

31 JANUARY 2023

ACTIVITIES REPORT – DECEMBER QUARTER 2022

HIGHLIGHTS

- ◆ Definitive Feasibility Study¹ and updated Mineral Resource and Ore Reserve estimates released for the Steelpoortdrift (“SPD”) Project




A\$1.9bn
(US\$1.21bn)
NPV_{7.5%} (post-tax)




A\$1.4bn
(US\$896m)
Attributable NPV



A\$237m
(US\$152m)
Yearly Free Cashflows




42%
IRR (post-tax)




27 months
Payback



US\$211m
(A\$329m)
Incl. Contingency
Start up Capex



US\$3.24
Cash Costs V₂O₅/lb



US\$9.50
(Deloitte forward mid-range)
Price per V₂O₅/lb

*Values might slightly differ due to rounding. US\$/AUD Exchange Rate as at 1/10/22.

Cautionary Statement LR 5.16.4 There is a low level of geological confidence associated with the inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

- ◆ Mineral Resources now amounts to 680Mt (2.7% increase) at 0.70% vanadium pentoxide (“V₂O₅”) at a cut-off grade of 0.45% V₂O₅ – the Measured Mineral Resources increased by 58% to 145Mt at 0.72% V₂O₅²
- ◆ Ore Reserves total 76.86Mt at 0.72% V₂O₅ with 30.23Mt of Proven Ore Reserves at 0.70% V₂O₅ and 46.62Mt of Probable Ore Reserves at 0.72% V₂O₅²
- ◆ Additional LOM of up to 67 years readily available in the designed open pits within a low environmental and social impact inclusion zone, and Life of Mineral Resource in open pit is +180 years at current throughput rates¹
- ◆ Formal construction funding process ongoing, including advanced level discussions with numerous potential strategics, offtake parties, commodity traders and debt financiers
- ◆ Appointment of Managing Director and Chief Executive Officer, Mr John Ciganek

¹ Refer to ASX Announcement dated 4 October 2022 “DFS Delivers A\$1.9BN NPV Confirming World Class Steelpoortdrift Vanadium Project”

² Refer to ASX Announcement dated 4 October 2022 “VR8 Updates Mineral Resource and Ore Reserve for the Steelpoortdrift Vanadium Project”

Vanadium Resources Limited (VR8" or the "Company") (ASX: VR8, DAX: TR3) is pleased to release its activities and cashflow reports for the three months ended 31 December 2022.

DFS AND MINERAL RESOURCE UPDATE

As announced on the 4 October 2022¹, the Company completed and reported the results of a DFS for the SPD project.

The key highlights reported in the DFS included:

- Project NPV³:
 - 100% Ownership Post Tax NPV_{7.5%} US\$1.212B (A\$1.9B);
 - 73.95% Ownership Post Tax NPV_{7.5%} US\$896M (A\$1.4B);
- Financial Metrics²:
 - LOM EBITDA: US\$5.2B;
 - Average Annual Free Cash Flow from Commencement: US\$152M;
 - IRR (post-tax): 42%;
 - Cash Costs: US\$3.24/lb (current V₂O₅ Price Europe = US\$9.27-9.61⁴);
 - Pre-Production CAPEX: US\$211M (includes contingency);
 - Expansion Capex: US\$188M planned during years 3-5 of operation and funded through free cash flow;
 - Payback: 27 months;
- Financial model conducted on a 100% equity basis utilising a concentrator and the conventional Salt Roast Leach ("SRL") process;
- Cash Flows attributable only to V₂O₅ flake sales, excluding potential titanium dioxide concentrate production and other potential ore credits;
- Additional LOM of up to 67 years readily available in the designed open pits within a low environmental and social impact inclusion zone;
- Life of Mineral Resource in open pit is +180 years at current throughput rates;
- 96% of 25 year LOM classified as Proven and Probable Ore Reserves. Exclusion of Inferred Mineral Resources decrease the NPV_{7.5%} marginally to US\$1.14Bn and the IRR to 41%;
- Pilot plant test work yielded an average global recovery (concentrator plus SRL plant recovery to final flake) of 82.4%, with maximum potential global recoveries of 84.6% achievable;
- Final flake product grades are projected to be +98.0% V₂O₅ with the potential to produce a >99.0% V₂O₅ product through the conventional SRL process;
- Sensitivity analysis was conducted and indicated a robust project at a range of downsides (break-even points) such as at flake prices up to US\$4.60/lb V₂O₅ or at an increase in Opex >150%;

³ Values might differ due to rounding. US\$/A\$ exchange rate as at 1 October 2022.

⁴ Source: FerroAlloyNet Daily, 9 January 2023.

- Renewable energy solar power plant expected to reduce carbon emissions and carbon tax by 34%;
- A number of initiatives have been identified during the DFS to further improve costs and processing efficiencies and also includes target drilling areas for further expanding the Mineral Resource, including:
 - ropeway conveyor system to transport concentrate from mine site to SRL plant – this has the potential to provide a shorter and direct transport route, be more energy efficient, operate a high availability factor and reduce operating costs (envisaged to be similar to a rope conveyor currently being built by a nearby producer, immediately adjacent to the SRL operation);
 - removal of environmental and social (water course and community) constraints on Mineral Resource estimation and associated LOM – unconstrained pit optimisation scenarios, where the full potential of the Mineral Resource was realised, showed that the project has the potential to increase the mine life to 188 years;
 - residual vanadium recovery plant – to be recovered from planned SRL tailings dams; and
 - titanium dioxide (TiO₂) in SRL tailings recovery – TiO₂ occurs in the ore body mainly as ilmenite and is not chemically altered during the SRL process and thus all TiO₂ reporting to the calcine / SRL tailings will remain in the form of ilmenite minerals. This residual titanium contained in the calcine tailings carries significant economic value if it could be upgraded to a saleable grade product.

In addition to the publication of DFS results, updated Mineral Resource and Ore Reserve statements were also released and are included in Appendices 1 and 2².

Key highlights of the updated Resources and Reserves included:

- The Mineral Resources now amount to 680Mt (2.7% increase) averaging 0.70% V₂O₅ at a cut-off grade of 0.45% V₂O₅. The Measured Mineral Resources increased by 58% to 145Mt averaging 0.72% V₂O₅;
- The Ore Reserves total 76.86Mt at an average grade of 0.72% V₂O₅ with 30.23Mt of Proved Ore Reserves at an average grade of 0.70% V₂O₅ and 46.62Mt of Probable Ore Reserves at an average grade of 0.72% V₂O₅; and
- Geological Model identified potential target areas for future infill drilling down dip from current Resource to further expand deposit.

CORPORATE

Mr John Ciganek (John) replaced Mr Eugene Nel, who has stepped down as Chief Executive Officer from the 9 December 2022, fulfilling his mandate of successfully steering the Company in completing its Pre-Feasibility Study (PFS) and Definitive Feasibility Study (DFS). It is expected that Mr Eugene Nel will apply for a position in VR8's Owner's Team, which will take the Steelpoortdrift Project through the required initial workstreams to get the project shovel-ready, and then to nameplate production and beyond. The

appointment of a highly experienced mining executive and financier John Ciganek, as Managing Director and Chief Executive Officer is effective from 9 January 2023 (Effective Date)⁵. Mr Ciganek remained as a Non-Executive Director until the effective date.

During the Quarter, the Company held its 2022 Annual General Meeting of shareholders, all resolutions were passed via poll.

The Company is continuing its formal process aimed at preparations for the raising of construction funding and offtake with numerous potential strategics, offtake parties, traders and debt financiers. As this process commenced following completion of the DFS and in some instances prior to DFS completion, some of these discussions are more advanced with some interested parties than with others. As part of this process, the Company is evaluating and short-listing the proposals most suited to the project and in the best interests of its shareholders. Should the Company reach agreement with these parties, the Company will update the market accordingly.

SUMMARY OF EXPENDITURE

During the Quarter, a total of \$614,179 was spent on activities related to the exploration and development of the SPD Project, primarily spent on the DFS. The Company did not incur any expenditure for mining production activities during the Quarter.

Payments totaling approximately \$29,779 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

⁵ Refer to ASX Announcement dated 05 December 2022 “VR8 appoints experienced MD to lead world-class project”

APPENDIX 1 – MINERAL RESOURCE ESTIMATE

The Resource statement as reported on the 4 October 2022 was updated and is as follows:

Table 1: Mineral Resource Estimate (as at 30 April 2022)

CLASSIFICATION	VOLUME (M m ³)	QUANTITY (Mt)	QUALITY (% V ₂ O ₅ In-situ)	CONTAINED V ₂ O ₅ (Mt)	QUALITY (% Fe ₂ O In-Situ)	CONTAINED Fe ₂ 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
Total Mineral Resource	205.93	680.13	0.70	4.74	22.76	154.80

Source: Sound Mining, 2022

Notes:

- Stated at a cut-off grade of 0.45% V₂O₅;
- The Mineral Resources are stated on a 100% attributable basis for VanRes, of which VR8 owns 73.95%;
- 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 (Table 3).

Table 2: Ore Reserves as at 30 September 2022

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

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 is owns 73.95%;
- 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 V₂O₅;
- 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.

APPENDIX 3 - TENEMENT TABLE: ASX LISTING RULE 5.3.3

Table 3: Mining tenement interests held at the end of the quarter and their location

PERMIT NAME	PERMIT NUMBER	REGISTERED HOLDER / APPLICANT	AREA IN km ²	PERMIT STATUS	PERMIT EXPIRY	INTEREST / CONTRACTUAL RIGHT
Pilbara Region, Western Australia						
Quartz Bore	E47/3352	VMS Resources Pty Ltd	15	Granted	21/12/2026	100%
Limpopo Region, South Africa						
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

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

Nil

Competent Person's Statement and Compliance Statements

The information in the referenced announcements 1, 2 and 5 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 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.

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

¹ ASX: VR8 4 October 2022 DFS Delivers A\$1.9BN NPV Confirming World Class Steelpoortdrift Vanadium Project

² ASX: VR8 4 October 2022 VR8 Updates Mineral Resource and Ore Reserve for the Steelpoortdrift Vanadium Project

⁵ ASX: VR8 5 December 2022 VR8 appoints experienced MD to lead world-class project

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")

31 December 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	-	-
(b) development	-	-
(c) production	-	-
(d) staff costs	(20)	(40)
(e) administration and corporate costs	(120)	(242)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	13	22
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)	-	-
1.9 Net cash from / (used in) operating activities	(127)	(260)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) exploration & evaluation	(616)	(1,430)
(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 (6 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	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(616)	(1,430)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	7	7
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
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)	-	1
3.10	Net cash from / (used in) financing activities	7	8

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,970	2,916
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(127)	(260)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(616)	(1,430)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	7	8

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 (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	1,234	1,234

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	1,234	1,970
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,234	1,970

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	(10)

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.

6.1 Director and consulting fees to Directors of A\$19,800
6.2 Director and consulting fees to Directors of A\$9,979

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

7. Financing facilities <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>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 Total financing facilities	-	-
7.5 Unused financing facilities available at quarter end	-	
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. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(127)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(616)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(743)
8.4 Cash and cash equivalents at quarter end (item 4.6)	1,234
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	1,234
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	1.66
<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. Increased costs were incurred during this quarter specifically related to the expenses of the planned DFS phase. The Company did not incur any expenditure for mining production activities during the Quarter.	
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. Discussions are advancing with potential strategic, offtake parties, traders and debt financiers. These discussions remain ongoing, but are incomplete.	

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: 31 January 2023

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.