaline roast leach refining for vanadium processing.

Roasting tests have been performed on pelletised magnetic concentrate. Roasting at optimised temperature and reagent conditions resulted in a vanadium roast leach extraction of 94%, a substantial increase from the previous figure of 88% applied in the PFS.

An alternative vanadium production route known as APV (ammonium polyvanadate) was tested on the leachate produced by roasting and generated a final product quality of 99.4% $V_2O_5$, which was independently verified by an accredited laboratory (see Figure 2). The APV process showed reduced reagent consumption and the potential to eliminate the desilication step required in the AMV (ammonium metavanadate) process which was the route chosen in the PFS.

These encouraging results are guiding the overall design of the refinery circuit and are expected to have positive impacts on project economics. AVL is currently undertaking refinery bench testwork to finalise changes to the flowsheet. Refinery piloting will begin in Q4 of 2019 based on parameters established in bench testing.

### *Pilot Study Progress*

AVL collected 30 tonnes of oxide, transitional and fresh core samples from the Project in March 2019. The drilling was undertaken to provide samples for a pilot scale metallurgical test program, which is now underway, and to support a resource update.

*"Pilot Scale" describes a test program that allows simulation of typical processing of ore and should be at least at a scale of tonnes of ore per hour in a continuous process test, identical in as many ways as possible to the final built process. All inputs and outputs are measured and managed for analysis and if required, refinement in the final design to be built. Most successful projects complete properly scaled pilot studies, many failed projects do not.*

The pilot study has so far utilised one third of the allocated sample and results have been used to refine the process for the second phase of piloting. The benefits of undertaking such a study have already validated the decision to undertake this exercise. Crushing, milling, and beneficiation pilot work will be complete by the end of Q3 2019 and will provide magnetic concentrate for bench and pilot work downstream.

***Figure 3 Pilot Scale Study***

### *Water*

ASX Announcement, 25 June 2019

AVL entered into an agreement with Westgold Resources, announced on 25 June 2019, which serves to allow the two companies to co-operate on supply of Life-of-Mine (LOM) water requirements for The Australian Vanadium Project.

Westgold Resources' Meekatharra Gold Operations comprises several active and inactive mines south of Meekatharra. Continous inflows into a number of these active and inactive pits and underground mines lead to the generation of significant amounts of water surplus to Westgold's requirements, which is potentially suitable for the AVP's onsite water requirements.

The MOU paves the way for AVL and Westgold to enter into a formal and binding water access agreement within six months, subject to statutory conditions.

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Accessing this water has the potential to streamline water abstraction approvals by providing reduced groundwater and environmental impacts. It also provides the potential for access to funding assistance from NAIF (Northern Australian Infrastructure Fund) during construction, by meeting their condition to provide community benefits.

Groundwater drilling has been completed at The Australian Vanadium Project, in order to ensure that the extent of groundwater resources near the Project are fully understood. Consultancy AQ2, working with Resource Water Group, are developing an updated water resource model based on new bores, pit dewatering, and water availability at Westgold Resources' nearby pits.

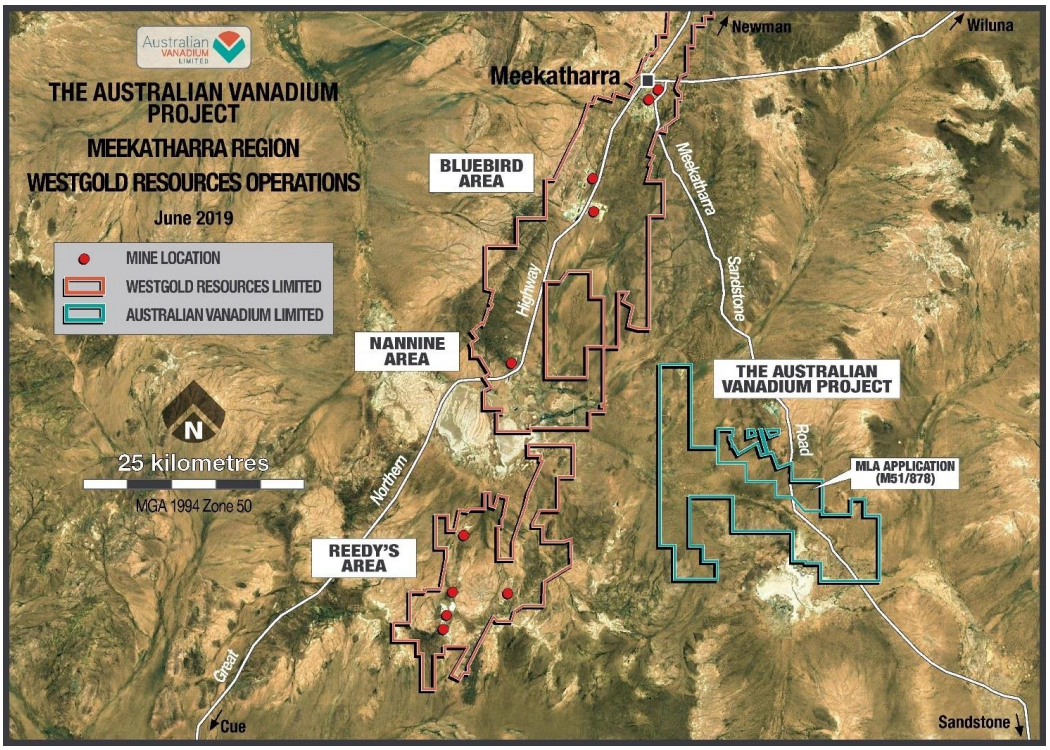


***Figure 4 Westgold Resources and AVL's Meekatharra Region Tenement Locations***

## *Environmental Approvals*

With water supply being one of the key requirements for The Australian Vanadium Project's success, developments as outlined above with Westgold Resources are key contributors to the environmental approvals process. The water resource study is currently being completed by hydrology consultant AQ2 with assistance from Resource Water Group.

Submission of a detailed Environmental Impact Report for the Project will be prepared upon completion of the hydrology and other required study work, to allow full assessment by the regulators. Ensuring that a full and complete application is submitted to the regulator provides the Company with the best chance of timely approval.

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*Figure 5 Water resource drilling underway at The Australian Vanadium Project*

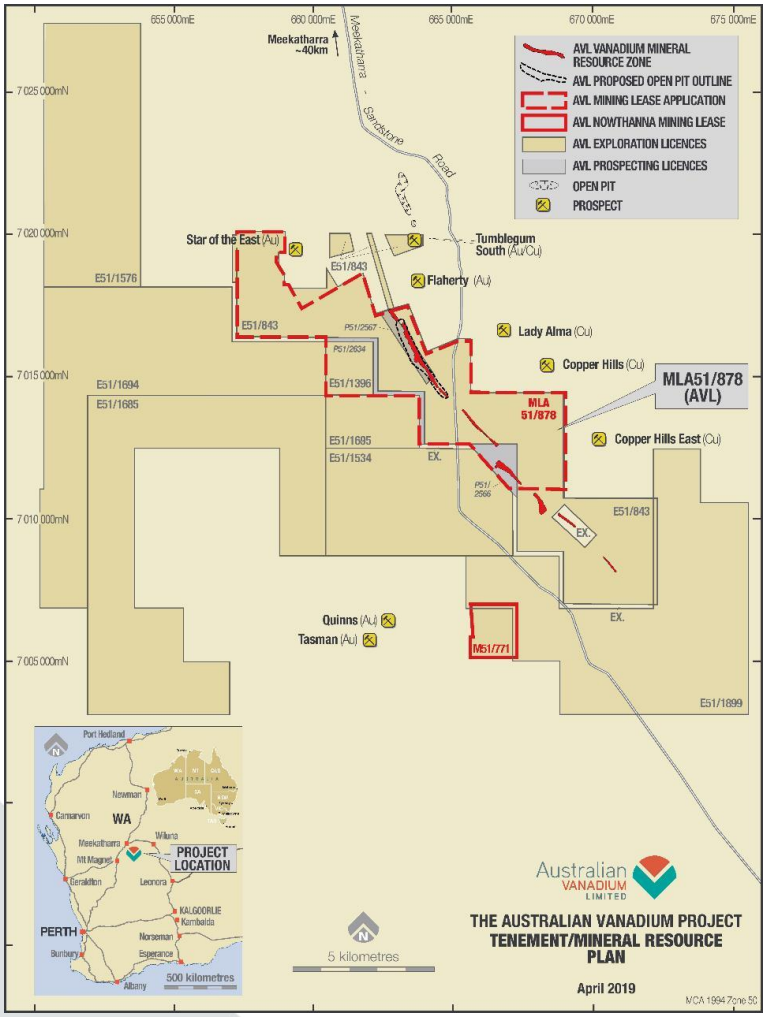


*Figure 6 Location Diagram of The Australian Vanadium Project*

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### *Community and Social Responsibility*

AVL is proud to support the local community of Meekatherra. AVL is actively involved in the Stephen Michael Foundation through sponsorship and building relationships. Members of staff from the Company recently had the opportunity to accompany Stephen Michael on a visit to Meekatharra to support the Yulella Careers Expo and local sporting carnival. The Company also sponsored the Elders Lunch as part of NAIDOC week celebrations in the town.


***Figure 7 AVL staff members and Mission Australia staff at the Yulella Careers Expo in Meekatharra***

### *Project Path Forward*

Development of the Project alongside work to establish funding and joint venture partners continues. Interest in the Project is coming from Europe, Asia and Australia, with a growing number of participants entering agreements to access the online Data Room.

Work across the various disciplines includes:

- Completion of drilling and testing to confirm dewatering estimates and groundwater resources
- Development of a water access agreement with Westgold Resources
- Environmental impact analysis and approval application
- Completion of the Pilot Scale studies with associated design modifications
- Upgrading the current Mineral Resource
- Mine schedule optimisation
- Heritage Mining Agreement negotiations
- Analysis of renewable energy and vanadium redox flow battery (VRFB) energy storage for components of the Project.

## VSUN ENERGY

Two and a half years of uninterrupted renewable energy powering a native tree nursery in Busselton, stored in a 10kW/100kWh CellCube VRFB installed by VSUN Energy, was cause for celebration and resulted in media coverage in a wide variety of publications including The Sydney Morning Herald and The Age in Melbourne.

VSUN Energy offers VRFB products ranging from 10kW of power and 40kWh of energy storage upwards. Residential solutions are still unavailable for grid attached properties due to inverter regulations. VRFB manufacturers have had their products certified in the main countries they operate in and are reluctant to spend money on certification for Australia without a guaranteed number of sales. Aggregated energy storage with an overlying trading platform is one potential solution for this issue.

In a great step forward for the VRFB industry in Australia, Chief Scientist Dr Alan Finkel spoke about the benefits of the technology to The Australian Financial Review and mentioned Australian Vanadium Limited as one of the junior miners set to benefit from the industry.

CellCube announced a 50MW/200MWh VRFB to be built in Port Augusta, South Australia which will bring the technology further into the mainstream energy mix.

## FUTURE BATTERY INDUSTRIES CRC

The Future Battery Industries Cooperative Research Centre (CRC) has been launched. AVL and VSUN Energy have both offered in-kind services for projects relating to vanadium and its use in VRFB and the cathodes of lithium-ion batteries.

An initial workshop in May was very well attended by industry, academic and government representatives.

Research proposals are currently being drafted by the universities, with industry participants supporting the projects that would be of particular benefit to them.

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## COATES

ASX Announcement, 13 May 2019

On 13 May 2019 AVL announced that it had signed a joint venture agreement with vertically integrated electrochemical processing and energy storage technology company Ultra Power Systems Ltd (UPS). The agreement was signed to enable AVL to monetise a secondary asset and support the testing of process technology which is focused on enhancing the uptake of VRFBs in Australia.

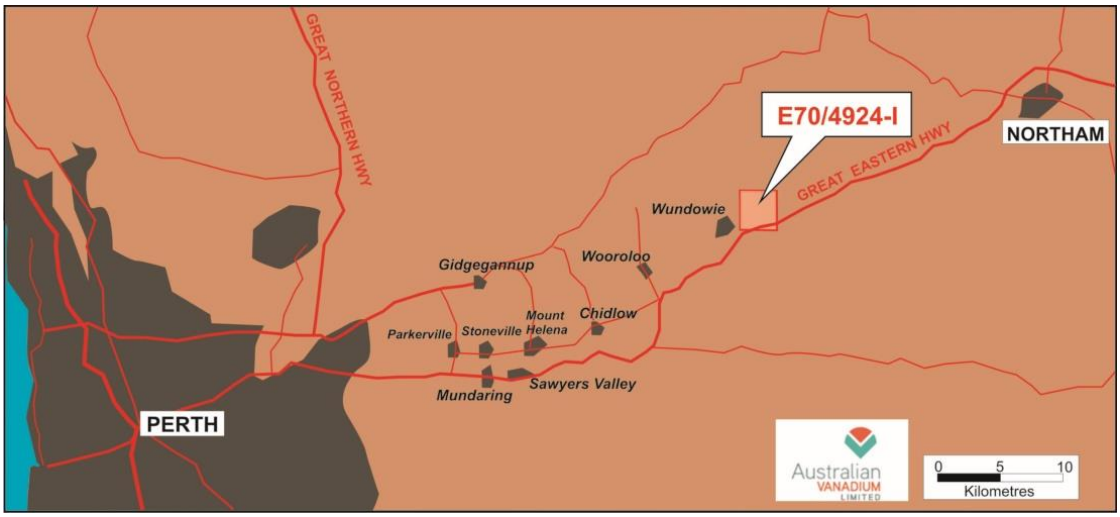


***Figure 8 Coates Tenement Location***

The agreement allows UPS the exclusive right to earn a 49% legal and beneficial interest in the tenement on a $5,000 signing fee, followed by $50,000 being spent on exploration on the tenement within the first 12 months of the agreement and $150,000 being spent during the first 24 months. When the obligations outlined above have been fulfilled, the agreement allows for UPS to acquire AVL's Joint Venture interest for a sum of $500,000 or shares in UPS, at the election of AVL.

UPS is a private company which has secured a licence to Pacific Northwest National Laboratory's (PNNL) generation 3 vanadium electrolyte production. The generation 3 electrolyte has a higher density than the standard generation 1 used by most VRFB manufacturers. This allows the product to have a smaller footprint and operate in a wider temperature range without the need for heating and cooling, from -40°C to +50°C.

In addition, UPS holds the exclusive Australian option to license the VanadiumCorp Electrochem Processing Technology (VEPT). VEPT enables the recovery of valuable by-products during the vanadium processing route with minimal carbon production and minimal waste.

UPS will test material from the Coates Vanadium Project and if that proves successful, will test the low grade (<0.5% $V_2O_5$) mineralisation from AVL's Australian Vanadium Project using the VEPT process. UPS aims to produce vanadium electrolyte and manufacture VRFBs in Western Australia. The mutual goals of the two companies are complementary from a business perspective.

Since the May announcement, a drilling program has been established and several visits to the site have been undertaken.

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## NOWTHANNA HILL

ASX Announcement, 31 May 2019

On 16 November 2015, AVL signed a Mining Agreement with the Yuguna-Nya people and Mining Lease M51/771 was granted. Nowthanna Hill contains both uranium and vanadium on tenements M51/771 and E51/1899 which are south and southeast of the Company's vanadium-titanium-iron mineral resource. There is currently a moratorium on new uranium mine approvals in Western Australia which restricts the actions that can be taken, but may prove valuable in the future for consolidation of calcrete resources in the region. Uranium and vanadium can be extracted from processing the mineral carnotite (a uranium, potassium vanadate). New technologies for the treatment of similar resources, such as those being developed by Marenica Energy Limited, may greatly assist in the economics of future extraction.

***Figure 5 Operational Drill Rig at the Nowthanna Hill Deposit***

AVL released a Mineral Resource Estimate for the Nowthanna Hill deposit on 31 May 2019. The estimate was completed using all data on AVL's tenements as well as the adjacent and surrounding data from the latest Toro Energy ("Toro") 2011 resource (with permission). There has been no material change to the Toro database since the 2011 resource estimation. Vanadium and Uranium are co-mineralised at Nowthanna Hill.

The Nowthanna Hill uranium-vanadium deposit is located 50km south of Meekatharra in Western Australia and is hosted within calcrete and clay deposits, formed within the inland drainage as a result of the weathering of granites containing high background radiation.

The deposit is similar to the Cogla Downs and Yeelirie uranium deposits of the Murchison and Northern Goldfields. These uranium deposits consist of interbedded lacustrine clays and sands, with calcrete horizons that contain the minerals carnotite and autunite. Carnotite is a uranium-bearing potassium vanadate and autunite is a uranium-bearing calcium-phosphate. At Nowthanna Hill the mineralization is hosted by carnotite and the sequence varies in thickness, but is generally less than 3m thick and within 15m of the surface. Uranium and vanadium mineralisation occur over an extensive surface area within paleo-channels of the Quinn's Lake drainage.

The Nowthanna Hill project is available for sale or joint venture as AVL seeks to monetise its secondary assets and provide benefits to shareholders.

The Mineral Resources have been classified as Inferred Mineral Resources.

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## Resource Estimations

### *Vanadium*

Vanadium estimation was modelled using Ordinary Kriging (OK) at 50m (X axis) x 100m (Y axis) and 0.5m (Z axis) based on statistical variogram data.

SRK Consulting's preferred cutoff for reporting purposes of 250ppm $V_2O_5$ provides an Inferred Mineral Resource of 3.60 million tonnes at 337ppm $V_2O_5$ on the AVL tenements.

*Table 1 $V_2O_5$ Inferred Mineral Resource by OK at Nowthanna (globally within AVL tenure)*

| $V_2O_5$ cut-off (ppm) | Metal ($V_2O_5$ t) | Tonnes (Mt) | $V_2O_5$ Grade (ppm) |
|---|---|---|---|
| 0 | 2,671.9 | 10.63 | 251 |
| 50 | 2,671.9 | 10.63 | 251 |
| 100 | 2,671.2 | 10.63 | 251 |
| 150 | 2,624.1 | 10.28 | 255 |
| 200 | 2,285.5 | 8.42 | 272 |
| **250** | **1,212.4** | **3.60** | **337** |
| 300 | 870.4 | 2.33 | 373 |

Note: The tonnages for the vanadium and uranium mineral resources are not additive in nature and are required to be reported separately

### *Uranium*

Uranium was estimated using Uniform Conditioning modelled on selective mining units at 10m (X axis) x 10m (Y axis) x 0.5m (Z axis).

SRK Consulting's preferred cutoff for reporting purposes of 200ppm $U_3O_8$ provides an Inferred Mineral Resource of 4.73 million tonnes at 404ppm $U_3O_8$ on the AVL tenements.

*Table 2 $U_3O_8$ Inferred Mineral Resources by cutoff at Nowthanna Hill (globally within AVL tenure)*

| $U_3O_8$ cut-off (ppm ) | Metal ($U_3O_8$ t) | Metal ($U_3O_8$ klb) | Tonnes (Mt) | $U_3O_8$ Grade (ppm) |
|---|---|---|---|---|
| 0 | 2559.4 | 5642.4 | 10.63 | 241 |
| 50 | 2533.1 | 5584.6 | 9.82 | 258 |
| 100 | 2399.0 | 5288.9 | 8.06 | 297 |
| 150 | 2169.3 | 4782.4 | 6.22 | 349 |
| **200** | **1910.0** | **4210.8** | **4.73** | **404** |
| 250 | 1654.2 | 3646.9 | 3.58 | 462 |
| 300 | 1418.0 | 3126.2 | 2.72 | 521 |
| 350 | 1208.7 | 2664.7 | 2.07 | 583 |
| 400 | 1028.9 | 2268.3 | 1.59 | 646 |
| 450 | 878.2 | 1936.1 | 1.24 | 710 |
| 500 | 753.4 | 1660.9 | 0.97 | 773 |

Note: The tonnages for the vanadium and uranium mineral resources are not additive in nature and are required to be reported separately.

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## CORPORATE

### *Staffing*

ASX Announcement, 15 May 2019

As announced on 15 May 2019, Todd Richardson has been appointed to the newly created position of Chief Operating Officer. Mr Richardson has over 20 years of experience obtained from vanadium operations in Australia, Canada and the USA. He has previously worked for global vanadium companies including AMG Vanadium, VanadiumCorp, Midwest Vanadium and Evraz Stratcor, in both production and technical management roles, including time at the Windimurra mine and production site in Western Australia.

***Figure 9 COO Todd Richardson***

Mr Richardson's experience includes design, commissioning and operation of hydrometallurgical, pyrometallurgical and specialty vanadium chemical processes. His knowledge has already proved invaluable to the Company and with his experience and focus on the Project he will be able to drive the internal and external team in its goal to take the Australian Vanadium Project into production.

The appointment allows Managing Director, Vincent Algar to continue to advance funding and stakeholder engagement.

### *Marketing*

Presentations were made and meetings held at 121 Mining Investment in London. Follow up meetings have been conducted in early July.

Local presentations were made at the Association of Mining and Exploration Companies (AMEC) conference in Perth.

Vincent Algar attended the Vanitec Energy Storage Committee meeting with members of the global vanadium community in Lyon, France in early July. The meeting was timed to coincide with the International Flow Battery Forum (IFBF) where the majority of the attendees were focused on the VRFB, with presentations from many of the manufacturers that AVL's subsidiary VSUN Energy offers to its potential clients.

AVL continued its strong presence across social media and news outlets with articles mentioning the Company appearing in the Australian Financial Review, Mining Journal, Business News, Mining Weekly, Bloomberg, Mining Monthly and Paydirt magazine. The Company is now sending out a more regular newsletter to its email subscribers every quarter.

AVL was a key contributor to the Association of Mining and Exploration Companies' (AMEC) new Australian Explorer series, which is endeavouring to educate the general public about the value and importance of the mining industry. As a result, stories were published about the Stephen Michael Foundation, our data manager Sam Kemp and renewable energy analyst for VSUN Energy, Paul Donovan.

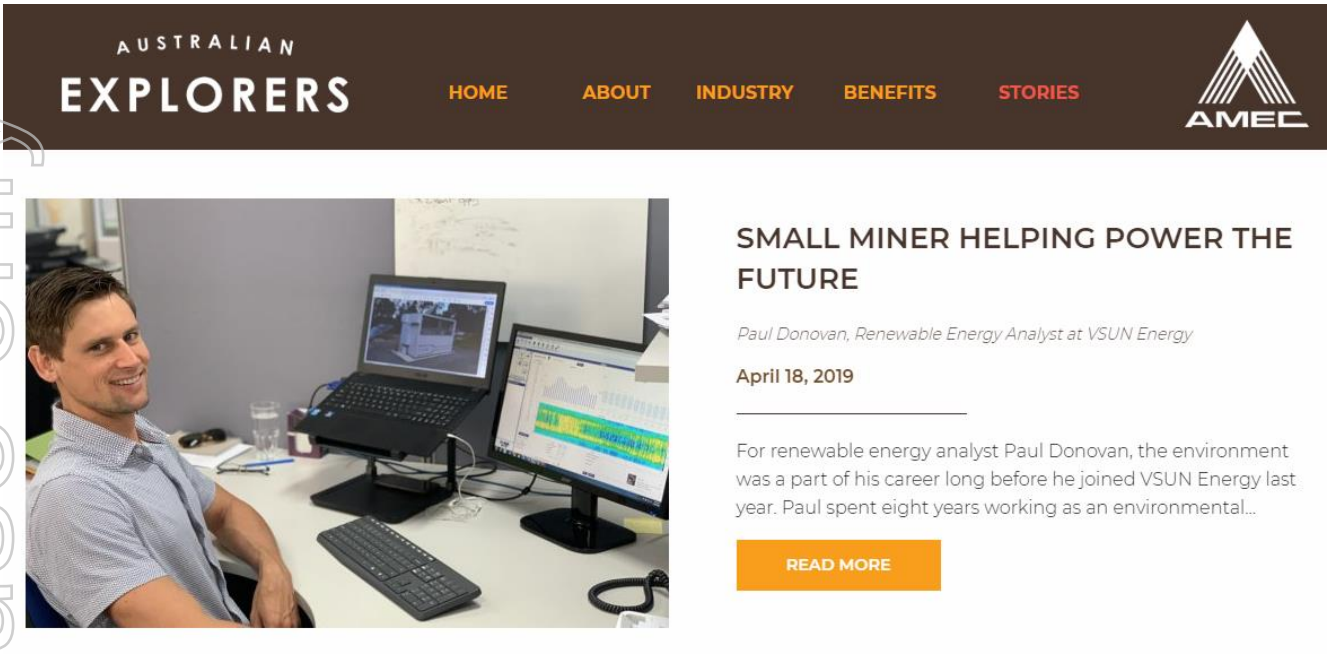


***Figure 10 VSUN Energy's Renewable Energy Analyst Paul Donovan interviewed by AMEC***

### *Vanadium Price*

At the time of this report, the vanadium spot price is trading at US$8.20/lb $V_2O_5$, close to its long-term (14 year) average price of US$8.67/lb $V_2O_5$. Global supply is still in deficit and demand projections continue to grow. Some short-term stockpiling in China combined with a delayed timeline around the enforcement of new rebar regulations requiring increased microalloy content in steel, have dampened prices and slowed demand projections in the near term. Subsitution of vanadium by niobium also led to reductions in prices in late 2018.

Prices, having fallen from near-all time highs in 2018, remain well above November 2015 price lows of US$2.50/lb $V_2O_5$.

Lower prices have strongly activated a mostly dormant VRFB market environment, with sale proposals and new implementation announcements increasing strongly in 2019, as high purity vanadium pentoxide powder became more affordable and available for large scale energy storage applications as vanadium electrolyte.

AVL believes that the demand and price fundamentals are strong for the long term and strongly support the production of new vanadium products such as contemplated by the development of The Australian Vanadium Project.

### *Cash Position*

As at the 30 June 2019, the Company had $4.4 million in cash and cash equivalents.

For further information, please contact:

**Vincent Algar, Managing Director**

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***Table 3 Gabanintha 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 |
| | **Sub-total** | **96.7** | **1.00** | **42.4** | **11.4** | **11.3** | **7.7** | **3.5** |
| **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 |
| | **Sub-total** | **82.5** | **0.49** | **25.1** | **6.8** | **27.5** | **16.9** | **7.7** |
| **Transported 6-8** | Measured | - | - | - | - | - | - | - |
| | Indicated | - | - | - | - | - | - | - |
| | Inferred | 4.4 | 0.65 | 28.2 | 7.2 | 24.7 | 16.7 | 8.5 |
| | **Sub-total** | **4.4** | **0.65** | **28.2** | **7.2** | **24.7** | **16.7** | **8.5** |
| **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 |
| | **Sub-total** | **183.6** | **0.76** | **34.3** | **9.2** | **18.9** | **12.1** | **5.5** |

***Table 4 Ore Reserve Statement as at December 2018, at a cut-off grade of 0.8% $V_2O_5$***

| Reserve classification | tonnes | $V_2O_5$ % | 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 |
| **Total** | **18, 240, 000** | **1.04** | **173** | **597** | **222** | **0.07** | **9.75** | **59.1** | **121,000** |

## About Australian Vanadium Limited

AVL is a resource company with an integrated strategy with respect to 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 100%-owned, world-class Australian Vanadium Project. The Australian Vanadium Project is currently one of the highest-grade vanadium projects being advanced globally with existing Mineral Resource of 183.6Mt at 0.76% vanadium pentoxide ($V_2O_5$), made up of a Measured Mineral Resource of 10.2Mt at 1.11% $V_2O_5$, an Indicated Mineral Resource of 40.7Mt at 0.66% $V_2O_5$, and an Inferred Mineral Resource of 132.7Mt at 0.77% $V_2O_5$, reported in compliance with the JORC Code 2012, (see AVL ASX Announcement 28th November 2018).

The Mineral Resource includes a distinct massive magnetite high-grade zone of 96.7 Mt at 1.00% $V_2O_5$ consisting of Measured Mineral Resource of 10.2Mt at 1.11% $V_2O_5$, Indicated Mineral Resource of 12.1Mt at 1.05% $V_2O_5$, and Inferred Mineral Resource of 74.5Mt at 0.97% $V_2O_5$.

AVL is aiming to develop a local commercial production capacity for high-purity vanadium electrolyte, which forms a key component of vanadium redox flow batteries (VRFB). AVL, through its 100%-owned subsidiary VSUN Energy Pty Ltd, is also actively marketing VRFB in Australia.

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## *Tenement Schedule*

| Tenement Information as Required by Listing Rule 5.3.3<br>For the Quarter Ended 30 June 2019 | | | | | |
|---|---|---|---|---|---|
| **Project** | **Location** | **Tenements** | **Economic Interest** | **Notes** | **Change in Quarter %** |
| **Western Australia** | **The Australian Vanadium Project** | E51/843 | 100% Granted[1] | | Nil |
| | | E51/1396 | 100% Granted[1] | | Nil |
| | | E51/1534 | 100% Granted[1] | | Nil |
| | | E51/1576 | 100% Granted[1] | | Nil |
| | | E51/1685 | 100% Granted[1] | | Nil |
| | | E51/1694 | 100% Granted[1] | | Nil |
| | | E51/1695 | 100% Granted[1] | | Nil |
| | | P51/2566 | 100% Granted[1] | | Nil |
| | | P51/2567 | 100% Granted[1] | | Nil |
| | | P51/2634 | 100% Granted[1] | | Nil |
| | | MLA51/878 | | 100% On application | Nil |
| | | E51/1899 | | 100% On Application | Nil |
| **Western Australia** | **Nowthanna** | M51/771 | 100% Granted | | Nil |
| **Western Australia** | **Peak Hill** | E52/3349 | 0.75% NSR Production Royalty | | Nil |
| **Western Australia** | **Coates** | E70-4924-I | 100% Granted | | Nil |
| **South Africa** | **Blesberg** | (NC) 940 PR | 5% | Earning up to 26% | 5% |

Note 1: Australian Vanadium Limited retains 100% rights in V/U/Co/Cr/Ti/Li/Ta/Mn & iron ore on the Australian Vanadium Project. Bryah Resources Limited holds the Mineral Rights for all minerals except V/U/Co/Cr/Ti/Li/Ta/Mn & iron ore only.

### *Forward Looking Statements*

*Some of the statements contained in this report are forward looking statements. Forward looking statements include, but are not limited to, statements concerning estimates of tonnages, expected costs, statements relating to the continued advancement of Australian Vanadium Limited's projects and other statements that are not historical facts. When used in this report, and on other published information of Australian Vanadium Limited, the words such as 'aim', 'could', 'estimate', 'expect', 'intend', 'may', 'potential', 'should' and similar expressions are forward looking statements.*

*Although Australian Vanadium Limited believes that the expectations reflected in the forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that the actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward-looking statements including the potential that Australian Vanadium Limited's project may experience technical, geological, metallurgical and mechanical problems, changes in vanadium price and other risks not anticipated by Australian Vanadium Limited.*

*Australian Vanadium Limited is pleased to report this information in a fair and balanced way and believes that it has a reasonable basis for making the forward-looking statements in this report, including with respect to any mining of mineralised material, modifying factors, production targets and operating cost estimates.*

**Competent Person Statement — The Australian Vanadium Project Mineral Resource Estimation**

The information in this report 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 is a member of the Australasian Institute of Mining and Metallurgy and Mr Davis is a member of the Australian Institute of Geoscientists and 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 report of the matters based on their information in the form and context in which they appear.

**Competent Person Statement — The Australian Vanadium Project Ore Reserves**

The scientific and technical information in this report 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 the Australasian Institute of Mining and Metallurgy. 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 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Croeser consents to the inclusion in this report of the matters related to the ore reserve estimate in the form and context in which it appears.

**Competent Person Statement – The Australian Vanadium Project Metallurgical Results**

The information in this report that relates to Metallurgical Results is based on information compiled by independent consulting metallurgist Brian McNab (CP. B.Sc Extractive Metallurgy), Mr McNab is a Member of The Australasian Institute of Mining and Metallurgy. Brian McNab is employed by Wood Mining and Metals. Mr McNab has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is undertaken, 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'. Mr McNab consents to the inclusion in this report of the matters based on the information made available to him, in the form and context in which it appears.

**Competent Person Statement – Blesberg Exploration Program**

The information relating to the Blesberg Feldspar-Lithium-Tantalum Project exploration program reported in this announcement is based on information compiled by Mr Vincent Algar. Mr Algar is a Member of The Australian Institute of Mining and Metallurgy (AusIMM) and a full-time employee of the Company. Mr Algar has more than 25 years' experience in the field of mineral exploration. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration 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'. Mr. Algar consents to the inclusion in the report of the matters based on the information made available to him, in the form and context in which it appears.

**Competent Person Statement – Coates and Nowthanna Exploration Results**

The information relating to the Coates Vanadium Project and the Nowthanna Hill Uranium Project exploration results reported in this announcement is based on information compiled by Mr Brian Davis (Consultant with Geologica Pty Ltd). Mr Davis is a Member of Australian Institute of Geoscientists and a consultant to the Company. Mr Davis is a shareholder of Australian Vanadium Limited. Mr Davis has more than 25 years' experience in the field of mineral exploration. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration 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'. Mr. Davis consents to the inclusion in the report of the matters based on the information made available to him, in the form and context in which it appears.

*The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resource or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements 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 has not been materially modified from the original market announcements.*

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