



TECHNOLOGY
METALS AUSTRALIA LIMITED

Strategic Commodity Focus

Iron Ore, Vanadium & Titanium

Development Projects

Spark+ Battery Metal Day
Investor Presentation

27 May 2021



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Competent Person's Statement

The information in this report that relates to Exploration Results are based on information compiled by Mr John McDougall. Mr McDougall is the Company's Exploration Manager and a member of the Australian Institute of Geoscientists. Mr McDougall has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this report and to the activity which they are undertaking 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' ("JORC Code"). Mr McDougall consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr Aaron Meakin. Mr Aaron Meakin is a Principal Consultant of CSA Global Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr Aaron Meakin has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code"). Mr Aaron Meakin consent to the disclosure of the information in this announcement in the form and context in which it appears.

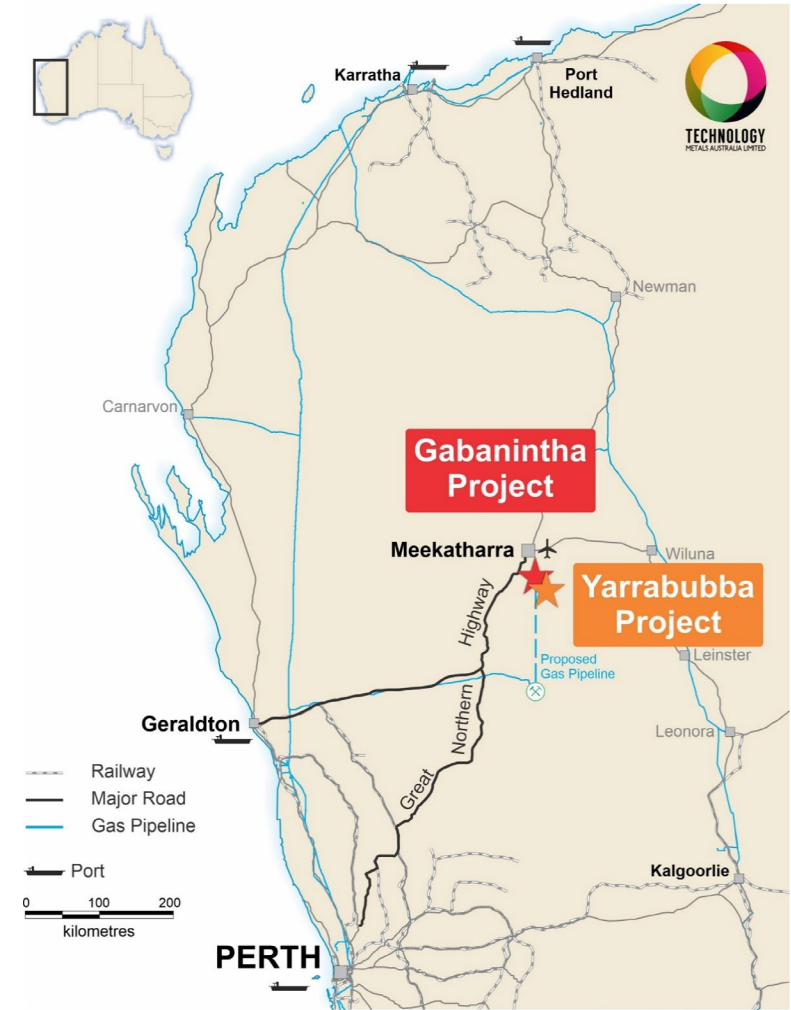
The information that relates to Ore Reserves is based on information compiled by Mr Daniel Grosso an employee of CSA Global Pty Ltd. Mr Grosso takes overall responsibility for the Report as Competent Person. Mr Grosso is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Person in terms of the JORC (2012 Edition). The Competent Person, Daniel Grosso has reviewed the Ore Reserve statement and given permission for the publication of this information in the form and context within which it appears.

The information in this report that relates to the Processing and Metallurgy for the Gabanintha project is based on and fairly represents, information and supporting documentation compiled by Mr Brett Morgan and reviewed by Mr Damian Connelly, both employees of METS Engineering Group Pty Ltd. Mr Connelly takes overall responsibility for the Report as Competent Person. Mr Connelly is a Fellow of The Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking, 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'. The Competent Person, Damian Connelly consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

All currency amounts are in AUD\$ unless stated otherwise.

Strategic Commodities in a Tier 1 Location

- **Yarrabubba Iron-Vanadium Project** – a near term development project to produce premium iron ore (magnetite) with vanadium credits and titanium by-product.
 - Modest capital expenditure – feasibility study underway
- **Gabanintha Vanadium Project** – a large scale, long life, low cost, high purity vanadium development project.
 - DFS completed – offtake well advanced, environmental approvals on track, financing discussions progressing.
- **Excellent infrastructure** – National Highway passes within 30km.
- Access to **ports** (Geraldton and/or Fremantle) via sealed highway.
- **Granted** mining leases.
- **Water** supply from northern paleochannel borefield in TMT tenure.
- **Regionally and nationally** significant development projects.
- **Opportunity for staged** development approach to minimise initial capital and maximise benefits for all stakeholders.



Corporate Overview

TMT

ASX Code

\$48.8m

Market Cap
(as at 26 May 2021)

18.7m

Unlisted Options¹
(various exercise)

\$7.25m

Cash
(as at 31 March 2021)

150.2m

Shares on Issue

2.65m

Performance Rights²

¹ Includes 12.35m director and employee options – 3.9m vested, 4.1m to vest on GVP FID, 4.35m vest on YIVP hurdles

² 50% vest on Yarrabubba FID, 50% vest on first production from Yarrabubba

Holder Name	Holding (%)
BNP Paribas Nominees	10.8%
Great Southern Flour Mills	9.3%
Retzos Group	5.4%
Colin David Iles	4.0%
Station Nominees	3.3%
Atasa Holdings	3.2%
TOTAL TOP 20	48.9

Board and Management



Ian Prentice
Managing Director



Michael Fry
Non-Exec Chairman



Sonu Cheema
Non-Exec Director / Co Sec



Michael Bourke
Project Director

Manjot Singh
Process Engineer

John McDougall
Exploration Manager

Board & Management holdings – ~9.4% fully diluted



Batteries Rapidly Emerging as Significant Consumer



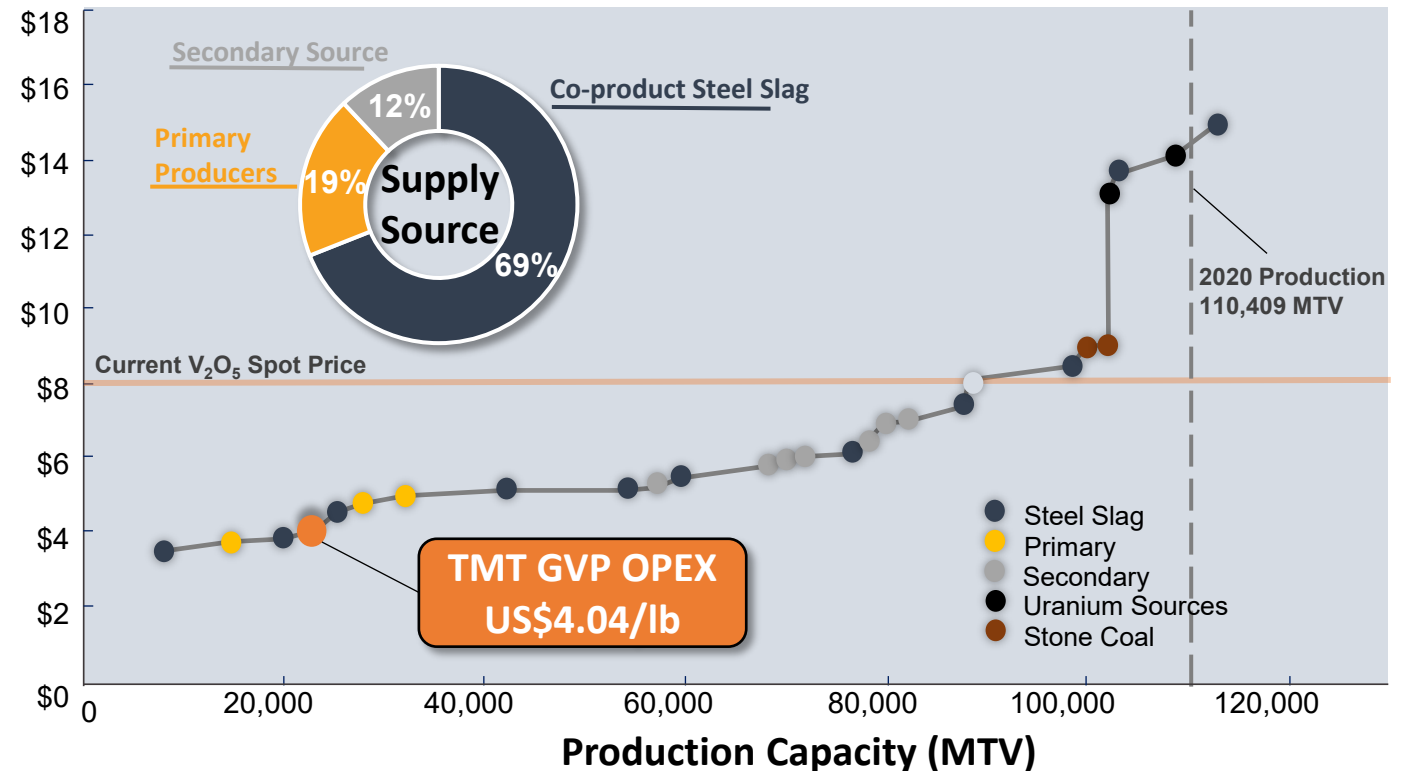


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Vanadium Market Dynamics – Steadily Rising Price

- China net importer of vanadium in late 2019 and throughout 2020.
- Price environment has removed some higher cost / highly polluting supply.
- Tightening market with increased consumption in steel in China exacerbated by improving demand in Europe and North America.
- COVID-19 impacts – stimulus spending on steel intensive infrastructure and focus on renewable energy / storage.
- Current pricing and global market dynamics very supportive of VRFB roll out – Dalian, Yancheng, Hokkaido, Yadamalka batteries.

V_2O_5 Cash Cost Curve (CY2020)



Source: TTP Squared

* TMT operating costs do not incorporate any revenue benefits that may be generated from by-product credits, such as base metal production

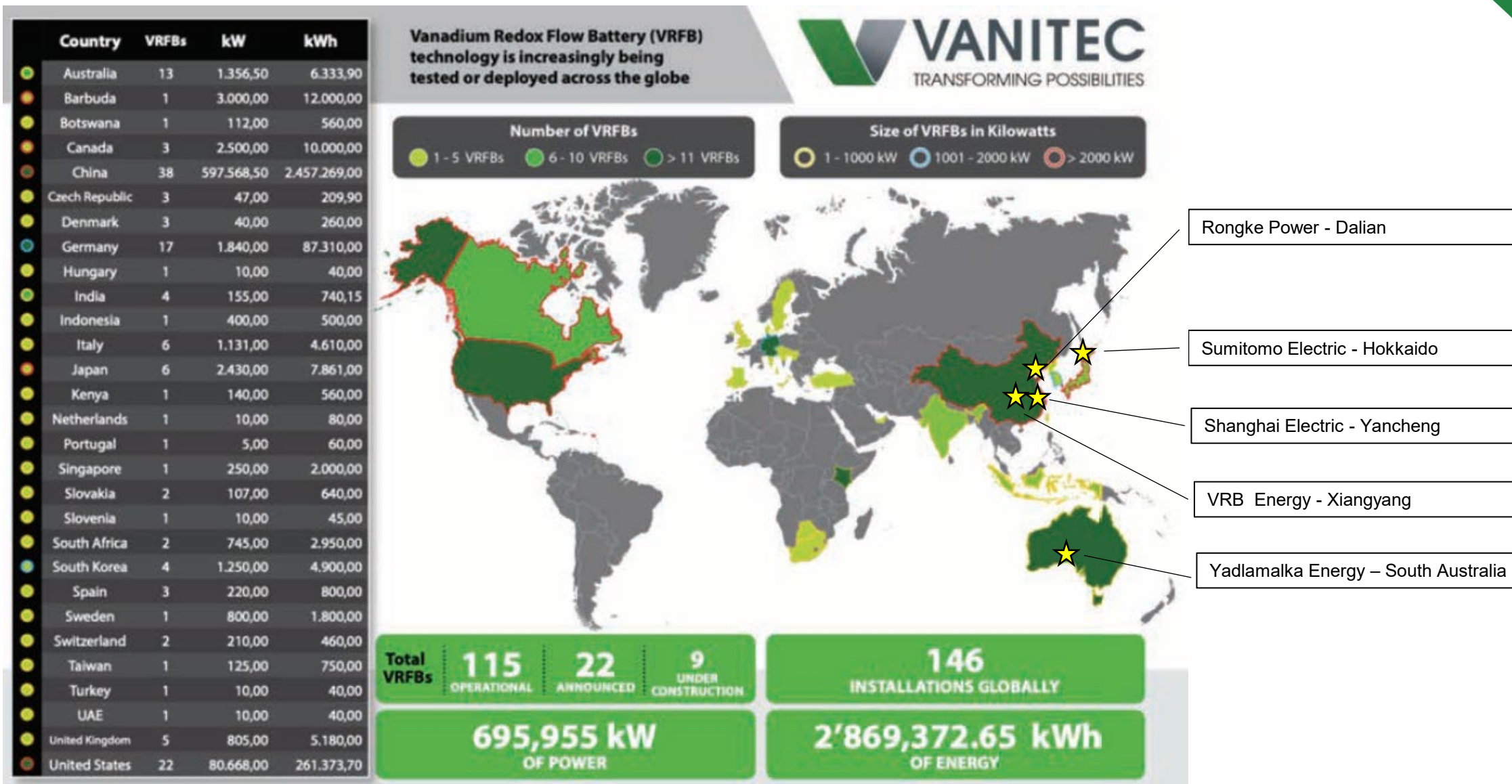
VRFB's – Enabling the Future of Green Energy



The background image depicts a green energy landscape with wind turbines, solar panels, and a large white battery storage container labeled "Battery ENERGY STORAGE" with a blue lightning bolt icon. Overlaid on the image are five icons representing the benefits of VRFB technology: a battery with a checkmark, a dollar sign with a downward arrow, a shield with a checkmark, a circular arrow with a plant, and a battery with a clock.

No Degradation	Low Energy Cost	Safety	Sustainability	Long Life
Performance remains constant with excellent long term charge retention	Over its 20+ year lifespan, VRFB technology offers the lowest cost per kWh stored (LCOE)	The vanadium electrolyte is water based and is totally non flammable	The vanadium is fully reusable and recyclable at end of the battery life	VRFB's can easily last more than 20 years with very high cycle life (up to 20,000 cycles)

Deployment Accelerating on Path to Zero Carbon Future



Recent and Planned VRFB Instalments

China is expected to install between **30 and 60 GWh of new energy storage capacity** by 2030.
At ~9.25 tonnes of V_2O_5 per MWh of VRFB this corresponds to extra demand of **28,000 – 56,000 tonnes V_2O_5 per year** during 2021 to 2030 – a **15 to 30% increase on V_2O_5 2020 output**.



Rongke Power's 200MW / 800MWh
Dalian VRFB is in commissioning

VRB Energy plans to build 100MW /
500MWh Xianyang VRFB



Shanghai Electric plans to build
100MW / 400MWh Yancheng VRFB

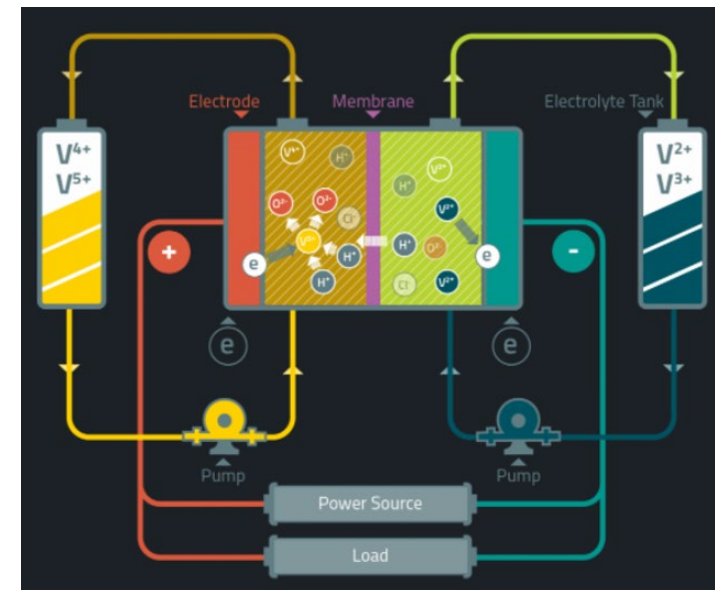
Sumitomo Electric building 51MWh
VRFB linked to wind farm in Hokkaido



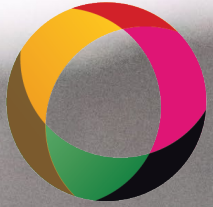
JV established to build a 3 GWh
VRFB factory in Saudi Arabia



Invinity Energy actively deploying VRFB's
in UK, North America & Australia



"It is clear that momentum is building for the adoption of Invinity's technology.....We are now consistently seeing vanadium flow batteries recognised as a robust, reliable and proven way of making renewable energy truly dispatchable at grid scale." Larry Zulch, Invinity CEO



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YARRABUBBA IRON-VANADIUM PROJECT

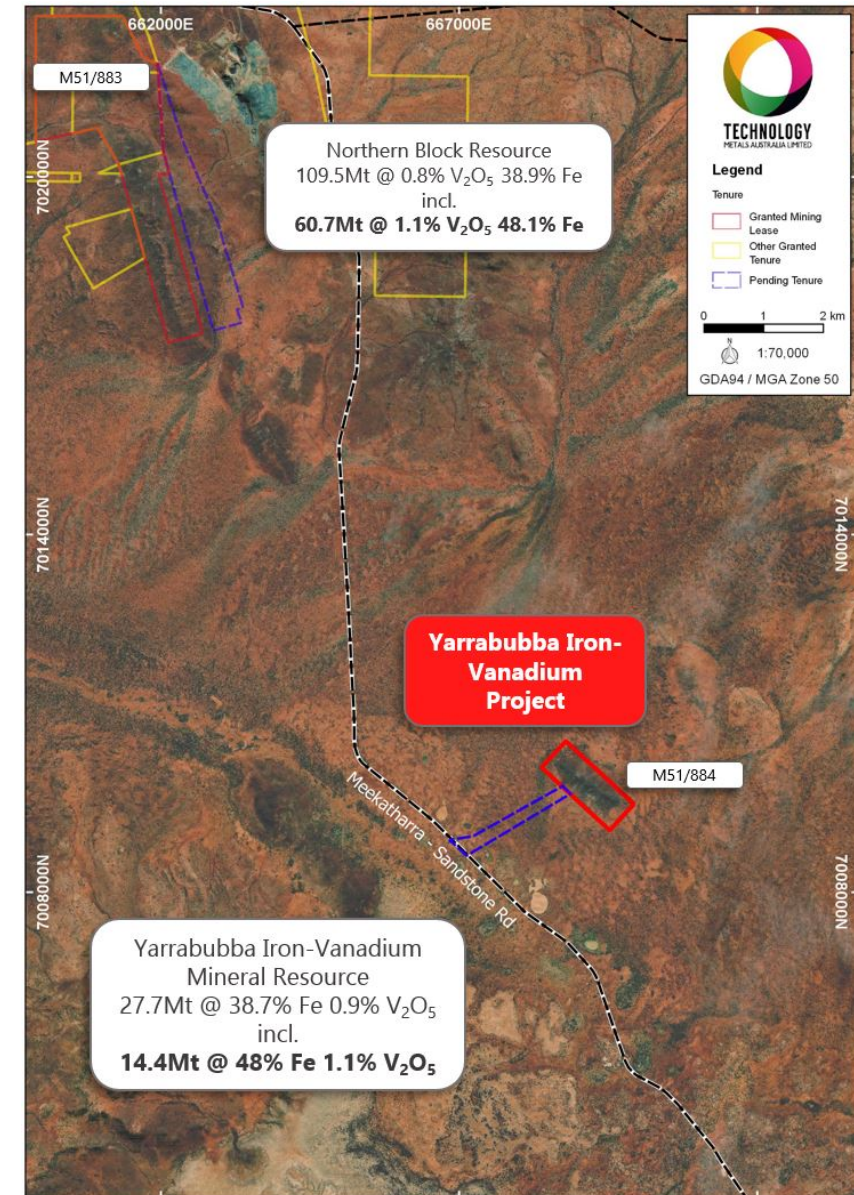
**PREMIUM IRON ORE PRODUCT INTO A
BOOMING MARKET**



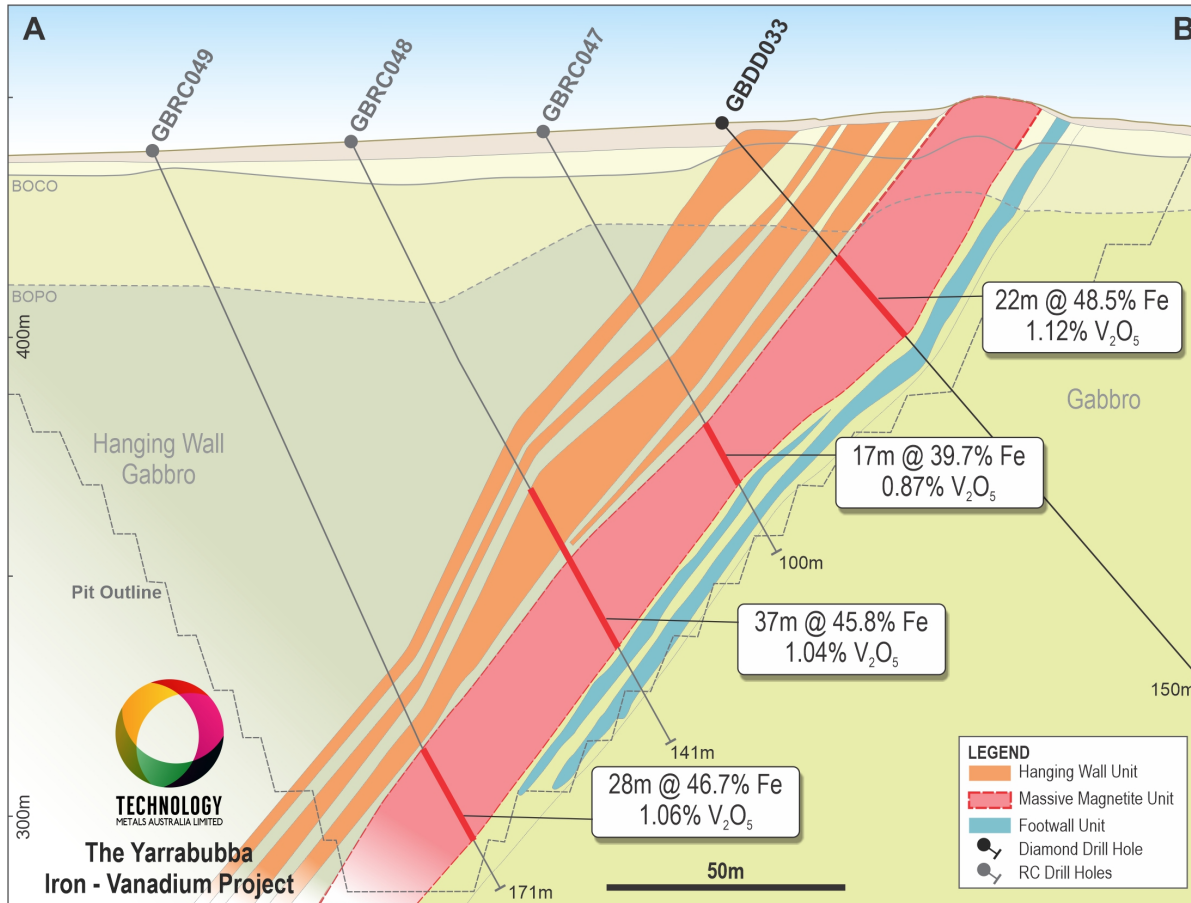
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Premium Iron (+Vanadium) Magnetite Concentrate

- Large scale testwork confirms high grade, high purity iron ore (magnetite) product.
- Delivers **64.3% Fe (MASFR1)** and **62.6% Fe (MASFR2)** at 125 micron grind size (average 63.4% Fe).
- Premium product **expected to deliver premium pricing.**
- Weighted average grade of **62.8% Fe** and **1.66% V_2O_5** at 75-micron grind size with **mass recovery of 49.6%** (flowsheet design basis).
- Low levels of deleterious elements at weighted average 0.62% SiO_2 , 0.96% Al_2O_3 , 0.017% S and 0.001% P.
- Ore Reserve of 9.4Mt at 45.3% Fe and 0.97% V_2O_5 .
- Mineral Resource of 27.7Mt at 38.7% Fe and 0.9% V_2O_5 .



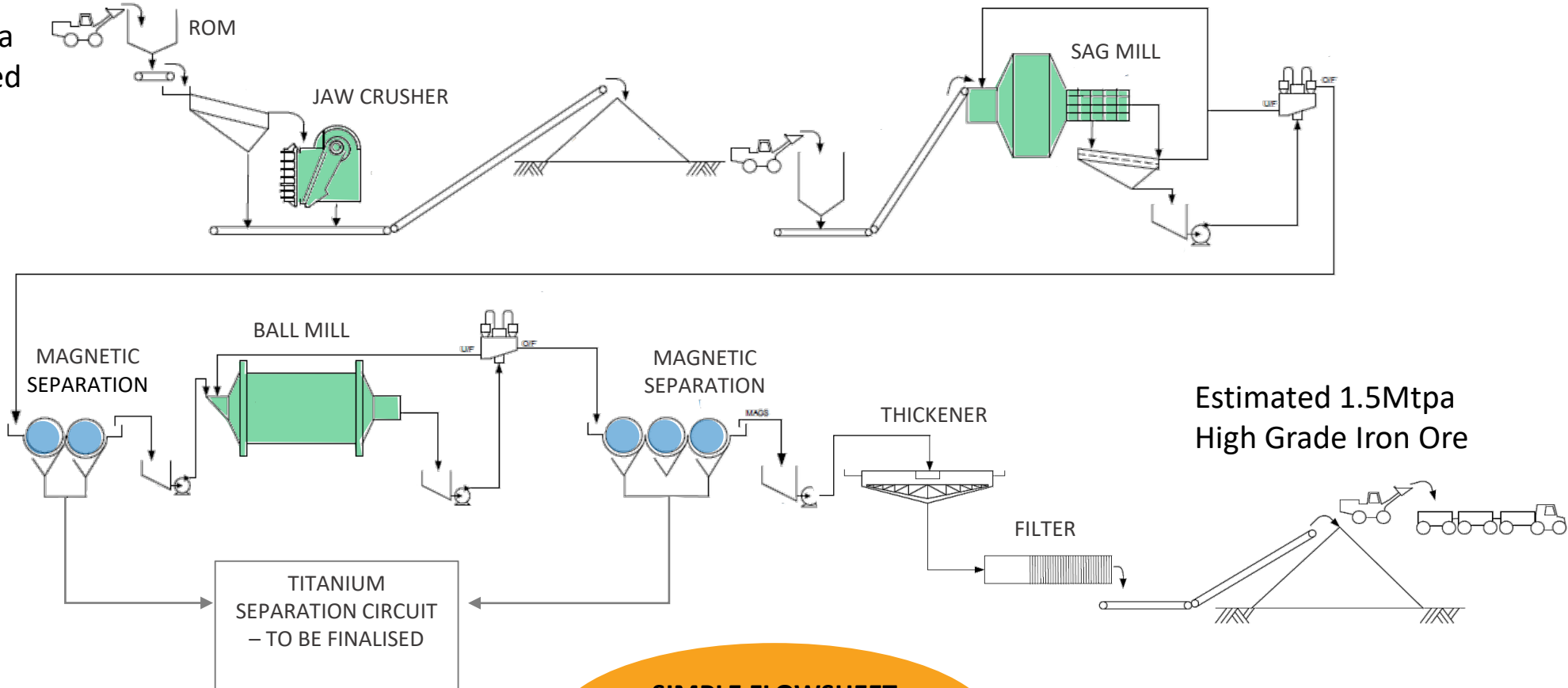
Near Term, Low Risk Development Project



- Simple crushing, milling and beneficiation (CMB) flowsheet to deliver high purity iron ore (magnetite) product at 75 - 90 micron grind size.
- Key differentiators for Yarrabubba:
 - ✓ High in-situ iron grades
 - ✓ Very high mass recoveries
 - ✓ Low risk processing
 - ✓ Simple open pit mining
 - ✓ High quality product
- Gabanintha DFS provides significant advantage in progressing the development of Yarrabubba.
- CMB circuit to be built at Gabanintha – benefitting the long term Project development.
- Staged development strategy complementary to Gabanintha.

Indicative CMB Flowsheet

Target
3.0Mtpa
Ore Feed



**SIMPLE FLOWSHEET
PRODUCES ~63% Fe
CONCENTRATE**



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Titanium (Ilmenite) By-Product

- Testwork on larger scale non-magnetic tails (MASFR1 and MASFR2) delivered an indicative specification for a titanium by-product (YIP1) containing 46 to 47% TiO_2 .
- Deleterious elements Fe_2O_3 , Nb_2O_3 , P_2O_5 and U+Th generally well below comparable products, but elevated Cr_2O_3 and V_2O_5 .
- High titanium recovery achieved using standard gravity separation processing; the gravity product upgraded with magnetic separation.
- Industry consultants TZMI completed a product quality review and estimated YIP1 will achieve US\$140 – US\$180/tonne FOB (real 2020) in the medium term.
- Optimisation testwork has opportunity to further enhance YIP1 quality and refine the titanium separation flowsheet.





Sinosteel Australia Letter of Intent

- Sinosteel Australia part of the WA business community since 1991.
- Lol covers negotiation of a life-of-mine iron-vanadium offtake.
 - Annual quantity of up to 1.5Mtpa
- EPC contract to be negotiated with Sinosteel Equipment & Engineering Co., Ltd (MECC).
- Technical collaboration with MECC supported development of indicative CMB flowsheet.

“Sinosteel Australia is very pleased to have established this relationship with Technology Metals Australia and aim to progress our offtake and EPC contract discussions on the premium quality Yarrabubba Iron-Vanadium Product based on the principles of mutual benefit and respect” Sinosteel Australia Managing Director David Sun

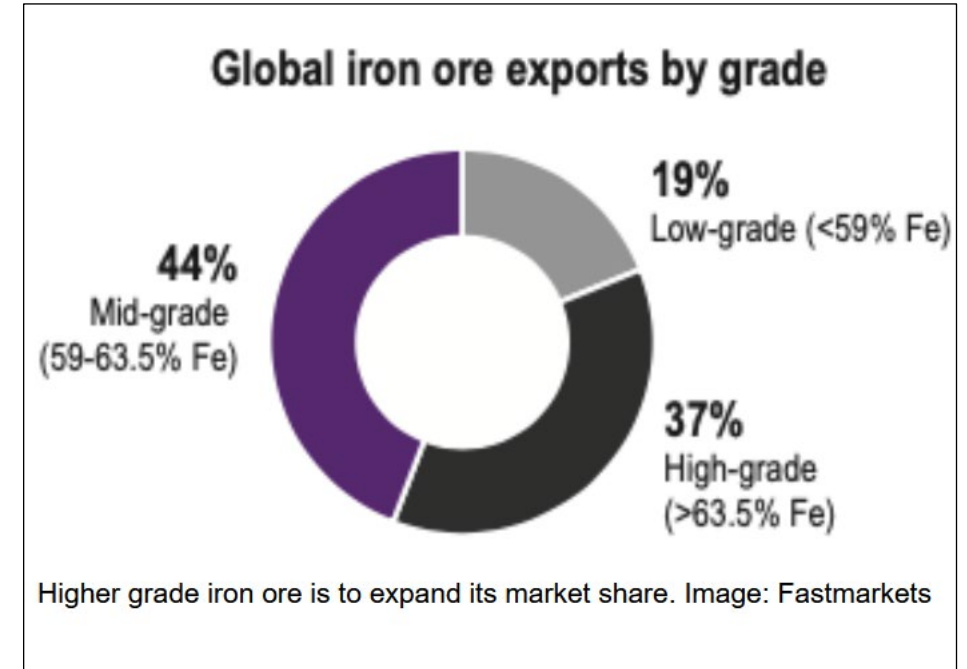




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Iron Ore Market

- Iron ore prices (62% Fe, CFR China) have increased from US\$63/t to US\$180/t over last 12 months.
- China produced 1.05 Bn tonnes steel in 2020; MQ21 output 15% higher than MQ20. Mills increasing output on high-profit margins despite government environmental rules.
- Iron ore producers struggled to keep up with strong demand in MQ21 due to operational challenges and weather issues.
- Prices for 63.5% Fe iron ore (delivery Tianjin) up to >US\$190/t. Premiums for higher purity increasing due to desire for higher quality with lower environmental emissions.
- High grade iron ore with Fe >63.5% is set to expand by 17.5% over the decade of the 2020s and attract higher prices than standard and lower grade iron ore (Fastmarkets, April 2021).
- Customers are willing to pay a premium for higher grade iron ore with lower impurities such as alumina and silica.



Yarrabubba Development Activities

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- Workstreams in support of Yarrabubba development :
 - Diamond drilling to generate bulk sample, geotechnical data and resource infill – **done**;
 - Preparation of bulk sample composites – **underway**;
 - Gabanintha Environmental Review Document – **draft submitted, initial review underway**;
 - Evaluation of logistics, haulage routes, port – **draft report done, options analysis progressing**;
 - Definition of process flowsheet – **indicative CMB flowsheet defined, titanium circuit progressing**;
 - Resource infill/extension RC drilling – commence late May;
 - Resource estimation, upgrade – scheduled July/August;
 - Pilot scale testwork, customer sample generation – commences July/August;
 - Preparation of Yarrabubba environmental submissions to progress Mining Approvals.



**Yarrabubba
Project Flyover**

GABANINTHA VANADIUM PROJECT

One of the Highest Grade Undeveloped Vanadium Deposits in the World



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**NORTHERN BLOCK
RESOURCE**
109.5Mt
@ 0.8% V_2O_5

**MINING
RESERVE**
29.6Mt
@ 0.88% V_2O_5

**PROCESSING
PLANT**

27.9Mlb
 V_2O_5 pa

**HIGH PURITY
PRODUCT**

>99% V_2O_5

OPEX

US\$4.04
/ lb V_2O_5

MINE LIFE

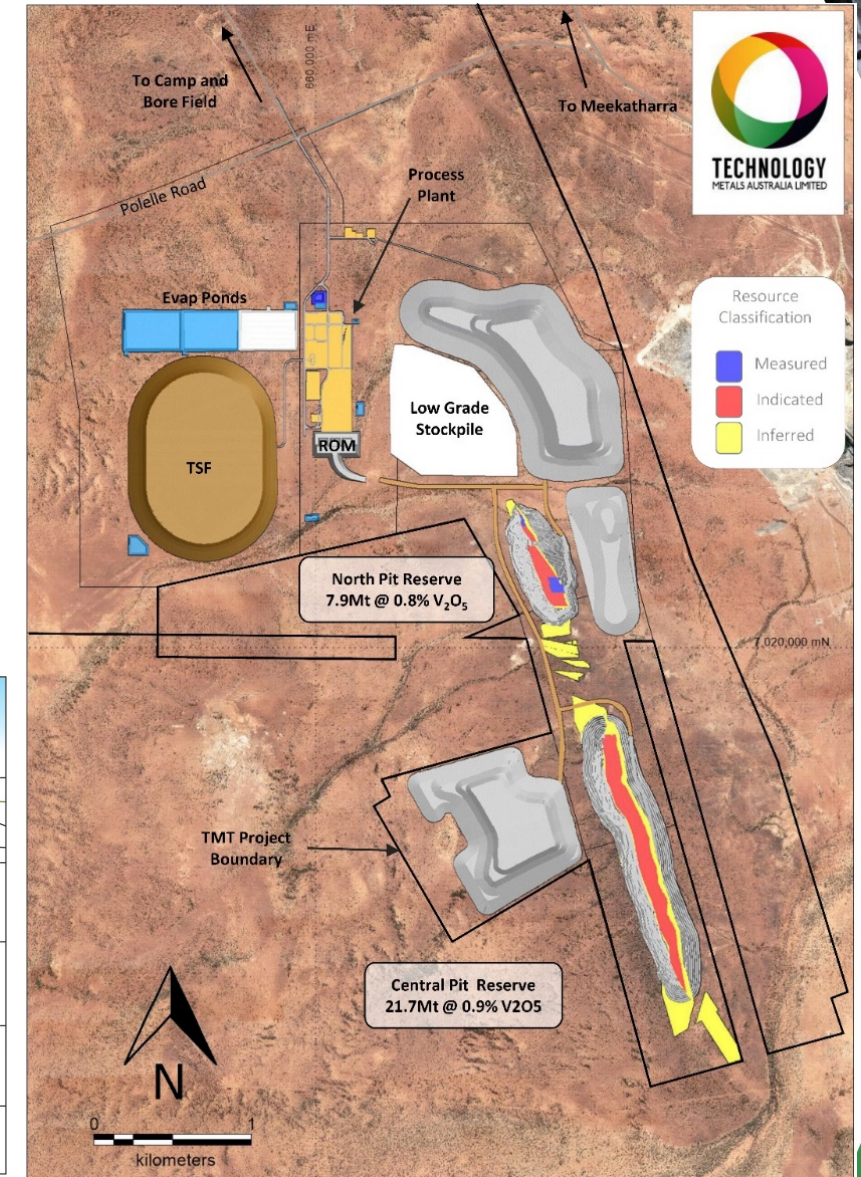
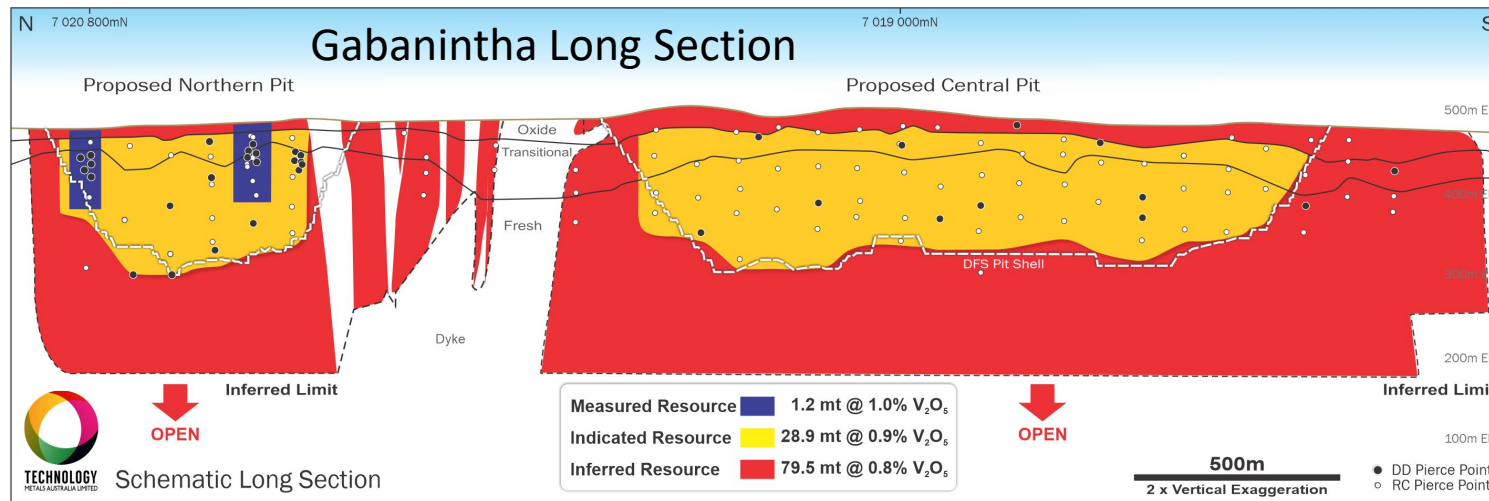
+16years



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World Class Resource – Simple Open Pit Mining

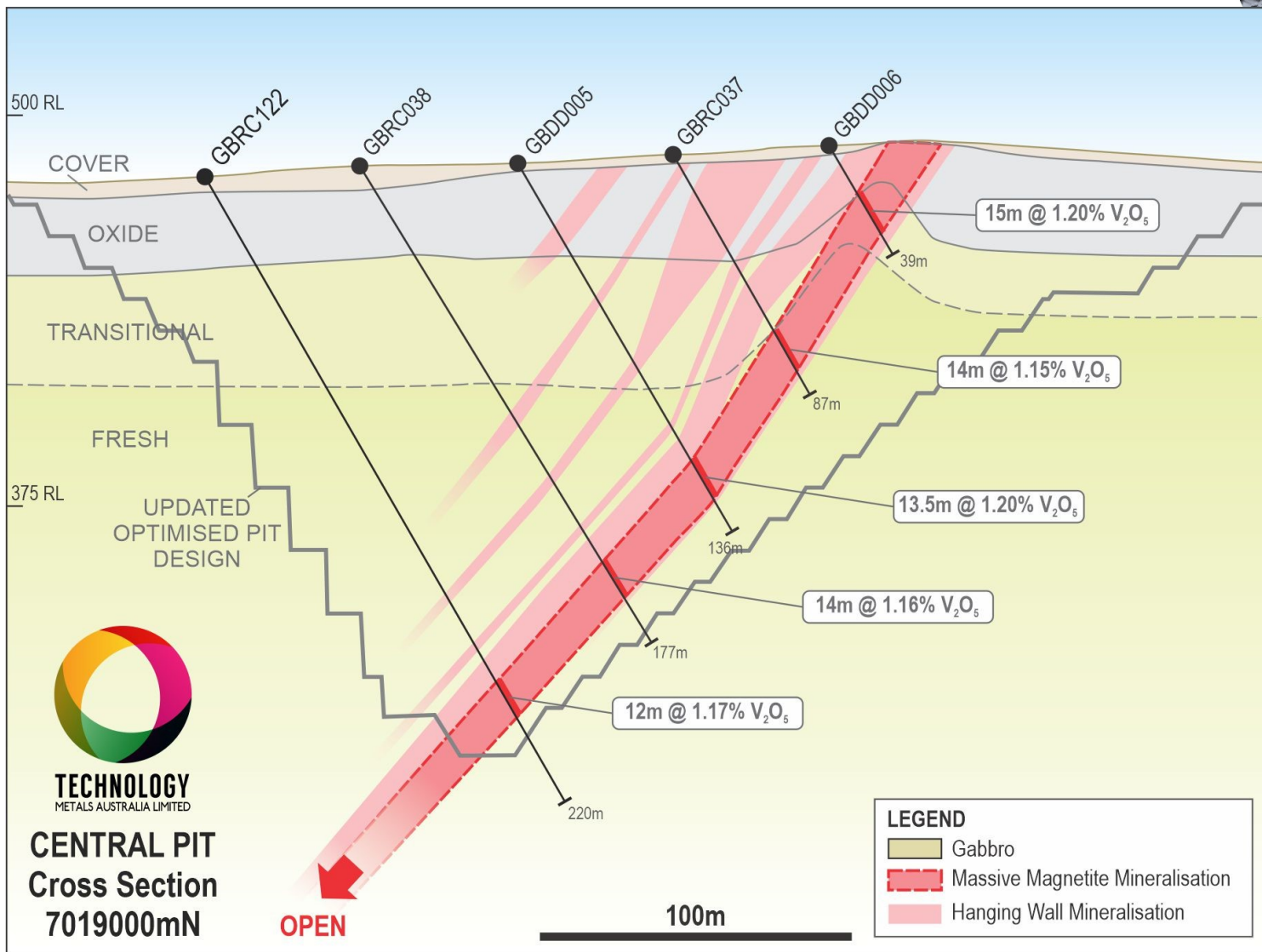
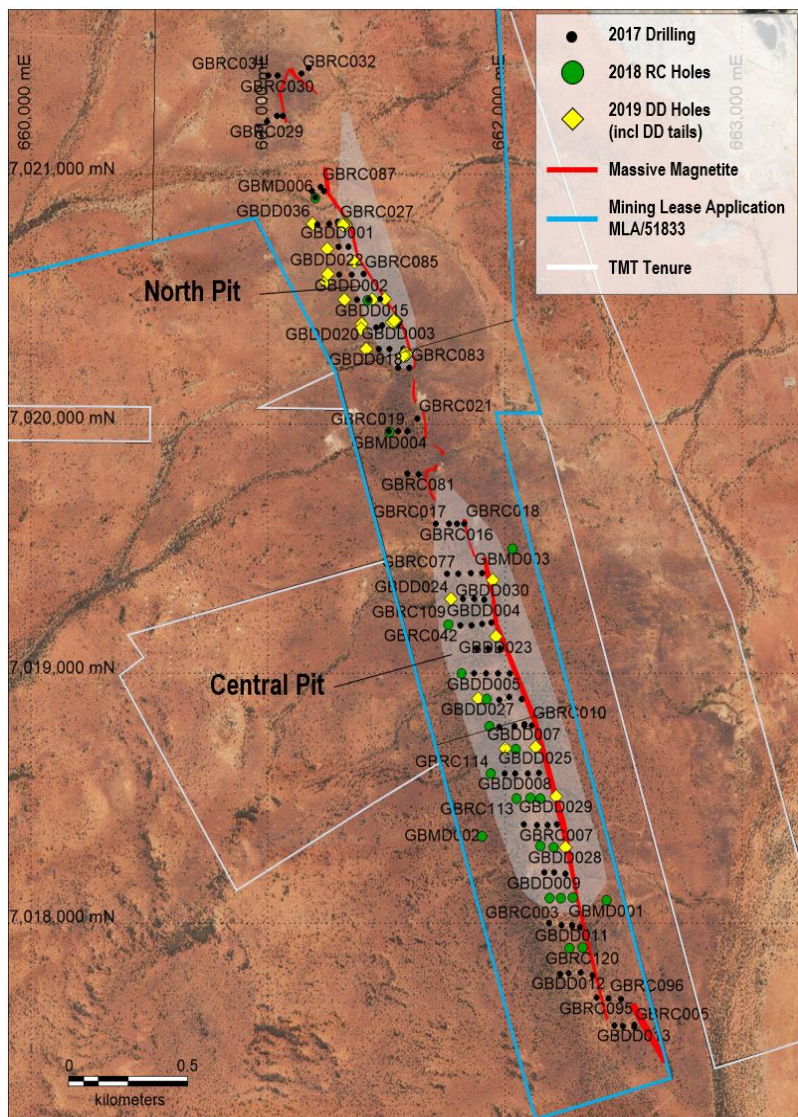
- Mine life of 16 years on Ore Reserve of 29.6Mt at 0.88% V_2O_5 .
- Average annual production of 27.9Mlb delivering premium +99% purity product at lowest cost quartile operating costs.
- High grade mineral resource of 60.7Mt at 1.1% V_2O_5 within total mineral resource of 109.5Mt at 0.8% V_2O_5 .
- Crusher feed in excess of 1.0% V_2O_5 for at least first 12 years.
- Ore body characterised by very shallow oxidation profile.
- Open pits limited by drilling at depth and on strike to the south.



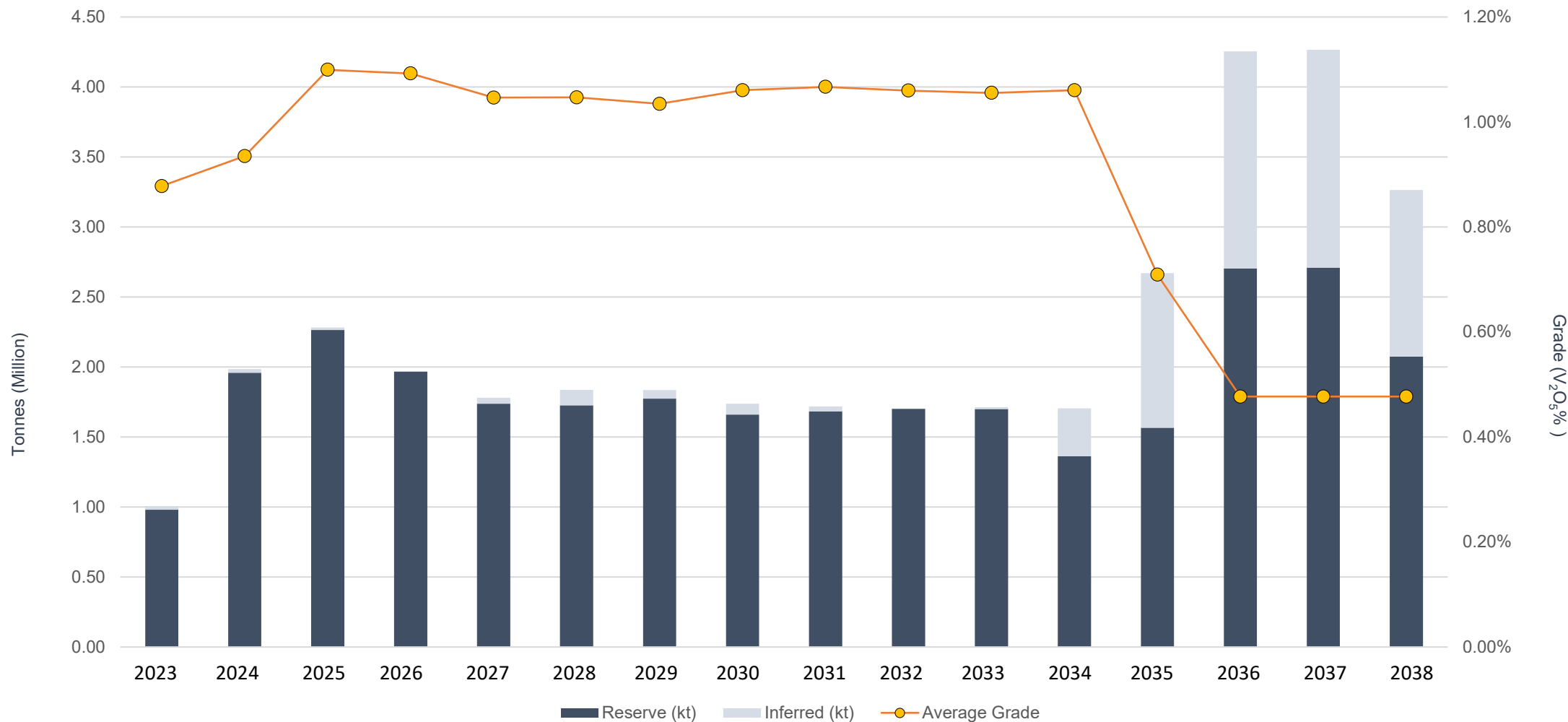


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Shallow Oxidation – Consistent High Grade Basal Unit



ROM Feed in Excess of 1%¹



Annual Crusher Feed Showing Feed Grade and Tonnage plus Distribution of Inferred Mineral Resources
(Process feed post 2034 sourced from low grade stockpiles built up over LOM – to be displaced with high grade feed from Southern Tenement)

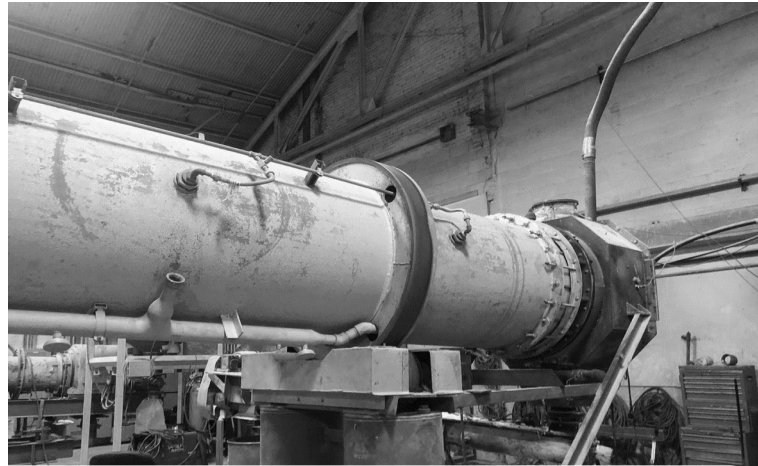
Pilot Test Work De-Risks Project and Confirms Scalability



CONFIRMS VERY HIGH YIELD TO MAGNETIC CONCENTRATE

11.5T bulk sample processed through Crushing Milling Beneficiation pilot plant

Confirmed very high yield to magnetic concentrate with low deleterious elements



PILOT SCALE KILN TESTWORK CONFIRMS VERY HIGH RECOVERY RATES

7.5T of magnetic concentrate processed through pilot scale rotary kiln delivered average vanadium recovery of 88.6%

Confirms end-to-end vanadium recovery of 77% for fresh massive magnetite ore



DFS INCORPORATES KILN DESIGN AND OPERATING PARAMETERS

Pilot scale continuous salt roast / kiln testwork completed by kiln experts FLSmidth

FLSmidth provided kiln design and operating parameter inputs for DFS

Customer / Partner Engagement

CNMNC a subsidiary of China Nonferrous Metal Mining Group Company.

- Binding take-or-pay offtake for **2,000Tpa** (4.4Mlb pa) ~16% of annual production.
- Three year term with three-year extension.

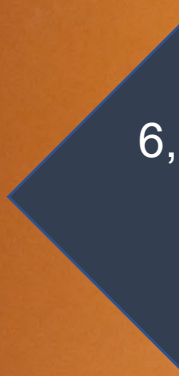


Shaanxi Fengyuan offtake MOU over 3,000Tpa.

- Take-or-pay ~24% of annual production.
- Five-year term with five-year extension.

Big Pawa offtake MOU over 1,000Tpa take-or-pay and up to 5,000 Tpa

LE System technical collaboration and downstream electrolyte production MOU.



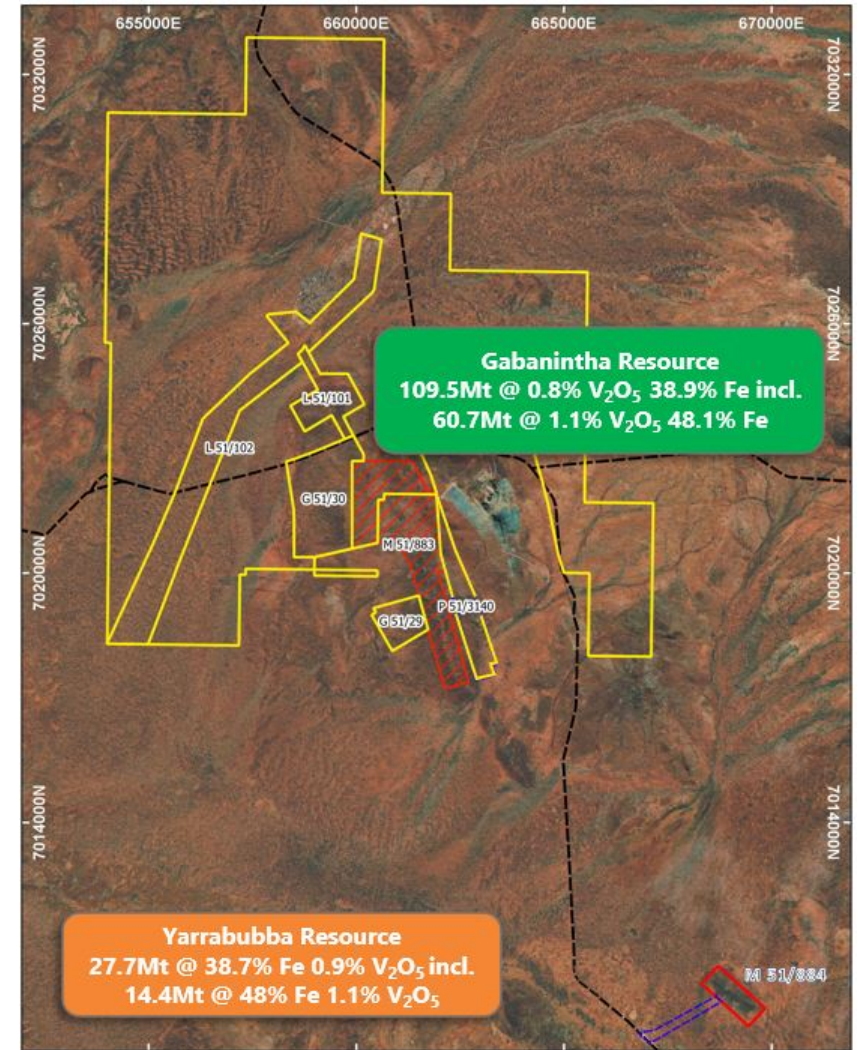
6,000 to 10,000 tonnes of TMT's proposed production of 12,800Tpa V_2O_5 covered under Binding Offtake and MoU

Project Development Partners

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- Western Australian Government Lead Agency Support - Future Battery Industry strategy supporting downstream processing options.
- NAIF engagement – part of strategic funding approach.
- Gabanintha environmental approvals - ERD lodged Q1 CY 2021.
- Gas transportation agreement with APA – reduces gas transportation costs and facilitates access to emerging Perth Basin gas fields.
- Equipment vendor engagement – FLSmidth kiln supply agreement executed.
- Ongoing market engagement for product offtake / funding options – Sinosteel, CNMNC, Shaanxi Fengyuan, Big Power, LE System.



Investment Case

- ✓ **Leveraged** to demand for premium iron product and structural change in the vanadium industry.
- ✓ **Delivering** offtake and partner engagement underpinned by high quality technical work.
- ✓ **Globally Significant** low cost, large scale and long life vanadium project.
- ✓ **Stable** operating environment with excellent infrastructure and access to services.
- ✓ **Team in place** focused on progressing the project to maximise shareholder value.





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VALUE FOR SHAREHOLDERS**



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APPENDICES

One of the Highest Grade Vanadium Deposits in the World*

- Global combined resource of **137.2Mt at 38.9% Fe and 0.9% V₂O₅**
- High grade resource of **75.1Mt at 48.1% Fe and 1.1% V₂O₅** in consistent basal massive magnetite
- Gabarintha Vanadium Project **Proven and Probable Reserve of 29.6Mt at 0.88% V₂O₅** at extremely high 98% tonnage conversion
- Yarrabubba Project maiden **Probable Reserve of 9.4Mt at 45.3% Fe and 0.97% V₂O₅**

**MINING
RESERVE**

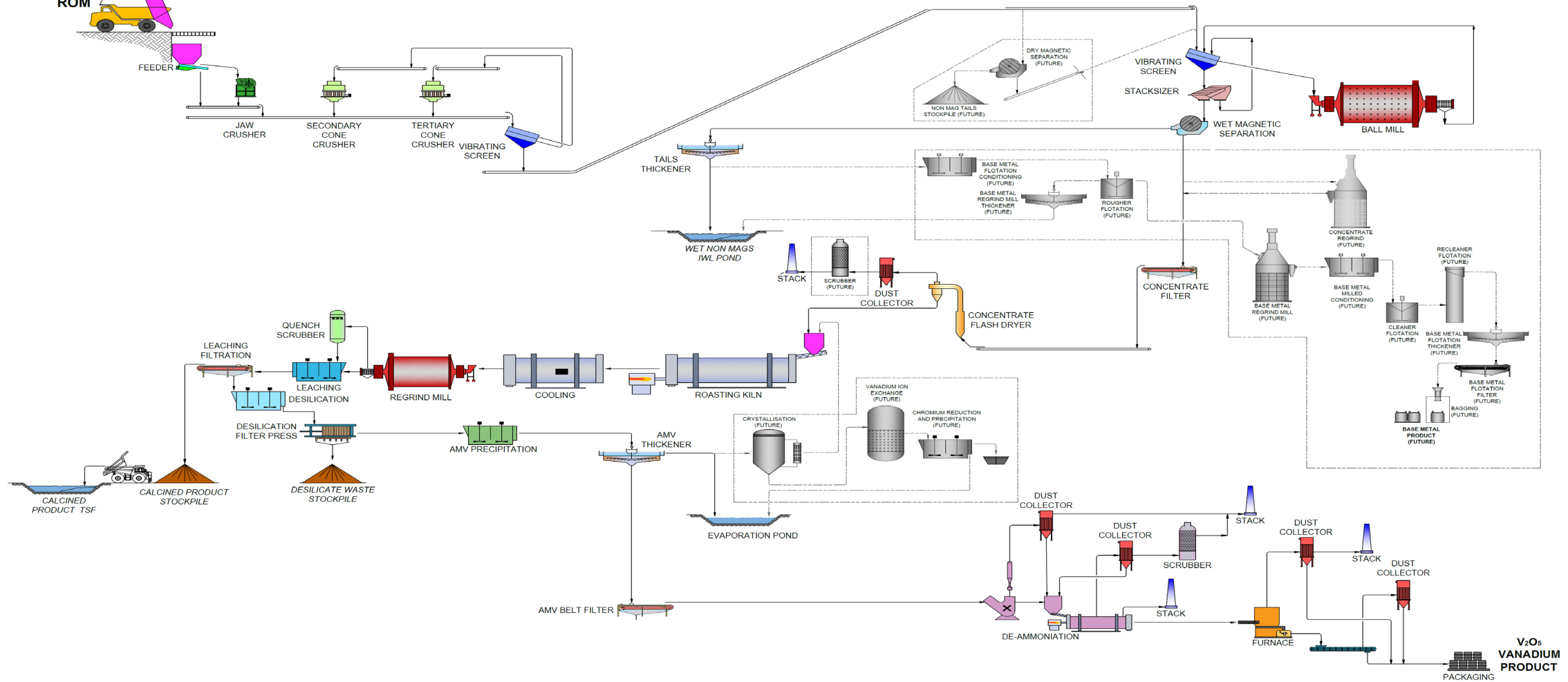
29.6Mt
@ 0.88% V₂O₅

Material Type	Classification	Mt	V ₂ O ₅ %	Fe%	Al ₂ O ₃ %	SiO ₂ %	TiO ₂ %	LOI%	P%	S%
Massive Magnetite	Measured (North)	1.2	1	44.7	6.2	10.4	11.4	0	0.009	0.2
	Indicated (North)	18.5	1.1	49.1	5.2	5.8	12.9	-0.1	0.007	0.2
	Indicated (South)	7.3	1.1	49.2	5.1	5.8	12.6	-0.6	0.004	0.3
	Total Indicated	25.8	1.1	49.1	5.1	5.8	12.8	-0.3	0.007	0.2
	Inferred (North)	41	1.1	47.7	5.6	7.1	12.6	0.3	0.008	0.2
	Inferred (South)	7.1	1.1	46.9	5.6	7.4	12.1	0.5	0.005	0.3
	Total Inferred	48.1	1.1	47.6	5.6	7.2	12.5	0.3	0.008	0.2
	Massive Global	75.1	1.1	48.1	5.5	6.8	12.6	0.1	0.007	0.2
Disseminated / Banded Magnetite	Indicated (North)	10.3	0.6	28.6	13.1	25.5	7.5	3	0.03	0.2
	Indicated (South)	2.3	0.7	33.1	9.5	20.6	8.5	2.3	0.014	0.3
	Total Indicated	12.6	0.6	29.5	12.5	24.6	7.7	2.8	0.027	0.2
	Inferred (North)	38.5	0.5	27.1	12.7	27.4	6.9	3.3	0.027	0.2
	Inferred (South)	11	0.6	27.7	13	25.9	7	2.7	0.015	0.3
	Total Inferred	49.5	0.5	27.2	12.8	27.1	6.9	3.2	0.024	0.2
	Diss / Band Global	62.1	0.6	27.7	12.7	26.6	7.1	3.1	0.025	0.2
Combined	Global Combined	137.2	0.9	38.9	8.7	15.7	10.1	1.5	0.015	0.2

*Note: The Mineral Resources were estimated within constraining wireframe solids using a nominal 0.9% V₂O₅% lower cut-off grade for the massive magnetite zones and using a nominal 0.4% V₂O₅% lower cut-off grade for the banded and disseminated mineralisation zones. The Mineral Resources are quoted from all classified blocks within these wireframe solids above a lower cut-off grade of 0.4% V₂O₅%. Differences may occur due to rounding.

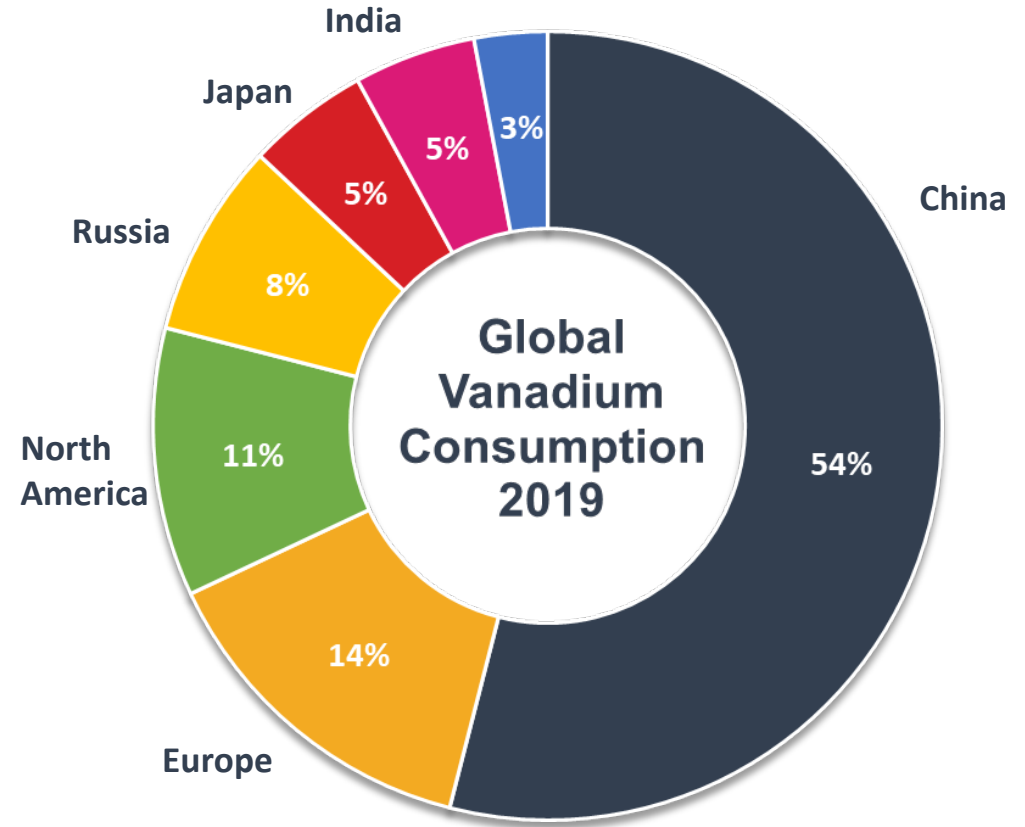
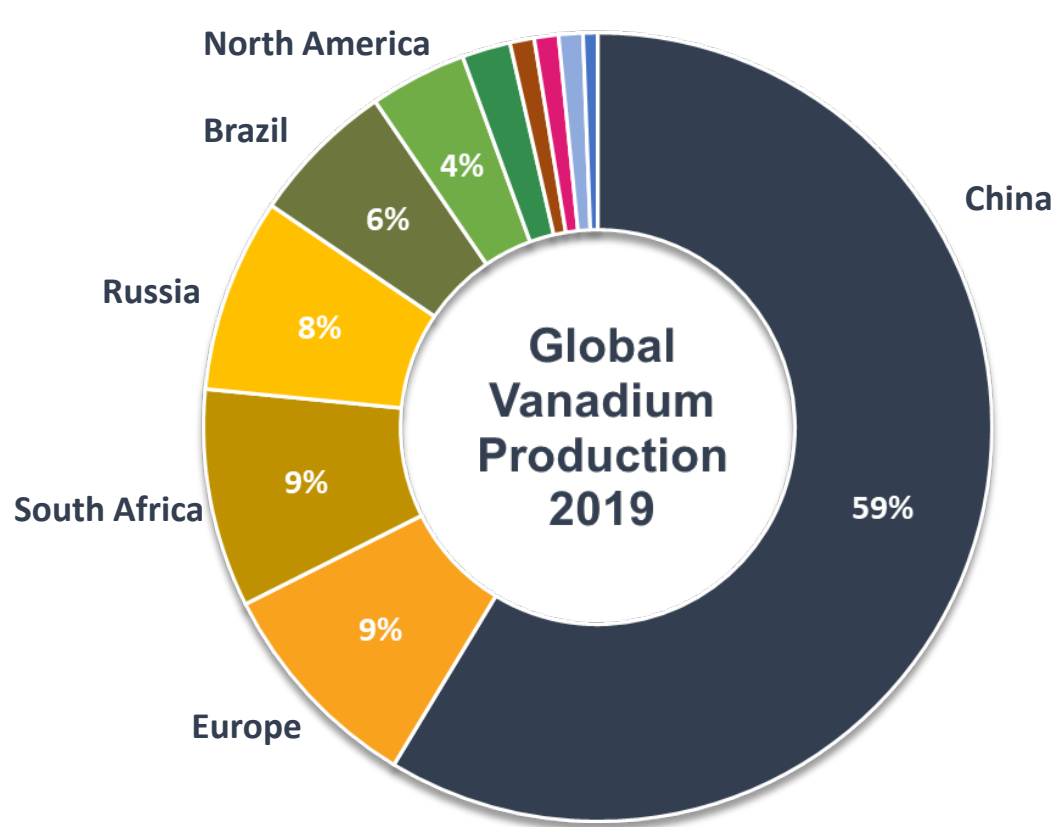
* – Refer TMT ASX announcements dated 29 March 2019 and 1 July 2020 for full details of the mineral resource estimation.

CMB CIRCUIT



Gabanintha Schematic Flow Sheet Block Diagram

Vanadium Supply / Demand



- Europe, North America, Japan and India net importers.
- Indian consumption set to grow significantly in near to mid term.
- Currently no production from Australia