#### **Manuka Resources Limited**

- Operating gold & silver producer
   Exceptional exploration potential within
   the Cobar Basin, NSW Australia
- Valuable production infrastructure, strategically located



## South Taranaki Bight Project

- World class tier 1 project
- Offshore Vanadium Titaniferous Iron Sands
- West Coast, North Island
   New Zealand

#### **Disclaimer**



This disclaimer applies to this presentation and the information contained in it (the **Presentation**). By reading this disclaimer you agree to be bound by it. The Presentation has been prepared by Manuka Resources Limited and relates to its subsidiaries, related parties and any new assets or entities subsequently acquired or incorporated (collectively the **Company**). The Presentation was prepared on 25 January 2024 and the information in it is subject to change without notice.

#### Purpose

The Presentation is for information purposes only and is an overview of the Company and its assets at the time of preparation. This Presentation does not contain all information necessary to make an investment decision or that would be required in a prospectus or product disclosure statement prepared in accordance with the requirements of the Corporations Act 2001 (Cth) (Corporations Act). The Presentation is of a general nature and does not purport to be complete or verified by the Company or any other person.

#### **Distribution outside Australia**

Distribution or release of this document outside Australia may be restricted by law. This document may only be distributed or released to a person that is not in the United States except as permitted under the U.S. Securities Act. Persons who come into possession of this document who are not in Australia should seek advice on and observe any such restrictions. Any failure to comply with such restrictions may constitute a violation of applicable securities laws.

#### Not an offer or financial product advice

The Presentation does not constitute an offer, invitation, solicitation or recommendation with respect to the purchase or sale of any security in the Company nor does it constitute financial product advice. The Presentation is not a prospectus, product disclosure statement or other offer document under Australian law or under any other law. The Presentation has not been filed, registered or approved by any regulatory authority in any jurisdiction. The Presentation is not intended to be relied upon as advice or a recommendation to investors and does not take into account the investment objectives, financial situation, taxation situation or needs of any particular investor.

An investor must not act on the basis of any matter contained in the Presentation and must make its own assessment of the Company and conduct its own investigations and analysis. Investors should assess their own individual financial circumstances and consider talking to a financial adviser, professional adviser or consultant before making any investment decision. Neither this Presentation nor anything contained in it forms the basis of any contract or commitment and no agreement to subscribe for securities will be entered into on the basis of this Presentation.

#### No guarantee, representation or warranty

While reasonable care has been taken in relation to the preparation of the Presentation, none of the Company or their respective directors, officers, employees, contractors, agents, or advisers nor any other person (Limited Party) guarantees or makes any representations or warranties, express or implied, as to or takes responsibility for, the accuracy, reliability, completeness or fairness of the information, opinions, forecasts, reports, estimates and conclusions contained in the Presentation. No Limited Party represents or warrants that the Presentation is complete or that it contains all information about the Company that a prospective investor or purchaser may require in evaluating a possible investment in the Company or acquisition of shares in the Company. To the maximum extent permitted by law, each Limited Party expressly disclaims any and

all liability, including, without limitation, any liability arising out of fault or negligence, for any loss arising from the use of or reliance on information contained in the Presentation including representations or warranties or in relation to the accuracy or completeness of the information, statements, opinions, forecasts, reports or other matters, express or implied, contained in, arising out or derived from, or for omissions from the Presentation including, without limitation, any financial information, any estimates or projections and any other financial information derived therefrom.

#### **Forward-looking statements**

The Presentation includes forward-looking statements and comments about future events, including the Company's expectations about the performance of its businesses. Forward-looking words such as "expect", "should", "could", "may", "predict", "plan", "will", "believe", "forecast", "estimate", "target" or other similar expressions are intended to identify forward-looking statements. Such statements involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company and which may cause actual results, performance or achievements to differ materially from those expressed or implied by such statements. Forward-looking statements are provided as a general guide only, and should not be relied on as an indication or guarantee of future performance. Given these uncertainties, recipients are cautioned to not place undue reliance on any forward-looking statement. Subject to any continuing obligations under applicable law, the Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements in the Presentation to reflect any change in expectations in relation to any forward-looking statements or any change in events, conditions or circumstances on which any such statement is based. No Limited Party or any other person makes any representation, or gives any assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statements in the Presentation will occur.

#### **Past performance**

Past performance is not indicative of future performance and no guarantee of future returns is implied or given.

#### **Previously reported information**

The information in this presentation that relates to previously reported exploration results, Mineral Resources and Ore Reserves is extracted from the Company's ASX announcements noted in the text of the presentation and are available to view on the Company's website. The Company confirms that, other than mining depletion, it is not aware of any new information or data that materially affects the information included in the original announcements and, in the case of estimates of Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant announcement continue to apply and have not materially changes. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially altered.

## **Corporate Summary**

**ASX: MKR** 

Share price (25 January 2024) A\$0.084

Shares on issue 565.1m

Market capitalisation (undiluted) A\$47.47m

Listed and unlisted options (\$0.05 to \$0.35 strikes) 92.3m

**Board of Directors & Senior Management** 

Executive Chairman Dennis Karp

Executive Director (TTR)

Alan Eggers

Non-executive Director Anthony McPaul

Non-executive Director John Seton

Company Secretary Toni Gilholme

Chief Operating Officer Haydn Lynch

Shares held by board and management 18.3%





"Manuka intends to grow shareholder value by optimising quality resource assets. The emerging green fuelled global economy is providing such opportunities."

## **Board of Directors & Management**





Dennis Karp – Executive Chairman

Dennis commenced his career in the Australian financial markets in 1983. He was the Head of Trading at HSBC Australia prior to joining Tennant Limited in 1997. one of Australia's largest physical commodities trading companies with operations in Asia and Europe. He was a principal shareholder of Tennant Metals until 2010, and a director until December 2014,

He led the syndicate which purchased the Manuka assets in 2016. He holds a Bachelor of Commerce from the University of Cape Town



Alan Eggers – Executive Director

Alan is a geologist with over 40 years of local & international experience. He brings with him exceptional commercial expertise and was a founding director of Summit Resources Ltd which they built from listing on the NZX in 1987 into an ASX top 200 company and an ultimate takeover by Paladin Energy for A\$1.2B in 2007. He holds a number of private directorships.

Alan holds Bachelor of Science, Honours and Master of Science degrees from Victoria University of Wellington. He's a Fellow of the Society of Economic Geologists, & a member of AusIMM, & Australian Institute of Geoscientists



Anthony McPaul – Non-Executive Director

Tony is a senior mining executive with over 40 years' experience in mining operations and mineral processing, (both underground & opencut operations). He was most recently the general manager for Newcrest's Cadia Valley Operations, in Orange NSW, and formally retired from Newcrest in 2016.

Tony has sat on a range of Boards and industry bodies including the Minerals Council Executive Committee and Mineral Industry Advisory Council. He qualified in automotive engineering from Goulburn TAFE.



John Seton – Non-Executive Director

John is an Auckland based lawyer with extensive experience in commercial law and the mineral resources sector. He was a director of Summit Resources Limited until its sale in 2007, as well as being a director of a number of other ASX and NZX listed private companies. He was a former Chairman of the Vietnam/New Zealand Business Council.

John holds a Bachelor of Laws from Victoria University, Wellington, and a Masters of Law (Honours) from the University of Auckland and was a Chartered Fellow of the New Zealand Institute of Directors until 2023.



Toni Gilholme – Company Secretary

Toni is an experienced Chartered Accountant with over 20 years' experience in Financial Accounting and Company Secretarial matters and over 10 years of experience in a variety of roles in Public Practice. She has worked in a range of senior positions both in the UK and in Australia and has a strong focus on efficiency gains through improving processes and strengthening internal

She holds a Bachelor of Business from the University of Technology, Sydney and is a qualified Chartered Accountant



Haydn Lynch — Chief Operating Officer

Over 25 years of experience in M&A, financial markets and private equity, and with a substantive track record in the origination and execution of domestic & cross-border transactions in metals & mining in Australia, Africa, Japan, China, and Mongolia.

Senior management experience includes Bankers Trust Australia, Investec Bank, RBC Capital Markets and Southern Cross Equities. Haydn has degrees in Mechanical Engineering and Economics from the University of Qld and a Masters in Commerce from the University of New South Wales.

# The world class Taranaki VTM Project New Zealand





#### **Taranaki VTM Project – project highlights**

- World class resource 3.2bt vanadium, titanium & magnetite (iron ore)
- Targeted lowest quartile carbon emissions\* of Fe producers globally (62kg CO<sub>2</sub>/t vs 125-250kg CO<sub>2</sub>/t)
- Anticipated lowest quartile costs for Fe producers\* US\$20-24/t FOB (PFS 2013 adj. inflation) EXCLUDING credits from vanadium or titanium
- Located within NZ EEZ (exclusive economic zone targeting gas, oil, mining)
- NZD\$85m invested to date (~US\$50m)
- Mining Licence granted 2014 (MP55581) 5Mt pa production for 20 years
- Granted initial EPA environmental consents to operate 2017 final approval process nearing completion
- New Zealand government focused on implementing mining code subject to appropriate environmental safeguards
- Announced Maiden Vanadium JORC Resource\*\* 1.6Mt of contained V<sub>2</sub>O<sub>5</sub>

<sup>\*</sup> based on TTR PFS: <a href="https://www.manukaresources.com.au/site/investor-centre/pending-acquisitions">https://www.manukaresources.com.au/site/investor-centre/pending-acquisitions</a> and as per ASX releases dated 1 August 2022 and 1 March 2023





#### **Positive Recent Developments in NZ**

- National ACT NZ First coalition government elected November 2023
- Seismic shift in government sentiment for minerals and mining
- First 100 Day Plan Policies include:
  - > Update Crown Minerals Act to promote use of Crown Minerals
  - Create critical minerals list with preferred pathway to development (V & Ti)
  - > Prioritise regional and national projects of significance
  - Fast track one stop shop consenting for natural resource projects of significance
  - Identify strategical opportunities in mineral resources, including vanadium, and develop plans to develop these opportunities





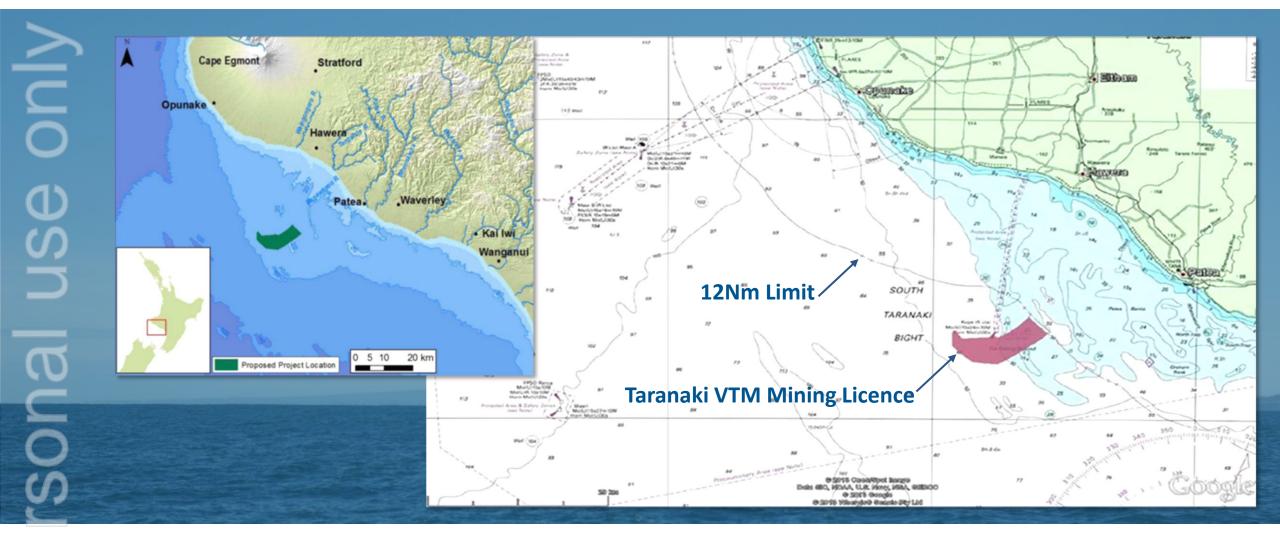
#### The Vanadium Market is Coiled Like a Spring

- Demand for vanadium expected to grow & double by 2030
- Extensively used as a strengthener in steel & catalyst for industrial processes
- Emerging demand in utility scale battery storage (VRFBs):
  - China leading the charge with development of VRFBs
  - ➢ If China builds half its planned VRFBs by 2030 China will go from largest vanadium exporter in world to net importer
  - Each 1,000Mw (1Gw) battery requires 10,000 tonnes vanadium
  - ➤ 180 1Gw batteries planned build next 7 years will consume 100% global supply
  - In 2018 10% deficit in vanadium supply rockets vanadium price 6x to US\$30lb

# Taranaki VTM Project Mining Permit MP55581









#### **TTR JORC Resource Estimates**







- TTR has drilled a 914Mt JORC Resource in MP55581 (Stage 1) Mine Area
- 3.2Bt Indicated and Inferred Mineral Resource
- Existing approval of 5mtpa mining licence (MP55581) with initial 20 year mine life\*\*
- VTM Concentrate Grade 0.5%V<sub>2</sub>0<sub>5</sub> 8.5%TiO<sub>2</sub> 55%
   57%Fe

Taranaki VTM Resource Estimates Summary									
	Indicated and Inferred Mineral Resources			DTR Concentrate					
Inside 12Nm (RMA)	Cut-Off Grade	Mt	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	V2O5%	Mt	Fe%	TiO <sub>2</sub> %	V2O5%
Cook North Block	3.5% DTR*	274	11.90	1.19	0.06	21	57.19	8.12	0.52
Kupe North Block	3.5% DTR*	417	11.48	1.21	0.06	31	57.07	8.35	0.51
Tasman North Block	7.5% Fe <sub>2</sub> O <sub>3</sub>	585	9.02	0.88	0.04				
Total VTM Resource RMA		1,275	10.44	1.05	0.05				
Outside 12Nm (EEZ)									
Cook South Block	3.5% DTR*	914	10.95	1.12	0.05	63	55.84	8.45	0.50
Kupe South Block	3.5% DTR*	272	9.76	0.98	0.05	16	56.33	8.43	0.50
Tasman South Block	7.5% Fe <sub>2</sub> O <sub>3</sub>	695	8.81	0.89	0.04				
Total VTM Resource EEZ		1,881	9.99	1.01	0.05				
Taranaki VTM Resource Total		3,157	10.17	1.03	0.05				

<sup>\*</sup>Davis Tube Recovery (DTR) Estimate is based on analytical DTR and calculated DTR values

<sup>\*\*</sup> JORC (2012) refer ASX release dated 1st March 2023







#### **Environmental Advantages**

- Operation has small environmental footprint with only 300m x 900m area of disturbance at any time
- Very low carbon emissions (<50%) compared to other hard rock iron ore deposits with no: Heavy machinery mining fleet, Open pits, Waste dumps, Haul roads, Energy intensive crushing & grinding circuits, Railroad or ports
- No chemical additives in processing or tailings
- Natural processes delivers rapid rehabilitation of mined areas
- Short term confined environmental impact with rapid recovery
- No impact on fish, whales or dolphins
- No legacy issues with rehabilitation part of recovery process

#### **TTR Project Metal Production**





#### ANNUAL CONCENTRATE PRODUCTION

Iron Ore (57%Fe) 5Mt

Vanadium Pentoxide
 20,000t V<sub>2</sub>O<sub>5</sub> (11,000t V 80% recovery)

Titanium Dioxide 340,000t TiO<sub>2</sub> (80% recovery)

#### GLOBAL VANADIUM METAL PRODUCERS<sup>1</sup>

China 40,000t V

• Russia 18,000t V

New Zealand (TTR STB)<sup>2</sup> 11,000t V

South Africa 7,700t V

• Brazil 5,500t V



1 USGS 2022: V vanadium metal Project Economics based on 57% Fe iron ore concentrate only. Metallurgical test work to be completed to establish recoverable vanadium and titanium credits
2 Based on proposed 5Mt annual VTM concentrate production

#### **TTR Project Economics**





#### **COMMODITY PRICES JANUARY 2024**

• Iron Ore (62%Fe) US\$136.00t

Vanadium Pentoxide US\$6.00lb

• Titanium Dioxide US\$3,500t

#### TTR METAL IN CONCENTRATE VALUE TONNE<sup>1</sup>

Iron Ore
US\$119 (11.0% discount applied to 62%)

• Vanadium<sup>2</sup> US\$55

• Titanium<sup>2</sup> US\$240

Metal in concentrate value US\$414



1 Note: Project Economics based on 57% Fe iron ore concentrate only. Metallurgical test work to be completed to establish recoverable vanadium and titanium credits

2 Based on 80% metallurgical recoveries





#### **Economic Benefits to NZ**

- Directly employs 270 operational staff & 30 Admin HO support
- Indirect around 1,665 jobs nation wide
- Operation has annual operating spend \$250m
- Generates royalty revenues \$70m & corporate taxes \$180m pa
- Foreign exchange earnings US\$580m pa
- No government infrastructure or handouts required
- TTR iron sand resource provides strong commercial base that will weather shifts in commodity price cycles
- Project will be profitable long term producer >60 years



## **TTR Integrated Mining Vessel (IMV)**





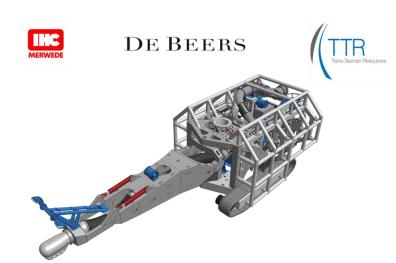


### **TTR Submerged Crawler Technology**





- Integrated Mining Solution Proven Design
- DeBeers & IHC Marine to Supply (Have Built 8 Crawlers over 20 Years Experience)
- DeBeers to Commission and Operate First 2 years (Option to Extend)
- DeBeers to Provide Local Training
- Technology & Skills Transfer to NZ
- Reduced Commissioning Risk for TTR







#### **TTR Trans Shipment & Export**





- Iron Ore Concentrate Transferred to the FSO (Floating Storage Offloading) from IMV
- FSO Dewaters Ore
- FSO Tranships to Cape Sized Ore Carriers
- Cape Sized Vessel Delivers VTM Ore Concentrate to customers
- An Anchor Handling Tug (AHT) Assists with:











#### **Business Milestones**

#### **STB Iron Sands Project – What's Next**

•	<b>EPA Consents reissue</b>	d C	2	2024	4
---	-----------------------------	-----	---	------	---

Metallurgical Tests and Marketing Report Q3 2023

Final Design & BFS Q4 2024

Construction Contracts & Build Q1 2025

Commission & First Production Q3 2026 – Q4 2026





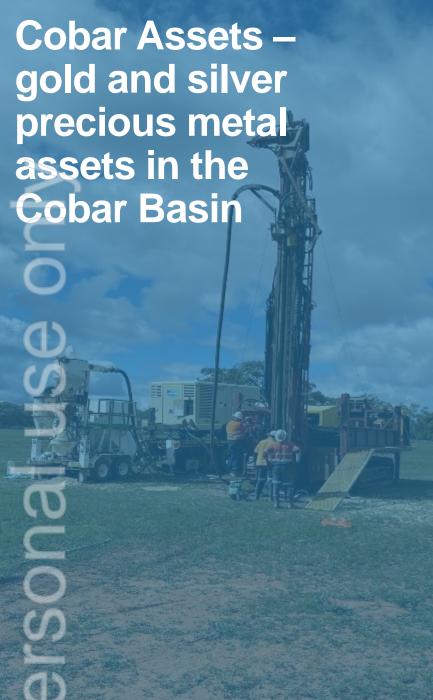




## Development of STB Seabed Mineral Recovery Project is a significant opportunity for New Zealand

Delivers essential and critical minerals for the shift towards net zero carbon

- World demand for VTM product, diversification of supply and security of supply chains of critical minerals for western nations
- NZ will be a global leader in Seabed Mining including:
  - Mineral recovery technology
  - Marine environmental research, monitoring & permitting
  - Potential to propel NZ to world's third largest vanadium supplier
  - Western world's largest supplier vanadium at 20,000t V<sub>2</sub>O<sub>5</sub>
- STB operation will set a benchmark for seabed mining operations
- EEZ well regulated, has high environmental safeguards and protection





#### Mt Boppy Gold Project (100% owned)

#### **Restarted Mt Boppy screening project in May 2023**

- Open pit mine (previously produced circa 500,000oz Au @ 15g/t Au)
- 42 person mining camp, power & water, administration office, exploration office
- Currently reprocessing tailings, ROM stockpiles and waste dump
- Mineral Resource update 160,100oz gold @2.01g/t\*, currently awaiting results of Sonic drill program over waste dump
- Fantastic exploration potential from Mt Boppy (beneath pit) and also Pipeline Ridge etc
- Mt Boppy was previously one of the richest gold mines in NSW

#### **Wonawinta Silver Project (100% owned)**

- Total resource 38.3Mt @ 41.3g/t Ag & 0.54% Pb (containing 50.94M oz Ag, 207,200t F)
- ~200,000t stockpile remaining production halted January 2023
- 850,000t-1.0Mt.p.a. plant, mine camp and all necessary infrastructure
- Further confirmation of Cobar style Pb Zn Ag Wonawinta Deeps as announced 1 June
   2021
- Exceptional exploration potential



# Mt Boppy tenements – key exploration programs 2023/24 financial year

2023/24 exploration activities are to be focussed on the following:

#### 1. Pipeline Ridge

Targeting: add substantially to existing resource est. (looking to add up to 210,000oz Au @2.4g/t Au)

Objective: evaluate for shallow oxide opencut gold, as well as copper, zinc & lead underground options

Activity: in-fill, RC & DD

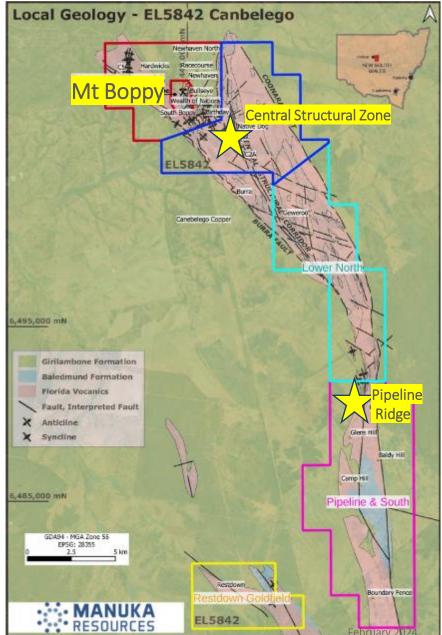
2. Mt Boppy (beneath recently mined pit shell)

Targeting: resource expansion within existing ML

Objective: grow existing resource >100,000oz Au

Activity: combine RC and DD drill programs, targeting mineralisation between 300m – 600m deep





#### Manuka's Gold and Silver Resource Base



On 25<sup>th</sup> August 2023 a Resource Update was announced for the Mt Boppy gold project.

On 1st April 2021 a Resource Upgrade was provided for Wonawinta Silver Project reflecting a 43% increase in the Measured and Indicated Resource Categories.

## Mineral Resource Summary 25 August 2023 Mt Boppy Resources

Resource Category	Tonnes	Grade Au (g/t)	Contained gold ounces
Measured	106,850	5.25	18,028
Indicated	605,200	3.01	58,500
Inferred	1,770,355	1.47	83,608
Total	2,482,405	2.01	160,100

## JORC Resources Wonawinta Silver Project as at 1 April 2021\*

Resource Category	Material (Mt)	Ag (g/t)	Ag Moz	Pb (%)	Pb kt
Measured	1.1	47.3	1.65	0.69	7.5
Indicated	12.3	45.5	18.04	0.83	102.8
Inferred	24.9	39	31.25	0.39	96.9
Total	38.3	41.3	50.94	0.54	207.2
Stockpile	0.515	70	1.16		



## Mt Boppy (past, present & future) Au



Mt Boppy produced 500koz @ 15 g/t from a very contained area

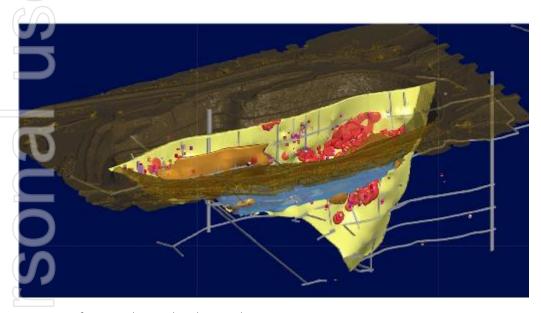
Manuka commenced production of Mt Boppy ores in April 2020 IPO estimated Phase 1 of 22-24koz Au (actual >41,000koz)

Higher grades + plant operating efficiencies combined to drive Phase 1 production to nearly double original forecast\*

Mt Boppy is open at depth with along-strike extensions to the South

Currently includes Measured\*\* resource of ~107,000t @ 5.25g/t Au (18,020oz gold) as well as an Indicated resource of 605,000t @3.01g/t Au (58,500oz gold)

Awaits Mt Boppy Deeps drill program (now planned to commence H1 2024)



Perspective view looking south-east. West lode is shown in orange, east lode shown in yellow and current pit design in blue, and high-grade zone (5 g/t Au) shown in red. Historical workings are shown in grey







#### Silver production at Wonawinta

- Wonawinta produced approx. 3.0Moz silver during 2012-2013, and an additional 500,000oz silver in 2022
- Previously Australia's largest primary silver producer
   JORC mineral resource estimate following extensive infill drilling ~51M oz silver (also 207Kt Pb not included as silver equivalent)
- Substantial plant capacity >850k-1.0m t/a (processed part of the stockpiles in bottom photo on the right during 2<sup>nd</sup> half 2022 as a trial program, for recoveries of approx. 400,000oz silver)
- Provides fantastic optionality for future silver production, project fully permitted, plant and all infrastructure operational



