

28 JULY 2022

## ACTIVITIES REPORT – JUNE QUARTER 2022

### HIGHLIGHTS

- ◆ The Company successfully dual listed on the Frankfurt Stock exchange, under the ticker code TR3.
- ◆ Pilot plant metallurgical test work was completed which indicated elevated recoveries achievable compared to inputs used during PFS.
- ◆ The DFS continues to remain on target and within budget for completion end Q3 2022.

**VANADIUM RESOURCES LTD (ASX:VR8) (“VR8” OR “THE COMPANY”)**, the developer of the Steelpoortdrift Vanadium project in Limpopo, South Africa, is pleased to provide the following activities report that outlines the progress made during the Quarter.

VR8 is currently conducting a Definitive Feasibility Study (“DFS”) to undertake mining operations and to construct a concentrator and salt roast plant, potentially capable of initially producing 12,500tpa of  $V_2O_5$  flake at a projected capex of US\$200M estimated to be returning an attributable (73.95%) post-tax NPV<sub>8</sub> of US\$884M at an IRR of 45%<sup>1</sup>.

### COMPANY COMPLETES DUAL LISTING ON FRANKFURT STOCK EXCHANGE

The Company has dual listed on the Frankfurt Stock Exchange, under the ticker code TR3. The Frankfurt listing enlarges VR8’s investor-reach and increases its exposure to European markets, which are specifically complimentary given Vanadium being a globally strategic metal and is expected to play a big role in the storage of renewable energy with Vanadium Redox Flow Batteries (“VRFB’s”). The Frankfurt Stock Exchange is one of Europe’s largest stock exchanges. More than 50% of the total trades on the Frankfurt Stock Exchange are conducted through investors in countries outside of Germany.

The Company joins a growing list of ASX listed Vanadium companies that have been dual listed on the Frankfurt Stock Exchange, such as Neometals Ltd (ASX: NEO FRA: 9R9), Australian Vanadium Ltd (ASX: AVL FRA: JT71) and TNG Limited (ASX: TNG FRA: HJI) to name a few.

<sup>1</sup> Refer to Asx Announcement dated 22 June 2021 “Steelpoortdrift PFS delivers superior results”

## METALLURGICAL PILOT PLANT TESTWORK COMPLETED

The DFS is a natural progression of the Pre-Feasibility Study (“PFS”), recently completed with the aim to produce a high purity (>98%  $V_2O_5$ ) vanadium flake product from primary Run of Mine (“ROM”) mineralised material. As part of the DFS, a trial mining and bulk sampling campaign was initiated, with the aim of extracting fresh (unweathered) mineralised material for the purpose of pilot plant metallurgical test campaigns<sup>2</sup>. As announced previously on the 24th of March 2022<sup>3</sup>, no blasting was required during the collection of the bulk sample due to fresh unweathered mineralised material being intersected 2-3m from surface because the ore body was considerably shallower than originally anticipated.

The trial mining was completed with a total of approximately 40 tons of mineralised material extracted, of which approximately 15 tons was classified as fresh high-grade material from the LMZ (Lower Magnetite Zone) mineralised zone. This material was sent to Multotec Minerals Processing R&D facility located in Johannesburg, South Africa, for concentrator pilot plant test campaigns, with the purpose of producing magnetite concentrate for downstream Salt Roast and Leach (“SRL”) test work. Multotec is a leading global equipment supply company with specific experience in magnetic and gravity separation processes.

The concentrate produced from the three stage Low Intensity Magnetic Separation circuit was dewatered and sent to MINTEK South Africa, a leading minerals technology development facility, for further processing through a SRL pilot circuit to final flake product. This circuit included:

1. Roasting of concentrate in the presence of Sodium Salts for 4 hours at 1200 degrees Celsius;
2. Water Leach of roasted material;
3. Desilification circuit; and,
4. Ammonium Meta-Vanadate precipitation.

Key outcomes of the test work was:

- ◆ Bulk sampling from trial mining and pilot plant test work has been completed
- ◆ Magnetic separation test work indicates  $V_2O_5$  recoveries in excess of 96% achievable at concentrate grades above 2.10%  $V_2O_5$ .
- ◆ Salt Roast and Leach test work indicates Leach recoveries in excess of 87% with overall project recoveries achieved above 84% which constitutes a 3-4% increase above PFS recoveries used

<sup>2</sup> ASX: VR8 07 March 2022 DFS Update: Trial Mining and Bulk Sampling Progress

<sup>3</sup> ASX: VR8 24 March 2022 Completion of bulk sampling and pilot plant test work commencement

- ◆ Low Silica contents in magnetic separation concentrates significantly reduces reagent consumptions during downstream processing.

#### TEST WORK RESULTS<sup>4</sup>

	Feed Grade	Product grade	Residue grade	Recovery
<b>Magnetic Separation</b>	1.71 (%V <sub>2</sub> O <sub>5</sub> )	2.28 (%V <sub>2</sub> O <sub>5</sub> )	0.06 (%V <sub>2</sub> O <sub>5</sub> )	96.5%
<b>Salt Roast and Leach</b>	2.28 (%V <sub>2</sub> O <sub>5</sub> )	77.65 g/l	0.23 (%V <sub>2</sub> O <sub>5</sub> )	89.9%
<b>Flake production</b>	77.65 g/l	>98 (%V <sub>2</sub> O <sub>5</sub> )	216 ppm	97.3%
<b>Total project</b>	<b>1.71 (%V<sub>2</sub>O<sub>5</sub>)</b>	<b>&gt;98 (%V<sub>2</sub>O<sub>5</sub>)</b>		<b>84.4 %</b>

Of particular significance is that the Silica content of the magnetically separated concentrate was measured to be between 1.1-1.3%, which significantly improves downstream processing efficiencies as well as reduce reagent consumption.

#### DFS REMAINS ON TARGET AND WITHIN BUDGET

The DFS is progressing well within timelines and remains within budget with targeted completion towards end of Q3 2022. The majority of workstreams are currently 80-90% completed with only final outstanding sections being finalised.

#### CORPORATE

During the quarter the Company announced that Mr van der Hoven, Non-Executive Director, would retire from the Board and Company subsidiary Vanadium Resources (Pty) Ltd as of 08 April 2022.

Mr Jurie Wessels transitioned from Non-Executive Chairman to Executive Chairman of the Company.

<sup>4</sup> ASX: VR8 22 June 2022 VR8 Test work results confirm superior grade recoveries

## **SUMMARY OF EXPENDITURE**

During the Quarter, a total of \$2,209,000 was spent on activities related to the exploration and development of the Steelpoortdrift Vanadium Project, primarily spent on the DFS. Save for trial mining, the Company did not incur any expenditure for mining production activities during the Quarter.

Payments totaling approximately \$36,000 were made to related parties of the Company with respect to the Quarter, being director and consulting fees (see section 6.1 and 6.2 of the Accompanying 5B).

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

### **For and on behalf of the board:**

Kyla Garic

Company Secretary

**VANADIUM RESOURCES LIMITED**

[contact@vr8.global](mailto:contact@vr8.global)

## APPENDIX 1 – MINERAL RESOURCE ESTIMATE

There were no material changes to the Company's Mineral Resource statement in the reporting period ending 31 December 2021. The Resource statement as reported previously is as follows:

Table 1: Mineral Resource Estimate (as at 31 July 2020)

Category	V <sub>2</sub> O <sub>5</sub> Range (%)	Volume (M m <sup>3</sup> )	Quantity (Mt)	V <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)
Measured	0.45* to 0.90	20.3	66.0	0.59	19.98
	>0.90	7.2	26.3	1.22	34.20
	<b>Sub-total</b>	<b>27.5</b>	<b>92.3</b>	<b>0.77</b>	<b>24.03</b>
Indicated	0.45* to 0.90	61.8	201.2	0.59	20.21
	>0.90	22.7	83.2	1.24	35.06
	<b>Sub-total</b>	<b>84.5</b>	<b>284.4</b>	<b>0.78</b>	<b>24.55</b>
Inferred	0.45* to 0.90	63.2	206.9	0.60	20.96
	>0.90	21.3	78.4	1.22	35.18
	<b>Sub-total</b>	<b>84.5</b>	<b>285.3</b>	<b>0.77</b>	<b>24.87</b>
Total (0.45 to 0.90)		145.3	474.1	0.59	20.51
Total (>0.90)		51.2	187.9	1.23	34.99
<b>Total</b>		<b>196.5</b>	<b>662.0</b>	<b>0.77</b>	<b>24.62</b>

Source: Mining Plus, Steelpoortdrift Vanadium Project Mineral Resource Estimate Report, July 2020  
Note: \*0.45% V<sub>2</sub>O<sub>5</sub> being the Mineral Resource cut-off grade as declared by the Mining Plus Competent Person

## APPENDIX 2 – ORE RESERVE

Ore Reserves as at 30 June 2021									
Material Type	Proved			Probable			Total		
	Quantity (Mt)	Grade (%)	Vanadium Content (Mt)	Quantity (Mt)	Grade (%)	Vanadium Content (Mt)	Quantity (Mt)	Grade (%)	Vanadium Content (Mt)
HG RoM Material	15.57	1.01%	0.16	24.68	0.93%	0.23	40.25	0.96%	0.39
MG RoM Material	15.60	0.51%	0.08	18.00	0.50%	0.09	33.60	0.50%	0.17
<b>Total Mineral Reserve</b>	<b>31.17</b>	<b>0.76%</b>	<b>0.24</b>	<b>42.68</b>	<b>0.75%</b>	<b>0.32</b>	<b>73.85</b>	<b>0.73%</b>	<b>0.56</b>

Source: Sound Mining, 2021

### Notes

- Ore Reserve Statement is stated at a price of USD6.00/lb as at 30 June 2021.
- Quantity and grade measurements are reported at the delivery to plant in metric units (Mt) and head grade, both of which are rounded to two decimal places.
- Approximately 6.91Mt of MG RoM at an average grade of 0.50% V<sub>2</sub>O<sub>5</sub> remains untreated within the stockpile over the LoM. The CP has excluded this material from the Ore Reserve Statement.
- Apparent computational errors are due to rounding and are not considered significant.
- Losses that could occur as a result of transportation of content or flake are considered to be negligible for the purpose of the maiden Ore Reserve Statement.
- Vanadium Resources currently has an ownership of 50% of the Project (will be increased to 73.95% ownership pending final S11 governmental approval, with no further consideration payable by VR8 for the additional 23.95%).
- No account of concentrate or flake loss during transportation was taken into consideration. However, this was deemed to be immaterial in the context of the viability of the Ore Reserve as stated.
- Inferred Mineral Resource material has not been included in the Ore Reserve Estimate.

### APPENDIX 3

#### TENEMENT TABLE: ASX LISTING RULE 5.3.3

##### Mining tenement interests held at the end of the quarter and their location

PERMIT NAME	PERMIT NUMBER	REGISTERED HOLDER / APPLICANT	AREA IN km <sup>2</sup>	PERMIT STATUS	PERMIT EXPIRY	INTEREST / CONTRACTUAL RIGHT
<b>Pilbara Region, Western Australia</b>						
Quartz Bore	E47/3352	VMS Resources Pty Ltd	15	Granted	21/12/2026	100%
<b>Limpopo Region, South Africa</b>						
Steelpoortdrift KT365	10095MR	Vanadium Resources (Pty) Ltd	24.6	Granted	04/09/2048	73.95%

##### Mining tenement interests relinquished or acquired during the quarter and their location

Nil relinquished and during the quarter the Steelpoortdrift KT365 permit interest increased from 50% to 73.95%.

##### Beneficial percentage interests held in farm-in or farm-out agreements at the end of the quarter

Nil



### Competent Persons Statement and Compliance Statements

The information in the referenced announcements 1, 2, 3 and 4 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.

#### Mineral Resources

The Company confirms it is not aware of any new information or data that materially affects the information included in the 31 July 2020 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 29 April 2020 (*Mineral Resource Update Confirms Steelpoortdrift's Global Vanadium Standing*). 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 Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Maiden Ore Reserves Statement. The Information that has been presented in this report has been extracted from the announcements made being the Pre-Feasibility Report dated 22 June 2021 (*Steelpoortdrift PFS delivers superior results*) and Ore Reserve Statement dated 22 July 2021 (*VR8 declares maiden ore reserve additional information*). 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.

### ASX announcements referenced to directly, or in commentary of, this quarterly activities release

- <sup>1</sup> ASX: VR8 22 June 2021 Steelpoortdrift PFS delivers superior results
- <sup>2</sup> ASX: VR8 07 March 2022 DFS Update: Trial Mining and Bulk Sampling Progress
- <sup>3</sup> ASX: VR8 24 March 2022 Completion of bulk sampling and pilot plant test work commencement
- <sup>4</sup> ASX: VR8 22 June 2022 VR8 Test work results confirm superior grade recoveries

### ASX announcements referenced in commentary of, this quarterly activities release

- ASX: VR8 08 April 2022 VR8 Undertakes Board Changes
- ASX: VR8 26 April 2022 VR8 Dual Listing on Frankfurt Stock Executive

#### 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.

VR8 does not undertake any obligation to update publicly or release any revisions to these forward looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this announcement. To the maximum extent permitted by law, none of VR8, its Directors, employees, advisors or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this announcement. You are cautioned not to place undue reliance on any forward looking statement. The forward looking statements in this announcement reflect views held only as at the date of this announcement.

This announcement is not an offer, invitation or recommendation to subscribe for, or purchase securities by VR8. Nor does this announcement constitute investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. Investors should obtain their own advice before making any investment decision.



## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Vanadium Resources Limited

ABN

47 618 307 887

Quarter ended ("current quarter")

30 June 2022

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(20)	(71)
	(e) administration and corporate costs	(132)	(381)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	10	19
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(142)</b>	<b>(433)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation	(2,209)	(3,149)
	(e) investments	-	-
	(f) other non-current assets	-	-

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	(387)
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	<b>Net cash from / (used in) investing activities</b>	<b>(2,209)</b>	<b>(3,536)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	4,600
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	501
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(22)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	<b>Net cash from / (used in) financing activities</b>	<b>-</b>	<b>5,080</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	5,264	1,803
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(142)	(433)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,209)	(3,536)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	3	5,082

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	<b>Cash and cash equivalents at end of period</b>	<b>2,916</b>	<b>2,916</b>

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	2,916	5,264
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,916</b>	<b>5,264</b>

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	(20)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	(16)
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		
6.1 Director and consulting fees to Directors of A\$19,800		
6.2 Director and consulting fees to Directors of A\$16,188		

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7.	<b>Financing facilities</b> <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	<b>Total financing facilities</b>	-	-
7.5	<b>Unused financing facilities available at quarter end</b>		
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	<b>Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1	Net cash from / (used in) operating activities (item 1.9)	(142)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(2,209)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(2,351)
8.4	Cash and cash equivalents at quarter end (item 4.6)	2,916
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	2,916
8.7	<b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	1
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: No the entity does not expect the current level of net outgoing. The increased costs were incurred during the quarter in relation to the execution and deliverable of the planned DFS phase, the DFS is almost complete.		
8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: Yes. The Company manages cash flow through regular budgeting and forecasting. In addition, the Company has demonstrated its ability to secure funds when required and is confident that it will be able to continue to do so.		

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes. There is sufficient cash available to continue meeting business objectives in the short-term.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

### Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 28 July 2022

Authorised by: Board Of Directors  
(Name of body or officer authorising release – see note 4)

### Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.