



06 February 2023

**ASX: VR8**

## **Retraction and Update of Investor Presentation February 2023**

Vanadium Resources Limited (**ASX: VR8**) (**Company**) refers to its announcement titled 1-2-1 & Mining Indaba Presentation, released on 1 February 2023. The Company retracts the 1 February 2023 announcement and replaces it with the updated presentation annexed to this announcement.

The annexed presentation contains an updated Peer Comparison table at slide 17, which has been updated to refer to publicly reported NPVs of the Company's peers on both a pre-tax and post-tax basis (where available) and to include additional clarifications by way of notes to the table.

The announcement has been approved for release by the Managing Director.

Your Sincerely,

Ms Kyla Garic

**Company Secretary**

Vanadium Resources Limited

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



# Steelpoortdrift Vanadium Project

1-2-1 & Mining Indaba Presentation

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February 2023

[WWW.VR8.GLOBAL](http://WWW.VR8.GLOBAL)

ASX:VR8



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All financial outcomes as reported in this announcement are done so on a 100% project basis. VR8 currently holds 73.95% ownership in the Steelpoortdrift project.

## **Competent Person Statement, Previously Reported Information & Cautionary Statement**

The information in the referenced in this presentation 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. Refer to ASX announcements released on 21 May 2018 titled “Exploration on High Grade Pipes Commences At SPD Vanadium Project”, 23 September 2020 titled “Scoping Study Confirms Viability of V2O5 Production”, 4 October 2022 titled “DFS Delivers A\$1.9BN NPV Confirming World Class Steelpoortdrift Vanadium Project” and 4 October 2022 titled VR8 updates Mineral Resources and Ore Reserve. 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 referred to above.

## **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.

## **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 production target itself will be realised.

# Emerging Vanadium Producer



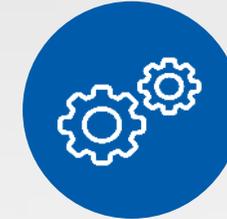
One of the world's largest and highest-grade vanadium deposits



DFS indicates strong financial outcomes with post-tax NPV<sub>7.5%</sub> of US\$1.2Bn (US\$0.9Bn att.), 42% IRR & potential to increase ownership



Ore body easy to mine, low strip ratio & low operating cost



Using conventional / proven concentrate & Salt Roast Leach ("SRL") processes to produce 12kt to 18.5kt V<sub>2</sub>O<sub>5</sub> flake per annum



Mining license granted



Established major mining & smelting jurisdiction



Located in a major industrial region with established infrastructure – existing operating plants, power and water, proven road & rail options to port



Experienced management team & commenced recruitment process for key technical & commercial roles

# Corporate Overview



## Corporate Structure (ASX: VR8) – as at 1 February 2023

**484.4m**

Shares on issue  
(undiluted)

**A\$0.084**

Share Price

**A\$40.7m**

Market Cap  
(@ \$0.084c)

**A\$1.2m**

Cash  
(As at 31 Dec 2022)

**2.3m**

Performance Rights  
(1.3m Class A & 1m Class B)



## Top Shareholders

1	Danterne Pty Ltd <sup>1</sup>	9.4%
2	Raubex Pty Ltd	9.1%
3	Romfal Sifat Pty Ltd	4.1%
4	Ndarama Investments (Private) Ltd	3.5%
5	Davy Corp Pty Ltd <sup>2</sup>	3.5%

## Top 20 Shareholders

**49.5%**

## Board of Directors



**Jurie Wessels**

Executive Chairman



**John Ciganek**

Managing Director & CEO



**Michael Davy**

Non-Executive Director



<sup>1</sup> Mr Jurie Hendrik Wessels (Executive Chairman) is a director and shareholder of Danterne Pty Ltd

<sup>2</sup> Mr Michael Davy (Non-Executive Director) is the sole director and shareholder of Davy Corp Pty Ltd



## In the last 12 months VR8 has delivered important de-risking milestones for Steelpoortdrift



DFS completed on-time and on budget – providing validation for the development of the Steelpoortdrift Project



Revised Mineral Resource and Ore Reserve estimate with enhanced block model and 183-year life of resource



Acquired SRL Site located 15km from Steelpoortdrift Mine Site



Government approval and increased interest in VanRes to 74% (up from 50%)



Raised funding at a premium from the Raubex Group Ltd, a global infrastructure development, materials supply and mining services group



Continued discussions with range of potential off-takers and strategic investors



Appointed HCF International Advisers as debt finance advisors



Joint Development Agreement with DRA Global to develop a renewable energy supply solution



Listed as a Critical Mineral in Australia, the US, UK and European Union, Vanadium demand is expected to grow significantly from its energy storage capabilities

## Vanadium Redox Flow Batteries (VRFB's)

- VRFBs forecast to represent between 15 – 25% of total battery capacity
- Significant advantages available over counterparts, particularly in the storage and grid-relief capacities with further development upside



**Easily scalable** – additional capacity easy to build in by adding more storage tanks



**Sustainable** – vanadium can be fully reused or recycled at end of battery lifespan



**20+ year lifespan** – zero degradation over time with battery life twice that of lithium



**Reliable** – no performance loss in harsh conditions and 100% depth of discharge available



**Safety** – non-flammable, non-toxic, water based battery that is safer than alternatives



**Efficient** – lower emissions and lower associated energy costs than alternative technologies



### Dalian Flow Battery Energy Storage Peak-shaving Power Station

A world-leading Vanadium Redox Flow Battery facility was recently switched on in China, with Stage 1 providing a capacity of 100MW / 400MWh. Stage 2 will double this capacity

## Steel & Alloys

- Over 90% of the current demand for vanadium arises from its use to strengthen steel and alloys
- The performance benefit in strengthening steel has seen demand grow and imminent construction regulation changes in China to mandate higher quality Rebar is expected to drive further growth
- Development of strong, lightweight alloys has seen vanadium incorporated to a large range of products including jet engines, 3D printing and tools
  - Boeing's fleet of 787's and A350's include up to 100tons of light weight vanadium alloys

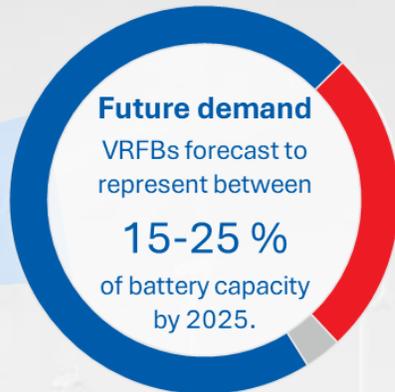


# Global Demand & Pricing Dynamics



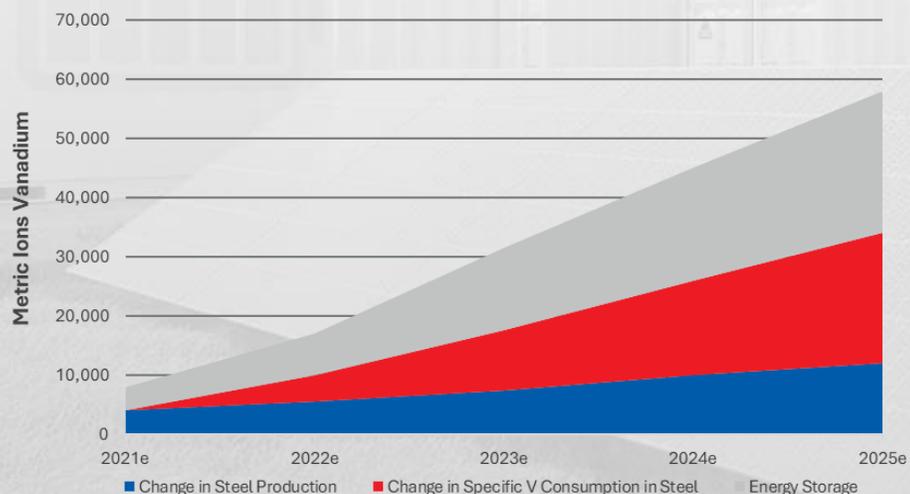
Forecasters expect over **1,200GW** of battery capacity to be added between today and 2050, with approximately 600GW before 2025.<sup>1</sup>

- Steel: 90%
- VRFB's: 3-5%
- Aerospace: 3%



Could add up to **10,000mtV** of demand into an already undersupplied market.<sup>2</sup>

Projection of MtV demand change 2020-2025



Source: TTP Squared Inc.

Vanadium Pentoxide 98% min Europe US\$/lb



Source: Investing.com

<sup>1</sup> BloombergNEF, New Energy Outlook 2018; International Energy Agency, World Energy Outlook 2018

<sup>2</sup> Noack et. al, 2016. Techno-economic modelling of RFB Systems (Energies 2016, 9, 627) Vanadium Flow Batteries: An In Depth Analysis. EPRI, Palo Alto, CA: 2007.1014836

# DFS Delivers World Class Vanadium Project



**US\$1.21bn**

(A\$1.9bn)

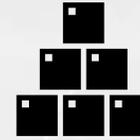
NPV<sub>7.5%</sub> (post-tax)



**US\$896m**

(A\$1.4bn)

Attributable NPV



**US\$152m**

(A\$237m)

Yearly Free Cashflows



**42%**

IRR (post-tax)



**27 months**

Payback



**US\$211m**

(A\$329m)

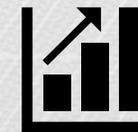
Incl. Contingency

Start up Capex



**US\$3.24**

Cash Costs V<sub>2</sub>O<sub>5</sub>/lb



**US\$9.50**

(Deloitte forward mid-range)

Price per V<sub>2</sub>O<sub>5</sub>/lb

<sup>1</sup> Refer ASX Announcement dated 4 October 2022 "DFS Delivers A\$1.9BN NPV Confirming World Class Steelportdrift Vanadium Project"

# Location – in the Bushveld Complex



This world-renowned mining location is host to several mining operations, multiple major mining companies are active in the area, and is in close proximity to existing infrastructure.

## Other Mines in the Bushveld Complex



**Vametco** – Vanadium Mine  
**Mokopane** – Vanadium Project



**Rhovan** – Vanadium Mine  
**Lion Smelter** - Ferrochrome



**Tweefontein** – Ferrochrome Mine



**Twickenham** – PGE Mine



**Modikwa** – PGE Mine



**Marikana** – PGE Mine

## Regional Infrastructure in the Bushveld Complex



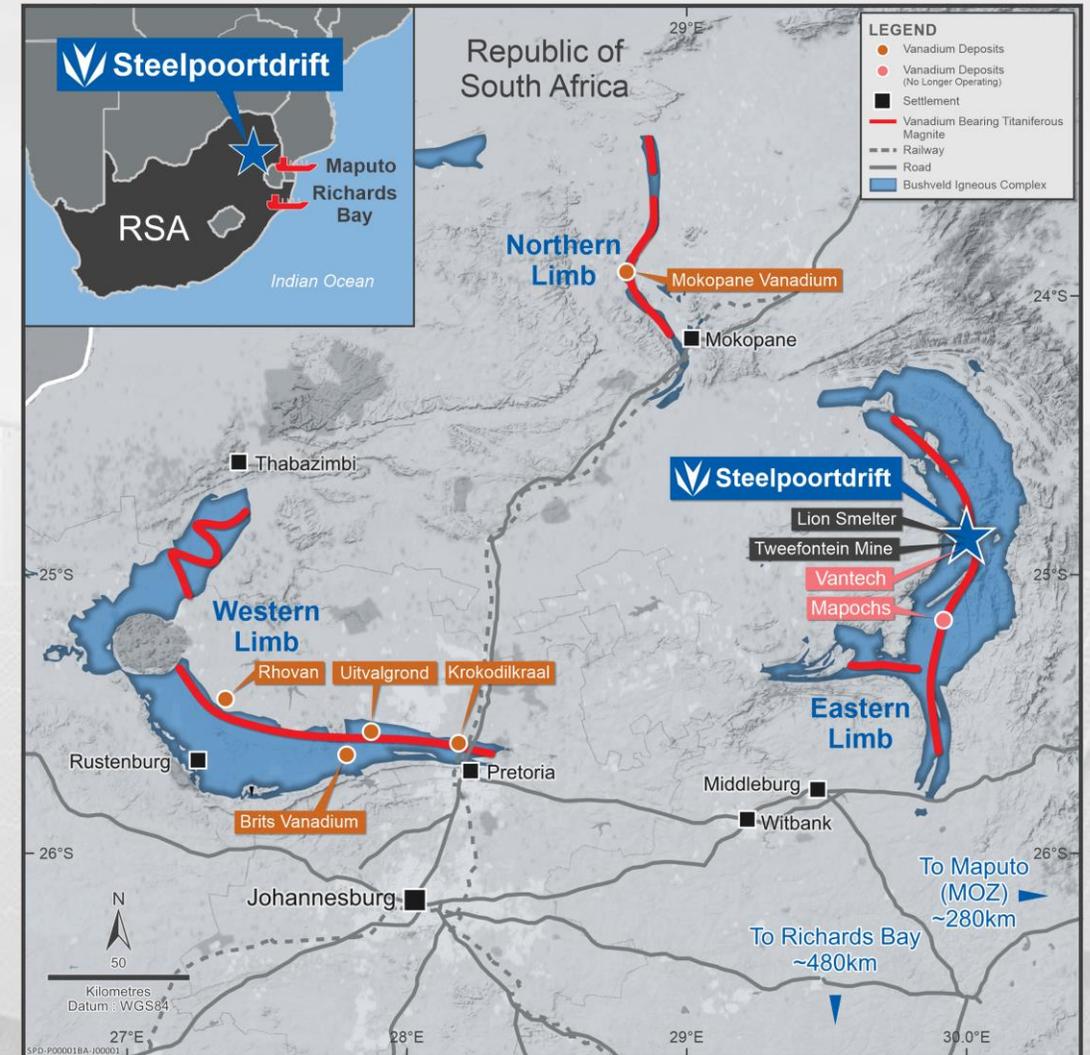
**Eskom Substation**  
12km away



**De Hoop Dam**  
15km away



**Rail Siding**  
30km away



# Mine, Concentrator & SRL

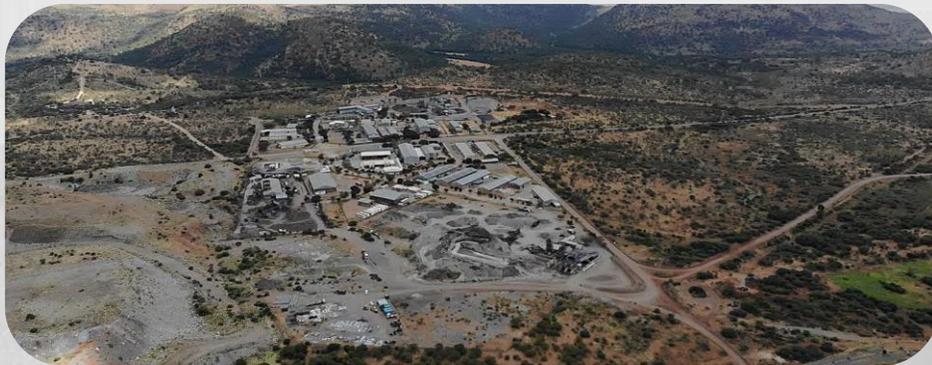


## Mine Site – View of the North of Mining Area

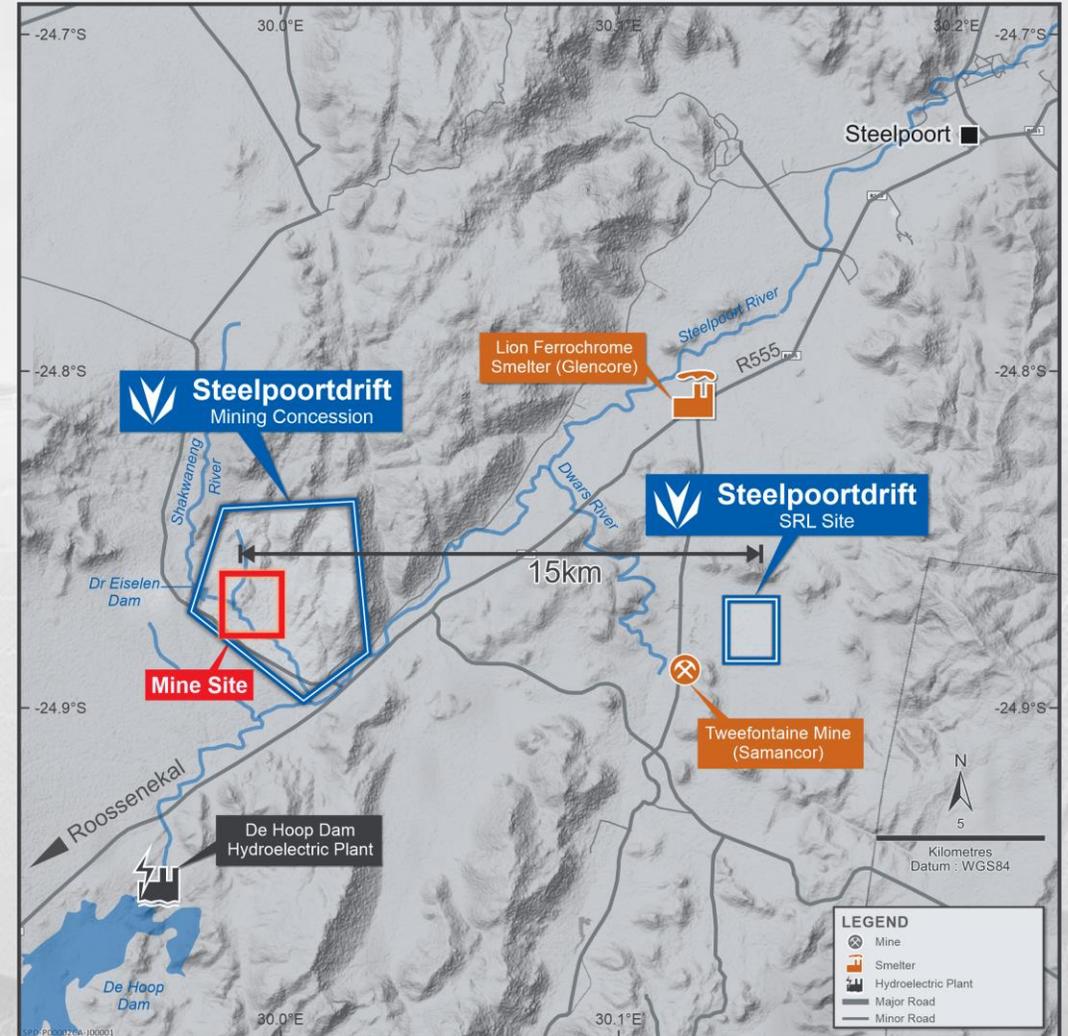


The mine site, concentrator and SRL sites are located within a substantial mining and smelting district, with well established infrastructure (including water, power, sealed roads, rail, etc)

## VR8 Offices and Warehouses in Steelpoort Industrial Park



VR8 administration offices, core shed, main laboratory and SRL site is located within the Steelpoort Industrial Park



# Resources & Ore Reserves



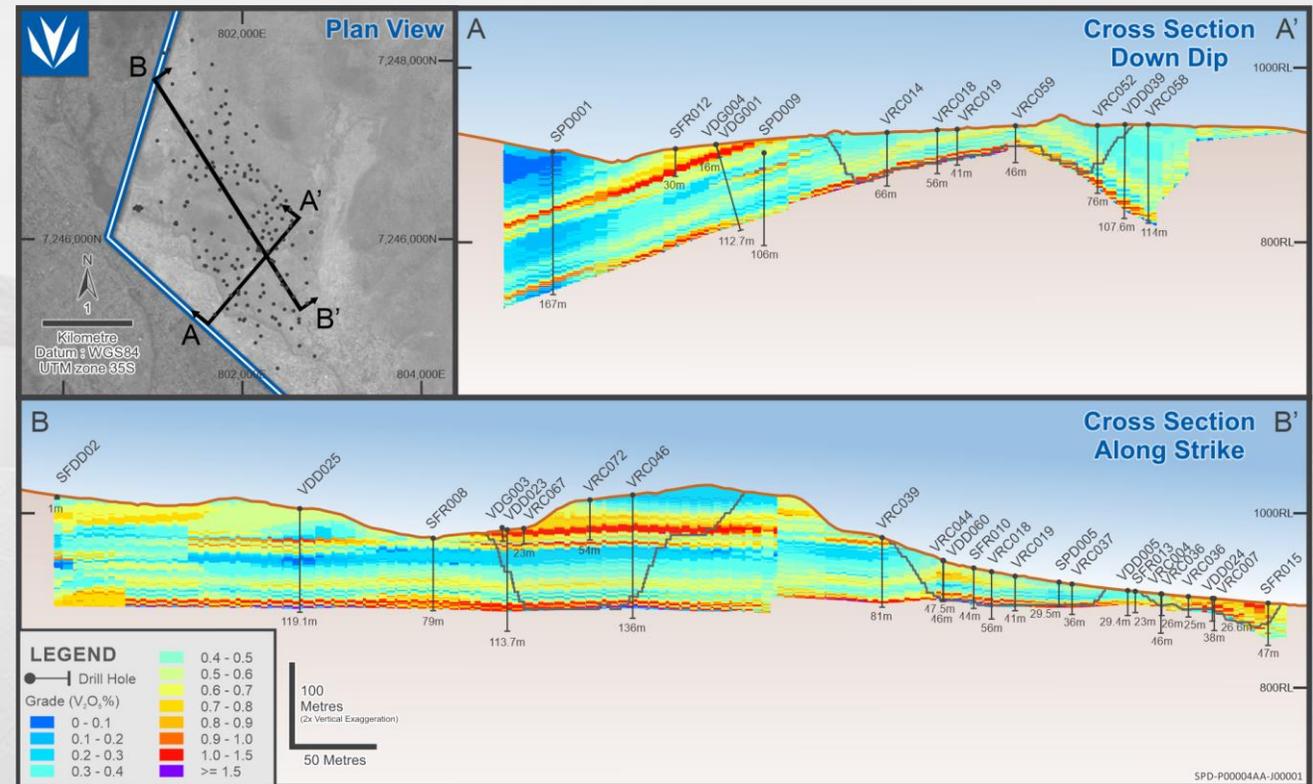
- Global Mineral Resource of 680Mt at 0.70% V<sub>2</sub>O<sub>5</sub>
- Total Ore Reserve of 77Mt at 0.72% V<sub>2</sub>O<sub>5</sub>
- Mineralisation outcrops at surface and dips shallowly (~10°) – less waste to mine, low strip ratios (0.88x waste : ore) and cheaper mining cost
- Orebody able to achieve a high-grade concentrate of greater than 2% V<sub>2</sub>O<sub>5</sub>

## Mineral Resource<sup>1&2</sup>

Mineral Resource Category	Tonnage (Mt)	V <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O (%)	Contained V <sub>2</sub> O <sub>5</sub> (Mt)
Measured	145.5	0.72	22.47	1.05
Indicated	327.3	0.70	22.80	2.29
Inferred	207.4	0.68	22.90	1.40
<b>Total / Average</b>	<b>680.1</b>	<b>0.70</b>	<b>22.76</b>	<b>4.74</b>

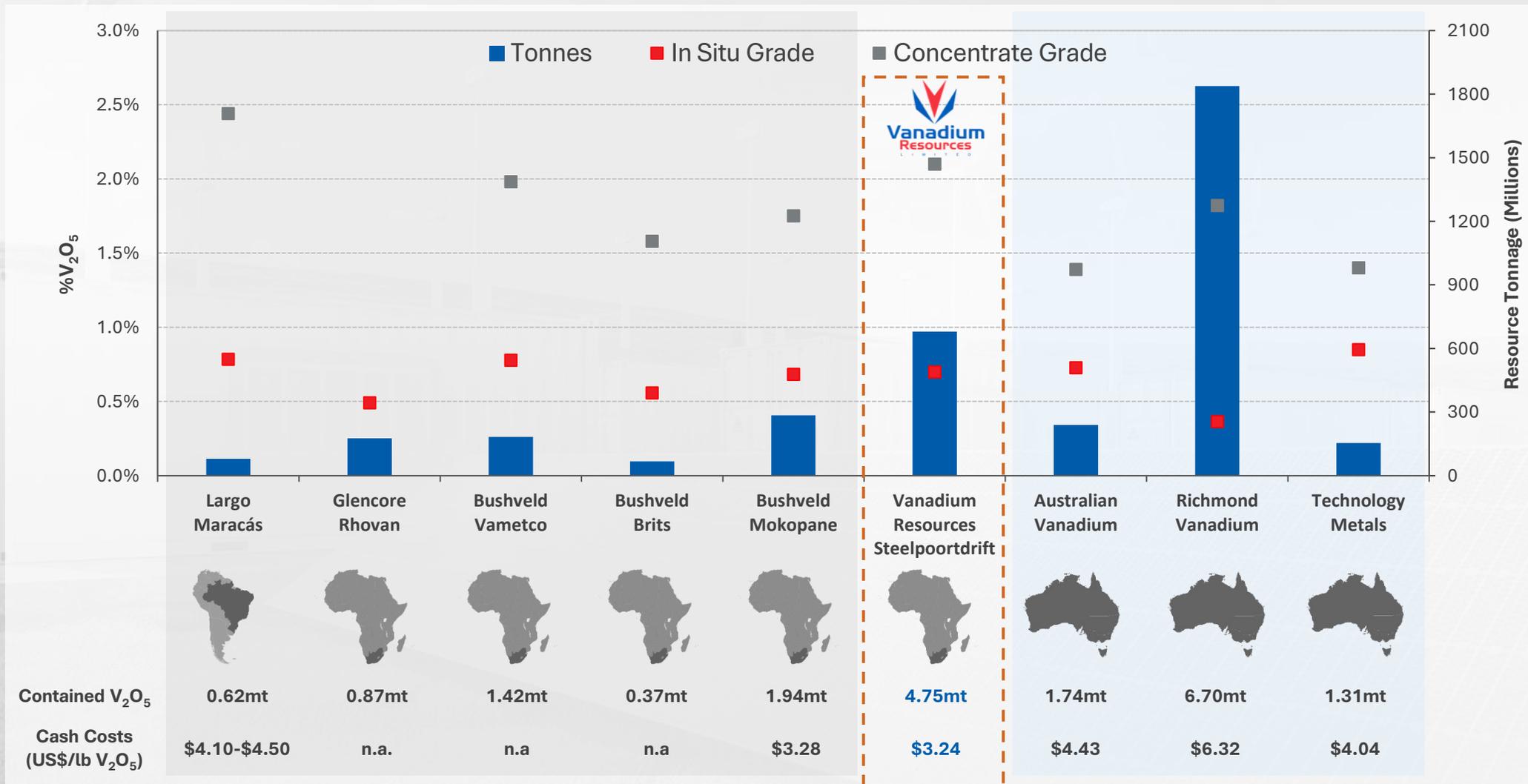
## Ore Reserve<sup>1</sup>

Ore Reserve Category	Tonnage (Mt)	V <sub>2</sub> O <sub>5</sub> (%)	Contained V <sub>2</sub> O <sub>5</sub> (Mt)	Tonnage by Category (%)
Proved	30.2	0.70	0.21	39.3%
Probable	46.6	0.72	0.34	60.7%
<b>Total / Average</b>	<b>76.8</b>	<b>0.72</b>	<b>0.55</b>	<b>100.0%</b>



1. Refer ASX Announcement dated 4 October 2022 "DFS Delivers A\$1.9BN NPV Confirming World Class Steelportdrift Vanadium Project"  
 2. Source: Sound Mining CPR (2022). Notes: V<sub>2</sub>O<sub>5</sub> cut off >= 0.45%, tonnage rounded down to nearest 10,000t and metal content to nearest 1,000t

# Global Primary Resources

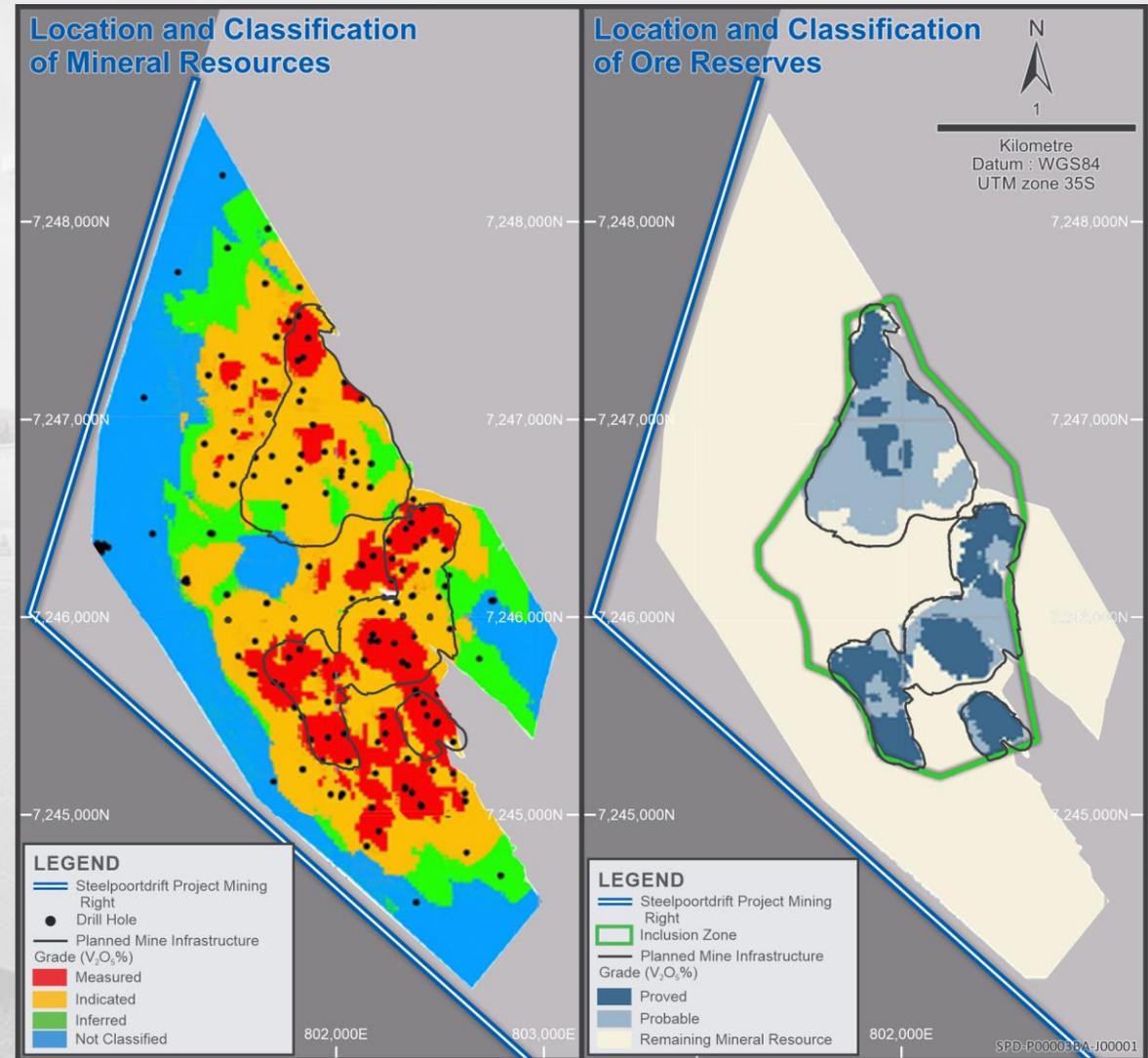
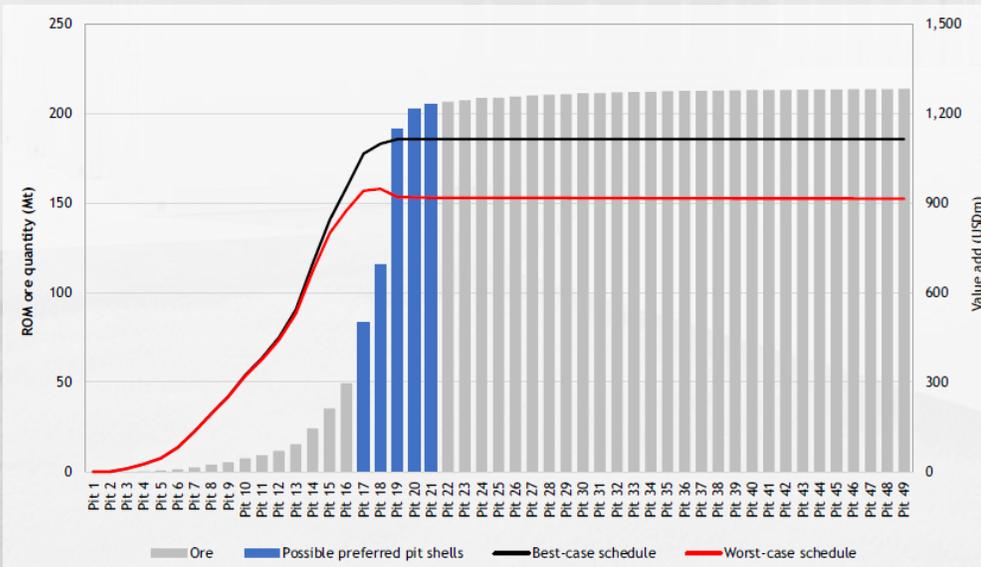


The above chart compares Resources reported under different codes and companies at different stages of development as detailed in the Peer Comparison Tables contained in Slide 16 and the Appendix of this document. Only Resources with a quoted in situ grade > 0.40%  $V_2O_5$  are shown in the figure. Please refer to the annexure "Peer Comparison Table" attached to this presentation.

# Location of Mineral Resources & Ore Reserves



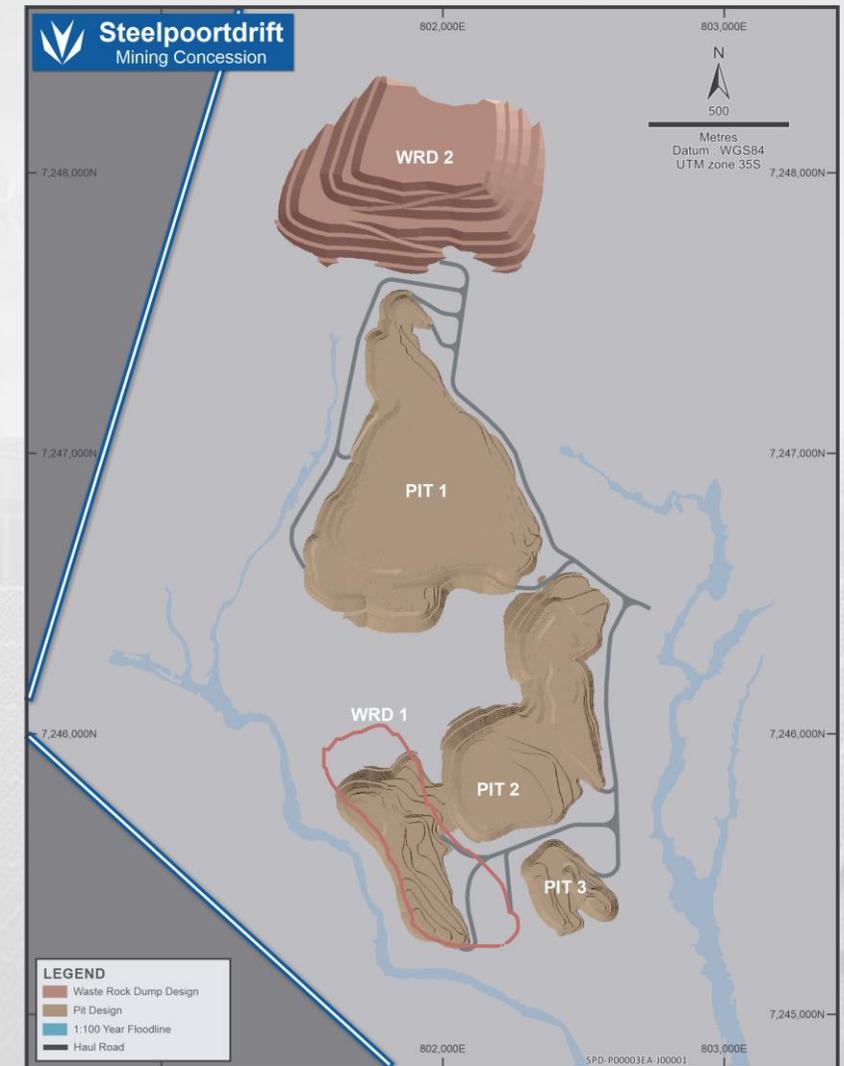
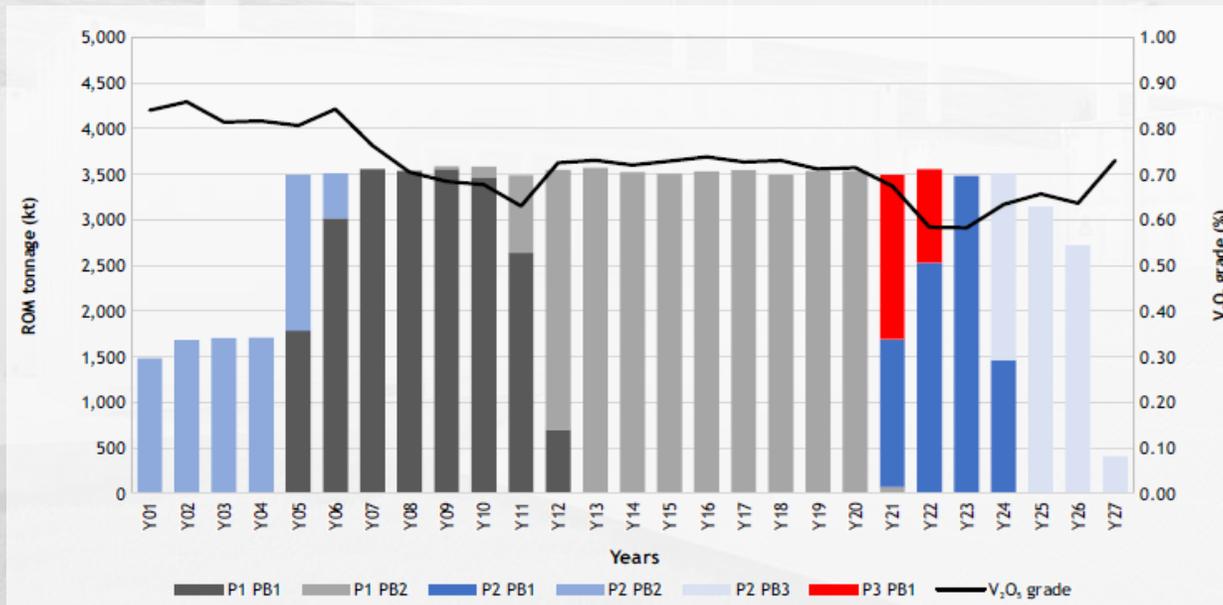
- The final pit design and Ore Reserves based on LOM of 25 years (designed to match Mining Right term)
- Final pit design was based on Pit 17, which highlights potential for a larger ultimate pit design
- Ore Reserves represents 12% of Mineral Resources and highlights the substantial scale of the project
- Based on a ROM ore production rate of 3.5Mtpa, the project would have a mine of over 180 years
- Potential opportunity to increase Resources and Reserves with infill drilling within “Not Classified” zones



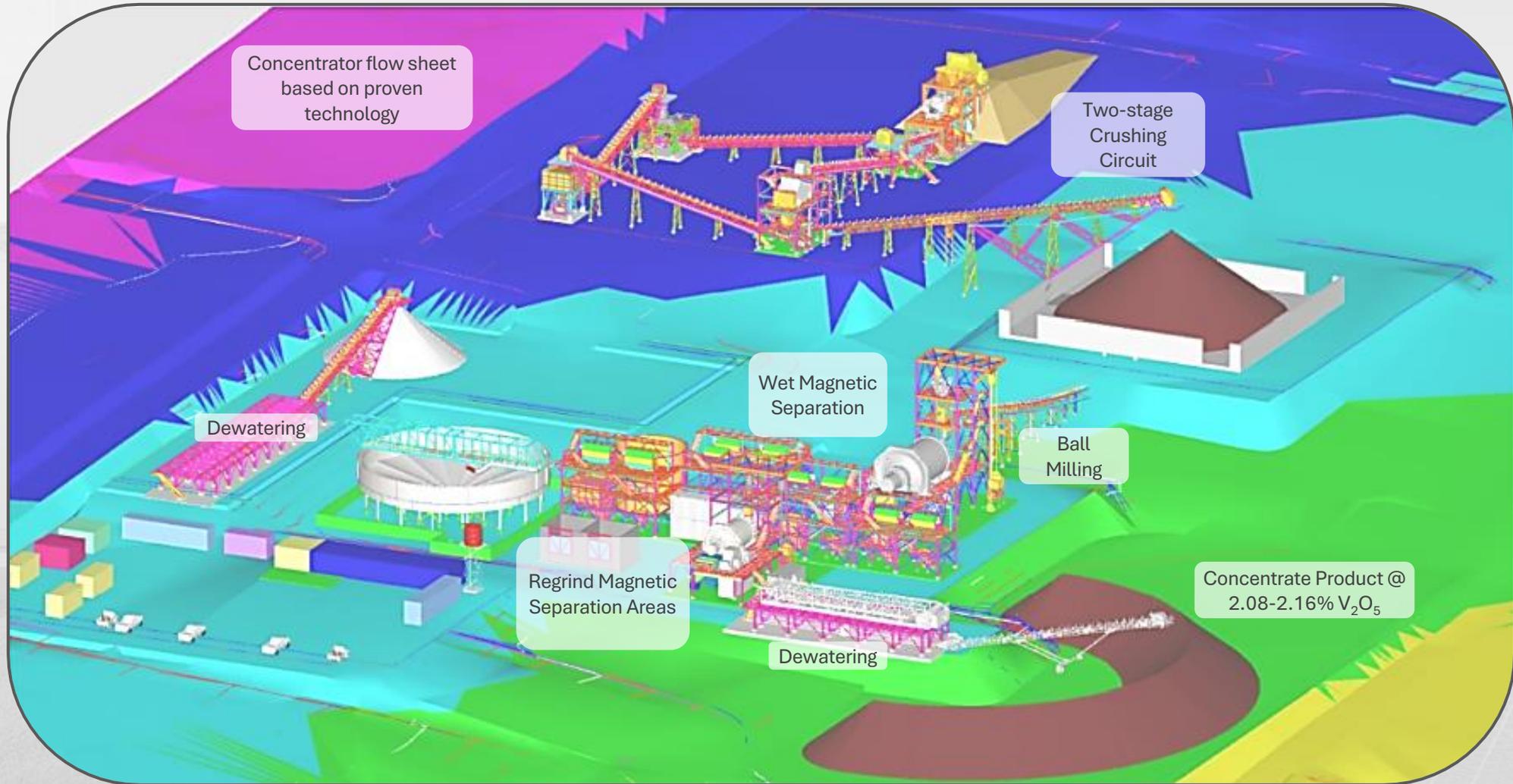
# Open Pit Design and Schedule

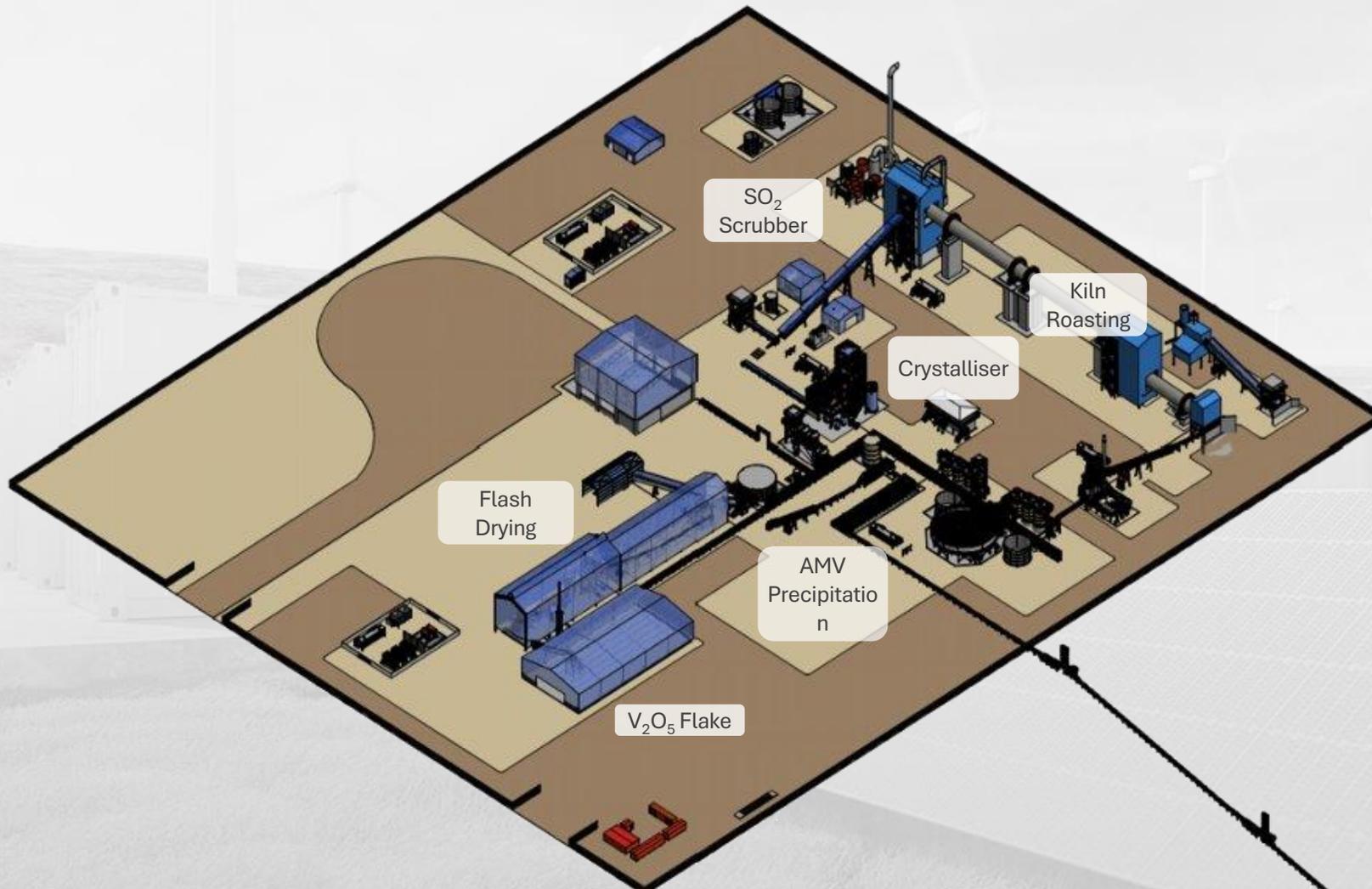


- Detailed pit designs have been developed across three open pits and scheduled over the 25-year life of the project
- The mining schedule was able to achieve high ROM grades of greater than 0.80%  $V_2O_5$  for the first 8 years, with a LOM average grade of 0.71%  $V_2O_5$



# Concentrator Plant





## SRL flow sheet based on proven technology

SRL Plant comprises kiln roasting, desilification, ammonium metavanadate (“AMV”) precipitation, flash drying and V<sub>2</sub>O<sub>5</sub> flake production

Concentrate feed rate of 790ktpa with a grade of >2.00% V<sub>2</sub>O<sub>5</sub> to produce ~13.2ktpa of vanadium flake of >98% V<sub>2</sub>O<sub>5</sub>

Evaporation and crystallisation to recover Na<sub>2</sub>SO<sub>4</sub> crystals for recirculation to the kiln has also been included

# Peer Comparison



	Largo Maracas <sup>1,2&amp;3</sup> In Production (Results as at 30 Dec 2021)	Steelpoortdrift (VR8) <sup>4&amp;5</sup> DFS Stage	Bushveld Mokopane <sup>6</sup> PFS Stage	TMT Project <sup>7,8</sup> DFS Stage	AVL Project <sup>9</sup> BFS stage	Richmond Vanadium <sup>10</sup> PFS Stage
V <sub>2</sub> O <sub>5</sub> Price	US\$7.80/lb	US\$9.50/lb	US\$7.50/lb	US\$10.50/lb	US\$10.50/lb	US\$9.60/lb
Market Cap (undiluted) (As at 31 Jan 2022)	<b>A\$534M</b> (C\$507M)	<b>A\$37M</b> (Undiluted)	n.a. (Vametco in production)	<b>A\$67M</b> (Undiluted)	<b>A\$122M</b> (Undiluted)	<b>A\$84M</b> (Undiluted)
NPV (Pre Tax)	<b>NPV<sub>7</sub> A\$3.9B<sup>†</sup></b>	<b>NPV<sub>7.5</sub> A\$2.6B</b> (Att. A\$1.9B)	<b>NPV<sub>9</sub> A\$595M</b>	<b>NPV<sub>8</sub> A\$942M</b>	<b>NPV<sub>7.5</sub> A\$833M</b>	<b>NPV<sub>10</sub> A\$613M</b>
IRR (Pre Tax)	48%	47%	25%	23%	21%	38%
NPV (Post Tax)	<b>NPV<sub>7</sub> A\$2.9B<sup>†</sup></b>	<b>NPV<sub>7.5</sub> A\$1.9B</b> (Att. A\$1.4B)	<b>NPV<sub>9</sub> A\$369M</b>	-	<b>NPV<sub>7.5</sub> A\$507M</b>	-
IRR (Post Tax)	-	42%	20%	-	-	-
LOM	20 years	25 years	30 years	25 years	25 years	25 years
Plant Feed	1.5 - 5.0mtpa	1.6 - 3.5mtpa	1.0mtpa	1.7-2.3mtpa*	1.6mtpa	4.1mtpa
Production (V <sub>2</sub> O <sub>5</sub> )	11,000-12,000tpa	10,700-21,000tpa	9,525tpa	12,500tpa	11,200tpa	12,700tpa
Capex	<b>US\$241M</b> (at startup 2014/5) <sup>†</sup>	<b>US\$211M (11ktpa)</b> US\$188M (Stage 2 from free cashflows)	<b>US\$298M</b>	<b>US\$423M</b>	<b>US\$435M</b>	<b>US\$177M</b>
Cash Costs (US\$/lbV <sub>2</sub> O <sub>5</sub> )	<b>\$4.85 - \$5.25</b>	<b>\$3.24</b>	<b>\$3.28</b>	<b>\$4.04*</b>	<b>\$4.43</b>	<b>\$6.32</b>

<sup>†</sup> The NPV's relate to the 2021 NI43-101 which includes production of ilmenite and titanium which requires additional capital expenditure. The Capex reported in this table is for the pre-production expenditure of the vanadium plant only<sup>3</sup>

\* Metrics presented from 2019 DFS<sup>8</sup>, all other metrics for ASX:TMT are from the August 2022 Integration Study<sup>7</sup>

<sup>1</sup> Largo Inc NI43-101 16 December 2021

<sup>2</sup> Largo Inc MD&A Q3 2022 & 2023 Guidance per Website

<sup>3</sup> Largo Inc Announcement 9<sup>th</sup> July 2014

<sup>4</sup> Vanadium Resources – Steelpoortdrift DFS – 4<sup>th</sup> October 2022

<sup>5</sup> Vanadium Resources – Steelpoortdrift DFS Financial Model

<sup>6</sup> Bushveld Minerals – Mokopane PFS 4<sup>th</sup> February 2016

<sup>7</sup> Technology Metals – MTMP Integration Study 5<sup>th</sup> August 2022

<sup>8</sup> Technology Metals – Gabanintha DFS 21<sup>st</sup> August 2019

<sup>9</sup> Australian Vanadium – BFS 6<sup>th</sup> April 2022

<sup>10</sup> Richmond Vanadium – Prospectus 9<sup>th</sup> December 2022



## Commenced process toward securing binding offtake, strategic investment and project financing

### Offtake Agreement & Strategic Investment

- A process is underway with a range of international traders and downstream users of vanadium
- In parallel, a process is underway with a range of potential strategic investors with respect to potential equity investment and/or financing for construction funding
- Targeting a combination of both steel and VRFB offtake agreements with a view to taking advantage of the projected increasing demand for VRFB's
- The rationale for the process is to optimise value to VR8 by securing offtake and strategic investment terms that will support project financing of Steelpoortdrift

### Project Financing

- Indicative debt sizing analysis received from several potential debt financiers / advisors
- Steelpoortdrift has the potential to support ~65% debt gearing of the total funding requirement
- Discussions with potential debt financiers have commenced with a view to securing indicative terms sheets in the lead up to FID



Hand specimen of vanadiferous titanomagnetite from the SPD Vanadium Project<sup>1</sup>

<sup>1</sup> Refer ASX Announcement dated 21 May 2018 "Exploration On High Grade Pipes Commences At SPD Vanadium Project"



## Renewable electricity supply

.....  
Inclusion of PV solar plant reduces carbon footprint and reliance on grid-based electricity

Electrification of mining fleet further reduces carbon footprint

Prove value in use for VRFB generated supply



## Dry deposition of tailings

.....  
Dewatering of tailings material means reduced risk exposure from conventional tailings deposition methodologies



## Co-products

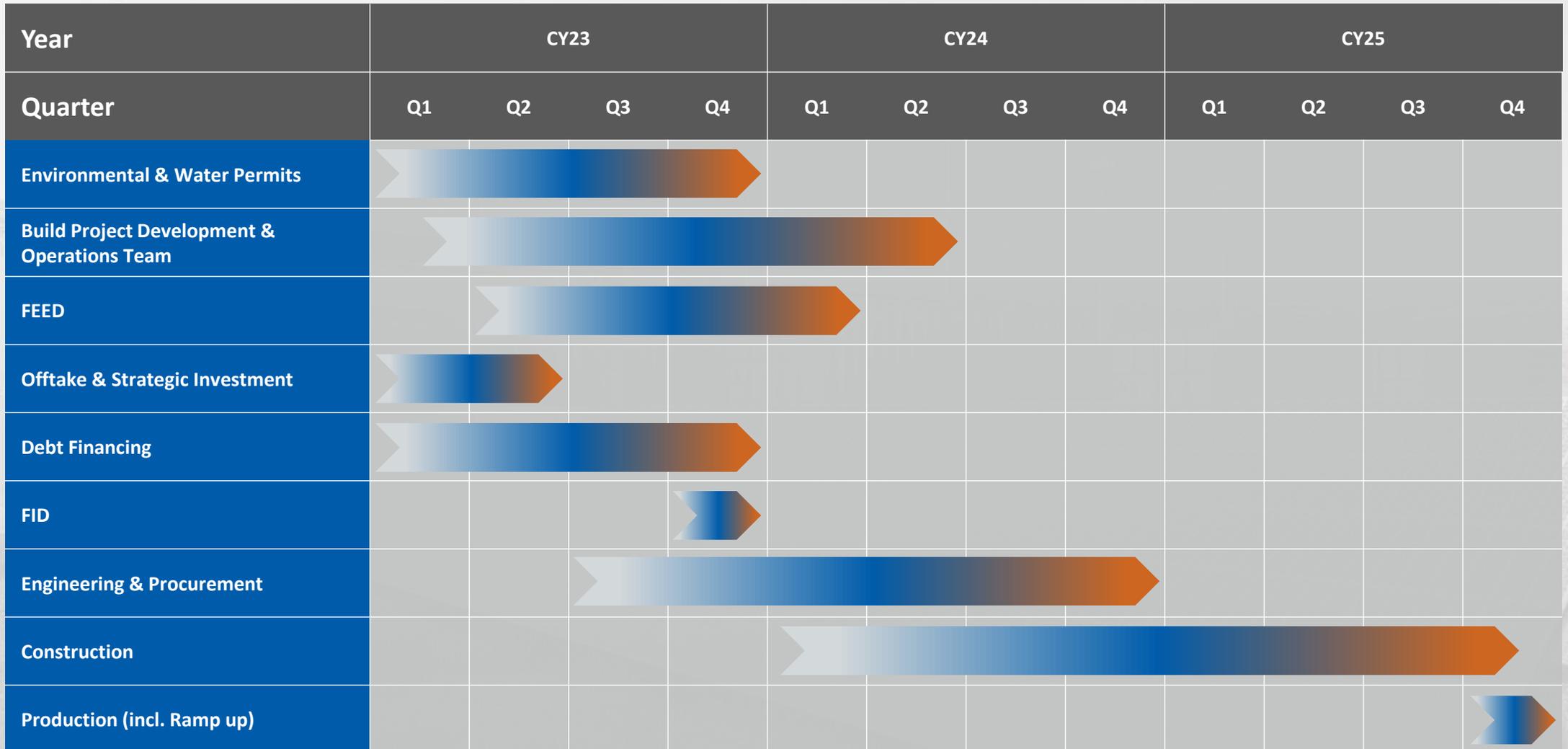
.....  
Studies underway to unlock value from other metals contained in the ore body most notably Titanium and Iron which would also reduce tailings footprint



## Community

.....  
Initiatives to maximize community involvement and benefits including implementation of Social Labour Plans, upgrading of area infrastructure and community-based procurement systems

# Preliminary Project Timeline



# Growth Catalysts to Increase Shareholder Value



## Key Catalysts to FID

- Secure long-term offtake(s)
- Secure project funding from combination of:
  - Debt ~65% PF debt
  - Equity ~35% from offtakers, strategic equity & ECM's

## Build Phase 1

- Flake Production of avg 10.7ktpa  $V_2O_5$
- ROM Ore avg. of 1.5Mtpa at 0.83%  $V_2O_5$
- Concentrate avg. of 724ktpa at >2.0%  $V_2O_5$
- Capex US\$211M

## Build Phase 2 (4 years after Phase 1)

- Flake Production of avg 21.0ktpa  $V_2O_5$
- ROM Ore avg. of 3.5Mtpa at 0.70%  $V_2O_5$
- Concentrate avg. of 1,247 ktpa at >2.0%  $V_2O_5$
- Capex US\$188M

## Valuation Upside Options

### Optimise Resource & Production

- Ropeway conveyor from Mine to SRL plant
- Delineation drilling and re-optimisation based on unconstrained Mineral Resource
- Increase production rate >3.5Mtpa ROM (given 180yr mine life)

### Additional Revenue Streams

- Residual vanadium recovery plant and potential additional products ( $V_2O_3$ , FerroVanadium,  $TiO_2$ , Ilmenite)
- Titanium ( $TiO_2$ ) in SRL tailings recovery

### Explore VFRB Potential

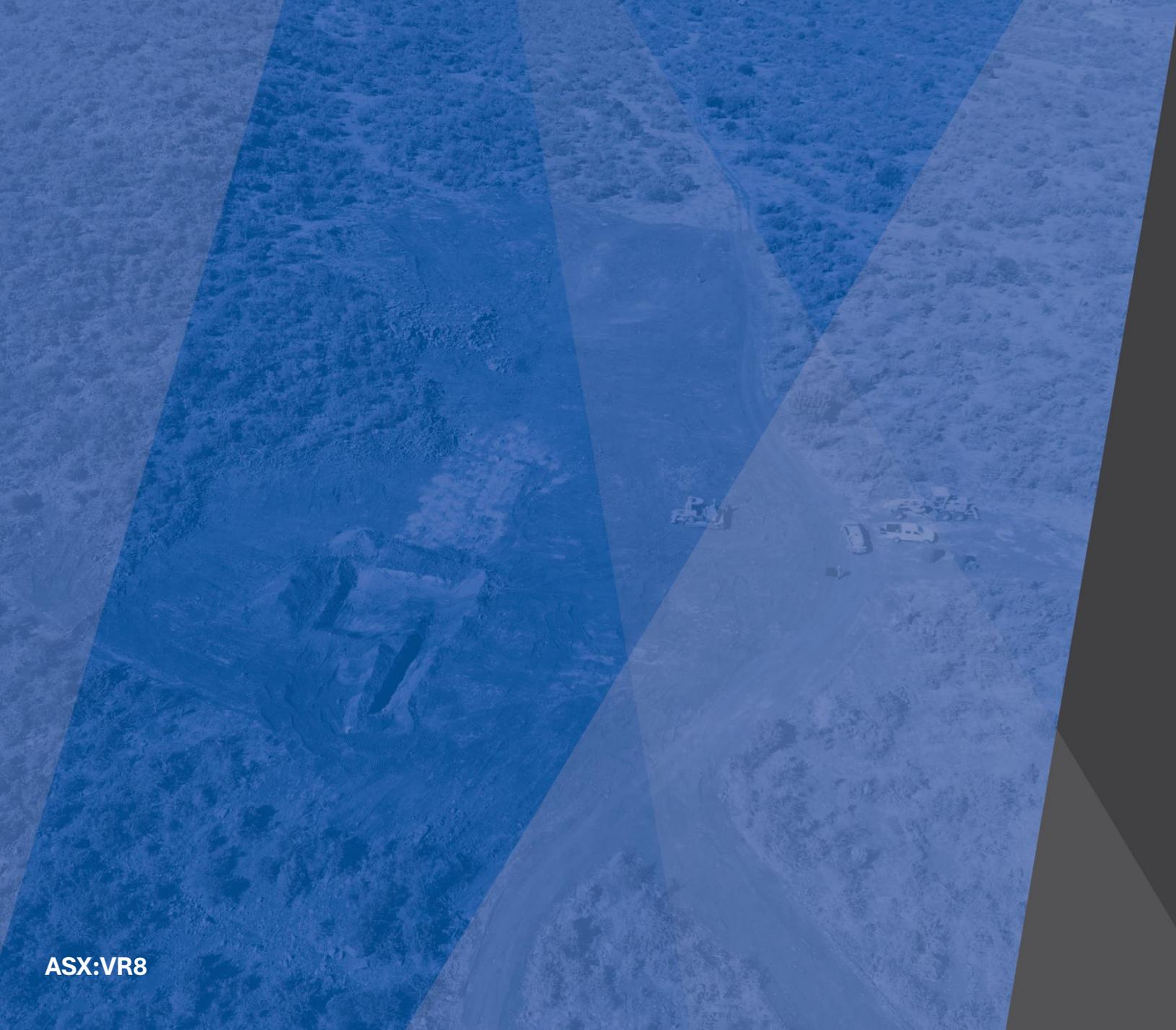
- Investigate larger VFRB size (currently 1MW) to meet 100% of power requirements for site operations
- Vertical integration opportunities including vanadium electrolyte, battery manufacture and energy generation



- ✓ Strong financials with attributable NPV of A\$1.4bn, IRR of 42% and payback period of 27 months
- ✓ Competitive Capex (US\$211m) and lowest quartile Opex (Cash Cost US\$3.24/lb)
- ✓ Long life project with excellent production profile – 25 years at an average of 19.4ktpa
- ✓ Established mining jurisdiction with significant infrastructure and expertise nearby
- ✓ Debt advisors appointed, positive engagement and discussions advancing with banks and other financial institutions
- ➡ Significant upside potential with a range of opportunities and initiatives identified to increase value
- ➡ Building a strong project development and execution team
- ➡ Securing offtake and strategic equity
- ➡ Securing debt financing
- ➡ Targeting first concentrate and flake production in mid 2025

## Unlocking Steelpoortdrift as one of the world's largest and highest-grade Vanadium projects for a new era





**Vanadium  
Resources**  
L I M I T E D

# Appendix

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February 2023

ASX:VR8

[WWW.VR8.GLOBAL](http://WWW.VR8.GLOBAL)



**JURIE WESSELS**  
Executive Chairman

Jurie Wessels has 26 years' experience in the exploration industry and co-founded a number of exploration and mining companies, including Bauba Resources Ltd (BAU.J), which owns three operating chrome mines, GoldStone Resources Ltd (GRL.L), which company is mining the Homase-Akrokerrri Gold Mine in Ghana acquired and developed by GoldStone when Jurie was CEO, Arcadia Minerals Ltd (AM7.ASX), which company owns an advanced Tantalum project, the Bitterwasser Lithium Clay and Brine Projects and tier 1 exploration assets, and Vanadium Resources Ltd. Jurie has significant experience in the sourcing and assessment of exploration and exploitation projects and in the governance, funding and management of resource companies. He explored for various minerals in Africa, South America, the Indian sub-continent and Europe, and explored and developed several mining projects to successful conclusion.



**JOHN CIGANEK**  
Managing Director &  
Chief Executive Officer

John Ciganek is a qualified Mining Engineer, holds a Master of Business Administration and has more than 30 years of mining and finance experience. His experience spans working in mining operations, project development, project finance, offtake agreements, M&A and the equity capital markets. Through his career to date, John has been involved with successfully raising debt and equity funding in excess of ~A\$5 Bn for various clients. Mr Ciganek's previous roles are Principal / Director of Euclase Capital, Executive Director of BurnVoor Corporate Finance, General Manger Corporate Development at PMI Gold, Senior Banks Engineer and Risk Executive at Commonwealth Bank, and Senior Mining Engineering positions with Hargraves Resources, Reynolds Yilgarn Gold and Comalco / Rio Tinto (CRA). John is a Non-Executive Director of Calidus Resources Limited (CAI.ASX) and Ookami Limited (OOK.ASX).



**MICHAEL DAVY**  
Non-Executive Director

Michael Davy is an Australian executive and Accountant with over 18 years' experience across a range of industries. Michael previously held a senior management role in Australia for Songa Offshore (listed Norwegian Oil and Gas drilling company), where he assisted with the start-up of the Australian operations and managed the finance team for a two rig operation with multi-hundred million dollar revenues. Prior to that he worked in Australia and London for other large organisations overseeing various finance functions. Michael is currently a director and owner of a number of successful private businesses all under his personal management. During the past five years Michael has held directorships in several ASX listed companies and is currently the Non-Executive Chairman of Raiden Resources Limited (ASX: RDN) and Haranga Resources Ltd (ASX:HAR) and is a non-executive director of Arcadia Minerals Ltd (ASX:AM7).

# Peer Comparison Table



Company	Code	Project	Stage	Resource Category	Resource Tonnes	Resource Grade	Concentrate Grade	Information Source
<b>Largo</b>	LGO.TSX	Maracas	Production	Measured, Indicated & Inferred (NI43-101)	79	0.79	2.46	Largo Maracas NI43-101 Technical Report - 16th December 2021
<b>Glencore</b>	GLEN:LSE	Rhovan	Production	Measured, Indicated & Inferred	176	0.49		Glencore 2021 Reserves & Resources report as at 31st December 2021
<b>Bushveld</b>	BMN.LSE	Vametco	Production	Indicated & Inferred	183	0.78	1.98	Vametco Inferred & Indicated Mineral Resource and Ore Reserve Update for Annual Reporting purposes, as at 30 March 2022. Released 4th April 2022
		Mokopane	Development	Indicated & Inferred	285	0.68	1.75	Mokopane PFS Study Report 4th February 2016
		Britts	Exploration	Indicated & Inferred	67	0.56	1.58	Competent Persons' Report on the Brits Vanadium Project Jan 2020
<b>Vanadium Resources</b>	VR8.ASX	Steepoortdrift	Development	Measured, Indicated & Inferred	680	0.70	2.10	ASX Announcement 4th October 2022 - Steepoortdrift DFS
<b>Australian Vanadium</b>	AVL.ASX	Australian Vanadium Project	Development	Measured, Indicated & Inferred	239	0.73	1.39	AVL BFS 6th April 2022
<b>Technology Metals</b>	TMT.ASX	Murchison Technology Metals	Development	Indicated & Inferred	154	0.85	1.40	MTMP Mineral Resource Upgrade - 7th November 2022 & RIU Resurgence Conference Presentation 23 November 2022
<b>Richmond Vanadium</b>	RVT.ASX	Richmond-Julia Creek	Development	Measured, Indicated & Inferred	1838	0.36	1.83	RVT Prospectus - 9th December 2022



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