ANNOUNCEMENT

17 November 2022

Neometals
All the right elements

ROBUST OUTCOMES FROM BARRAMBIE TITANIUM PROJECT PFS

HIGHLIGHTS

- **Neometals completes Class 4 Pre-Feasibility Study ("PFS") for production of titanium (ilmenite) and iron-vanadium concentrate from titanium-rich Eastern bands at Barrambie;**
- **Results confirm viability of commercialising Barrambie with potential to supply in excess of 500,000 tpa of high-quality supply constrained ilmenite in the first 10 years of the project;**
- **Average free cash (before tax, depreciation and amortisation) of AUD $136M p.a. over the first 10 years;**
- **Probable Ore Reserve of 44.5 Mt at 18.7% TiO_2, 44.1 % Fe_2O_3 and 0.61% V_2O_5;**
- **PFS assumes a simple mine, crush, mill and beneficiate operation to produce mixed gravity concentrate at Barrambie, followed by additional processing at a site with lower cost natural gas supply east of Geraldton; and**
- **The PFS confirms 'value-in-use' for Barrambie's product basket and supports dialogue with potential offtake partner Jiuxing.**

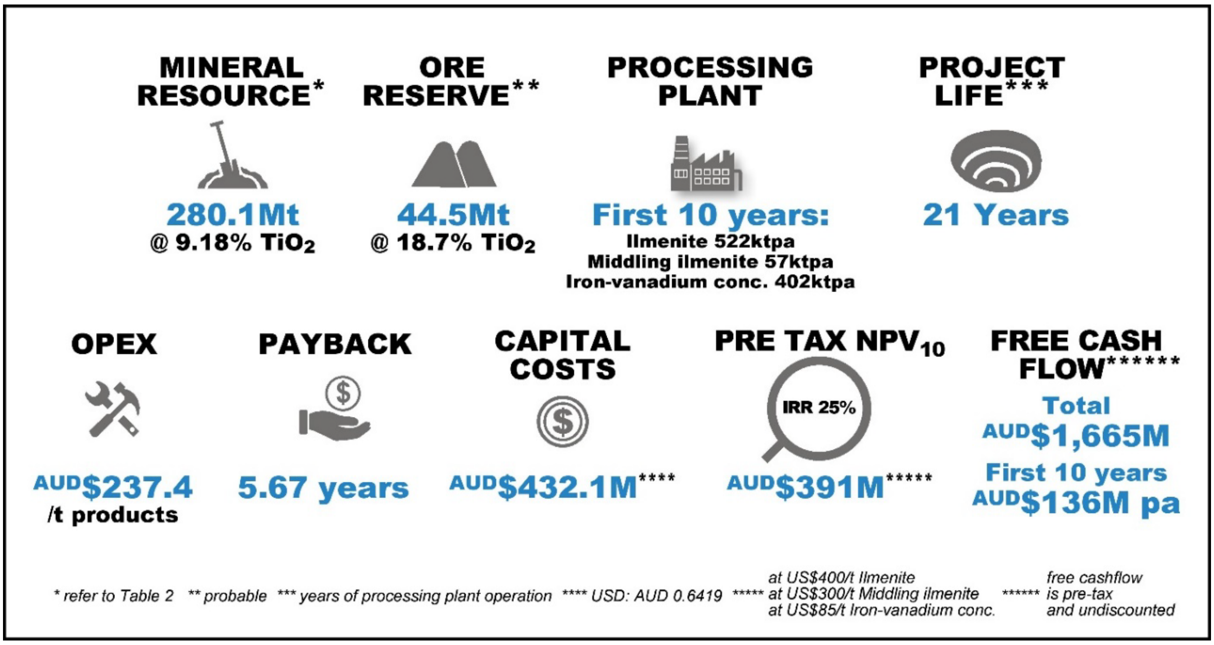

Figure 1 – *Highlights of PFS*

Emerging sustainable battery materials producer, Neometals Ltd (ASX: NMT & AIM: NMT) ("**Neometals**" or "**the Company**"), is pleased to announce the completion of an Association for the Advancement of Cost Engineering ("**AACE**") Class 4 +/- 25% PFS for the production of ilmenite and an iron-vanadium concentrate from its 100% owned Barrambie Titanium Project ("**Barrambie**").

Following recent successful smelting trial results[1], the PFS has delivered compelling financial metrics and these recent confirmatory milestones will support final offtake dialogues which are underway.

The PFS used the Neometals 2018 Mineral Resource Estimate[2] as a basis to establish Ore Reserves, estimated using the guidelines of the 2012 edition of the Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves ("**JORC Code (2012)**"). The Barrambie Mineral Resources reported are inclusive of Ore Reserves.

Neometals has invested in excess of $A40 million in the acquisition, exploration and evaluation of Barrambie since 2003. The Company has in more recent times maintained a primary focus on recovering a titanium product from Barrambie to realise maximum value for shareholders. The PFS assumes a mine, crush, mill and beneficiate ("**CMB**") option at Barrambie on predominantly Eastern Band titanium-rich mineralisation to produce a mixed gravity concentrate ("**MGC**") (Figure 2). MGC would then be subject to a low-temperature reduction roast ("**LTR**") and magnetic separation at a second site alongside the Dampier to Bunbury Gas Pipeline ("**DBNGP**") east of Geraldton to produce separate ilmenite and iron-vanadium concentrate streams (see Figure 3). Prior Neometals strategic evaluations assumed direct sale of MGC to potential off-takers however this PFS and the associated Ore Reserve estimates have been based on the LTR option. The LTR pathway can utilise readily available product market indices to provide a robust pricing basis for the PFS financials and will support final binding offtake dialogue.

Chris Reed, Neometals Managing Director said:

"*These results highlight the robust potential economics for Barrambie's development. The PFS financial metrics, alongside the recently announced positive commercial smelting results, underpin our ongoing discussions with potential offtake partner Jiuxing. Barrambie is a unique tier 1 project that offers a range of development alternatives including staged development with the possibility of direct shipping of ore, ("**DSO**"), beneficiation of ore into mixed gravity concentrate or further processing of MGC to produce separate ilmenite and vanadium rich iron products (the latter being the basis of the PFS). The potential to bring in excess of 500,000 tpa of high-quality ilmenite to the market has high strategic value.*"

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[1] For further details see Neometals announcement titled "Successful Commercial-Scale Smelting Trials for Barrambie" dated 2nd November 2022.

[2] For further details see Neometals announcement titled "Updated Barrambie Mineral Resource Estimate" dated 17th April 2018.

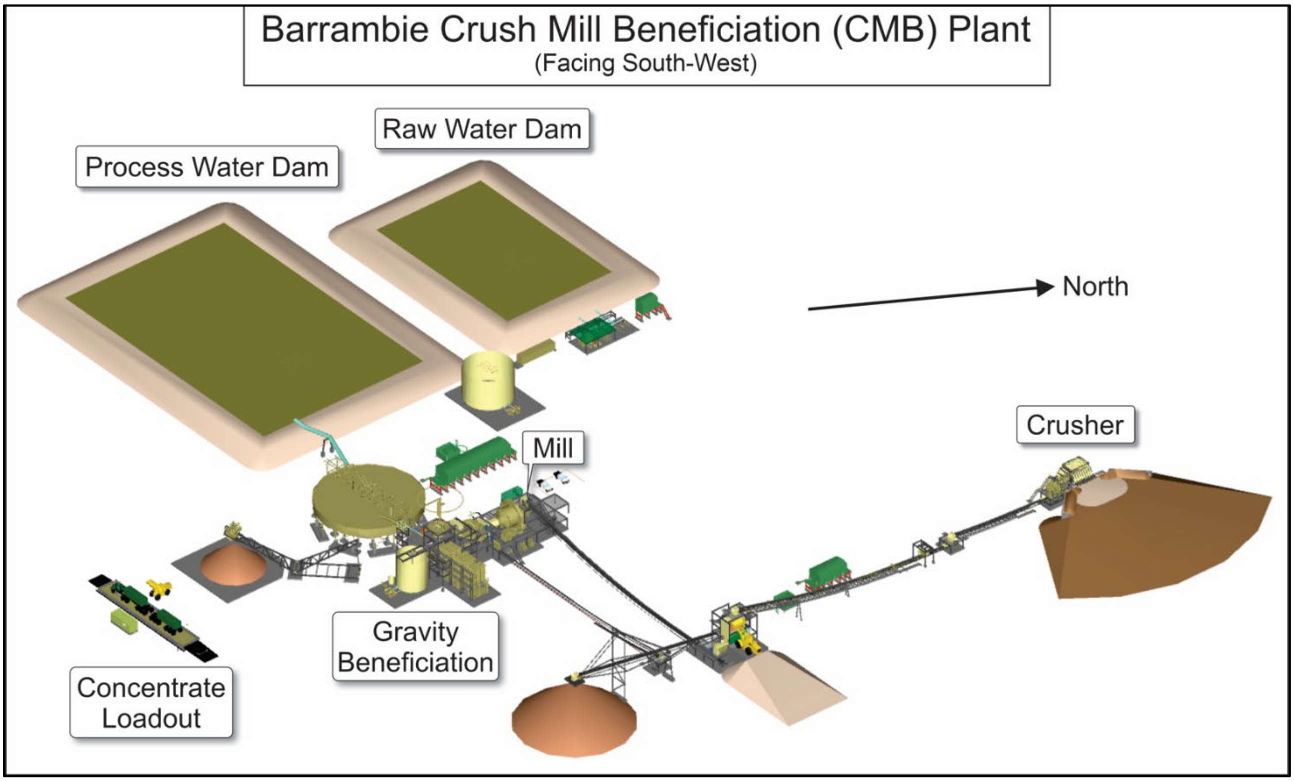

Figure 2 – *3D Representation of Barrambie CMB Site*

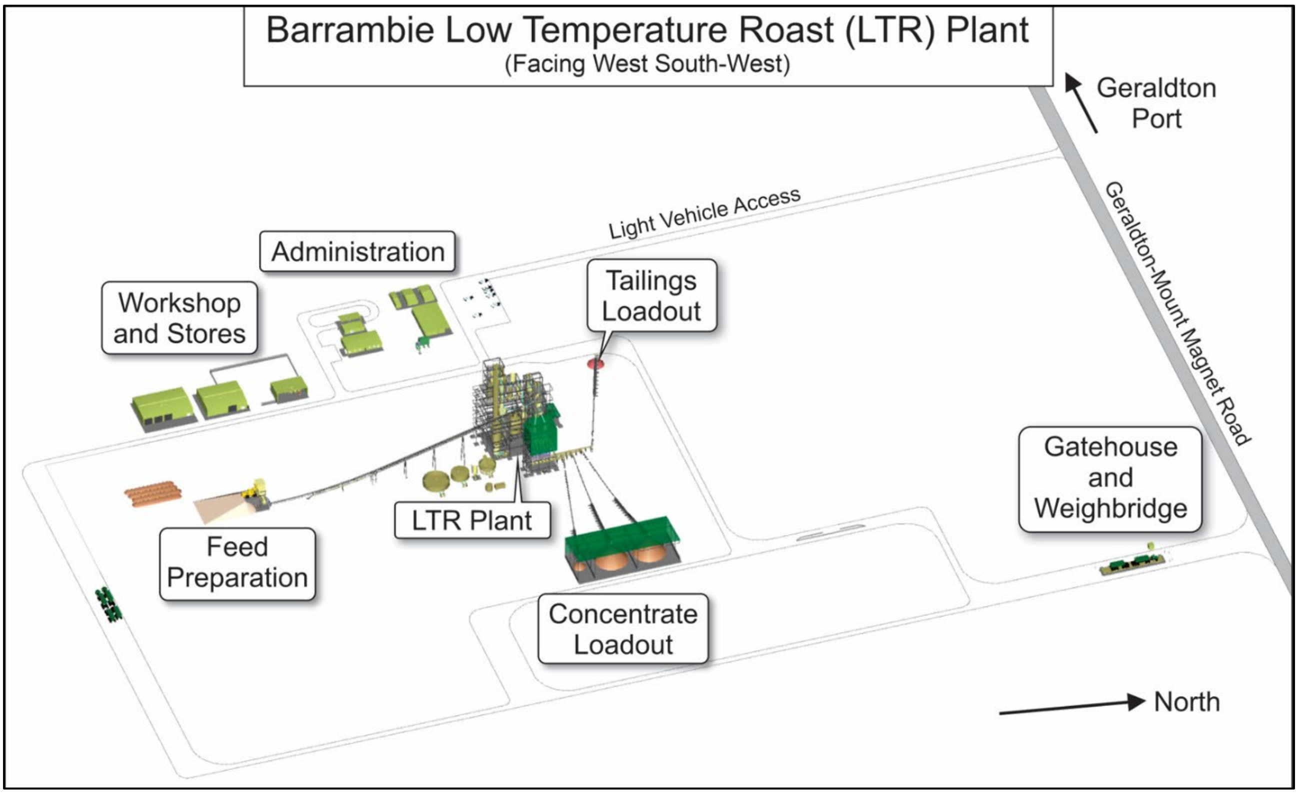

Figure 3 – *3D Representation of Barrambie LTR Site near DBNGP*

BACKGROUND

As previously announced[1] a mixed gravity bulk sample from Barrambie mineralisation was successfully smelted at industrial scale with other commercially available titanium sources to produce +90% TiO_2 chloride grade titanium slag (an intermediate product for production of pigment) with potential offtake partner Jiuxing Titanium Materials (Liaonging) Co. Ltd ("**Jiuxing**"). With the completion of the PFS estimate for Barrambie, negotiation on a binding formal offtake can now begin for cornerstone offtake with Jiuxing according to the Memorandum of Understanding ("**Jiuxing MoU**") [3,4] currently in place. Cornerstone offtake is a key pillar in Neometals' Barrambie strategy of deriving value from the titanium, vanadium and iron Mineral Resource on a capital light basis.

The Jiuxing MoU contemplates a path to a formal offtake agreement where Neometals supplies a MGC or separate ilmenite and iron-vanadium concentrates from Barrambie to Jiuxing. Specifically, the MoU outlines an evaluation regime and contains the key commercial terms for a formal offtake agreement (i.e. pricing, volumes, price floor etc.), subject to product evaluation from smelting trials (now complete). The Jiuxing MoU contemplates the parties negotiating and entering into a binding formal offtake agreement for the supply of 800,000 dry tonnes per annum ("**dtpa**") of MGC or 500,000 dtpa of ilmenite and 275,000 dtpa of iron-vanadium concentrate, on a take-or-pay basis for a period of 5 years from first production.

It is important to note that the PFS engineering capital and operating cost estimations have considered all aspects of the Barrambie value chain from a simple DSO option, a beneficiation option to make MGC, and an option to LTR the MGC and separate into ilmenite and iron-vanadium concentrate streams. Specifically, the PFS estimate has been structured to report on the operating and capital costs of the above start up scenarios which could be funded and brought into production on a staged basis. The negotiations with Jiuxing will consider all the start-up scenarios.

Table 1– Typical assay qualities of the various Barrambie product options

	DSO	MGC	LTR Barrambie Ilmenite	LTR Barrambie Middling Ilmenite	LTR Barrambie Fe / V Concentrate
Composition	**1st 10 years**	**1st 10 years**	**Typical**	**Typical**	**Typical**
TiO_2 (%)	23.2	33.4	52.0	48.0	13.0
V_2O_5 (%)	0.6	0.7	0.40	0.6	1.58
Fe_2O_3 (%)	44.2	60.6	47.0	50.0	84.2
SiO_2 (%)	15.7	2.65	2.0	2.5	2.6
Al_2O_3 (%)	10.3	1.8	1.0	1.3	1.8

The Neometals early contractor engagement process is underway and the PFS will form a key component of the due diligence required by a successful 'build-own-operate' partner. This development model was used successfully by Neometals and its partners to advance the Mt Marion Lithium Project in 2015, which is now the world's second largest producer of spodumene (hard-rock lithium) concentrates; (Neometals sold its final equity position in the project in 2019 and its offtake right in 2021). The benefit of a staged development approach is that the DSO/MGC operation could begin to generate cashflow with a build-own-operate partner whilst parallel Neometals constructs the LTR plant in parallel on an owner/operator basis. MGC is a lower titanium grade intermediate feedstock, which if required can be blended with higher titanium grade ilmenites coming from other sources like traditional mineral sand operations. Jiuxing have expressed interest in a MGC product. MGC and ilmenites can be used as smelting feedstock to produce titanium slag. The slag then being used as a downstream feedstock to product titanium pigment or metals.

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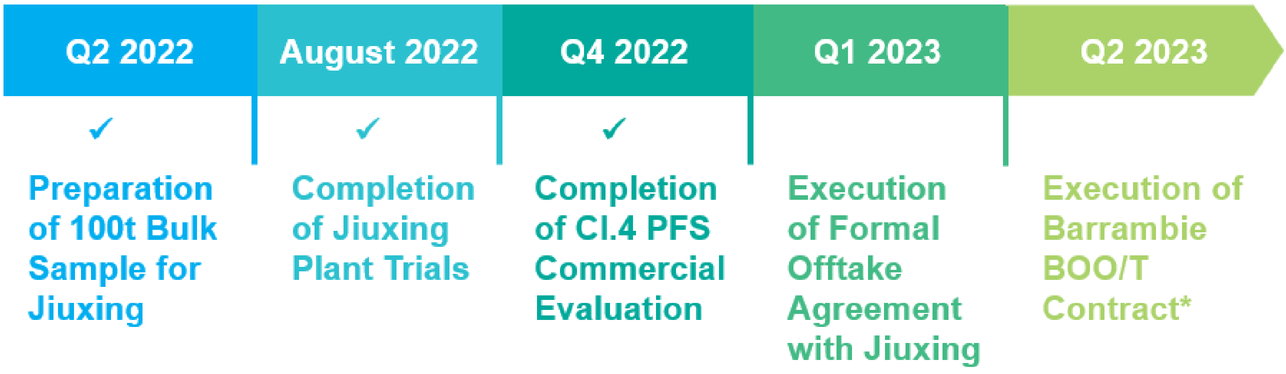
[3] For further details see Neometals announcement titled "Barrambie - MOU for Cornerstone Concentrate Offtake" ("Jiuxing MoU") dated 16th April 2021.

[4] For further details see Neometals announcement titled "Barrambie Pilot Plant and Offtake update" dated 23rd December 2021.

A potential staged development approach (DSO then MGC followed by LTR to produce separate chloride-grade, ultralow-impurity ilmenite and a high-vanadium iron concentrate), will enable NMT to consider the optimal financial outcome by staging capital investments for earlier project cashflows. Neometals has produced chloride grade slag from the smelting of 100% Barrambie LTR ilmenite at IMUMR previously[5] reducing marketing risk and enabling offtake in a global market with transparent pricing. The high-vanadium iron concentrate can be used as feedstock for a typical primary vanadium salt-roast-leach operation or for blending with typical iron ores in a blast furnace. Vanadium is a common hardening alloy of modern steels.

The project execution in Figure 4 shows an indicative timeline of next steps for the development of Barrambie.



*Subject to successful Jiuxing offtake agreement and Board Approval

Figure 4 – *Indicative Timeline – Barrambie*

PRE-FEASIBILITY STUDY OUTCOMES

<u>Mineral Resources</u>

Independent geology and mining consultants Snowden Optiro used the Barrambie Mineral Resource Estimate as reported on 17th April 2018[2] as a basis to undertake a detailed mine planning process and to estimate and report on the November 2022 Ore Reserve in accordance with the JORC Code (2012).

The Mineral Resource estimate contains total Indicated and Inferred Mineral Resources of 280.1 million tonnes at 9.18% TiO_2 and 0.44% V_2O_5 to a maximum depth of 80m, reported above a cut-off grade of 10% TiO_2 or 0.2% V_2O_5.

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[5] For further details see Neometals announcement titled "Quarterly Activities Report for the quarter ended 30 June 2021" dated 31st July 2021.

Table 2 – Barrambie Project Mineral Resource Estimate as at April 2018 [1, 2]

Classification	Domain	Oxidation	Tonnes Mt	TiO_2 %	V_2O_5 %
Indicated	Central	Strongly oxidised	112.6	6.71	0.44
		Weakly oxidised	28.1	7.21	0.47
		Fresh	6.8	6.47	0.40
	Central sub-total		**147.5**	**6.80**	**0.45**
	Eastern	Strongly oxidised	26.4	19.68	0.50
		Weakly oxidised	10.0	21.45	0.56
		Fresh	3.2	19.14	0.47
	Eastern sub-total		**39.6**	**20.09**	**0.51**
Indicated Total			**187.1**	**9.61**	**0.46**
Inferred	Central	Strongly oxidised	16.0	5.32	0.39
		Weakly oxidised	18.3	6.02	0.41
		Fresh	38.8	5.76	0.38
	Central sub-total		**73.1**	**5.73**	**0.39**
	Eastern	Strongly oxidised	6.5	15.19	0.36
		Weakly oxidised	5.1	18.80	0.47
		Fresh	8.3	19.18	0.45
	Eastern sub-total		**19.9**	**17.78**	**0.42**
Inferred Total			**93.0**	**8.31**	**0.40**
Grand Total			**280.1**	**9.18**	**0.44**

1. *Reporting criteria: ≥ 10% TiO_2 or ≥ 0.2% V_2O_5; small discrepancies may occur due to rounding*
2. *Mineral Resources reported are inclusive of Ore Reserves*

Mining and Ore Reserves

Snowden Optiro completed a PFS-level mining study for the Barrambie Project based on the proposed plant process flowsheet.

During the PFS stage of work, Snowden Optiro's scope of work included the work areas outlined below:

- Mine Planning Criteria
- Optimisation
- Mine Design and Scheduling
- Study Reporting
- JORC Code (2012) Ore Reserve estimation and reporting

Mining of the Barrambie deposit will be completed with conventional excavator and truck, supported by ancillary fleet with all works provided by a professional mining contractor including mobile plant, maintenance and drill and blast. The mining fleet was scoped utilising 250 t and 120 t excavators matched with 140 t trucks. It is anticipated that all material will require drill and blast with an average powder factor of 0.33 kg/bcm, increasing within the harder rock zones. Grade control drilling with angled reverse circulation drilling will be conducted as required. The orebody consists of multiple steep dipping lodes which will need to be mined selectively on 2.5 m flitches within the central ore zones to minimise dilution and 5 m flitches within the eastern ore zone and waste zones. Ore will be hauled to a central ROM and fed into the ROM bin using a front-end loader. Low grade ore will be stockpiled on the surface before rehandling to the ROM later in the mine life. Waste rock will be hauled to planned external waste rock landforms.

Dilution and ore loss was applied by re-blocking the Mineral Resource model to 2.5 m E by 10m N by 5 m RL. This was deemed to be an appropriate selective mining unit ("**SMU**") when considering blast movement, grade control patterns and loading accuracy. Figure 5 shows an example cross section through the proposed pit.

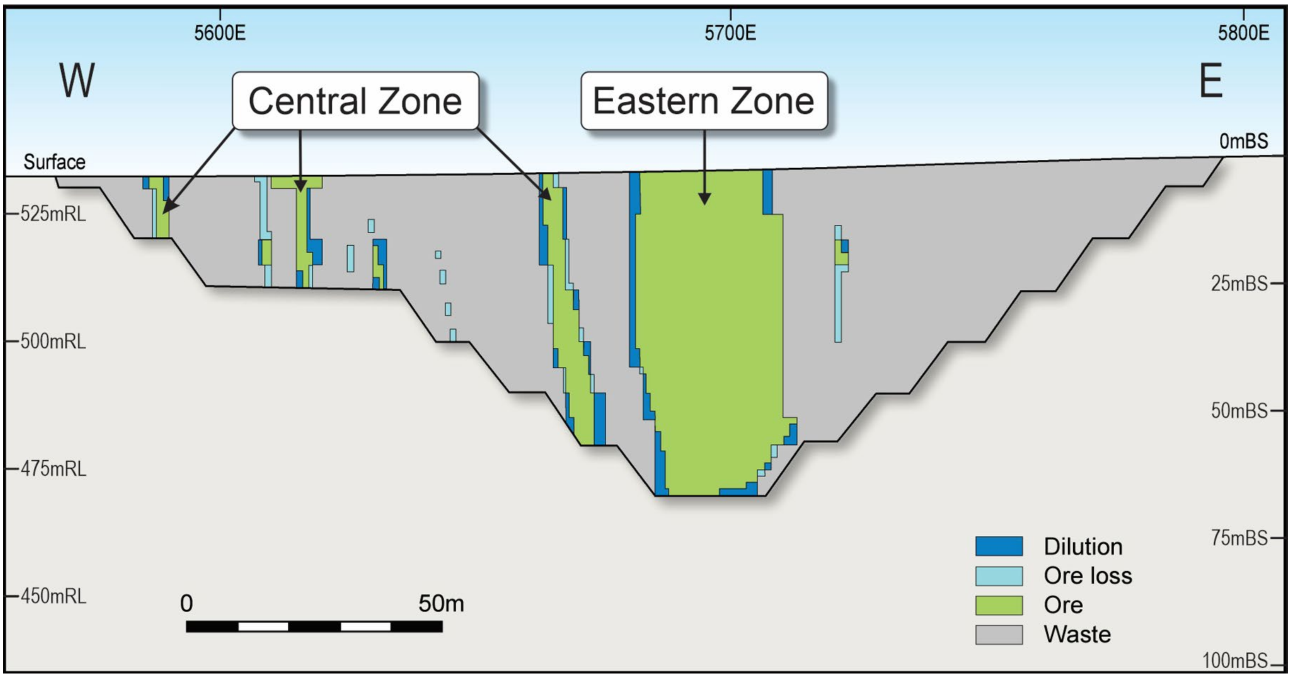

Figure 5 – *Section showing Dilution and Ore Loss (12,060m N local grid) within the pit-shell*

Table 3 summarises the dilution and ore loss resulting from the re-blocking process. The narrower lodes in the Central zone incur most of the ore loss and dilution.

Table 3 – Dilution and Ore Loss by Geological Zone

Item	Eastern	Central	Overall
Ore loss (% of tonnes lost)	1.5	18.5	6.7
Dilution (% tonnes increased)	3.0	27.3	10.4

A pit optimisation was performed and subsequent ultimate and staged pits were designed from Indicated Mineral Resources only. Key parameters used as part of the pit optimisation process included (but are not limited to):

- Assumed average of 2.18 Mtpa of ore processing.
- A selling price (CIF China) of
  - USD $400/t ilmenite
  - USD $300/t middling ilmenite
  - USD $85/t iron-vanadium concentrate.
- Average mining costs (inclusive of incremental ore costs) of AUD $4.72/t ex-pit derived from submissions received from a reputable mining contractor.
- Concentrator recovery varies by zone and input chemistry based on work completed. The average concentrator recoveries are 49.3% mass yield and 78.2% TiO_2.

- LTR recoveries are dependent on the MGC TiO_2 concentrate grade. On average 39.7% of the MGC mass is recovered to the ilmenite product.
- Average CMB plant cost of $19.30/t ore and MGC transport cost to LTR site of $55.32/t MGC.
- Average LTR processing costs of $28.45/t products and transportation to Geraldton port of $14.57/t products.
- Port storage, ship loading, international freight & insurance of $46.28/t products.
- State government and other royalties of 7.5%.

An Ore Reserve of 44.5 Mt at 18.7% TiO2 (Table 4) was estimated using the Guidelines of the 2012 Edition JORC Code through the selection of positive cash flow blocks within the final pit design.

Table 4 – November 2022 Barrambie titanium Ore Reserve estimate

Ore Reserve Category	Ore Tonnes (Mt)	TiO_2 (%)	V_2O_5 (%)	Fe_2O_3 (%)
Probable	44.5	18.7	0.61	44.1

Cut-off is based on net value (revenue minus selling, processing, administration and incremental ore mining costs) > $0/t on a diluted block-by-block basis from the parameters used in the pit optimisation. Ore Reserves reported are within the Mineral Resource estimates. This relates roughly to a 10% TiO_2 cut-off.

The life-of-mine strip ratio for the Ore Reserve pit design is 2.0:1 (waste:ore). The proposed resultant site layout is shown in Figure 6. Infrastructure requirements for open pit mining include a maintenance workshop for all mobile equipment, offices, crib rooms and amenities, fuel farm, water dams, and de-watering systems as required.

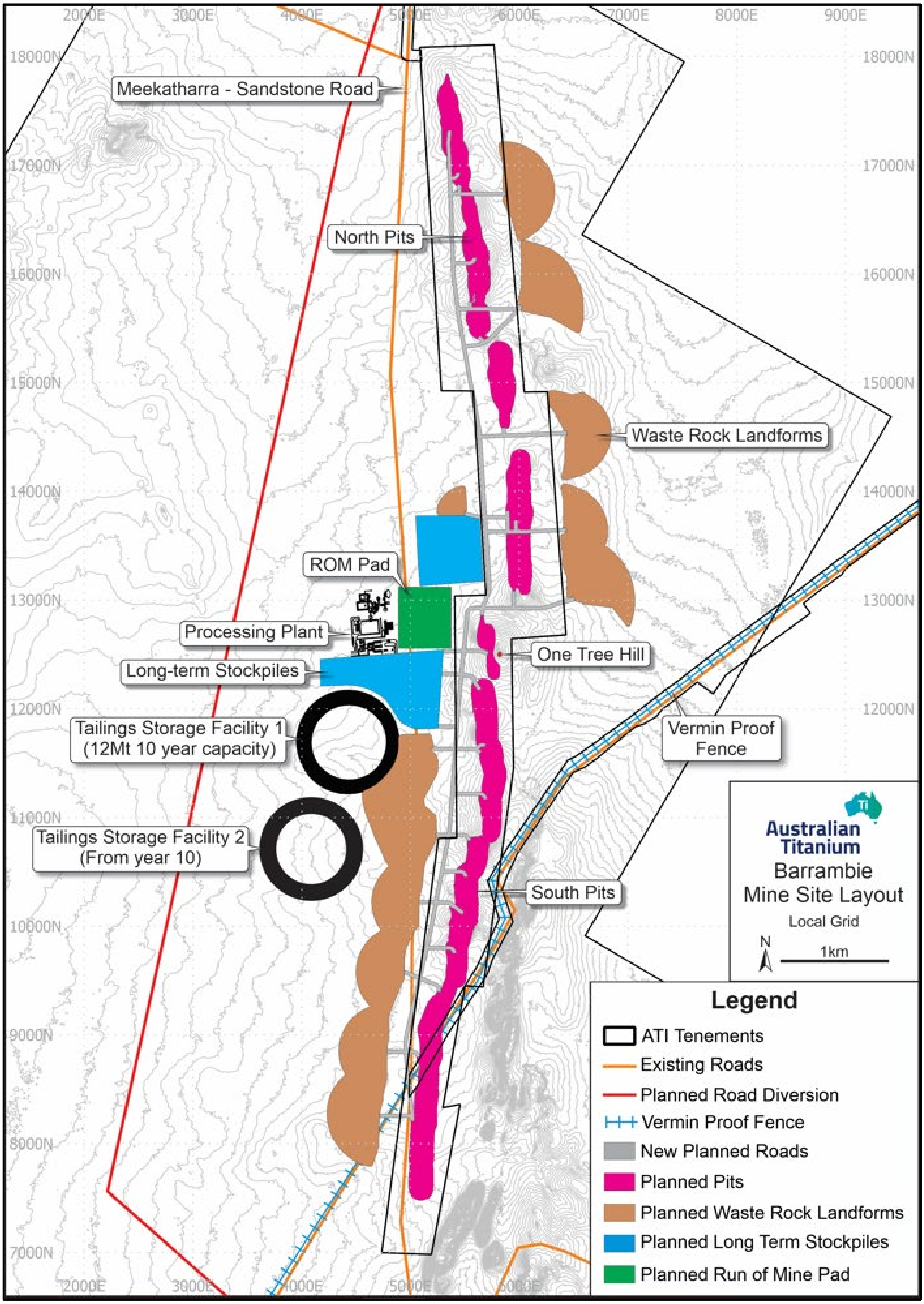

Figure 6 – *Overall Barrambie Mining Site Layout (local grid)*

The mine processing schedule (Figure 7) was based upon a maximum crusher feed capacity of 2.18 Mtpa and LTR feed rate of 1.23 Mtpa. The schedule considered:

- Maximisation of revenue through early high-grade mining and related higher metallurgical recovery
- A variable sinking rate equating to about eight 5 metre benches per annum
- Smoothed overall mining rate

There is approximately one month of pre-production mining that supplies construction waste and ore feed for plant commissioning. Mining commences in both the north and south and ramps up to 12.0 Mtpa before reducing to approximately 10.0 Mtpa for the majority of the 12 year mine life. This mining rate allows low-grade ore to be stockpiled which brings forward value. Stockpiles are depleted for the remaining eight years of the operation. The processing operations will be for a total of 20.9 years.

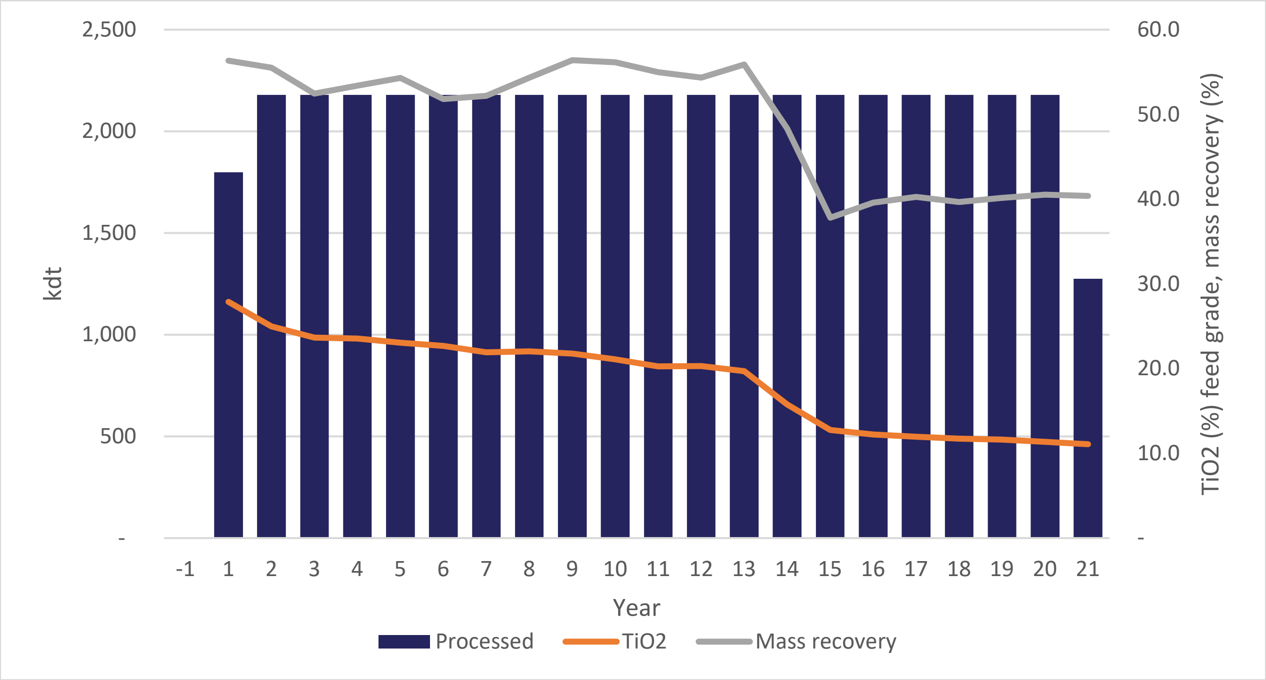

Figure 7 – *Barrambie CMB feed Process Schedule*

The mining operation, at its peak will use:

- One 250 t Hitachi EX2500-6 Excavator
- One 120 t Komatsu PC1250 Excavator
- Nine CAT 785C 140t Dump Trucks
- Two CAT D10 Dozers
- One Cat 16M Grader
- One Cat 777 Water Cart
- One Volvo 8x4 Service Truck
- Five Epiroc SmartROC T45 production drill rigs
- Manning of up to 94 persons across three crews including management staff, operators, and maintenance.

The mining cost inputs (including Drill and Blast) are based on current market pricing received from mining contractors' submissions for the pit design determined by Snowden Optiro.

These costs are summarised in Table 5 below:

Table 5 - Barrambie Mining Cost Summary

Item	$M	$ / BCM Mined	$/t Feed to CMB
Mining Establishment			
Site Establishment	$0.49	$0.01	$0.01
Mobilisation	$0.69	$0.01	$0.02
Variable Costs			
Mine Development	$2.30	$0.04	$0.05
Blasthole Drilling	$62.12	$1.08	$1.40
Blasting	$81.06	$1.41	$1.82
Load & Haul	$386.06	$6.73	$8.68
Rehandle	$2.23	$0.04	$0.05
Fixed Cost	$59.71	$1.04	$1.34
Demobilisation	$0.48	$0.01	$0.01
Total	**$595.14**	**$10.38**	**$13.38**

Metallurgical Test Work

In 2020, drilling to collect material for the metallurgical bulk samples from both the eastern and central zones comprised 88 reverse circulation (RC) holes for 6,337 metres. Of this drilling 255 samples from 15 holes were combined to make a 7 tonne bulk sample of eastern zone material to use in beneficiation bench scale work.

Metallurgical testwork (conventional gravity separation, reduction roasting and magnetic separation) was completed on the 7 tonne bulk composite sample of Eastern zone material to generate separate ilmenite and iron-vanadium product streams[6].

Beneficiation overall mass pull to concentrate was typically around 58% with recoveries of TiO_2 and V_2O_5 to gravity concentrate of around 77% and 63% respectively.

Low-temperature reduction roasting and subsequent magnetic separation of the beneficiated concentrate produced a high-quality ilmenite (> 52% TiO_2 content) at high recoveries (> 87% TiO_2 recovery) and mass yield of 60%, and a marketable magnetite by-product iron vanadium concentrate (with grades equivalent to 58.7% Fe and 1.58% V_2O_5).

The results of the bench scale reduction roasting and magnetic separation testwork were further ratified by testwork with IMUMR at Pilot scale[6].

During 2021 and 2022 further confirmatory metallurgical testwork was completed to confirm:

- Selection of beneficiation circuit produce MGC from Barrambie mineralisation
- Variability testing of the selected beneficiation circuit
- Development of a mass balance spreadsheet and process design criteria
- Preparation of a process flow sheet for use in engineering design
- Development of a relationship between ore grade and concentrate recovery, produced for estimating the value of each mining block of ore and to support the development of the mining plan

The flowsheet which was developed from the metallurgical testwork is summarised by the following figure.

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[6] For further details see Neometals announcement titled “Barrambie Flowsheet Breakthrough” dated 22nd December 2020.

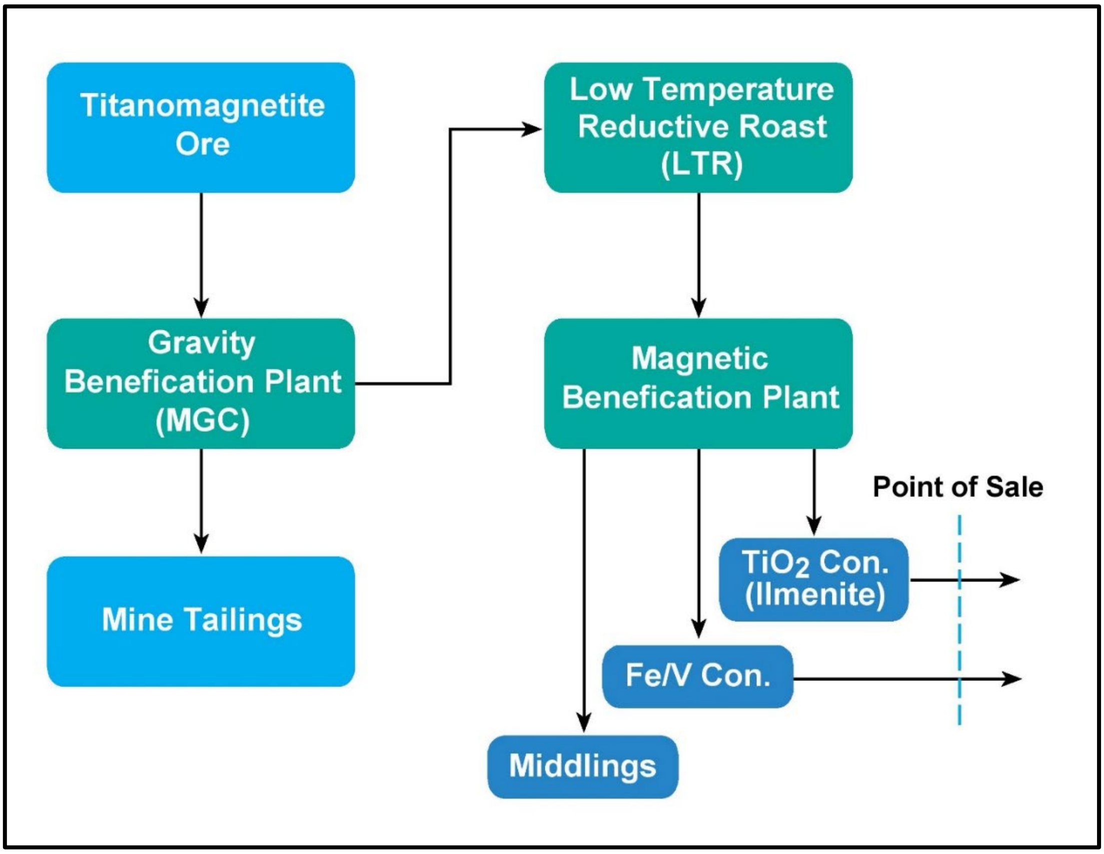

Figure 8 – *Schematic of Barrambie Flowsheet*

The product stream compositions from the testwork are shown below.

Table 6 – Chemical composition data for Barrambie ilmenite and iron-vanadium concentrate

	Barrambie Ilmenite	**Barrambie Middling Ilmenite**	**Barrambie Iron-Vanadium Concentrate**
Composition	**Typical**	**Typical**	**Typical**
TiO_2 (%)	52.0	48.0	13.0
V_2O_5 (%)	0.40	0.60	1.58
Fe_2O_3 (%)	47.0	50.0	84.2
Al_2O_3 (%)	1.0	1.3	1.8
SiO_2 (%)	2.0	2.5	2.6
CaO (%)	0.05	0.06	0.07
MgO (%)	0.17	0.15	0.12
MnO (%)	0.42	0.4	0.12
K_2O (%)	0.01	0.01	0.01
Nb_2O_5 (%)	<0.01	<0.01	<0.01
P_2O_5 (%)	<0.01	<0.01	0.02
SO_3 (%)	0.01	<0.01	<0.01
Th (ppm)	<10	<10	<10
U (ppm)	<10	<10	<10

Overall Mineral Recoveries

Overall recoveries from ore for the PFS are summarised in Table 7 below:

Table 7 –Mass Yield and Titanium Recoveries from Ore

	First 10 years		**Processing Life (20.9 years)**	
	Yield %	TiO_2 Recovery %	Yield %	TiO_2 Recovery %
MGC	54.2%	78.1%	49.3%	78.2%
Ilmenite (combined)	27.0%	60.1%	19.6%	53.9%
Iron-Vanadium Concentrate	18.8%	N/A	21.5%	N/A

The following key correlations were used to provide a relationship between the mineralisation in the Barrambie Mineral Resource and key processing parameters and outputs:

Table 8 – Correlations of the form y = mx + c

Y	X	M	C
MGC Mass Yield %	TiO_2 + Fe(0) in mineralisation	1.07	-3.86
MGC TiO2 %	TiO_2 / Fe_2O_3 in mineralisation	40.43	12.01
LTR Ilmenite Mass %	TiO_2 % in MGC	2.868	-50.37

Processing Facilities

Process Design

The prime objective has been to develop a safe, efficient, economic and robust process plant to produce a MGC product via crushing, milling and gravity beneficiation from the mined ore. In line with the mass balance and flowsheets the plant has been designed to treat 2.18 Mtpa of ore to produce 1.23 Mtpa of MGC. The final product from the CMB plant is road hauled to the LTR Plant for further processing.

The primary objective of the LTR is to enable the upgrade of the MGC into two products; an ilmenite and a vanadium rich iron concentrate. The ilmenite product can be supplied as feedstock to sulphate or chloride route production processes for pigment or titanium metal. The iron-vanadium concentrate product is feedstock to iron blast furnace, or vanadium extraction via salt roast-leach processes.

From the LTR plant a small fraction of non-magnetic gangue minerals and high silica middlings are rejected to tailings. This material will be returned to the Barrambie mine site.

The overview block flow diagram in Figure 9 summarises the key unit operations for the CMB plant at Barrambie and Figure 10 the key unit operations for the LTR plant.

Design Criteria for CMB plant include:

- Design life - structures - 50 years; mechanical plant - 20 years
- Operating regime - 24 hours/day, seven days/week basis, nominally 8,000 hours/year, allowing 760 hours for scheduled and un-scheduled maintenance works
- On-site ore beneficiation to create a high titanium, low silica (<2.65% SiO_2) concentrate
- Crushing and milling circuit, deslime circuit, concentrator and dewatering and slimes circuit
- MGC concentrate to be deslimed to < 3% of 75 µm material

Design Criteria for LTR plant include:

- Design life - structures - 50 years; mechanical plant - 20 years
- Operating regime - 24 hours/day, seven days/week basis, nominally 8,000 hours/year, allowing 760 hours for scheduled and un-scheduled maintenance works
- Feed rate of 1.23 Mt/a of MGC with a production of 416 ktpa average combined ilmenite products (579 ktpa average in the first ten years) and 456 ktpa average iron-vanadium concentrate (402 ktpa average in the first 10 years) with product qualities as defined in Table 6
- Minor reject streams consist of magnetic and non-magnetic materials which are returned to Barrambie to be disposed of
- Ilmenite concentrate drying, combustion and indirect pre-heating, direct pre-heating, low temperature roasting and indirect cooling, direct cooling, magnetic separation, concentrate and tailings loadout and off-gas scrubbing.

An overview schematic of the CMB plant is shown below:

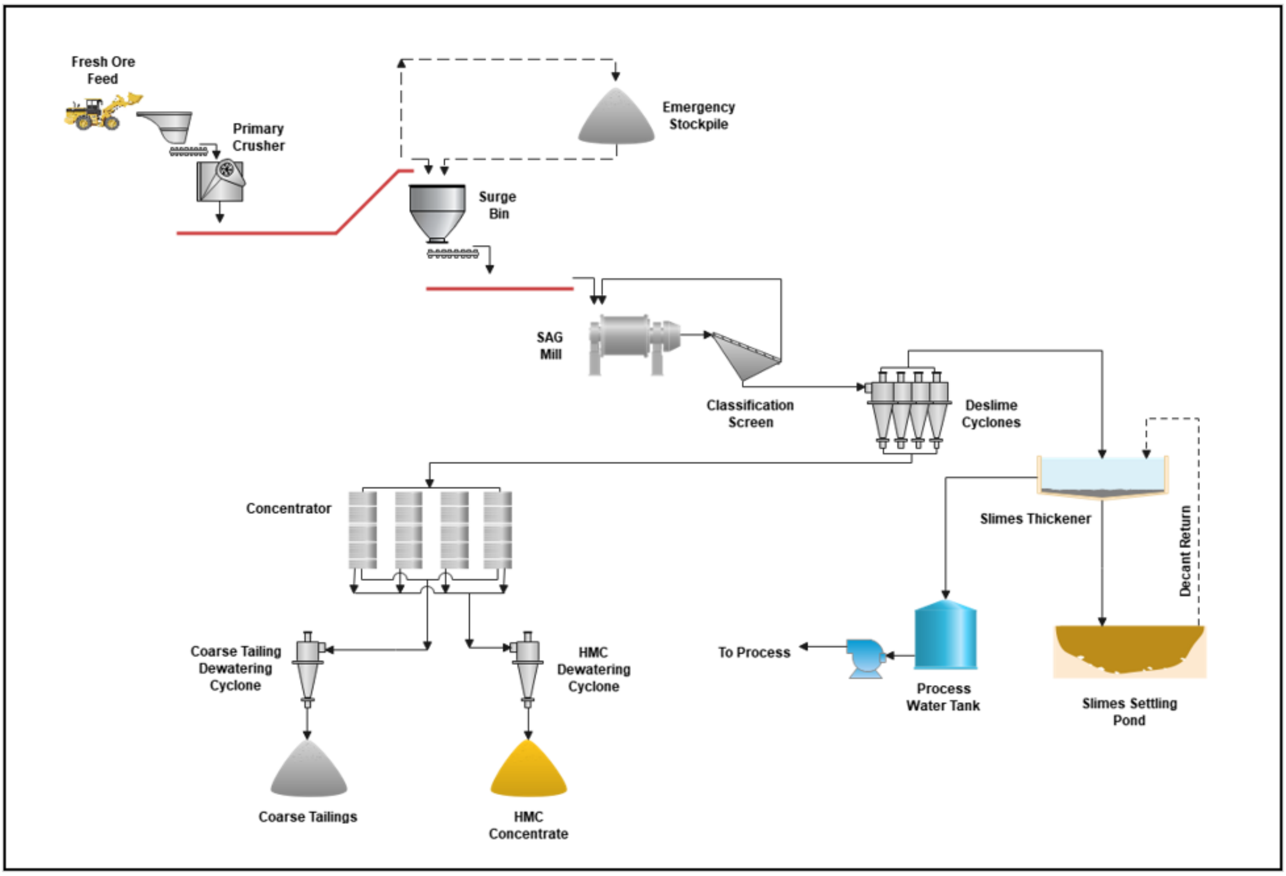

Figure 9 – *Overview Schematic of the CMB Plant*

An overview schematic of the LTR plant is shown below:

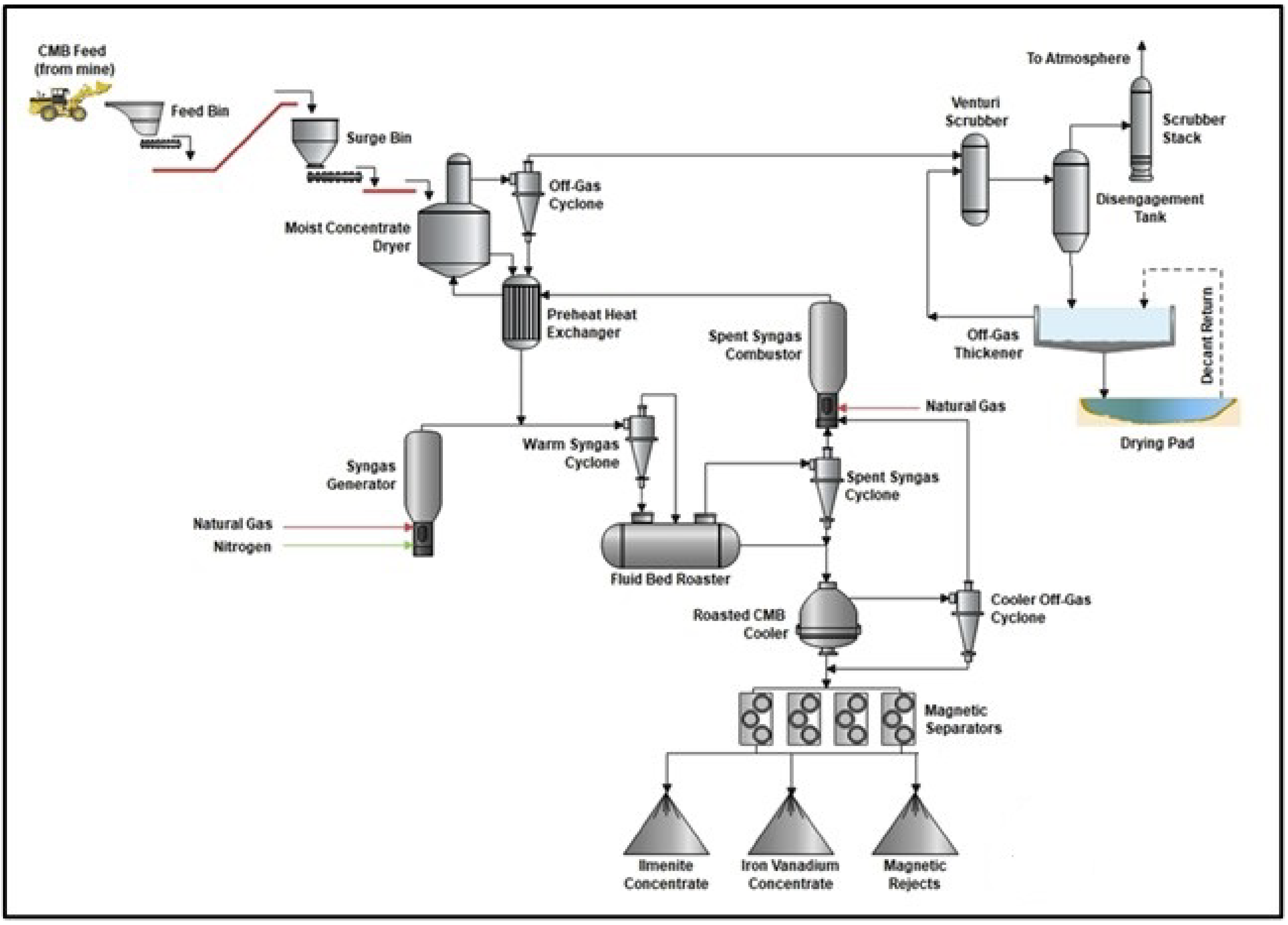

Figure 10 – *Overview Schematic of the LTR Plant*

The following table shows the planned ramp up rate of the CMB and LTR plants as used in the financial modelling for this PFS.

Table 9 – Ramp Rate

Month	1	2	3	4	5	6	7	8	9	10	11	12
CMB												
Ramp	50%	50%	50%	80%	80%	80%	100%	100%	100%	100%	100%	100%
LTR												
Ramp	0%	25%	25%	25%	50%	50%	50%	75%	75%	75%	100%	100%

Infrastructure Requirements

All local infrastructure required to construct, support and maintain the Barrambie operation will be supplied as part of the project development. With the exception of the existing Meekatharra to Sandstone Road, which will also require some level of upgrading, none of the required facilities, supplies or services are available in the local area. In addition, a portion of the Meekatharra Sandstone Road and the Vermin Proof Fence will require relocation prior to mining. This will require applicable regulatory approvals. Preliminary discussion with the Sandstone shire has been held. Infrastructure will be designed and constructed in a sequenced manner to ensure that those items of infrastructure required to service the construction works are in place and commissioned at an early stage and, where necessary, temporary facilities are in place to meet initial requirements. This is particularly relevant to the early supply of water, accommodation and communications.

Water Supply

For the CMB plant, subject to permitting, water will be supplied from the two bore-fields located approximately 25 km from the plant and pumped to a raw water pond. The bore-fields will source electric power from a local installed diesel generator set with overhead 11 kV distribution between bores. A HDPE pipeline will transfer water from the bore-fields pumping stations to the plant site at a nominal rate of 107 m^3/h, with a required annual supply of up to 2.0 Giga litres. Contingencies of alternate bore-fields and water supply have been considered.

For the LTR plant, subject to permitting, water will be supplied from one bore-field located approximately 5 km from the plant and pumped to a raw water tank. The bore-field will source electric power from a local installed diesel generator set. A DN100 PN16 pipe transfers water from the bore-field pump station to the plant site at a nominal rate of 50m^3/h creating estimated annual bore-field drawn down of 0.8 Giga litres.

Power Supply

For the CMB plant, a local Build-Own-Operate ("**BOO**") powerhouse (gas fired, with gas delivered in bullets) is proposed which will meet the demand for the process plant and village. The power station will comprise 3 individual 3.36 MW gas fuelled reciprocating engine powered generators. Twin 1 MW backup diesel generators are also included in the powerhouse for emergency black-start backup should the gas supply be interrupted. A solar PV farm of 8 MW and a Battery Energy Storage System (BESS) of 3.15 MW is installed to provide 30% Renewable Energy Penetration for a total installed capacity of 23.23 MW.

For the LTR plant, a local BOO provider will supply 3 individual 1.75 MW gas fuelled reciprocating engine powered generators. A total installed capacity of 5.25 MW is provided for the plant and supporting infrastructure.

Gas Supply

For the CMB power plant, Liquefied Natural Gas ("**LNG**") will be supplied to Barrambie in bullets and stored onsite and vapourised and used for power generation.

Natural gas will be supplied to the LTR plant, sourced from the DBNGP. A 15 km pipeline to site will be constructed by the gas supplier from an offtake near DBNGP and the allowance for this cost has been included in the gas cost.

Village

To accommodate the workforce at the Barrambie mine site a self-contained accommodation village will be established to a standard commensurate with good industry practice. Based on currently forecast workforce numbers and working rosters the village will comprise 180 individual ensuite rooms with supporting facilities and infrastructure.

For the LTR plant the workforce will be residential from Geraldton or other communities within a commutable distance and hence no village accommodation is required.

Roads

The Meekatharra Sandstone Road for the CMB plant runs alongside the mining lease and is a dual lane unsealed road maintained by the local Shires. It is anticipated that road transport will be from the south and will access the site leaving sealed arterial roads at Sandstone and travel north-west along the unsealed Meekatharra Sandstone Road a distance of approximately 70 km. Upgrade of this section of the road has been budgeted for with particular attention being given to improving the numerous floodways across the road. It is also planned that portions of the Meekatharra-Sandstone Road adjacent to the mining lease be moved to allow optimal location of supporting infrastructure for processing operations and waste landforms. This work will require regulatory approvals which are to be investigated further.

Aerodrome

The Barrambie project will operate with a majority fly in-fly out workforce based in Perth WA. To service this workforce existing aerodromes at Sandstone or Meekatharra will be required to handle an estimated 2-3 return passenger flights per week.

Hydrology and Hydrogeology

Dewatering

Groundwater in the vicinity of the mining and processing operations typically occurs at a depth of around 35 m below ground level as indicated by Mineral Resource drilling. As the proposed mining will typically be to a depth of between 50 m and 60 m some groundwater abstraction for mine dewatering will be required. Dewatering will be achieved through either sumps established within the pits, or a systematic approach of dewatering using bores within and surrounding the pits, to maintain dry mining conditions. Any water collected in the pits or ground water abstracted ahead of mining will be pumped to a water storage facility and used in the process plant. No water produced from mine dewatering will be discharged to the environment.

Tailings Management

In the CMB plant, coarse tailings are generated from the concentrate circuit. The tails slurry will be pumped to the Heavy Material Concentrate ("**HMC**") dewatering cyclone cluster and placed onto a stockpile. A haul truck will transport the waste material back to the mine site waste landforms.

The slimes materials, (< -75 µm) is pumped from the slimes thickener underflow to the slimes settling pond. The circuit tails (543 kt/a solids) will be pumped to storage as a nominal 45% solids w/w slurry. The tails storage facility ("**TSF**") slimes settling pond will be a single cell, integrated waste landform type facility, constructed within a waste landform. The dam will include a decant return water pump for water recovery. A second TSF will be required from year 12.

In the LTR plant, the off-gas scrubbing circuit produces a small thickener underflow material which discharges onto a drying pad. This slurry will drain and sun-dry with partially dried solids being returned to the Barrambie mine site for disposal.

Geotechnical Investigation

The open pit geotechnical investigation programme for Barrambie undertaken in 2007/2008 was split into three phases and contains geotechnical data obtained from seven HQ3 and twelve PQ3 diamond drill holes comprising 1,269 m of diamond drill core. Phase 1 (P1) consisted of mineral resource evaluation drilling and metallurgical bulk sampling twinned with geotechnical data collection. Phase 2 (P2) and Phase 3 (P3) consisted of geotechnical drilling programmes designed to provide geotechnical data for the east and west walls of the potential open pits respectively.

Table 10 – Recommended Pit Slope Design Parameters for Barrambie P3 for 50m Deep Pit

No. of Bench	Batter Angle(º)	Berm Width at base of batter (m)	Batter Height (m)	Slope Height (m)	Overall Slope Angle crest to toe (°)
1	50	5	15	15	50
2	50	5	15	30	44.8
3	60	5	10	40	44.3
4	60	5	10	50	44

The PFS design recommendations presented apply to 50m high pit slopes developed entirely within strongly oxidised ("**SOX**") materials.

For deeper parts of the excavation with pit walls up to 80m high, where the pits penetrate the weakly oxidised ("**WOX**") and fresh ("**FRE**") materials, design parameters are provided in Table 11.

Table 11 – Recommended Pit Slope Design Parameters for Barrambie P3 for 80m Deep Pit

Batter Angle (º)	Berm Width at base of batter (m)	Batter Height (m)	Inter Ramp Slope Angle crest to crest (°)	Overall Slope Angle crest to toe (°)
55	7	10	35.5	38

Financial Evaluation

The production targets referred to in this announcement are based on 100% Probable Ore Reserves. The key parameters and financial outcomes for the PFS are set out below:

Table 12 – Summary of Key Parameters

Summary of Key Parameters from PFS Financial Model		
Life of Processing (LOP)	Years	20.9
LOM Ore Mined	Mt	44.5
LOM Waste Mined	Mt	89.0
LOM Strip Ratio	(waste:ore)	2.0
Average CMB Plant Feed Rate	Mtpa	2.14
Average Titanium Head Grade	% TiO_2	18.7
Average Titanium Recovery (Overall)	% TiO_2	53.9
Average Combined Ilmenite Production (First 10 years)	Ktpa	579
Average Combined Ilmenite Production (LOM)	Ktpa	416
Average Iron-Vanadium Concentrate Production (LOM)	Ktpa	456
Realised Ilmenite Price	USD$/t CIF China	400
Realised Middling Ilmenite Price	USD$/t CIF China	300
Average Realised iron-vanadium concentrate Price	USD$/t CIF China	85
Spot FX Rate[7]	AUD:USD	0.6419
Initial Capital Costs (including 25% contingency)	A$M	432.1
Ave LOM Cash Operating Cost[8]	AUD$/t product	191.1
LOM Free Cash Flow[9]	A$M	1,665
Average Free Cash Flow per annum- first 10 yrs[9]	A$M	136
NPV (10% Discount Rate, Pre-Tax)	**A$M**	**391**
IRR (Pre-Tax)	**%**	**25**

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[7] RBA Closing Price Thursday 10th November 2022.

[8] Cash operating costs include all mining, processing, transport to port and site based general and administration costs and exclude all costs related to freight, royalties and native title costs.

[9] Free Cashflow is pre-tax and undiscounted.

Capital Cost Estimates

The capital cost estimate to construct a new 2.18Mtpa CMB plant at Barrambie and LTR plant near Geraldton with associated infrastructure, including all direct and indirect costs, is approximately AUD$432.1 million. This estimate includes a contingency of 25%. The costs presented have been estimated to an overall accuracy of +25 to –25%, which is commensurate with an AACE Class 4 level of PFS.

The table below summarises the key components of the capital cost estimate:

Table 13 – Capital Cost Estimate

Capital	AUD$M
Mining	
Mobilisation, Site establishment & Pre-Strip	**3.3**
CMB	
Crushing & Beneficiation	52.5
Borefield Water Supply	10.0
TSF Stage 1	6.5
Infrastructure & Earthworks	18.4
Accommodation Village	19.8
Road Relocation	12.0
Indirect Costs	49.7
Contingency (25%)	42.2
Subtotal CMB	**211.2**
LTR	
LTR Plant	112.5
Water Supply	5.0
Indirect Costs	56.6
Contingency (25%)	43.5
Subtotal LTR	**217.6**
Total	**432.1**
Sustaining Capex[10]	33.9

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[10] Sustaining capital to upgrade the Barrambie-Sandstone Road to PBS TDQ4B.3 to enable Super Quad payloads of up to 137t and to increase TSF capacity sequentially.

Cash Operating Cost Estimates

Table 14 – Cash Operating Costs Estimate

Opex	A$M	A$/t feed	A$/t MGC	A$/t LTR Products
Mining				
Mining ex-pit	591.8	13.3	27.0	32.4
Incremental ore rehandle	38.9	0.9	1.8	2.1
CMB				
CMB Processing Plant	858.8	19.3	39.1	47.0
MGC transport to LTR[11]	1,213.5	27.3	55.3	66.5
Subtotal CMB	**2,703**	**60.7**	**123.2**	**148.1**
LTR				
LTR Processing Plant	519.4	11.7	23.7	28.5
LTR Products Transport to Geraldton Port[11]	266.0	6.0	12.1	14.6
Subtotal LTR	**785.4**	**17.7**	**35.8**	**43.0**
Port storage, ship loading, international freight & insurance	844.9	19.0	38.5	46.3
Total	**4333.3**	**97.4**	**197.5**	**237.4**

Financial Analysis - Sensitivities

A sensitivity analysis on the pre-tax NPV is provided below in Figure 11

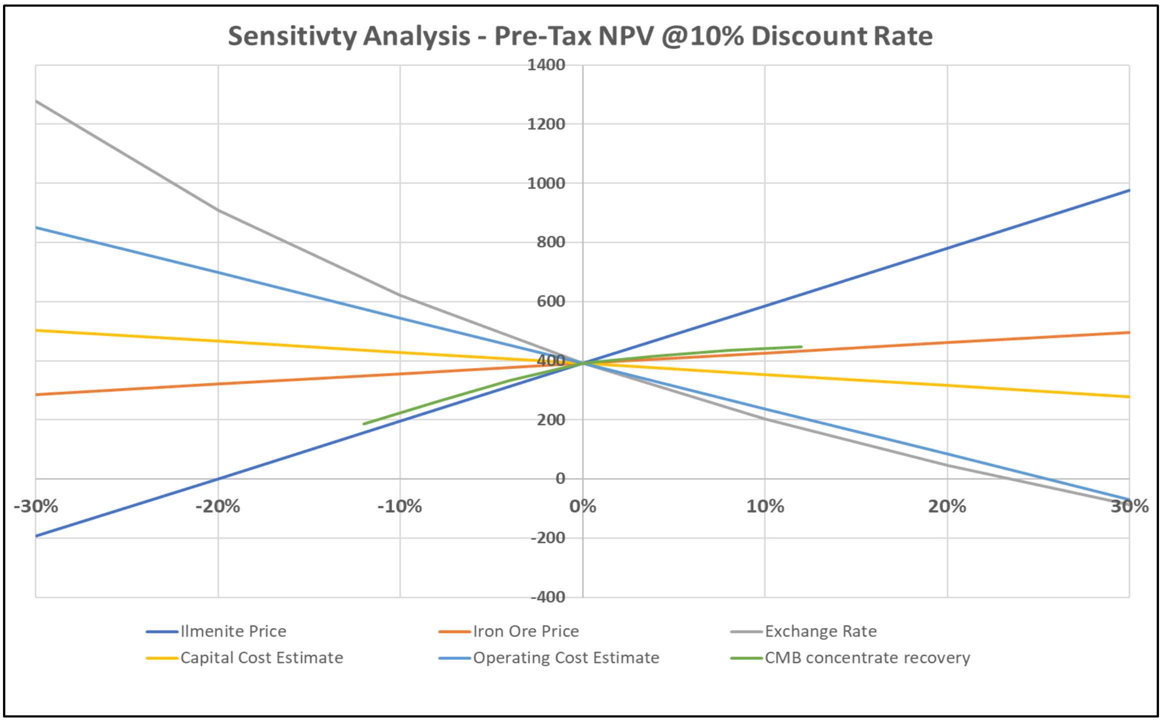

Figure 11 – *Sensitivity Analysis on Pre-Tax NPV*

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[11] Haulage prices as supplied by Rivet Group.

Project Phasing

The Barrambie project is able to be staged to reduce initial capital outlay and enable earlier cashflows. The following table provides a high-level summary of the phasing possible from DSO to MGC to LTR.

Table 15 – Barrambie Project Phasing Options

Phase	Product	Capex (A$M)	Opex ($A/t product)[12]
DSO	2.18 Mtpa DSO	88.0	110.7
MGC	1.23 Mtpa MGC	211.2	176.9
LTR	0.416 Mtpa ilmenite & 0.456 Mtpa iron-vanadium concentrate	432.1	237.4

MARKETING

Offtake

Neometals has a memorandum of understanding with Jiuxing[3,4]. Jiuxing is one of the leading chloride-grade titanium slag producers and is the largest in north-eastern China.

The Jiuxing MoU outlines a product evaluation regime and contains the key commercial terms for a potential formal offtake agreement (i.e., pricing, volumes, price floor etc.). Following satisfactory completion of testing and technical due diligence, the Jiuxing MoU contemplates the parties negotiating and entering into a binding formal offtake agreement for the supply of 800,000 dtpa of mixed gravity concentrate or 500,000 dtpa of ilmenite and 275,000 dtpa of iron-vanadium concentrate, on a take-or-pay basis for a period of 5 years from first production.

Titanium Market

Overview

The schematic below describes the titanium feedstock supply chain and identifies the main titanium raw materials and intermediate products as well as the main consuming industries.

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[12] Inclusive of all costs (exclusive of royalties) – mining costs, processing costs at both CMB and LTR sites, general & administration costs, haulage costs, port storage and ship loading costs, and international freight & insurance.

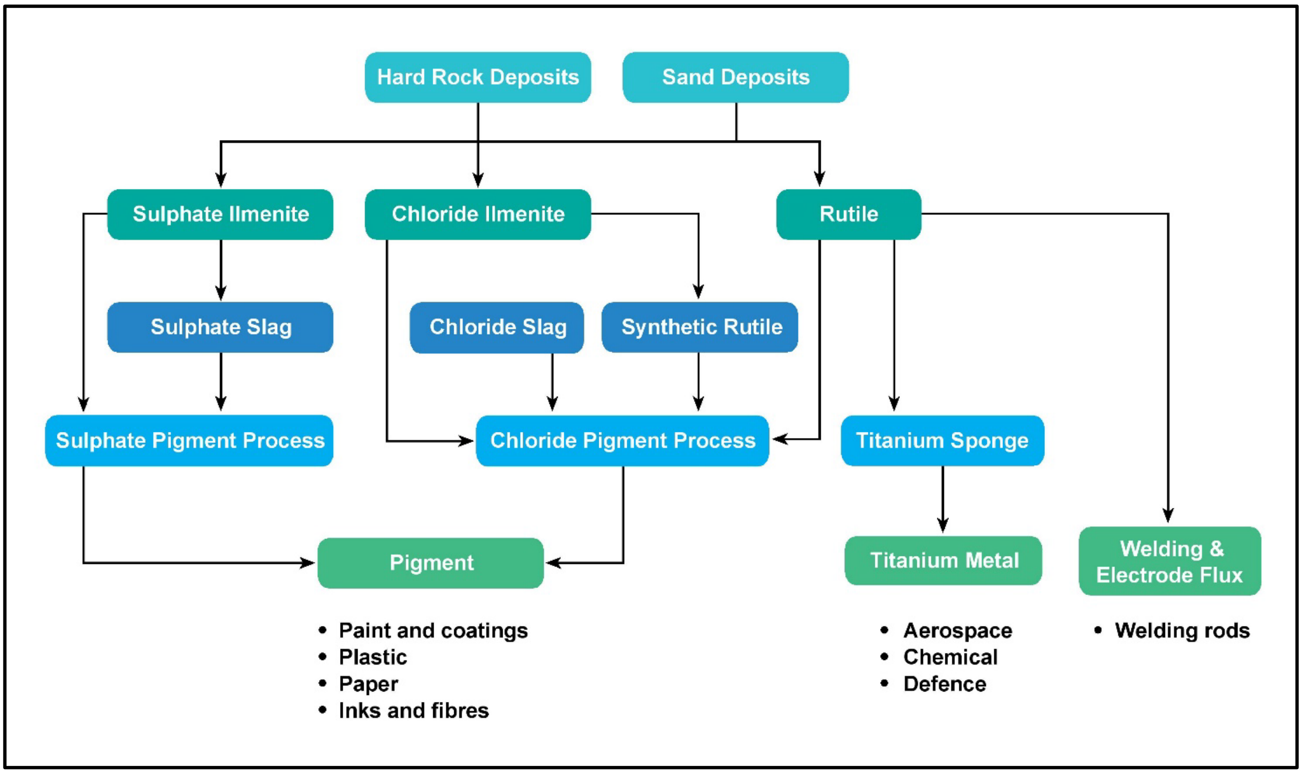


Figure 12 – *Titanium Feedstock Supply Chain* Source: Iluka, Minerals Sands Industry Information, Nov 2019

Ilmenite is generally classified as either sulphate or chloride depending on its physical and chemical characteristics and its suitability as feedstock for the two major processes employed for manufacturing TiO_2 pigment, the sulphate process and the chloride process. Collectively, these processes consume ~90% of all titanium feedstocks. The mineral extraction process proposed for the Barrambie hard rock deposit includes reduction roasting and magnetic separation to yield ilmenite and an iron-vanadium concentrate. This ilmenite has unique characteristics, including very low levels of Mg, Ca, U and Th, and can be classified as a sulphate ilmenite and a chloride ilmenite (as described in the above schematic). It is suitable for direct sulphation in a sulphate route TiO_2 pigment plant and can be smelted to produce sulphate slag or chloride slag. Given its unique characteristics, Barrambie ilmenite is a readily marketable product and is likely to command a premium price in the market.

Supply

Total titanium feedstock supply in 2022 is forecast by TZ Minerals International ("**TZMI**") to be ~8.6 million TiO_2 units. Ilmenite is the primary commercially exploited titanium-bearing mineral, accounting for more than 90% of all titanium minerals mined. It is used directly in the sulphate route TiO_2 pigment process by many pigment producers and in the chloride process by one major Western TiO_2 pigment producer. It is also beneficiated into other high value titanium feedstocks including sulphate slag, chloride slag, upgraded slag ("**UGS**") and synthetic rutile. Annual global production of ilmenite for all these applications exceeds 16 million tonnes annually. The largest volume titanium feedstocks are sulphate ilmenite and chloride slag, which account for two thirds of total titanium feedstock supply. Barrambie ilmenite is suitable for both of these applications.

Note: A TiO_2 unit is equal to one tonne of contained TiO_2. One tonne of sulphate slag with 80% TiO_2 content contains 0.8 TiO_2 units. One tonne of sulphate ilmenite with 50% TiO_2 content contains 0.5 TiO_2 units.

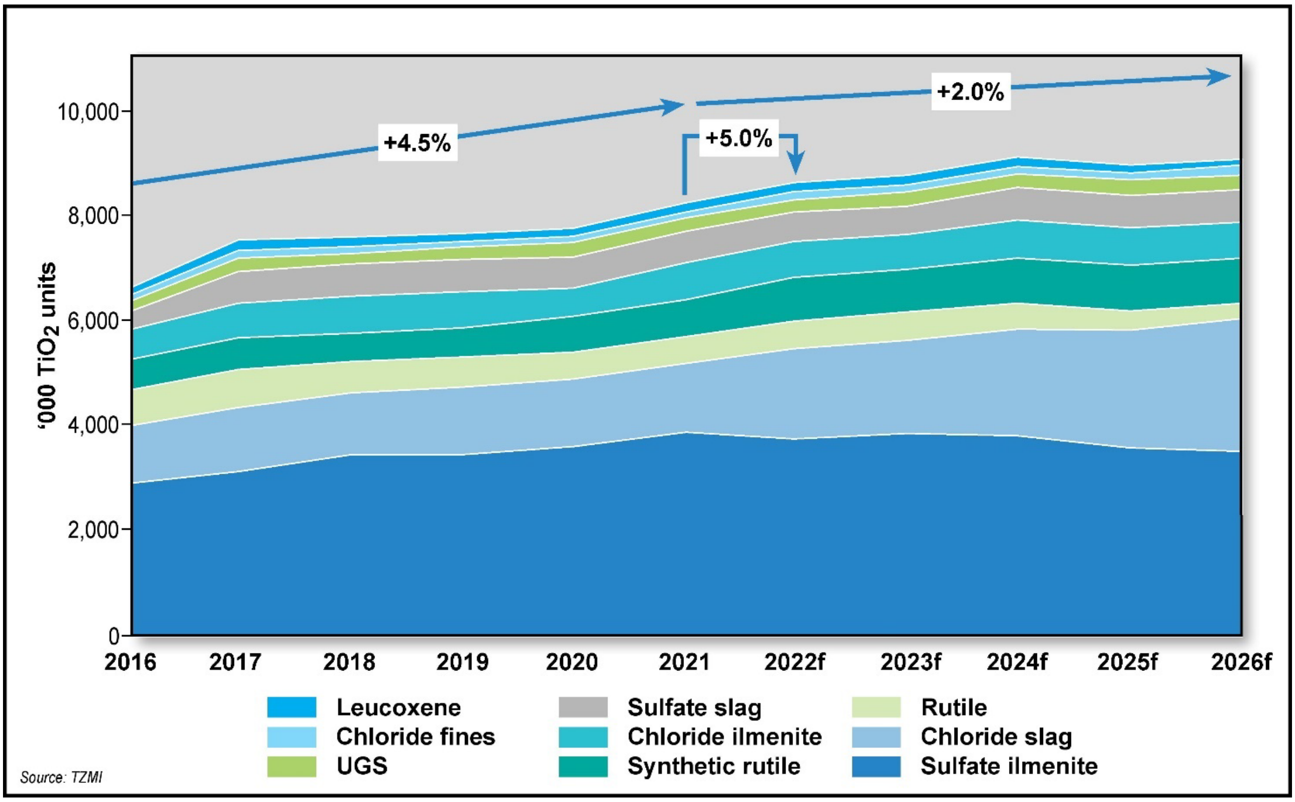


Figure 13 – *Titanium Supply by Feedstock Type* Source: TZMI, Titanium Feedstock Price Forecast, Issue 3, 2022

Demand

Consumption of titanium feedstocks in 2022 is forecast by TZMI to be ~8.8 million TiO_2 units and to exceed supply. In the sulphate sector, more sulphate ilmenite is being consumed, particularly in China, as sulphate pigment producers opt to reduce sulphate slag consumption in favour of ilmenite to maximise copperas production. Copperas, also known as ferrous sulphate, has a growing market due to its consumption in lithium-ion batteries with lithium iron phosphate (LiFePO4) chemistry, which is favoured in Chinese electric vehicles. In the chloride sector, demand for chloride slag is growing, underpinned by chloride capacity expansions in China where chloride slag is the feedstock of choice. Additionally, increased chloride slag and synthetic rutile output in China is resulting in greater ilmenite demand. China predominately purchases merchant ilmenite as feed for its smelters and kilns owing to the unsuitability of domestic ilmenite for these applications.

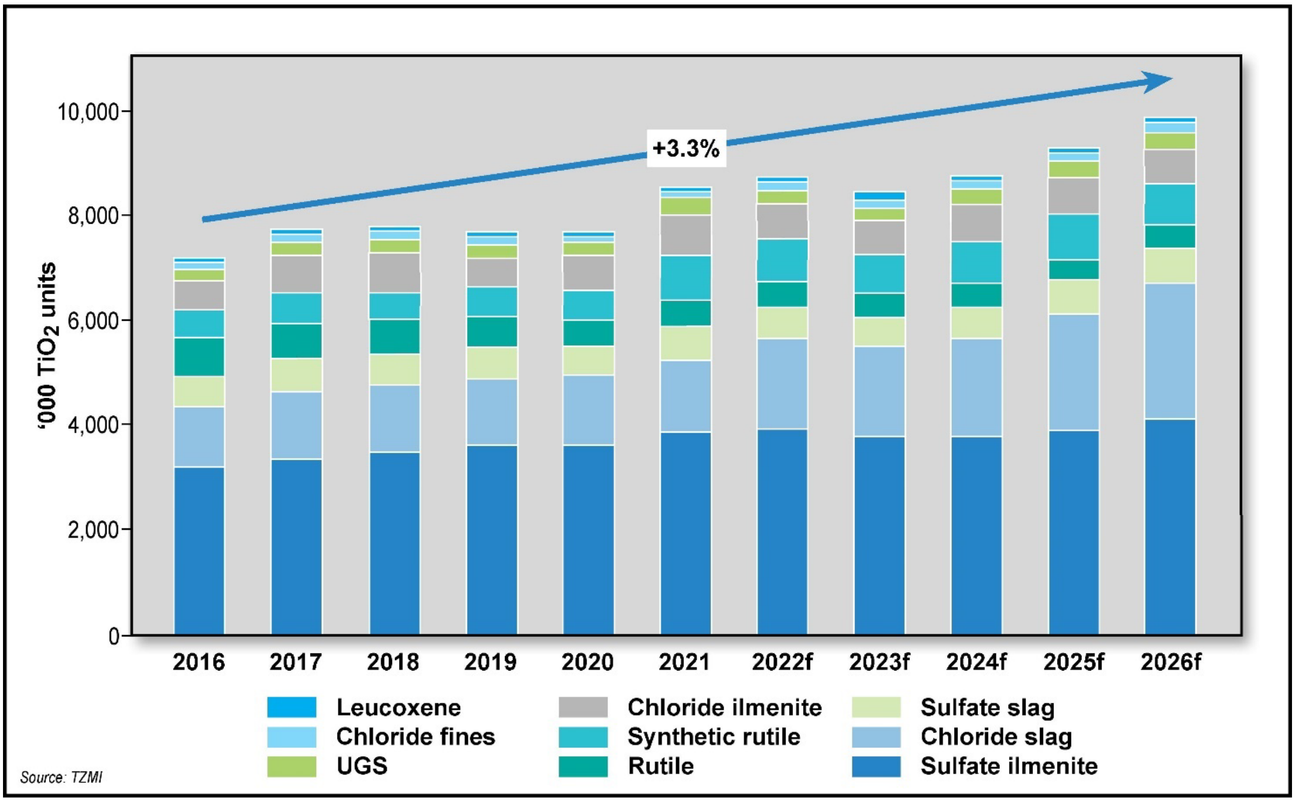


Figure 14 – *Titanium Demand by Feedstock Type* Source: TZMI, Titanium Feedstock Supply Demand, Issue 2, 2022

Price

The price of ilmenite imported into China has been steadily increasing over the last four years as the Chinese TiO_2 pigment sector and demand for merchant ilmenite suitable for smelting has grown. The weighted average price of ilmenite imported into China in Q2 2022 was US$423/t CIF. The highest priced shipment was a 48,000 t shipment from Mozambique at US$493/t CIF China. Prices in the Asia Pacific region, excluding China, have followed a similar trajectory. In Q2 2022, the price of premium grade ilmenite shipped from Vietnam to Korea was US$487/t CIF and the weighted average price of Japanese bound shipments from Kenya, Australia and India was US$452/t CIF. Whilst prices are expected to soften during the cyclical downturn predicted in 2023, prices are likely to remain above historical averages.

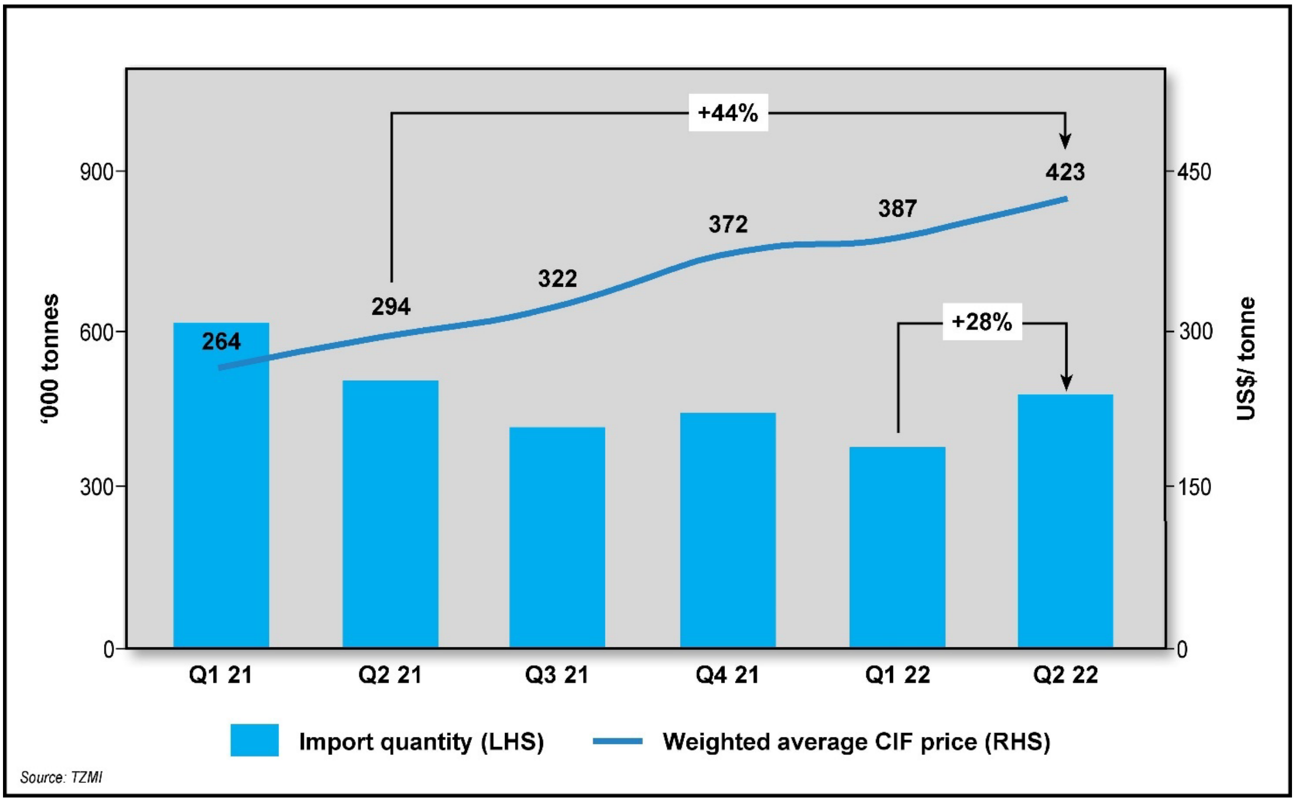


Figure 15 – *Chinese Ilmenite Imports and Weighted Average Price* Source: TZMI, Titanium Feedstock Price Forecast, Issue 3, 2022

Outlook

A cyclical downturn is anticipated in 2023 before a moderate recovery the year after, resulting in a surplus of titanium feedstock supply in 2023 and 2024. However, in the medium-term increasing deficits are forecast as output from feedstock producers declines and demand increases. Without new projects, TZMI estimates the global titanium feedstock deficit to reach 826,000 TiO_2 units by 2026. China, which is the largest consumer accounting for roughly half of global demand, is expected to lead demand growth in volume terms during the next five years. China's growth during the next five years is estimated at approximately 950,000 TiO_2 units, underpinned by the propagation of chloride technology, driving greater demand for chloride feedstocks.

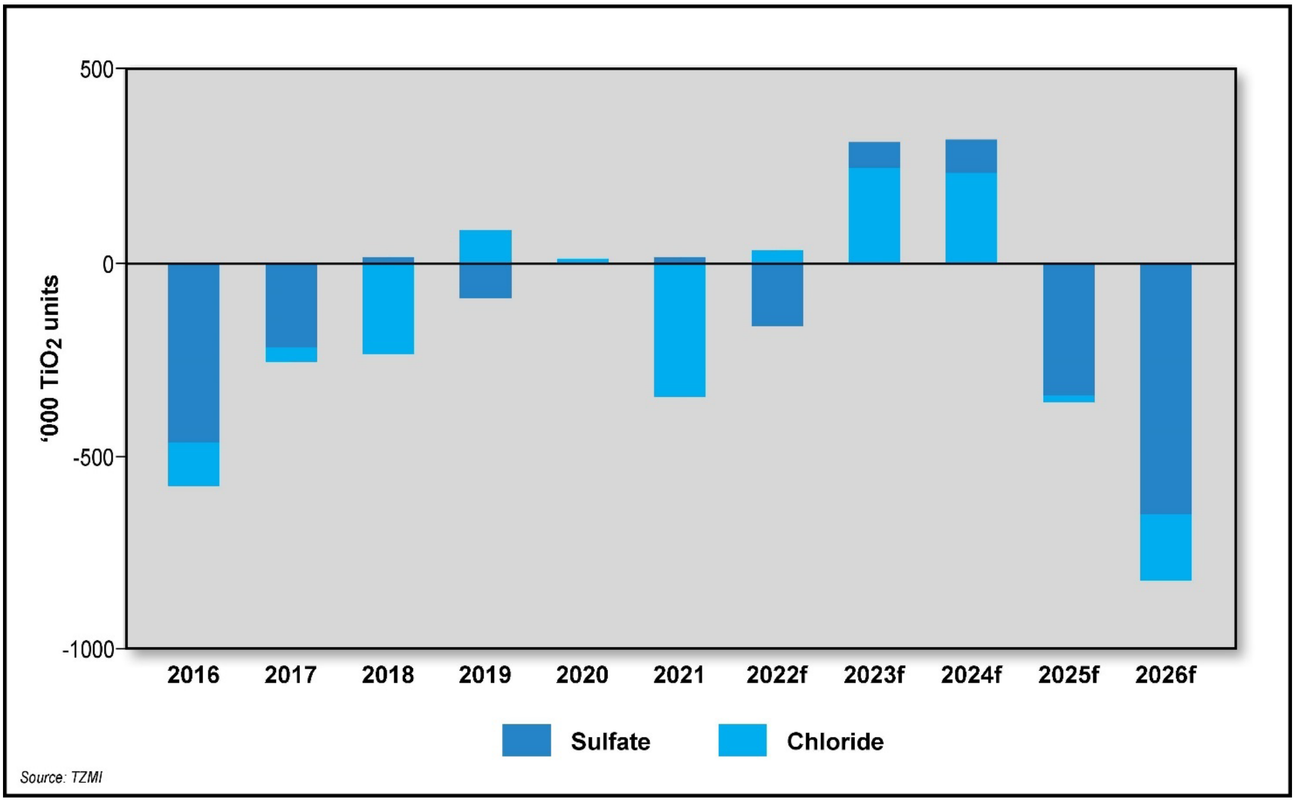
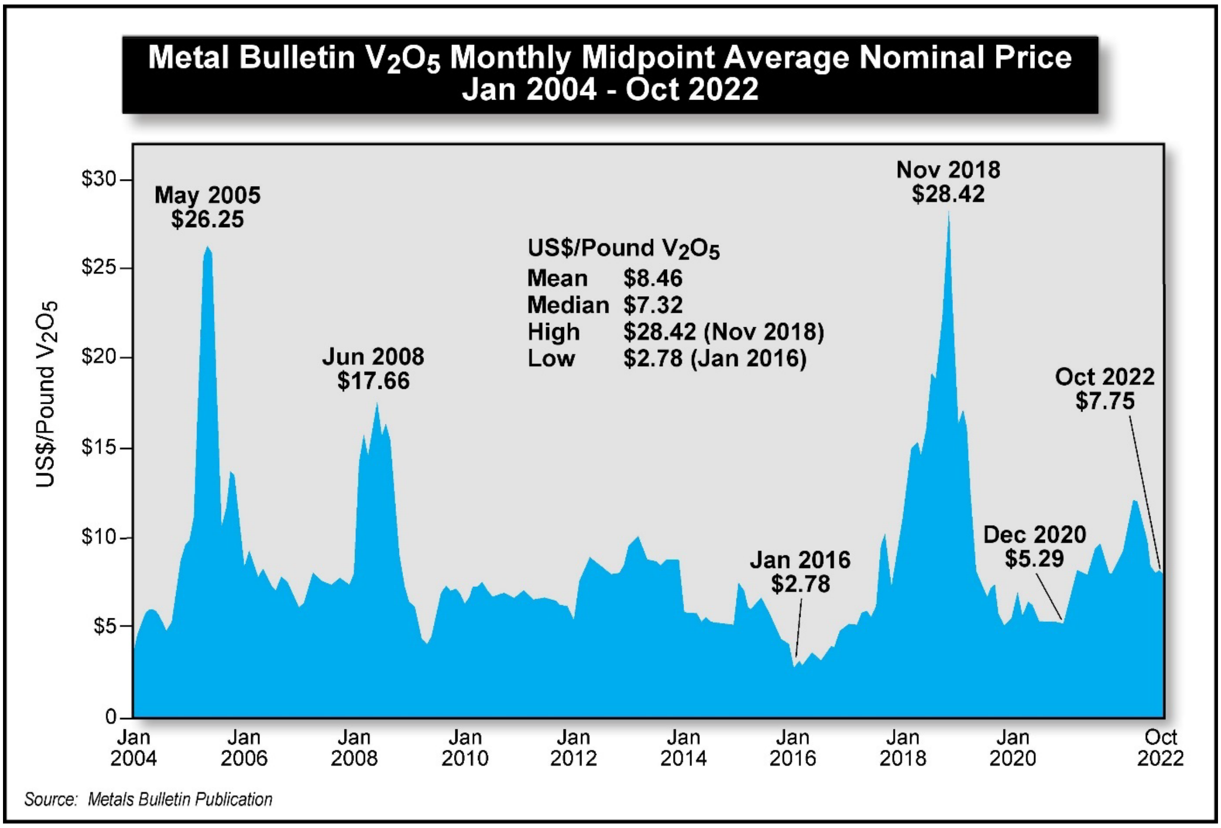


Figure 16 – *Annual Feedstock Surplus/Deficit by Pigment Process Route* Source: TZMI, Titanium Feedstock Price Forecast, Issue 3, 2022

Iron-vanadium Concentrate

In the LTR scenario the basis of this PFS, the project will produce an iron and vanadium concentrate. With a contained iron content of 58.9% Fe, this material would generally be sold as a low-grade iron ore concentrate or as a feed stock for a salt roast leach plant for the production of vanadium. The current market price in China (CFR Qingdao as per Shanghai Metals Market ("**SMM**") on November 2nd, 2022) is US$78.80/Mt versus a New York Mercantile Exchange ("**NYMEX**") 62% Fe CFR Price of US$84 on the same date. It is also worth noting this price is a significant drop from only a month earlier when it stood at around US$94/Mt.

A significant upside potential comes from the vanadium content of the concentrate at 1.58% V_2O_5. With a current spot price of US$7.50-8.10/lb V_2O_5 as per Fastmarkets (US$16,535-17,857/Mt V_2O_5), which is in line with historical median/mean pricing, this implies a contained value of US$261-282/Mt in concentrate. The vanadium content makes this material marketable both domestically in Australia and in China.



Source: *Metals Bulletin Publication*

Figure 17 – *Metal Bulletin V_2O_5 Monthly Midpoint Average Nominal Price*

ENVIRONMENTAL ASSESSMENT AND APPROVALS

Environmental Impact Assessment

Two phases of studies have been undertaken in order to assess the potential impact of the Project on the various aspects of the environment. These include flora, fauna and vegetation surveys, hydrogeological investigations, air quality modelling, and waste characterisation. The initial studies were completed in the period 2005-2009 and are reported in summary in the BARRAMBIE VANADIUM PROJECT (Project) Public Environmental Review (PER) (Reed Resources, 2010) (http://www.epa.wa.gov.au/sites/default/files/1MINSTAT/Statement%20No.%20911.pdf). The PER was approved in 2012 under Part IV of the *Environmental Protection Act* 1986 (EP Act) via Ministerial Statement 911. An application to extend the time limit for implementation of the Project (S46 application) was granted in November 2019 (Ministerial Statement 9111). A further extension of the time limit to implement the Project will be prepared and submitted in 2023 for approval. The extension will require all new listed species and changes in approval guidance to be considered. This is expected to require additional survey and consultation work throughout 2023.

Further studies will be completed in 2023 to update the original studies in support of the S46 application along with detailed design and studies in support of secondary approvals under the *Mining* Act 1978, *Rights in Water and Irrigation Act* 1914 (RIWI Act) and EP Act (Part V). These secondary approvals can only be submitted once the S46 has been approved.

Waste Rock characterisation studies completed to date show that 21 of 22 samples are assessed as Non-acid Forming (NAF). The one Potentially Acid Forming (PAF) sample was 'trace-pyrite' (0.37% S). Detailed geochemical and physical characterisation studies will be completed to support the Mining Proposal.

Native Title and Heritage

Recently determined and registered Native Title party the Yugunga-Nya have overlap with some of the Neometals tenements associated with the Barrambie Project. A heritage agreement and negotiation protocol covering the Neometals tenements within the determined area are currently being negotiated with the Yugunga-Nya, however, four heritage surveys have been conducted historically.

TITLE AND OWNERSHIP

Barrambie is owned 100% by Australian Titanium Pty Ltd (a 100% owned subsidiary of Neometals Limited).

Table 16 below shows the applicable tenements for Barrambie. The Ore Reserve is 100% contained within Mining Licence M57/173-I.

Table 16 – Current Tenement Status – Barrambie Project

Tenement	Status	Application	Term Granted	Grant Date	Expiry Date	Renewability
M57/0173-I	LIVE	19 Dec 89	21 years	31 Jul 90	30 Jul 32	Periods of 21 years
E57/0769-I	LIVE	16 Jul 08	2 years	18 Aug 09	17 Aug 23	Periods of 2 years
E57/0770-I	LIVE	16 Jul 08	2 years	14 Aug 09	13 Aug 23	Periods of 2 years
E57/1041-I	LIVE	29 Sep 15	5 years	04 May 16	03 May 26	Periods of 5 years
L20/0055	LIVE	4 Feb 08	21 years	24 Aug 09	23 Aug 30	Periods of 21 years
L20/0080	LIVE	14 Nov 18	21 years	28 Apr 22	27 Apr 43	Periods of 21 years
L20/0081	LIVE	22 Feb 19	21 years	28 Apr 22	27 Apr 43	Periods of 21 years
L57/0030	LIVE	4 Feb 08	21 years	24 Aug 09	23 Aug 30	Periods of 21 years
E20/1030	PENDING	17 Jun 22				
E20/1037	PENDING	26 Aug 22				
E57/1220	PENDING	24 Mar 22				
E57/1244	PENDING	26 Aug 22				
E57/1245	PENDING	26 Aug 22				
L57/0064	PENDING	30 Jun 22				
L57/0065	PENDING	30 Jun 22				

Australian Titanium holds tenure in the form of Exploration Licences and Miscellaneous Licenses around granted Mining Lease M57/173-I. The granted Mining Lease M57/173-I is sufficient to enable the commencement of mining at Barrambie. The granted Miscellaneous Licenses will allow for some ancillary infrastructure.

Additional tenure in the form of future Mining Lease(s) over mineralised areas of Exploration Licenses will be made, and if required General Purpose Leases will be applied for. These mining tenements will allow for the growth of stockpiles and waste rock landforms required for the Project. This tenure is anticipated to be applied for in 2023, with grant anticipated in 2024.

FUNDING

The Company is currently evaluating a number of competing projects and does not currently have the financial capacity to internally fund 100% of the development of the Barrambie project. External funding in the form of some mix of debt, JV interest and/or equity will be required. In parallel with ongoing work programs the Company is continuing to evaluate its financing strategy with the objective of minimising dilution for existing shareholders. Shareholders should be aware that further equity funding may be required for the future funding for development of the Barrambie project, and if so, their ownership of the Company or the Company's economic interest in the Barrambie project may be diluted.

The Company is yet to engage advisors to understand the debt carrying parameters of the project. Opportunities for potential JV participation (including through contract mining/processing and build-own-operate-transfer plant operations) have been identified and will be explored. Release of the PFS now provides a platform for the Company to advance discussions with potential finance providers and/or JV partners. On the basis of the robust market outlook for titanium and vanadium, the Company's sound financial position (net cash), track record of successfully developing and implementing mineral projects (including through JV and offtake arrangements) and preliminary work already undertaken in relation to financing and JV participation, the Company considers that there is a reasonable basis that the development of the Barrambie project can be successfully funded.

Authorised for release on behalf of Neometals by Christopher Reed, Managing Director.

ENDS

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About Neometals Ltd

Neometals' focus is the continuous development and innovative commercialisation of our proprietary technologies to achieve our Purpose in collaboration with strong global partners.

Neometals believes that the demand for environmentally and ethically sourced battery materials will continue to grow with energy storage being the key enabler for the energy transition. Decarbonisation, sustainability and resilient supply chains are the key challenges for the energy storage and electric vehicle supply chain. Our technologies, particularly those in battery materials recycling and recovery, reduce reliance on traditional mining and processing, and support circular economic principles.

Neometals have three core battery materials businesses commercialising proprietary, low-cost, low-carbon process technologies:

- Lithium-ion Battery Recycling (50% equity)– to produce nickel, cobalt and lithium from production scrap and end-of-life lithium-ion batteries in an incorporated JV with leading global plant builder SMS group. The Primobius JV is operating a commercial disposal service at its 10tpd plant in Germany and is the recycling technology partner to Mercedes-Benz. Primobious' first 50tpd operation will be in Canada, an investment decision to partner with Stelco is expected to reach investment decision in MarQ 2023;
- Vanadium Recovery (earning 50% equity) – to produce high-purity vanadium pentoxide via processing of steelmaking by-product ("**Slag**"). Finalising evaluation studies on a 300,000tpa operation in Pori, Finland and potential joint venture with Critical Metals, underpinned by a 2Mt, 10-year Slag supply agreement with leading Scandinavian steelmaker SSAB. Investment decision expected end Dec 2022. MOU with H2Green Steel for up to 4Mt of Slag underpins a potential second, operation in Boden, Sweden; and
- Lithium Chemicals (earning 35% equity)– to produce lithium hydroxide from brine and/or hard rock feedstocks using our ELi® electrolysis process. Co-funding pilot plant and evaluation studies on a 25,000tpa operation in Estrarreja, Portugal towards a potential JV with technology co-owner Mineral Resources Ltd and Portugal's largest chemical producer Bondalti Chemicals S.A. Investment decision expected Dec 2023.

IMPORTANT INFORMATION

Competent Persons Statement

The information in this announcement that relates to Exploration Results was presented in announcement released by the Company on the ASX on 22nd December 2020 titled "Barrambie Flowsheet Breakthrough". The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement.

The information in this announcement that relates to Mineral Resources is based on, and fairly represents, information and supporting documents compiled by Michael Andrew who is a full-time employee of Snowden Optiro and is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Andrew has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code (2012). Mr Andrew consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Ore Reserves is based on, and fairly represents, mine planning studies and supporting documents compiled by Frank Blanchfield or supplied by Neometals (Infrastructure, mining costs, environmental, permitting and social license studies and marketing and financial analyses) and reviewed by Frank Blanchfield, who is an employee of Snowden Optiro and is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Blanchfield has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code (2012). Mr Blanchfield consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Ore Reserves (Process, Plant, Metallurgy and Metallurgical Factors and Assumptions) is based on, and fairly represents, information and supporting documents, compiled by Gavin Beer who is a full-time employee of Neometals Ltd and is a Chartered Professional (Metallurgy) and Member of The Australasian Institute of Mining and Metallurgy. Mr Beer has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code (2012). Mr Beer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The estimated Ore Reserves underpinning the production targets in this announcement have been prepared by a Competent Person in accordance with the requirements of the JORC Code (2012).

Forward-looking Statements

This release contains "forward-looking information" that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the pre-feasibility and feasibility studies, the Company's business strategy, plan, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, Mineral Resources and results of exploration. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'likely',' believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this news release are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

Forward-looking information is developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to general business, economic, competitive, political and social uncertainties; the actual results of current exploration activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future prices of vanadium, titanium and other metals; possible variations of ore grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; accident, labour disputes and other risks of the mining industry; and delays in obtaining governmental approvals or financing or in the completion of development or construction activities. This list is not exhaustive of the factors that may affect our forward-looking information. These and other factors should be considered carefully, and readers should not place undue reliance on such forward-looking information.

Neither the Company, nor any other person, gives any representation, warranty, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statement will actually occur. Except as required by law, and only to the extent so required, none of the Company, its subsidiaries or its or their directors, officers, employees, advisors or agents or any other person shall in any way be liable to any person or body for any loss, claim, demand, damages, costs or expenses of whatever nature arising in any way out of, or in connection with, the information contained in this document. The Company disclaims any intent or obligations to or revise any forward-looking statements whether as a result of new information, estimates, or options, future events or results or otherwise, unless required to do so by law. Statements regarding plans with respect to the Company's mineral properties may contain forward-looking statements in relation to future matters that can be only made where the Company has a reasonable basis for making those statements.

Advice

Nothing in this document constitutes investment, legal or other advice. Investors should make their own independent investigation and assessment of the Company and obtain any professional advice required before making any investment decision based on your investment objectives and financial circumstances.

APPENDIX 1

Project Background

Located approximately 80km north-west of Sandstone in Western Australia, Barrambie has a granted mining permit and is 100% owned by Neometals through Australian Titanium Pty Ltd. Barrambie has had in excess of A$40M exploration and evaluation expenditure invested in it since 2002 and is one of the world's highest-grade titanium-vanadium hard-rock assets. The LTR plant is proposed to be situated alongside the DBNGP between Geraldton and Tenindewa.

Figure A -1 – *Location of Barrambie site and LTR processing site*

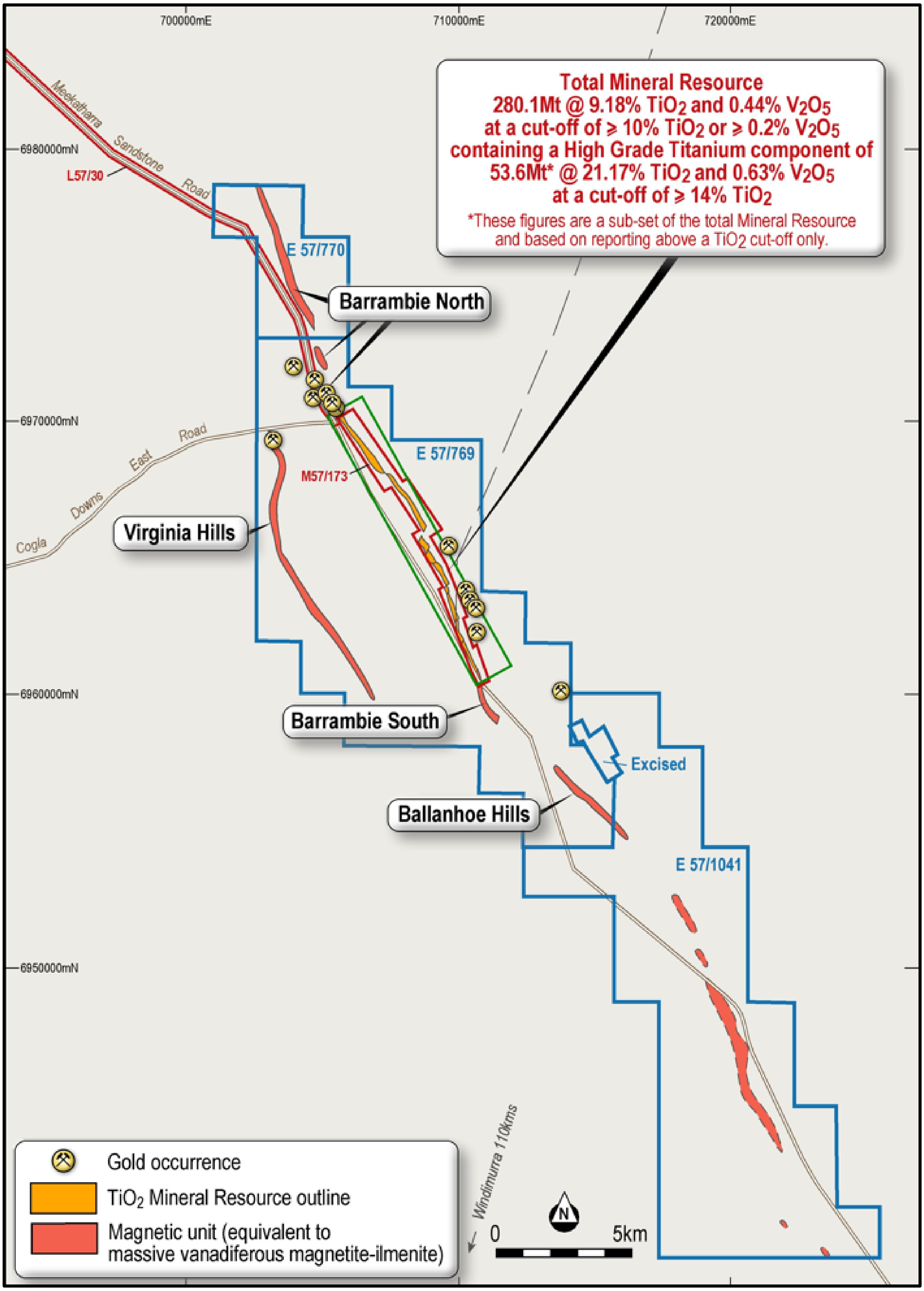
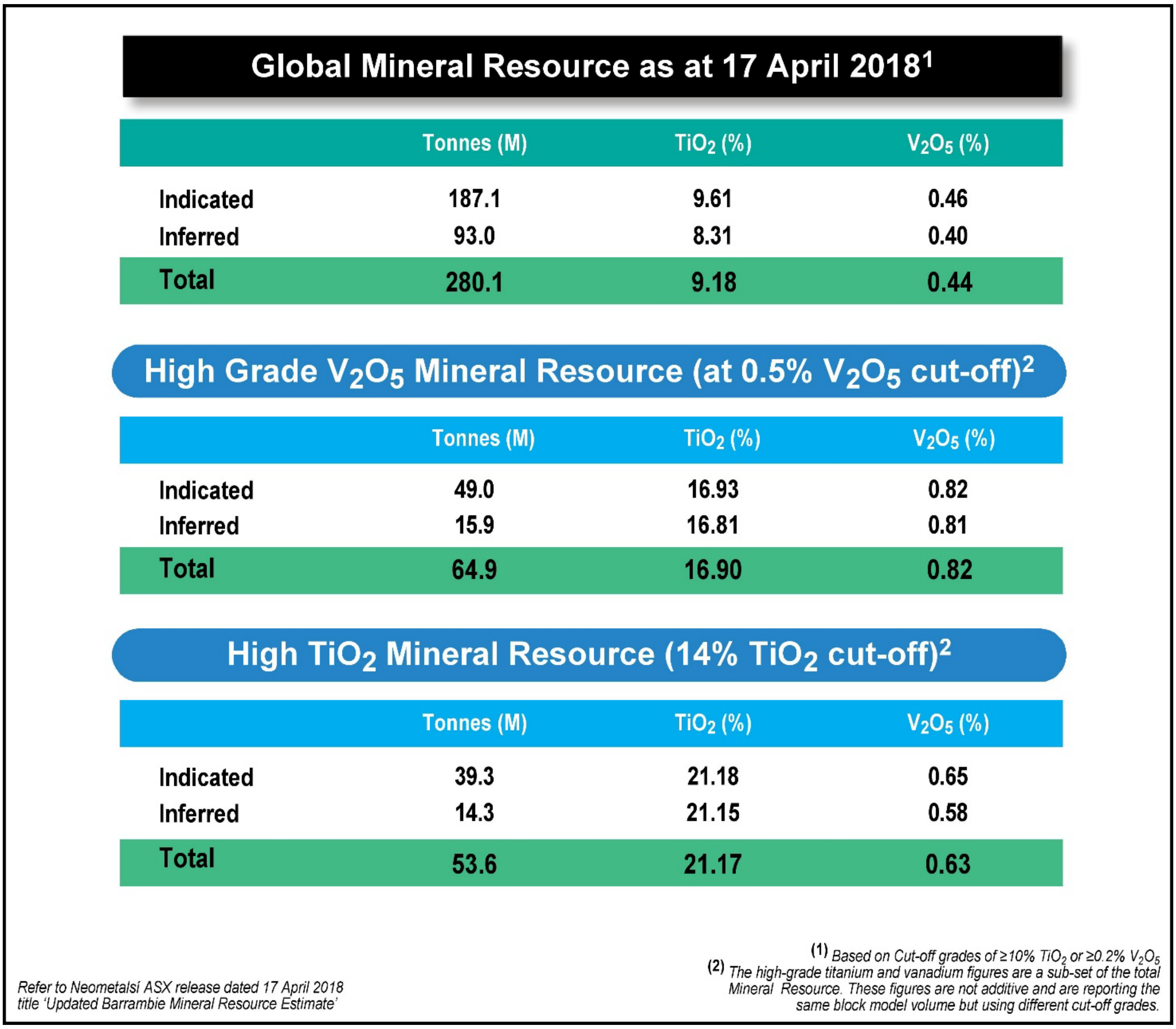


Figure A-2 –*Project tenure and an outline of the Mineral Resource. Distribution of vanadium-titanomagnetite (VTM) mineralisation along strike and west of Barrambie is based on interpretation of aeromagnetic data.*

The Barrambie Mineral Resource contains total Indicated and Inferred Mineral Resources of 280.1 million tonnes at 9.18% TiO_2 and 0.44% V_2O_5 to a maximum depth of 80m, reported above a cut-off grade of 10% TiO_2 or 0.2% V_2O_5. Within the Mineral Resource there is a subset high-grade titanium Indicated and Inferred Mineral Resource of 53.6 million tonnes, reported above a cut-off grade of 14% TiO2.

Table A-1 – Mineral Resource Estimate



Global Mineral Resource as at 17 April 2018[1]

	Tonnes (M)	TiO_2 (%)	V_2O_5 (%)
Indicated	187.1	9.61	0.46
Inferred	93.0	8.31	0.40
Total	280.1	9.18	0.44

High Grade V_2O_5 Mineral Resource (at 0.5% V_2O_5 cut-off)[2]

	Tonnes (M)	TiO_2 (%)	V_2O_5 (%)
Indicated	49.0	16.93	0.82
Inferred	15.9	16.81	0.81
Total	64.9	16.90	0.82

High TiO_2 Mineral Resource (14% TiO_2 cut-off)[2]

	Tonnes (M)	TiO_2 (%)	V_2O_5 (%)
Indicated	39.3	21.18	0.65
Inferred	14.3	21.15	0.58
Total	53.6	21.17	0.63

Refer to Neometalsí ASX release dated 17 April 2018 title 'Updated Barrambie Mineral Resource Estimate'

(1) *Based on Cut-off grades of ≥10% TiO_2 or ≥0.2% V_2O_5*

(2) *The high-grade titanium and vanadium figures are a sub-set of the total Mineral Resource. These figures are not additive and are reporting the same block model volume but using different cut-off grades.*

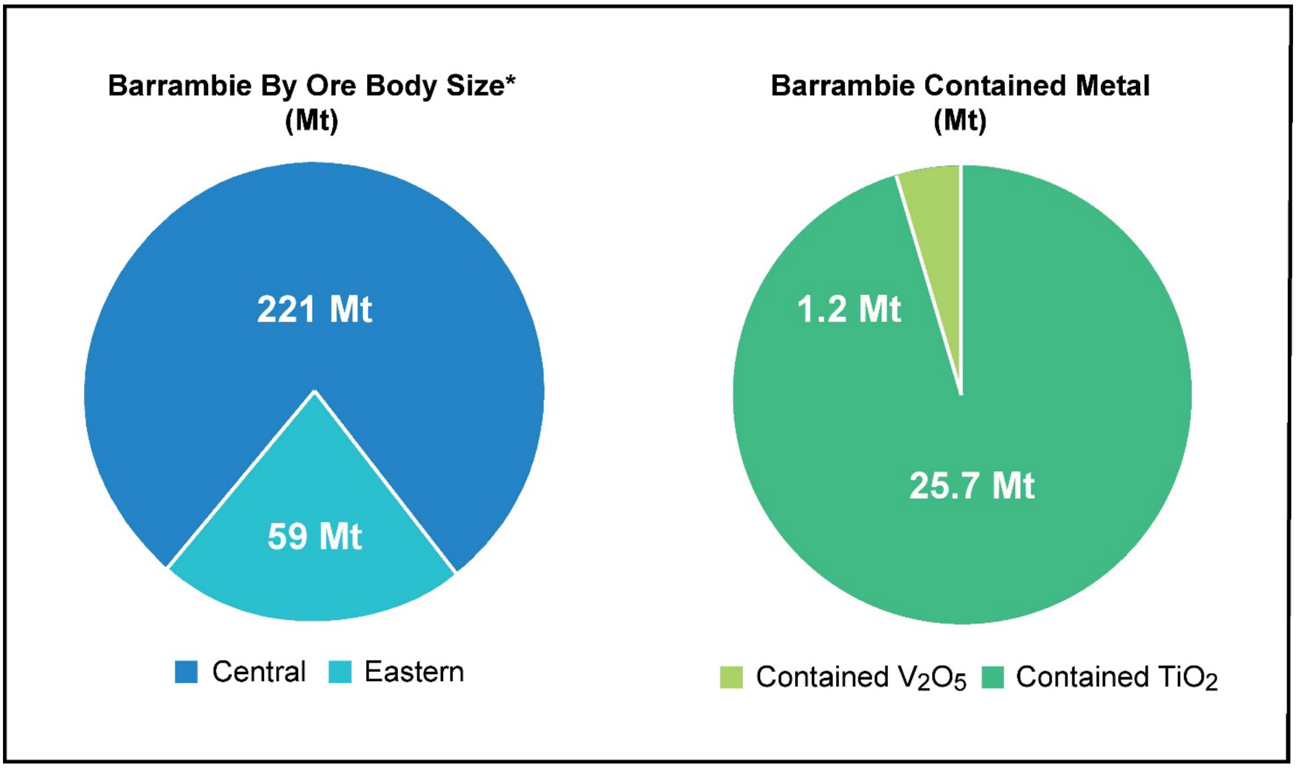


Figure A-3 – *Barrambie Mineral Resource by Size of Geological Zones and Contained Metal*

A mine & beneficiate flowsheet option to produce MGC containing titanium, vanadium and iron for direct smelting is the favoured flowsheet option with potential offtake partner Jiuxing. Jiuxing is contemplating a direct smelt of the MGC blended with commercially available ilmenites.

A secondary flowsheet option with a LTR and the basis of this PFS facilitates a low temperature reduction of the MGC mixed gravity concentrate to enable a magnetic separation to produce two distinct products – ilmenite and iron-vanadium concentrate is also possible.

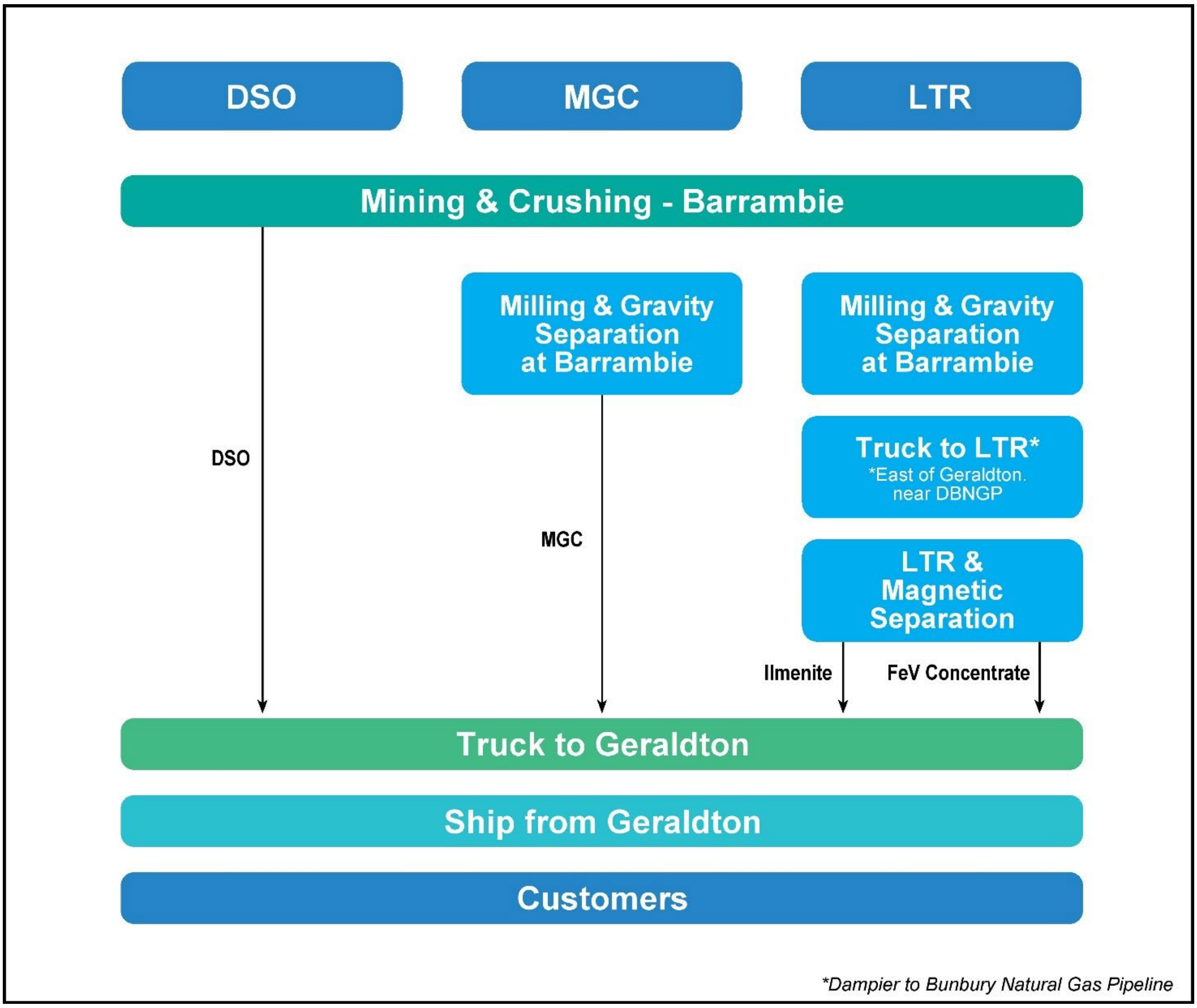


Figure A-4 – *Barrambie Flowsheet*

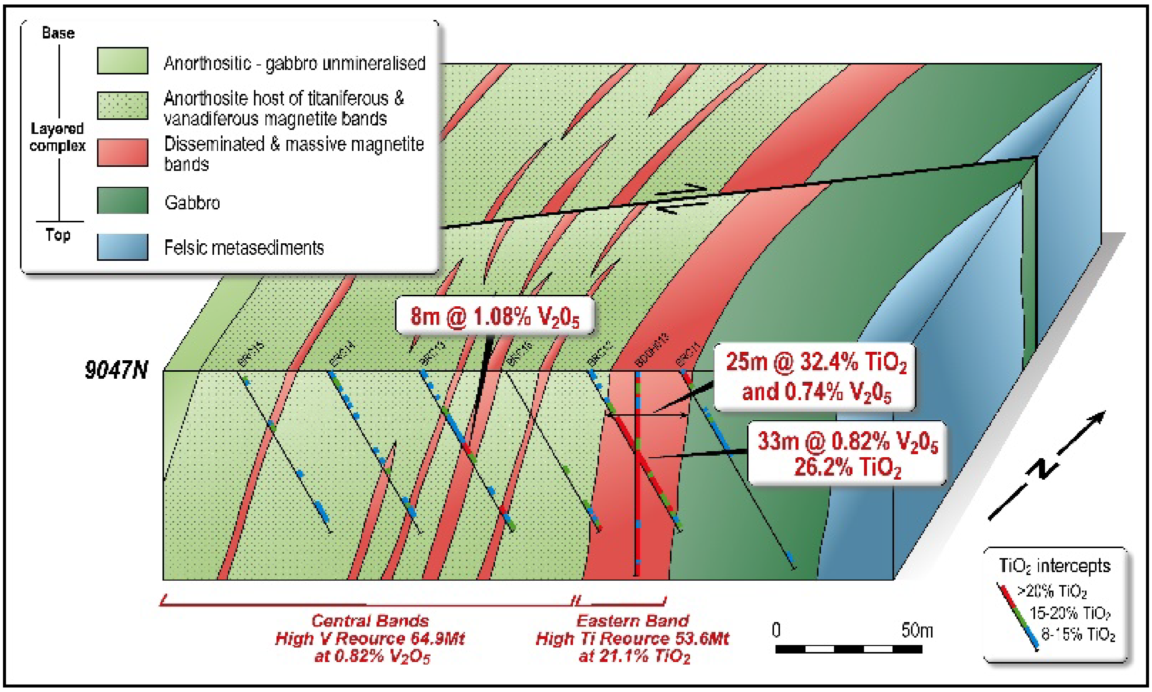


Figure A-5 – *Cross section showing typical distinct layers of high-grade vanadium and titanium bands*

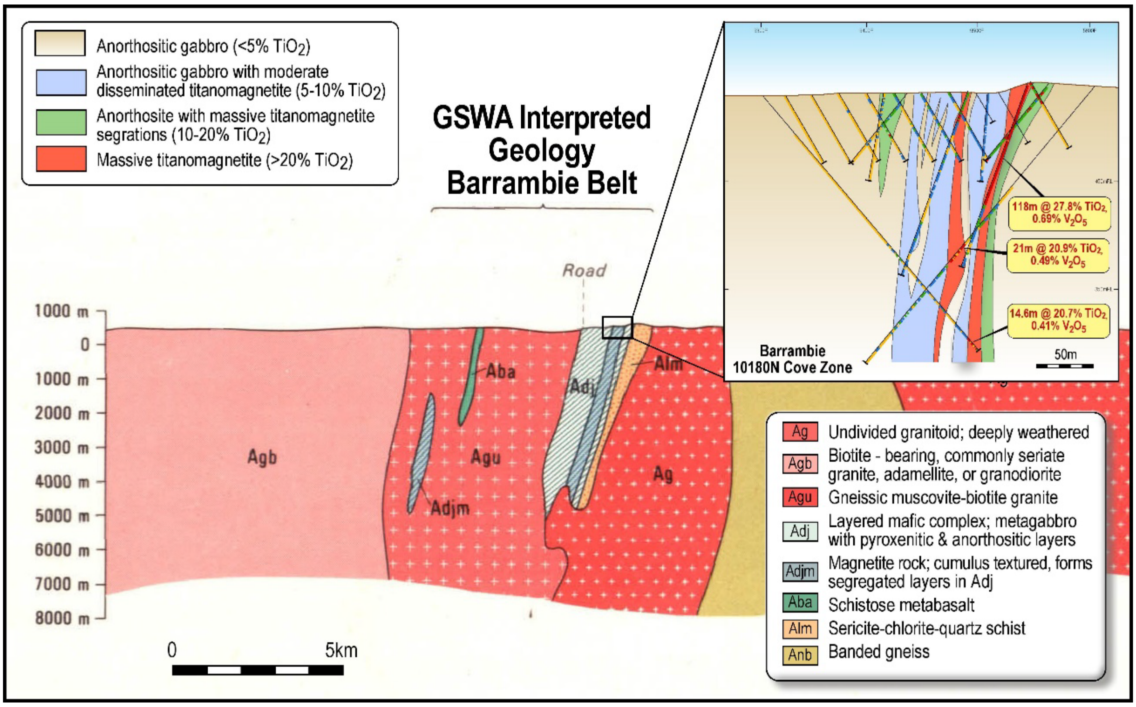


Figure A-6 – *GSWA Interpreted Geology Barrambie Belt*

APPENDIX 2

JORC Code Table 1, Section 1, Sampling Techniques and Data

Criteria	JORC Guidelines	Commentary
Sampling techniques	• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	The Barrambie Mineral Resource estimation is based on the logging and sampling of 796 reverse circulation (RC) and 61 diamond (DD) drill holes (PQ and HQ3 size). Metallurgical drilling comprises 20 of the PQ core holes. Limited information is available on the sampling methods used for the historic data (pre-2007). Snowden Optiro reviewed documents provided by Bryan Smith (Geosciences Pty Ltd) detailing drilling and sampling methods used for the most recent drilling (2007 to 2018) which are in line with industry standard. Drill holes have been sampled on 3 m intervals in areas of background mineralisation and 1 m intervals within mineralised zones. For RC holes the drill cuttings were collected in a cyclone, discharged at 1 m intervals into a bucket and then passed through a three-tiered Jones riffle splitter to produce a split sample of about 3.5 kg. Diamond core was sampled on 1 m intervals with core being sawn in half and sampled as quarter core samples. Samples have generally been assayed for 13 attributes using x-ray fluorescence (XRF) analysis except for four historical DD holes which were assayed using AAS. Magnetic susceptibility readings have been taken for most samples of the RC holes on 1 m intervals and 0.5 m intervals for DD holes.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	The Barrambie deposit has a 50-year drilling history. Drilling techniques include rotary air blast (RAB), open hole percussion (OHP), RC and DD. Only RC and DD holes have been used for the resource estimation. For diamond drilling conducted in 2017 core orientation marks were attempted using a spear and crayon at the end of each core run; however, these were only successful on partly oxidised or fresh material.

Criteria	JORC Guidelines	Commentary
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	A qualitative logging code was used to record recovery for the RC and DD drilling used in the Mineral Resource estimate. Recovery of samples is considered good with only minor losses within fault zones which are dominated by clay.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	Geological logging of core and rock chips was carried out recording oxidation, colour, texture, mineralisation, water and sample recovery. Magnetic susceptibility readings were taken every 1 m for RC holes and 0.5 m for DD holes. Snowden Optiro considers the logging was carried out in sufficient detail to meet the requirements of mineral resource estimation and mining studies.
Subsampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Core was wrapped in film and transferred to core trays where the downhole depth was marked on core blocks. Core was cut in half using a core saw. RC samples were collected in a cyclone at the rig and then split to subsamples to be submitted for assay. Samples were collected at 3 m intervals in areas of background mineralisation and 1 m intervals within mineralised zones. All samples within the mineralised zones were mostly dry. Initially core sample intervals were adjusted so samples did not cross geological boundaries. This was modified to routine 1 m samples, due to the difficulty in identifying the contacts during the drilling campaign in 2007 (hole BDDH012). Limited information is available on the quality control (QC) methods applied to the historic drill holes (prior to 2007). QC procedures to ensure sampling is representative of the in-situ material for the drilling since 2007 includes the use of field duplicates and twinned holes. Comparison of the original and duplicate assays show an acceptable level of precision indicating field sampling procedures are reasonable. A total of 13 DD holes were twinned with selected RC holes. The results indicate minimal downhole smearing in RC drill holes, and that the RC derived samples are suitable for use in elemental analysis. The samples sizes are considered appropriate to correctly represent the mineralisation.

Criteria	JORC Guidelines	Commentary
	• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Samples have been assayed for TiO_2, V_2O_5, Fe, SiO_2, Al_2O_3, CaO, Cr_2O_3, K_2O, MGO, MNO, Na_2O, P, S and LOI using XRF analysis except for 4 historical DD holes which were assayed using AAS. Limited information is available on the QC methods applied to the historic drill holes (prior to 2007). Field QC procedures for the most drilling since 2007 include the use of assay standards, field duplicates and umpire laboratory analysis. Results of the QC analysis indicated that acceptable levels of accuracy and precision have been achieved. No independent QAQC was conducted for the 20 metallurgical DD holes drilled in 2017. Intertek Genalysis, the laboratory used for the majority of analyses from 2007 to 2018, conducted their own internal QAQC, with no issues being reported.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	A total of 13 DD holes were twinned with selected RC holes. The results indicate minimal downhole smearing in RC drill holes. Primary data from the historic drilling have been compiled into a single Microsoft Excel spreadsheet. The drilling from 2007 to 2018 has been compiled into a separate Microsoft Excel spreadsheet, and a database using a SQL based system is maintained and managed by an external contractor. Intersections in metallurgical diamond drill holes drilled in 2017 are commensurate with surrounding drill holes.
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	The drilling coordinates are in a local metric grid established by surveyors Hille Tompson and Delfos located in Geraldton, which has a grid north-south baseline at 5,500 mE. The historic drill holes were surveyed on the local metric grid. Where the historic hole collars could not be identified the collar locations were converted from the old imperial grid locations. Drill collar and azimuth of the metallurgical holes were pegged in the field using GDA94 system by independent surveyors.

Criteria	JORC Guidelines	Commentary
	• Specification of the grid system used. • Quality and adequacy of topographic control.	The topographic surface was provided by Southern Geoscience Consultants (SGC) compiled as part of an aeromagnetic survey flown on 25 m spaced lines in 2005. The Digital Elevation Model (DEM) was supplied in GDA, MGA Zone 50 coordinates and transformed to the local metric grid using four drill holes as common points.
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	Drill spacing is predominantly 100 m x 25 m. There is one 100 m area drilled at centres of 25 m x 25 m, and one 25 m area drilled at centres of 12.5 m x 12.5 m. Drill spacing is sufficient to establish the degree of geological and grade continuity necessary to support the Mineral Resource classification. All samples were composited using a nominal 1 m interval prior to compiling the estimate. Where necessary, the composite interval has been adjusted to ensure that there are no residual sample lengths.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Drill holes are drilled towards local grid east or west at varying angles to intersect the mineralised zones as near as possible to perpendicular. The location and orientation of the Barrambie drill holes is appropriate given the strike and morphology of the mineralisation. Metallurgical drill holes are drilled within the plane of the mineralisation within the Eastern zone at 50 m intervals along strike.
Sample security	• The measures taken to ensure sample security.	Samples were stored onsite and transported to the laboratory on a regular basis during drill campaigns. The laboratory was instructed by Neometals to dispose of the residual samples.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	To date there have been no audits or reviews of sampling techniques and data.

JORC Code Table 1, Section 2, Reporting of Exploration Results

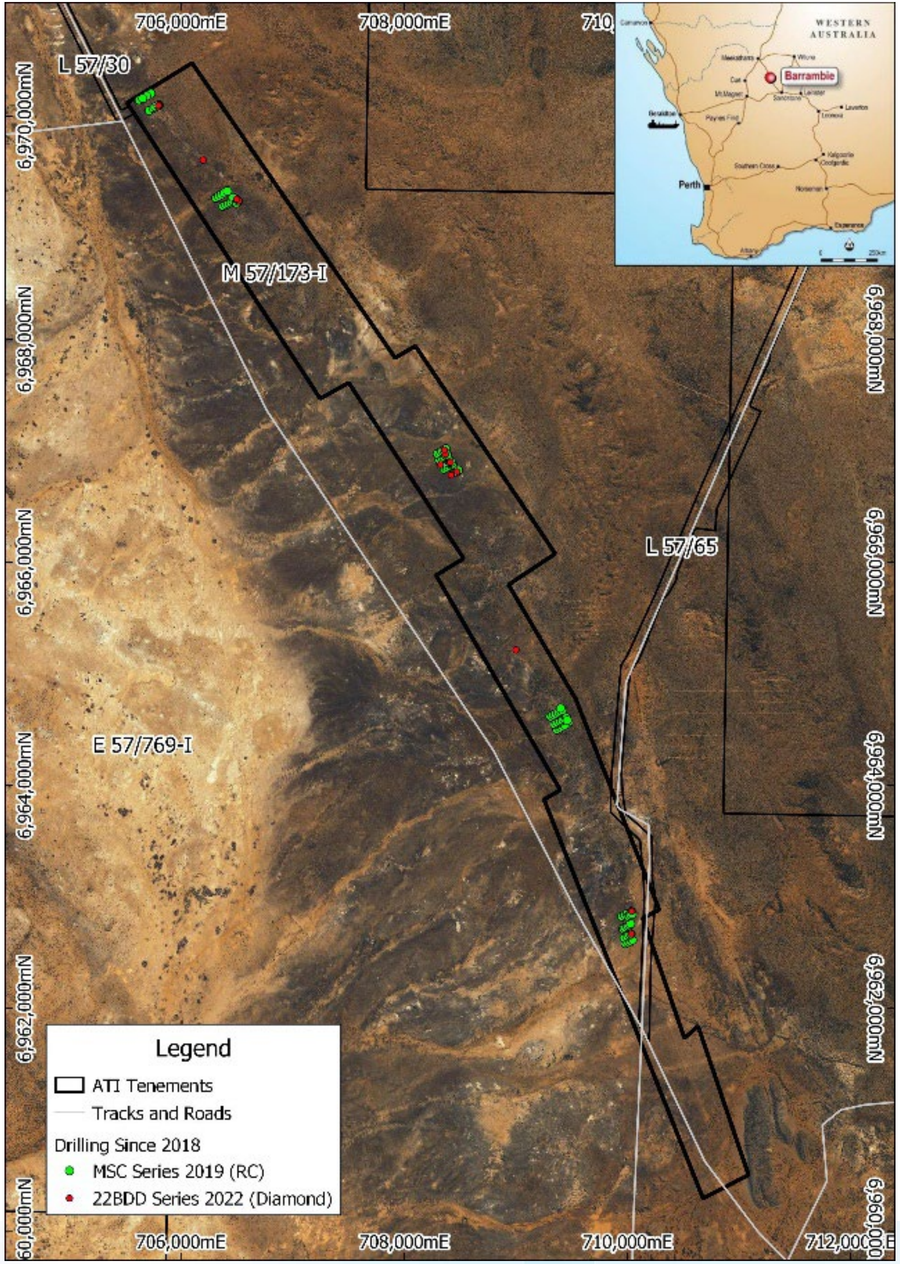
Criteria	JORC Guidelines	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The Barrambie mineralisation is within granted mining lease M57/173 in the Eastern Murchison - Northern Goldfields district in the state of Western Australia. In April 2003, Reed Resources Ltd (Reed) through its subsidiary AVCH acquired 100% ownership of M57/173-I. The tenure is secure at the time of mineral resource and ore reserve estimation and reporting. Reed was renamed Neometals Ltd on 12 December 2014. The Barrambie Project tenements are currently held by the wholly owned subsidiary of Neometals, Australian Titanium Pty Ltd. No known impediments exist to operate in the area.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	There is no exploration done by other parties to acknowledge or appraise at this time.
Geology	• Deposit type, geological setting and style of mineralisation.	The ferrovanadium titanium (Ti-V-Fe) deposit occurs within the Archaean Barrambie Greenstone Belt, which is a narrow, north-northwest to south-southeast trending greenstone belt in the northern Yilgarn Craton. The linear greenstone belt is about 60 km long and attains a maximum width of about 4 km. It is flanked by banded gneiss and granitoids. The mineralisation is hosted within a large layered, mafic intrusive complex (the Barrambie Igneous Complex), which has intruded into and is conformable with the general trend of the enclosing Greenstone Belt. From aeromagnetic data and regional geological mapping, it appears that this layered sill complex extends over a distance of at least 25 km into tenements to the north and south of M57/173-I that have been acquired by Australian Titanium for Neometals. The layered sill varies in width from 500 m to 1,700 m. The sill is comprised of anorthositic magnetite-bearing gabbros that intrude a sequence of metasediments, banded iron formation, metabasalts and metamorphosed felsic volcanics of the Barrambie Greenstone Belt. The metasediment unit forms the hanging-wall to the layered sill complex. Exposure is poor due to deep weathering, masking by laterite, widespread cover of transported regolith (wind-blown and water-borne sandy and silty clay), laterite scree and colluvium. Where remnant laterite profiles occur on low hills, there is ferricrete capping over a strongly weathered material that extends down to depths of 70 m. Ti-V-Fe mineralisation occurs as bands of cumulate aggregations of vanadiferous magnetite (martite)-ilmenite (leucoxene) in massive and disseminated layers and lenses. Within the tenement the layered deposit has been divided into five sections established at major fault offsets. Cross faults have displacements that range from a few metres to 400 m. The water table occurs at about 35 m below the surface (when measured where the laterite profile has been stripped).

Criteria	JORC Guidelines	Commentary
Drill hole information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	No exploration results being reported. Exploration results can be found in previous public reports.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	No exploration results being reported. Exploration results can be found in previous public reports.

Criteria	JORC Guidelines	Commentary
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	No exploration results being reported. Exploration results can be found in previous public reports.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	All appropriate maps (with scales) and tabulations of survey parameters are reported in the body of this announcement, and in the previous referenced ASX announcements.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Due to size of the drill hole database, it is not practicable to report all drilling results. Cut-off grade for reporting is a natural well-defined boundary for the higher grade massive titano-magnetite bands that will be the principal target for selective mining of the deposit.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Only drillhole sample and topographic data is used for Mineral Resource estimation purposes

Criteria	JORC Guidelines	Commentary
Further work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Below is a table and map showing the drilling that has occurred on the Mining Lease M57/173-1 since the April 2018 mineral resource estimate. This has included 88 RC holes drilled as infill with the full samples collected and used for metallurgical testwork, hence the hole ID's MSC (Metallurgical Sample reverse Circulation). There was no extensional drilling of the known mineralisation on the mining lease at this time, however exploration drilling was carried out on surrounding exploration licences. A reinterpretation of the mineralised zones was caried out and wireframes designed from the 2019 drilling, however it was not considered there was material change in the interpretation to warrant a further update of the Mineral Resource. In July to September 2022 a 13 hole Diamond Core program has been conducted on the Barrambie Mining Lease. This core is currently being used for analysis of structural data, with a planned program of metallurgical testwork to be conducted in 2023.

Hole Series	#	Type	Year	Total Metres	Location	Campaign Purpose
MSC	88	RC	2019	6351.04	Mining Lease M57/173-I	Metallurgical Sample and Mineral Resource Infill.
22BDD	13	Diamond	2022	820.51	Mining Lease M57/173-I	Twin RC holes, structural data, metallurgical work sample.

		706,000mE 708,000mE 710,000mE 712,000mE 6,970,000mN 6,968,000mN 6,966,000mN 6,964,000mN 6,962,000mN 6,960,000mN L 57/30 M 57/173-I L 57/65 E 57/769-I WESTERN AUSTRALIA Barrambie Perth Legend ATI Tenements Tracks and Roads Drilling Since 2018 ● MSC Series 2019 (RC) ● 22BDD Series 2022 (Diamond)

Criteria	JORC Guidelines	Commentary
		At the time of this release Australian Titanium (Neometals) are carrying out an RC drilling and sampling program of up to 4,500 metres on the Mining Lease M57/173-I. The aim of this drill program is to test for extensions of the Mineral Resource, particularly on the eastern and southern margins. Drilling will also be used to assist in understanding ground water across the Barrambie site.

JORC Code Table 1, Section 3, Reporting of Mineral Resources

Criteria	JORC Guidelines	Commentary
Database integrity	• Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. • Data validation procedures used.	For the majority of the data used in the Mineral Resource estimate handwritten logs were entered into Microsoft Excel at the end of each day and transferred to a Microsoft Access database on a regular basis. Snowden Optiro completed a basic validation check of the database for potential errors as a preliminary step to compiling the resource estimate. No issues were identified. The geological and sample database is maintained by an external contractor under review of Neometals. The database was validated by Snowden Optiro during the Mineral Resource update in January 2009, this included a review of the QC data. Drilling and sampling procedures were documented by Bryan Smith (Geosciences Pty Ltd) who made regular site visits during the drilling campaigns. Snowden Optiro considers sufficient information was provided to develop the geological model and Mineral Resource estimate to the level of an Indicated and Inferred Mineral Resource.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	Snowden Optiro personnel visited the Barrambie site in 2008–2009 and in November 2018, and August 2019 reviewing the general site layout and outcropping geology. No drilling was occurring during the 2018 site visit by Snowden Optiro; however, exploration drilling was being carried out in August 2019. Michael Andrew visited the Barrambie project in 2009, reviewing the general site layout, outcropping geology and available drill sites.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation.	The interpretations for structural and lithological surfaces were compiled by Snowden Optiro in 2009 using the drill hole database supplied by Neometals. Minor adjustments were made by Snowden Optiro to the interpretation based on the additional diamond drill holes in 2017. A topography wireframe surface was generated from RC and DD drill hole collars, combined with the DEM points supplied by SGC. Discrepancies in elevation between drill hole collars and the DEM in the order of 2 m to 3 m were found north of 12,600 mN.

Criteria	**JORC Guidelines**	**Commentary**
	• The factors affecting continuity both of grade and geology.	The interpretations for the mineralisation envelope and domains were primarily based on V_2O_5 grade cut-offs determined from statistical analysis of the drill hole data. A mineralisation indicator of 0.6% V_2O_5 was used to define the high-grade domain within both the Central and Eastern zones. The Eastern zone low grade mineralisation was based on a threshold of 0.3% V_2O_5 and 0.1% V_2O_5 for the Central and Eastern zone low grade mineralised envelopes surrounding the lodes. Six mineralised domains have been interpreted, four within the Eastern zone and two within the Central zone. Snowden Optiro notes that there is a strong correlation between V_2O_5 and TiO_2 and as such, the use of V_2O_5 for definition of the mineralised domains is also considered to be appropriate for TiO_2. Neometals completed a program of closely spacing drilling within a test area in 2017 which has provided better understanding of the short-range continuity of mineralisation.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The deposit covers an area of approximately 11 km north-south by approximately 250 m east-west and extends to a depth approximately 80 m below surface. The deposit remains open at depth and along strike.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Drill hole data was coded using the wireframe interpretations representing oxidation surfaces, fault blocks and mineralised domains. Samples were composited to 1 m downhole, with the composite lengths adjusted to include all intervals and avoid loss of residual samples. Top-cuts were applied where required to limit the influence of outlier grades. Traditional variograms were modelled for the combined Eastern and Central zones and the parameters applied to the six original mineralised domains, with the nuggets and sill values adjusted for those domains. There was insufficient data within the Far Eastern zone high grade domain; therefore, the Eastern zone high grade parameters were applied. The Dyke variogram was modelled as an omni-directional variogram as the low number of samples in this domain could not support directional variography. Studio 3 (Datamine) software was used to estimate grades for TiO_2, V_2O_5, Fe_2O_3, Al_2O_3, SiO_2, CaO and magnetic susceptibility using ordinary block kriging (OK) into 10 mE x 40 mN x 5 mRL parent cell size as determined by a kriging neighbourhood analysis (KNA) carried out in March 2008. Sub-celling to 0.25 m x 10 m x 1.25 m has been allowed. A block discretisation of 2 x 5 x 1 was used in the easting, northing and elevation directions respectively. Boundary conditions used in the estimate are listed below:

Domain	**Attribute**	**Boundary conditions**
Domains 1-2	TiO_2	Soft boundary across grouped domains Soft boundaries over oxidation horizons
Domains 3-6	TiO_2	Hard boundaries across grouped domains Soft boundaries over oxidation horizons

<table>
<tr><th>Criteria</th><th>JORC Guidelines</th><th>Commentary</th></tr>
<tr>
<td></td>
<td>
• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
• Any assumptions behind modelling of selective mining units.
• Any assumptions about correlation between variables.
• Description of how the geological interpretation was used to control the resource estimates.
• Discussion of basis for using or not using grade cutting or capping.
• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.
</td>
<td>
<table>
<tr><td>Domains 1-6</td><td>V_2O_5, Fe_2O_3, Al_2O_3, SiO_2</td><td>Hard boundaries across grouped domains
Soft boundaries over oxidation horizons</td></tr>
<tr><td>Domains 1-6</td><td>CaO, magnetic susceptibility</td><td>Hard boundaries across grouped domains
Hard boundaries over oxidation horizons</td></tr>
<tr><td>Domain 7</td><td>V_2O_5, TiO_2, Fe_2O_3, Al_2O_3, SiO_2, CaO, magnetic susceptibility</td><td>Hard boundaries across grouped domains
Soft boundaries over oxidation horizons</td></tr>
</table>
<p>The orientations of the search ellipses were defined to suit the approximate local dip and strike of the lode wireframes within each fault block. The initial search pass used ranges derived from the variograms. Blocks were estimated using a minimum of six and a maximum of 30 samples. If the initial search failed to find the minimum number of samples required, then a second search was conducted using 1.5 times the initial search radii.</p>
<p>Blocks within the mineralised domains not estimated due to an insufficient number of samples were assigned the mean assay of the Dyke, Central and Eastern zones as appropriate.</p>
<p>The estimates were validated as follows:</p>

A visual comparison of the block grade estimates to the input drill hole composite data on a section by section basis shows a reasonable correlation, although there is some evidence of smoothing of low and high grades within the low grade mineralised envelopes.
A comparison of the estimated block grades to the average composite (naïve) grades for TiO_2, V_2O_5, Fe_2O_3, Al_2O_3, SiO_2 within the mineralised domains show good results, with both sets of results being within 8% for all grades except for Al_2O_3 which are within 13%
Trend plots show a reasonable comparison of the block grades with the samples grades in the easting and northing directions. For the elevation direction the model and sample means sometimes diverge. This is due to the sub-vertical geometry of the lodes; few drill hole intercepts in the vertical direction and the fact that grades have been estimated using a search ellipse that has a significant range in the vertical direction resulting in apparent smoothing of the model.

<p>The Barrambie Mineral Resource was previously reported in terms of TiO_2 by Snowden Optiro in 2013.</p>
<p>A comparison between the 2013 Mineral Resource estimate and the March 2018 Mineral Resource estimate shows that at a 15% TiO_2 cut-off there is no material change.</p>
</td>
</tr>
<tr>
<td>Moisture</td>
<td>• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</td>
<td>Not applicable to this estimate – only dry mass considered.</td>
</tr>
</table>

Criteria	JORC Guidelines	Commentary
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	The TiO_2 and V_2O_5 mineralisation is associated with ilmenite-magnetite mineralogy (generally spatially integrated), either within magnetite-rich layers or as disseminated mineralisation within gabbro and/or anorthosite. As such, Snowden Optiro believes that reporting a Mineral Resource based on both TiO_2 and V_2O_5 is appropriate for Barrambie. Based on previous mining studies by Snowden Optiro (2015 PFS), which assessed the TiO_2 potential of the project, a cut-off grade of 10% TiO_2 is in Snowden Optiro's opinion appropriate for assessing the TiO_2 Mineral Resource. A cut-off grade of 0.2% V_2O_5 is believed to be appropriate for assessing the V_2O_5 Mineral Resource and is commensurate with similar deposits (e.g. Windimurra and Mt Peake). Based on this, the following cut-off grade criteria have been established by Snowden Optiro for Barrambie: ● ≥ 10% TiO_2 or ● ≥ 0.2% V_2O_5 A block in the block model will therefore be selected for inclusion in the Mineral Resource if the TiO_2 is greater than or equal to 10% or the V_2O_5 is greater than or equal to 0.2%. Only one of the criteria must be met for a block to be selected for inclusion.
Mining factors or assumptions	• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	The Barrambie deposit will be mined using conventional drill and blast with truck and shovel open pit mining methods. Reasonably small mining equipment would be used to mine the ore with limited dilution. Mining factors and assumptions are detailed in Section 4.

Criteria	JORC Guidelines	Commentary
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Metallurgical samples from the oxide and transition zones were provided for laboratory testwork. The testwork demonstrated that both V_2O_5 and TiO_2 can be recovered using a two-stage leaching process. Whilst mineralisation within the primary zone has not been tested this zone constitutes a minor proportion of the defined Mineral Resource. Testwork carried out on similar primary material from Canadian deposits indicates that the Barrambie primary material would be amenable to this processing technique. Revised metallurgical factors and assumptions are detailed in Section 4 based on testwork undertaken after the generation of the 2018 Mineral Resource.
Environmental factors or assumptions	• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	The initial studies were completed in the period 2005 to 2009 and are reported in summary in the "BARRAMBIE VANADIUM PROJECT (Project) Public Environmental Review" (PER) (Reed Resources, 2010). The PER was approved under Part IV of the Environmental Protection Act 1986 (EP Act) in Ministerial Statement 911. An application to extend the time limit for implementation was granted in 2019. A second application to extend the time limit for implementation of the Project (S46 application) will be lodged with the WA Environmental Protection Authority for approval in 2023.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Density values were estimated from the mineralised domains in the block model with regression equations using estimated Fe_2O_3, SiO_2 and Al_2O_3 block grades. Limited data was available from the transitional and very little data was available from the fresh. Waste blocks were assigned a default density based on fresh unmineralised gabbro.

Criteria	JORC Guidelines	Commentary
	• The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • Whether the result appropriately reflects the Competent Person's view of the deposit.	The Barrambie Mineral Resource is classified as and Indicated and Inferred Mineral Resource for the five major elements V_2O_5, TiO_2, Fe_2O_3, Al_2O_3, SiO_2, based on a number of criteria, including the geological confidence, the integrity of the data, the spatial continuity of the mineralisation as demonstrated by variography and the quality of the estimation. The estimates of CaO and magnetic susceptibility have not been classified as they are considered to have low confidence due to poor validation. Mineralised zones where the drill spacing is 100 m x 25 m, 120 m x 25 m or 150 m x 25 m and are within the OK variance envelope (based on a threshold of 0.5) and above the base of drilling have been classified as Indicated. Mineralised zones outside the OK variance envelope and below the base of drilling have been classified as Inferred. Mineralised zones have ben extrapolated approximately 20 m beyond the base of drilling. The Mineral Resource estimate appropriately reflects the views of the Competent Person with respect to the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	Snowden Optiro has completed an internal peer review or the estimate which has concluded that the procedures used to estimate and classify the Mineral Resource are appropriate. There have been no external audits or reviews carried out.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	The relative accuracy and confidence in the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as set out in the JORC Code. The Mineral Resource is considered to be globally accurate.

Criteria	JORC Guidelines	Commentary
	• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

JORC Code Table 1, Section 4, Reporting of Ore Reserve

The key Modifying Factors used to estimate the Ore Reserve are based on the experience of Snowden Optiro and Neometals employees for this type of deposit and style of mineralisation. The table below summarises the status of material aspects of the November 2022 Barrambie Ore Reserve estimate, against the items listed in the table as the Competent Person's assessment of Ore Reserve estimation for the Barrambie deposits.

Barrambie JORC Code (2012), Table 1, Section 4

Criteria	JORC Guidelines	Commentary
Mineral Resource for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	Snowden Optiro prepared the updated Barrambie Mineral Resource estimate in April 2018. The relevant part of the Mineral Resource estimate is provided below. No planned dilution was applied to these estimates. Mineral Resources are inclusive of Ore Reserves. Barrambie Mineral Resource reporting for a 10% TiO_2 cut-off or a 0.2% V_2O_5 cut-off is found in Table 2 of this announcement.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	Site visits were completed by the following Competent Persons: **Competent Persons** / **Items** / **Date of site visit** Frank Blanchfield / Mining / May 2007 Gavin Beer / Metallurgy / Not undertaken No metallurgy site visit was undertaken as there is no plant or drillhole core to inspect at site.

Criteria	**JORC Guidelines**	**Commentary**
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Prefeasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	The Barrambie Titanium & Vanadium Project is currently at Pre-Feasibility Study (PFS) level with the completion of this 2022 Study.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	Cut-off was based on net value (revenue minus selling, processing, administration and incremental ore mining costs) > $0/t on a diluted block-by-block basis from the parameters used in the pit optimisation. This relates approximately to a 10% TiO2 cut-off. Post dilution application a marginal cut-off grade was calculated for each block using values for: • Processing cost – CMB and LTR ($/t) • Overheads cost ($/a) • CMB and LTR throughput per annum (tpa) • MGC Yield (%) • Ilmenite price ($/t) • Iron ore price ($/t) • Ad valorem royalty (%) • Metallurgical recovery (%).
Mining factors and assumptions	• The method and assumptions used as reported in the Prefeasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	Snowden Optiro completed a mining study for this PFS study to determine a new, independent conversion of the Mineral Resource into Ore Reserve. This replaces the 2019 Ore Reserve previously determined for the Central zone focussed on V_2O_5 production via a salt-roast leach process. An evaluation using pit optimisation to produce an economic mining shell followed by detailed pit design was used to convert the Mineral Resource to an Ore Reserve. Mine equipment requirements were determined by contractors, who provided pricing using the Snowden Optiro mine production schedule as a basis. Selective mining using an open pit drill blast load and haul mining cycle is used for mining activities. Snowden Optiro completed a geotechnical analysis to recommended pit slope design parameters for Barrambie for 80m deep pit as summarised as:

<table>
<tr><th>Criteria</th><th>JORC Guidelines</th><th>Commentary</th></tr>
<tr>
<td></td>
<td>• The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.
• The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).
• The mining dilution factors used.
• The mining recovery factors used.
• Any minimum mining widths used.
• The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.
• The infrastructure requirements of the selected mining methods.</td>
<td>
<table>
<tr><th>Batter angle (º)</th><th>Berm width at base of batter (m)</th><th>Batter height (m)</th><th>Inter-ramp slope angle, crest to crest (°)</th><th>Overall slope angle, crest to toe (°)</th></tr>
<tr><td>55</td><td>7</td><td>10</td><td>35.5</td><td>38</td></tr>
</table>
Grade control is forecasted for 70% of total pit volume with reverse circulation drilling to be conducted on a 12.5m by 6.25m pattern. The orebody consists of multiple steep dipping lodes which will need to be mined selectively on 2.5m flitches within the central ore zones to minimise dilution and 5m benches within the eastern ore zone and waste zones.
The resource model used is named “m1803.dm”, generated by Snowden Optiro in March 2018, and is the subject of the April 2018 Mineral Resource estimate.
Dilution and ore loss was applied through re-blocking the model to 2.5m E by 10m N by 5m RL. This was deemed to be an appropriate selective mining unit (“SMU”) when considering blast movement, grade control patterns and loading accuracy.
Dilution and ore loss changes (with all % changes in grade being negative) by geological zone are summarised as:
<table>
<tr><th>Item</th><th>Eastern</th><th>Central</th><th>Overall</th></tr>
<tr><td>Ore loss (%)</td><td>1.5</td><td>18.5</td><td>6.7</td></tr>
<tr><td>Dilution (%)</td><td>3.0</td><td>27.3</td><td>10.4</td></tr>
</table>
The minimum mining width is 20 m.
No in pit Inferred Mineral Resources were used to quantify Ore Reserves.
</td>
</tr>
<tr>
<td>Metallurgical factors and assumptions</td>
<td>• The metallurgical process proposed and the appropriateness of that process to the style of factors or mineralisation.
• Whether the metallurgical process is well-tested technology or novel in nature.
• The nature, amount and representativeness of metallurgical testwork undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.
• Any assumptions or allowances made for deleterious elements.
• The existence of any bulk sample or pilot-scale testwork and the degree to which such samples are considered representative of the orebody as a whole.</td>
<td>The metallurgical processes proposed are both typical and appropriate to the style of mineralisation.
The metallurgical processes employed are well known and widely utilised in commercial facilities for recovering Ti, Fe, and V.

In 2020, drilling to collect material for the metallurgical bulk samples from both the eastern and central zones comprised 88 reverse circulation (RC) holes for 6,337 metres. Of this drilling 255 samples from 15 holes were combined to make a 7 tonne bulk sample of eastern zone material to use in beneficiation bench scale work. Metallurgical testwork (conventional gravity separation, reduction roasting and magnetic separation) was completed on the 7 tonne bulk composite sample of Eastern zone material to generate separate ilmenite and iron-vanadium product streams. Beneficiation overall mass pull to concentrate was typically around 58% with recoveries of TiO_2 and V_2O_5 to gravity concentrate of around 77% and 63% respectively. Low-temperature reduction roasting and subsequent magnetic separation of the beneficiated concentrate produced a high-quality ilmenite (> 52% TiO_2 content) at high recoveries (> 87% TiO_2 recovery) and mass yield of 60%, and a marketable magnetite by-product iron vanadium concentrate (with grades equivalent to 58.7% Fe and 1.58% V_2O_5). The results of the bench scale reduction roasting and magnetic separation testwork were further ratified by testwork with IMUMR at Pilot scale.

During 2021 and 2022 further confirmatory metallurgical testwork was completed to confirm:

• Selection of beneficiation circuit produce MGC from Barrambie mineralisation</td>
</tr>
</table>

<table>
<tr><th>Criteria</th><th>JORC Guidelines</th><th>Commentary</th></tr>
<tr><td></td><td>• For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications</td><td>

Variability testing of the selected beneficiation circuit
Development of a mass balance spreadsheet and process design criteria
Preparation of a process flow sheet for use in engineering design
Development of a relationship between ore grade and concentrate recovery, produced for estimating the value of each mining block of ore and to support the development of the mining plan

<p>Overall recoveries for the PFS are summarised in the table below:</p>
<p>Recoveries</p>
<table>
<tr><td></td><td colspan="2">First 10 years</td><td colspan="2">Life of Mine</td></tr>
<tr><td></td><td>Yield %</td><td>TiO_2 Recovery %</td><td>Yield %</td><td>TiO_2 Recovery %</td></tr>
<tr><td>MGC</td><td>54.2%</td><td>78.1%</td><td>49.3%</td><td>78.2%</td></tr>
<tr><td>Ilmenite (combined)</td><td>27.0%</td><td>60.1%</td><td>19.6%</td><td>53.9%</td></tr>
<tr><td>Iron-Vanadium Concentrate</td><td>18.8%</td><td>N/A</td><td>21.5%</td><td>N/A</td></tr>
</table>
<p>The following key correlations were used to provide a relationship between the mineralisation in the Barrambie Mineral Resource and key processing parameters and outputs:</p>
<table>
<tr><th>Y</th><th>X</th><th>M</th><th>C</th></tr>
<tr><td>MGC Mass Yield %</td><td>TiO2 + Fe(0) in mineralisation</td><td>1.0727</td><td>-3.8556</td></tr>
<tr><td>MGC TiO2 %</td><td>TiO2 / Fe2O3 in mineralisation</td><td>40.427</td><td>12.013</td></tr>
<tr><td>LTR Ilmenite Mass %</td><td>TiO2 % in MGC</td><td>2..8681</td><td>-50.37</td></tr>
</table>
<p>Correlations of the form y = mx + c</p>
</td></tr>
<tr><td>Environmental</td><td>• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste drums should be reported.</td><td>Two phases of studies have been undertaken in order to assess the potential impact of the Project on the various aspects of the environment. These include flora, fauna and vegetation surveys, hydrogeological investigations, air quality modelling, and waste characterisation. The initial studies were completed in the period 2005 to 2009 and are reported in summary in the “BARRAMBIE VANADIUM PROJECT (Project) Public Environmental Review” (“PER”) (Reed Resources, 2010) and in full in the Appendices. The PER was approved under Part IV of the Environmental Protection Act 1986 (EP Act) in Ministerial Statement 911. An application to extend the time limit for implementation was granted in 2019. A second application to extend the time limit for implementation of the Project (S46 application) will be lodged with the WA Environmental Protection Authority for approval in 2023.</td></tr>
</table>

Criteria	JORC Guidelines	Commentary
		A Mining Proposal for a Starter Pit that would allow two to three years of mining at 1 million tonnes per annum has been approved by the Department of Mines, Industry Regulation and Safety (DMIRS). This approval (REG ID 77751) requires the time limit for implementation of MS911 to be further extended before it can be utilised. A Works Approval for crushing and screening is also in place (W6367/2020/1) but also requires the MS911 time limit to be extended. Waste rock characterisation studies completed to date show that 21 of 22 samples are assessed as non-acid forming. The one potentially acid forming sample was "trace-pyrite" (0.37% S). Further studies will be completed to support updating the Mining Proposal. Approvals for tailings characterisation testwork was completed in support of the PER but more detailed work will be required to support a Mining Proposal and Works Approval for the tailings storage facility. At the LTR site no studies have yet been undertaken.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.	All local infrastructure required to construct, support and maintain the planned Barrambie operation will be supplied as part of the project development. With the exception of the existing Meekatharra to Sandstone Road, (which will also require some level of upgrading), none of the required facilities, supplies or services are available in the local area. Infrastructure allowed for the Barrambie site in the Study include: • A borefield for water supply • A build-own-operate gas-fired powerhouse • A 180-room self-contained accommodation village • A two-way radio network for operational communications • Upgrades and re-alignment to the existing Meekatharra-Sandstone Road The Meekatharra-Sandstone Road runs alongside the mining lease and is a dual lane unsealed road maintained by the local shires. It is subject to closure whenever there is a significant rainfall event. Reagents will generally be delivered from the south by road train. For the LTR site the following infrastructure is included: • A build-own-operate gas-fired powerhouse • A two-way radio network for operational communications • A reverse osmosis water treatment plant • A pipeline to connect into the DBNGP
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements.	The operating and capital cost data for this study has come from the following sources: Mining from NRW (dated 2nd September 2021) and SMS Mining Services ("**SMS**") (dated 11th November 2022); operating and capital cost estimates (crush, mill, de-slime, gravity beneficiation, low-temperature reduction roast, magnetic separation and infrastructure) as completed by Primero in November 2022.

Criteria	JORC Guidelines	Commentary
	• The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made or royalties payable, both government and private.	**Operating costs** (see table below) **Capital costs** (see table below)

Operating costs

Opex	A$M	A$/t feed	A$/t MGC	A$/t LTR Products
Mining				
Mining ex-pit	591.8	13.3	27.0	32.4
Incremental ore rehandle	38.9	0.9	1.8	2.1
CMB				
CMB Processing Plant	858.8	19.3	39.1	47.0
MGC transport to LTR	1213.5	27.3	55.3	66.5
Subtotal CMB	**2703.0**	**60.7**	**123.2**	**148.1**
LTR				
LTR Processing Plant	519.4	11.7	23.7	28.5
LTR Products Transport to Geraldton Port	266.0	6.0	12.1	14.6
Subtotal LTR	**785.4**	**17.7**	**35.8**	**43.0**
Shipping				
Port storage, ship loading, international freight & insurance	844.9	19.0	38.5	46.3
Total	**4333.3**	**97.4**	**197.5**	**237.4**

Capital costs

Capital	AUD$M
Mining	3.3
CMB	
Crushing & Beneficiation	52.5
Borefield Water Supply	10.0
TSF Stage 1	6.5
Infrastructure & Earthworks	18.4

<table>
<tr><th>Criteria</th><th>JORC Guidelines</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Accommodation Village</td><td>19.8</td></tr>
<tr><td>Road Relocation</td><td>12.0</td></tr>
<tr><td>Indirect Costs</td><td>49.7</td></tr>
<tr><td>Contingency (25%)</td><td>42.2</td></tr>
<tr><td>Subtotal CMB</td><td>211.2</td></tr>
<tr><td colspan="2">LTR</td></tr>
<tr><td>LTR Plant</td><td>112.5</td></tr>
<tr><td>Borefield Water Supply</td><td>5.0</td></tr>
<tr><td>Indirect Costs</td><td>56.6</td></tr>
<tr><td>Contingency (25%)</td><td>43.5</td></tr>
<tr><td>Subtotal CMB</td><td>217.6</td></tr>
<tr><td>Total</td><td>432.1</td></tr>
<tr><td>Sustaining Capex[13]</td><td>33.9</td></tr>
</table>
<p>Exchange rates used are A$:US$0.6419.</p>
<p>Provision has been made for 7.5% royalties on and iron-vanadium concentrate revenues for state government and other parties.</p>
<p>Transportation charges are included and based on MGC being trucked between Barrambie and the LTR site, and then ilmenite and iron-vanadium concentrate being trucked between the LTR site and the port of Geraldton. Sea Freight is in 50kt Supramax ships from Geraldton to Qingdao.</p>
</td></tr>
<tr><td>Revenue factors</td><td>
<p>• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</p>
<p>• The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</p>
</td><td>Neometals received pricing data from internationally recognised experts TZMI. Based on a review of these forecasts Neometals has selected an ilmenite price of $400USD/t CIF China (and $300USD/t CIF China for middling ilmenite) and iron ore price of $85USD/t CIF China. The ilmenite price matches closely with the TZMI long-term inducement price for chloride ilmenite of $360 - $430 USD/t CIF China in nominal 2026 dollars.</td></tr>
</table>

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[13] Sustaining capital to upgrade the Barrambie-Sandstone Road to PBS TDQ4B.3 to enable Super Quad payloads of up to 137t and to increase TSF capacity sequentially.

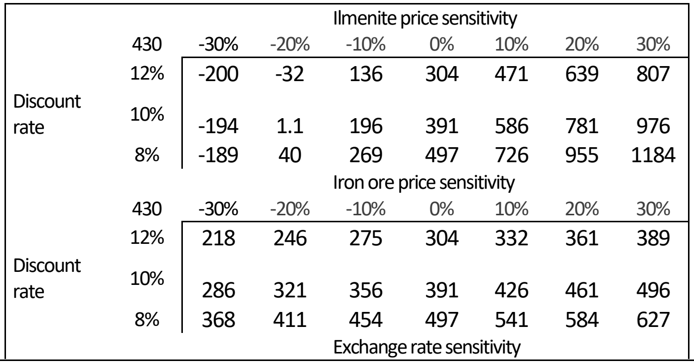
Criteria	JORC Guidelines	Commentary
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends assessment and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	Neometals and Jiuxing have a Memorandum of Understanding to develop the Barrambie Mineral Resource. The Jiuxing MoU contemplates a path to a formal offtake agreement where Neometals supplies a MGC or separate ilmenite and iron-vanadium concentrate from Barrambie to Jiuxing. Specifically, the MoU outlines an evaluation regime and contains the key commercial terms for a formal offtake agreement (i.e. pricing, volumes, price floor etc.), subject to product evaluation from smelting trials. The Jiuxing MoU contemplates the parties negotiating and entering into a binding formal offtake agreement for the supply of 800,000 dry tonnes per annum ("dtpa") of MGC or 500,000 dtpa of ilmenite and 275,000 dtpa of iron-vanadium concentrate, on a take-or-pay basis for a period of 5 years from first production. An assessment of the titanium feedstocks market including customer and competitor analysis, price and product volume was assessed by Neometals utilising information of supply, demand and pricing from TZMI. Neometals has indicated continued strong demand growth for chloride grade titanium feedstocks.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	Neometals developed a project cashflow model for the 21-year project. Financial modelling was completed by Neometals, Snowden Optiro is reliant on the metal price projections advised by Neometals. Snowden Optiro is not expert in the forecasting of metal prices, and other than to draw attention to the sensitivity of the project to these projections, is not able to comment on the risk that these projections will change over time. However, it is noted Neometals has taken into consideration data from the leading industry body for the titanium market - TZMI. The production targets are based on 100% Probable Ore Reserves. The key parameters and financial outcomes for the PFS are set out below:

Summary of Key Parameters from PFS Financial Model		
Life of Mine (LOM)	Years	21
LOM Ore Mined	Mt	44.5
LOM Waste Mined	Mt	89.0
LOM Strip Ratio	(waste:ore)	2.0
Average CMB Plant Feed Rate	Mtpa	2.14
Average Titanium Head Grade	% TiO_2	18.7
Average Titanium Recovery (Overall)	% TiO_2	53.9
Average Combined Ilmenite Production (first 10 years)	ktpa	519

Criteria	JORC Guidelines	Commentary

Average Combined Ilmenite Production (LOM)	ktpa	393
Average Iron-Vanadium Concentrate Production (LOM)	ktpa	492
Realised Ilmenite Price	USD$/t CIF China	400
Realised Middling Ilmenite Price	USD$/t CIF China	300
Realised Iron-Vanadium Concentrate Price	USD$/t CIF China	85
Spot FX Rate[14]	AUD:USD	0.6419
Initial Capital Costs (including 25% contingency)	A$M	432.1
Ave LOM Cash Operating Cost[15]	AUD$/t product	191.1
Average LOM Free Cash Flow[16]	A$M	1665
Average Annual Free Cashflow (first 10 years)	A$Mpa	136
NPV (10% Discount Rate, Pre-Tax)	**A$M**	**391**
IRR (Pre-Tax)	**%**	**25**

A sensitivity analysis on the pre-tax NPV is provided below.



Ilmenite price sensitivity

	430	-30%	-20%	-10%	0%	10%	20%	30%
Discount rate	12%	-200	-32	136	304	471	639	807
	10%	-194	1.1	196	391	586	781	976
	8%	-189	40	269	497	726	955	1184

Iron ore price sensitivity

	430	-30%	-20%	-10%	0%	10%	20%	30%
Discount rate	12%	218	246	275	304	332	361	389
	10%	286	321	356	391	426	461	496
	8%	368	411	454	497	541	584	627

Exchange rate sensitivity

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[14] RBA Closing Price Thursday 10th November 2022.

[15] Cash operating costs include all mining, processing, transport to port and site based general and administration costs and exclude all costs related to freight, royalties and native title costs.

[16] Free Cashflow is pre-tax and undiscounted.

Criteria	JORC Guidelines	Commentary

	430	-30%	-20%	-10%	0%	10%	20%	30%
Discount rate	12%	1063	746	500	304	143	8	-105
	10%	1278	909	621	391	203	46	-87
	8%	1545	1109	769	497	275	90	-67

Capital cost estimate sensitivity

	430	-30%	-20%	-10%	0%	10%	20%	30%
Discount rate	12%	413	376	340	304	267	231	194
	10%	503	466	428	391	354	316	279
	8%	613	574	536	497	459	421	382

Operating cost estimate sensitivity

	430	-30%	-20%	-10%	0%	10%	20%	30%
Discount rate	12%	692	563	433	304	174	44	-85
	10%	851	698	544	391	238	84	-69
	8%	1049	865	681	497	314	130	-54

CMB Concentrate recovery sensitivity

	430	-30%	-20%	-10%	0%	10%	20%	30%
Discount rate	12%	126	192	254	304	320	333	341
	10%	187	262	333	391	415	434	448
	8%	263	347	429	497	531	560	582

Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	**Native Title and Heritage** A heritage agreement and negotiation protocol covering the Neometals tenements associated with the Barrambie Project are currently being negotiated with the recently determined and registered Native Title party the Yugunga-Nya. Heritage surveys have been completed on the granted Mining Lease. **Consultation** Consultation with key local stakeholders including neighbouring pastoral owners, indigenous groups, government agencies including the Department of Mines, Industry and Safety Regulation (DMIRS), the Department of Water and Environmental Regulation (DWER) and the Shire of Sandstone have been undertaken. **Workforce** The workforce will fly-in/fly-out of Perth supplemented by local workforce from Meekatharra/Sandstone/Mount Magnet areas for the Barrambie site. The LTR site will be drive-in / drive-out from Geraldton. **Monitoring** Environmental monitoring and reporting required for both sites will include the following: • Annual Environmental Report

Criteria	JORC Guidelines	Commentary
		• Compliance Assessment Report under MS 911 • Reporting under the site Groundwater Licence(s) • Reporting under the site Works Approval and Licence. **Training** All personnel recruited to work at the Project will be inducted to all general safety requirements and emergency procedures relevant to the operation, prior to commencing work at the site. Neometals will implement in-house and/or external training programs which will provide individuals with the necessary skills, knowledge and competencies required to perform their work safely and responsibly. Records of all training completed by each individual will be maintained and a Training Attendance Record will be kept. **Licence to operate** A Works Approval and Licence to operate from DWER is required to operate. A Works Approval and Licence can only be granted once the S46 has been approved and the required additional tenure has been granted. Based on the information currently available, it is anticipated that all necessary approvals will be granted within the required timeframes.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	In-pit Indicated Mineral Resources were used as the basis of Probable Ore Reserve, estimated using the guidelines of the JORC Code (2012). The result of the classification reflect the Competent Person's view of the deposit. No Inferred Resources is included in the Ore Reserve estimate.
Other	• The status of agreements with key stakeholders and matters leading to social licence to operate. • To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements.	The Project has previously been approved under Part IV of the of the Environmental Protection Act 1986 (WA) (EP Act) and is subject to Ministerial Statement (MS) 911. An application to extend the time limit for implementation was granted in 2019. Neometals will submit a further Section 46 application under Part IV of the EP Act in 2023 in order to extend the "Time Limit for Proposal Implementation" (Condition 3 of MS 911). Approval is granted for the extraction of a Bulk Sample (Reg ID 70790). The granted Mining Lease M57/173-I is sufficient to enable the commencement of mining at Barrambie. Additional tenure in the form of future Mining Lease(s) over mineralised areas of Exploration Licenses will be made, and if required General Purpose Leases will be applied for. These mining tenements will allow for the growth of stockpiles and waste rock landforms required for the Project. This tenure is anticipated to be applied for in 2023, with grant anticipated in 2024. The project is currently unencumbered with any offtake arrangements, however a non-binding MOU for 800dktpa MGC or 500dktpa of ilmenite and 275dktpa of iron-vanadium concentrate is in place with potential offtake partner Jiuxing.

Criteria	JORC Guidelines	Commentary
		Secondary approvals are required for the Project, including a Mining Proposal, Mine Closure Plan and Groundwater licence, before works at the site can commence.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	There have not been external audits or reviews of the 2022 PFS. Mineral Resource estimate, pit optimisation, design and schedule as developed for the Barrambie Pre-Feasibility Mining Study were reviewed internally by Snowden Optiro.
Relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. • The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	The capital cost estimates in this study relating to mining, processing and cost performance are underpinned by a comprehensive Preliminary Feasibility Study which has an assessed with global accuracy of +25% and -25% at the 90% confidence range. Factors that could affect the accuracy of the Ore Reserve are related to the project risks assessed as “high”: • Dilution: A powder factor averaging 0.33 kg/BCM was proposed by SMS who completed mine cost estimates. Snowden Optiro recommends detailed blast movement modelling be done on several of the lodes differing in shape and thickness in ore to better quantify and control dilution. • Silica levels and beneficiation: An incomplete understanding of the relationship between the specific properties of the ore being mined and the achievable levels of silica in the concentrate produced and the overall recovery through the beneficiation circuit. This will require reconciliation between the mine and the mill to manage the ore feed to assist in controlling silica levels in the concentrate. Further variability testwork on the Barrambie Mineral Resource is required to confirm yields and qualities of MGC. • Low-temperature reduction Roast: The LTR design is based solely on recommendations and testwork performed by Roundhill Engineering. Further variability testwork will be required to determine yields and qualities of ilmenite and iron-vanadium concentrate in the LTR. The Ore Reserve is supported by the current 2022 Barrambie Titanium Project PFS Report being compiled by Neometals. Snowden Optiro’s opinion of the Ore Reserve is that the classification of probable is reasonable, based on the PFS outcomes reviewed by the CPs.

APPENDIX 3

Glossary

US$ or USD	United States Dollars
AUD $ or A$	Australian Dollars
µm	Micrometre
AACE	Association for the Advancement of Cost Engineering
Al_2O_3	Alumina
bcm	Bank Cubic Meter
Ca	Calcium
CaO	Calcium oxide
CIF	Cost Insurance and Freight as defined by Incoterms (a set of internationally recognised rules which define the responsibilities of sellers and buyers in the export transaction)
CMB	Crush, mill and beneficiate
Competent person	The JORC Code requires that a Competent Person must be a member or Fellow of The Australasian Institute of Mining and Metallurgy, or of the Australian Institute of Geoscientists, or of a “Recognised Professional Organisation”. A Competent Person must have a minimum of five years’ experience working with the style of mineralisation or type of deposit under consideration and relevant to the activity which that person is undertaking
DBNGP	Dampier to Bunbury Natural Gas Pipeline
DSO	Direct shipping ore,
DTPA	Dry tonnes per annum
Fe/V	Iron vanadium concentrate
Fe_2O_3	Iron oxide
Feedstock	Raw material supply to a process
Gangue	Commercially valueless material
HDPE Pipeline	High density polyethylene pipe
Ilmenite	Minerals source of titanium dioxide
K_2O	Potassium oxide
kg	Kilogram
ktpa	Kilo tonnes per annum
LiFePO4	Lithium iron phosphate
m3/h	Cubic metres per hour
Magnetite	A mineral and one of the main iron ores, with the chemical formula Fe2+Fe3+2O
Mass yield	Amount of mass exiting a process step as a percentage of the amount of mass entering a process
Mg	Magnesium
MGC	Mixed gravity concentrate
MgO (%)	Magnesium oxide

Middling Ilmenite	Lower quality Ilmenite that contains less titanium dioxide than ilmenite
Mineral Resources	Mineral Resources are a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub- divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories
MnO (%)	Manganese oxide
Mt	Million tonnes
Mtpa	Million tonnes per annum
MW	Megawatt
Nb_2O_5	Niobium pentoxide
Opex	Operating expenditure
Ore Reserves	Parts of a Mineral Resource that have the potential to be economically mined based on current assumptions
P_2O_5	Phosphorus pentoxide
PFS	Pre-feasibility study
PV	Photovoltaics
Reverse Circulation	Drilling method
SiO_2	Silica
Slag	Waste matter
SO_3	Sulphur trioxide
Spodumene	Hard-rock lithium
Synthetic rutile	Synthetic rutile is produced by upgrading ilmenite in a rotary kiln. It is a high-grade titanium dioxide feedstock
Tailings	Waste stream
Th	Thorium
TiO_2	Titanium dioxide
tpa	Tonnes per annum
TSF	Tailings storage facility
U	Uranium
V_2O_5	Vanadium oxide