

## Vanadium Resources Limited

Non-Energy Minerals – V2O5

VR8 A\$0.085

Vanadium Resources Limited (VR8) is a junior vanadium developer who owns 74% of the world class, tier 1, Steelpoortdrift Vanadium licensed mining project in Limpopo Province, South Africa. The Steelpoortdrift titaniferous magnetite deposit is located in the prolific Bushveld Geological Complex within a known mineral and vanadium producing area within reach of proven processing plants, railway and road options and ports. The Steelpoortdrift mining project is the world's largest undeveloped vanadium deposit with a Measured, Indicated and Inferred JORC resource of 662 Mt @ 0.77% V2O5 (in situ grade), incl. 188 Mt @ 1.23% V2O5 with an in-magnetite grade of c. 2.2% V2O5.

### Company Data

Number of shares	473.5M
Market Capitalisation (\$m)	35.5
Free float (%)	N/A
12-month high/low	\$0.175/\$0.05
Average Daily Turnover (\$m)	0.1
% S&P/ASX200	0.002%
DDM Ranking	N/A
% All Ordinaries	0.002%
GICS Industry Group	Mining

Source: FactSet, BPC

### Mineral Resource

N/A

### Share Price Performance



Source: FactSet, Barclay Pearce Capital

## PILOT PLANT TEST WORK RESULTS CONFIRM SUPERIOR GRADE AND RECOVERIES

On 22<sup>nd</sup> of June 2022, Vanadium Resources Limited (VR8) announced an update on the Bulk Sampling and Pilot plant test campaign conducted in pursuance of the DFS, with the following highlights:

### Highlights:

- Pilot Plant test work indicates elevated overall recoveries of 84.4% indicating a 4% increase to metrics used for the Pre-Feasibility Study (PFS);
- Magnetic separation concentrates indicate reduction of reagent consumption compared to metrics used for the PFS, due to lower than expected Silica content;
- Magnetic separation test work indicates V2O5 recoveries in excess of 96% achievable at concentrate grades above 2.10% V2O5;
- Trial Mining, Bulk sampling and pilot plant test work completed;
- VR8 is developing its Tier 1 Steelpoortdrift Vanadium project in Limpopo, South Africa;
- 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 V2O5 flake at an estimated capex of US\$200M;
- The DFS is a natural progression of the PFS recently completed with the aim to produce a high purity (>98% V2O5) vanadium product from primary Run of Mine (ROM) mineralised material.

### CEO comments:

VR8 CEO, Eugene Nel, commented: "The metallurgical test results have exceeded expectations and we are extremely pleased to report elevated values compared to what we've used for the purposes of the PFS. Overall confidence in the test-work results has also improved because pilot test work was conducted over material trial-mined from the orebody itself using mining methods to be employed during operations. The DFS is progressing as planned, with final results expected during September 2022."

### BPC comments:

- Pilot Plant test work indicates elevated overall recoveries of 84.4% indicating a 4% increase to metrics used for the Pre-Feasibility Study (PFS). Considering that every one percent increase in recovery constitutes an increase of approximately 400 000 pounds of product per annum at current design capacities and at no additional processing cost, these results are expected to greatly advance project economics for the DFS.

**Russell Wright**

22 June 2022

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## Appendix A.

### Test work results table

	Feed grade	Product grade	Residue grade	Recovery
Magnetic Separation	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%
Salt Roast and Leach	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%
Flake production	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>

## Appendix B.

### Project location



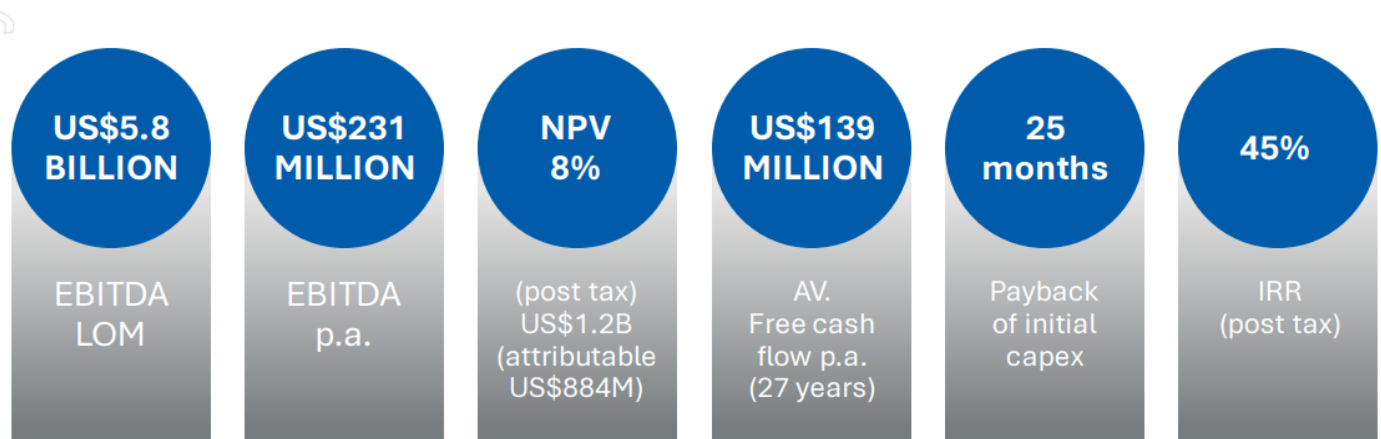
## Appendix C.

### PFS metrics



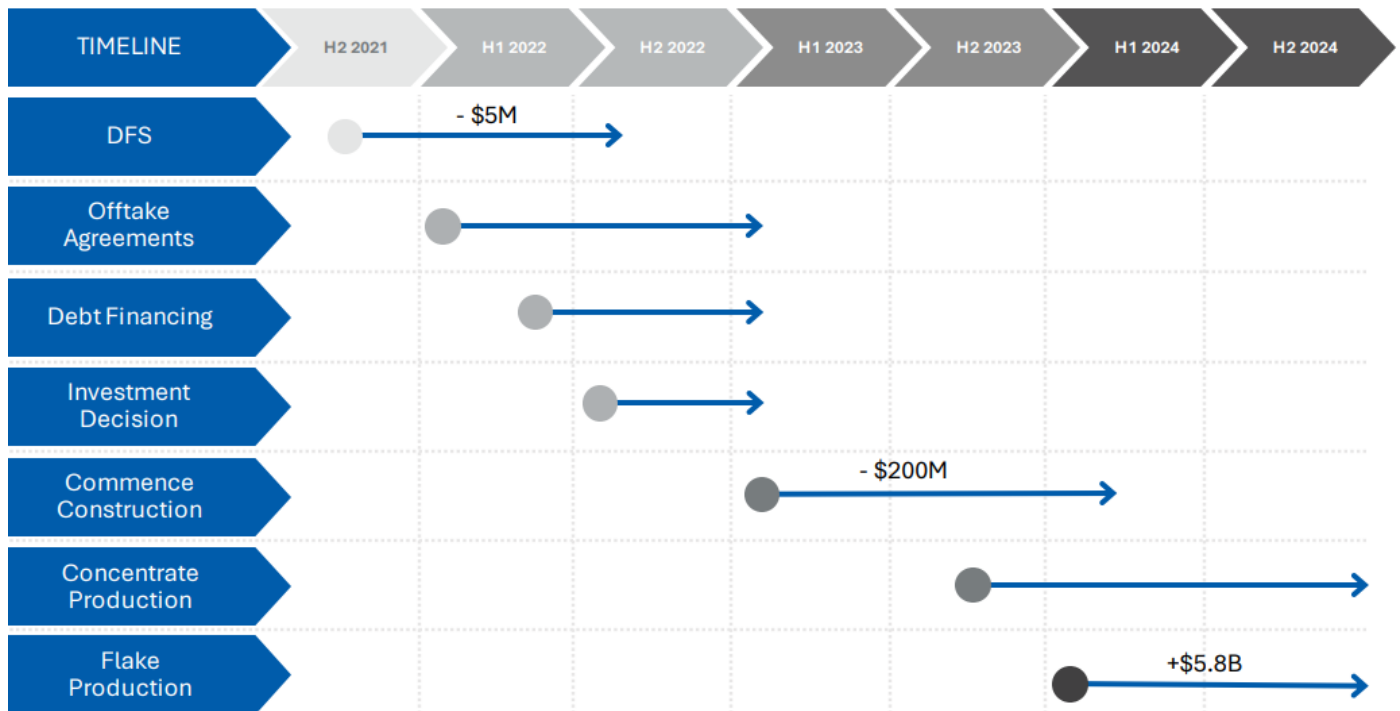
## Appendix C.

### Financial returns on PFS



## Appendix E.

### Timeline to production



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22 June 2022

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Hold	22.8%	0.0% of stocks with recommendations are Barclay Pearce clients)
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