





#### **BARRA RESOURCES LIMITED**

RIU Explorers – February 2020

Sean Gregory | Managing Director & CEO





## **KEY MESSAGES**

## Dual commodity strategy in play with Coolgardie gold projects

- Burbanks Main Lode mining opportunity
- Down plunge drilling planned

#### **Cobalt Market Dynamics**

- Most leveraged battery mineral
- Pricing at bottom of cycle
- Supply disruption underway in DRC

#### **Mt Thirsty Cobalt-Nickel Project**

- PFS and Ore Reserve published today
- Advanced, high grade, low capex, undervalued cobalt-nickel project
- Mt Thirsty is the sustainable source of 'first-world' cobalt for EV batteries



Projects all located in WA's stable goldfields

# COMMODITY PRICE TO RISE

- Positive PFS completed despite counter-cyclical market
- Long term demand from EV batteries set to grow
- Cobalt supply scarce as it is usually a by-product of nickel and copper mines in the DRC





## DRC SUPPLY DISTRIBUTIONS

World's 3 largest cobalt mines all struggling at current prices...

#### Mutanda, Glencore, DRC

20% of 2018 world supply 27.3kt

Closed December 2019 due to low prices and oxide ore depletion

## **Tenke Fungurume, China Moly, DRC**

14% of 2018 world supply 18.5kt
Struggling with low prices

Struggling with low prices and new DRC royalty regime

# ≡ FINANCIAL TIMES August 21, 2019 1:23 pm by Tom Wilson in Nairobi Mining Congo's biggest copper miner warns of operating loss Chinese-owned Tenke Fungurume latest to reveal hit from lower prices and higher taxes

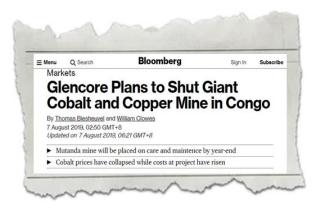
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## Kamoto, Katanga Mining, DRC

8% of 2018 world supply 11.1kt

Requires ion exchange plant to deal with uranium in the ore



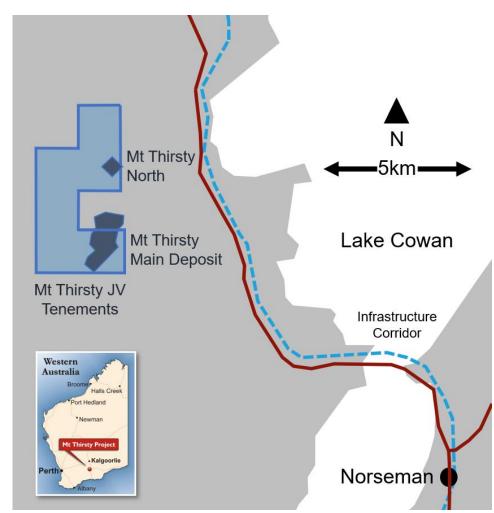






- Location: 16km northwest of Norseman, WA
- Infrastructure in place: rail, road, power, gas, water, townsite, fibre optic and port
- Joint Venture: 50/50 Barra and Conico Ltd



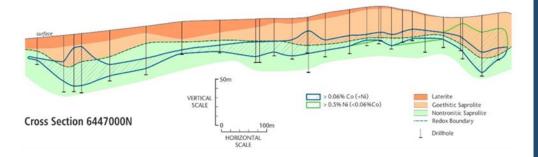


#### Ore Reserve

~0.07% Co Cut-off	Category	Dry Tonnes (Mdt)	Co (%)	Ni (%)	Mn (%)
Mt Thirsty Main	Probable	18.8	0.126	0.54	0.80

#### Mineral Resource

0.06% Co Cut-off	Category	Dry Tonnes (Mdt)	Co (%)	Ni (%)	Mn (%)
Mt	Indicated	22.8	0.121	0.53	0.79
Thirsty Main	Inferred	2.5	0.103	0.45	0.66
Mt Thirsty North	Inferred	1.5	0.092	0.55	0.48
Total	Ind. & Inf.	26.9	0.117	0.52	0.76





## MT THIRSTY MAIDEN ORE RESERVE

- 82% Resource to Reserve conversion
- Cobalt grade is double that of most nickel laterites
- Flat lying and low strip ratio with best grades at surface

Refer to ASX Announcements 9/9/2019 for Mineral Resource and 20/2/2020 for Ore Reserve details. Mineral Resource is inclusive of Ore Reserve.



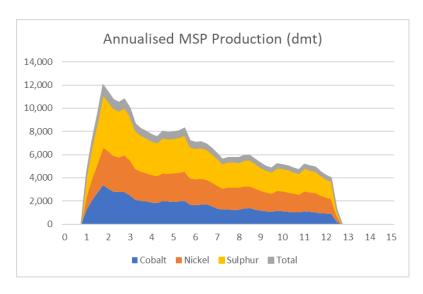


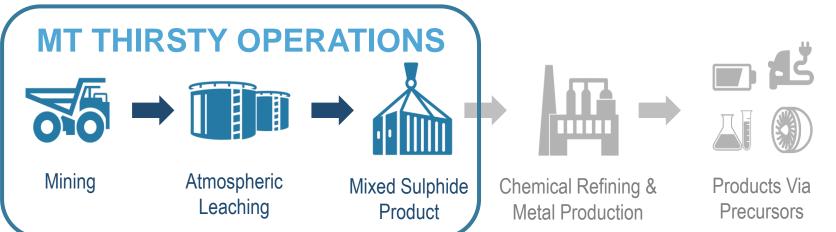


## PRODUCT VALUE CHAIN



- MSP suitable for metal, chemical and battery markets
- Critical mineral of strategic interest to many multinationals
- Product is 100% reserved for 'big brother' development partner





## VALUE REALISATION

- Capex A\$371M including all add-ons
- Pre Tax NPV = A\$44.4M counter to cycle
- AISC of US\$35,400/t Co
- Barra targeting end users for outright sale or farm out
- NOT traditional BFS and project finance
- Project cash burn now reverts to a minimum



Material assumptions – Forex 0.67, Co Price US\$61,000/t, Ni Price US\$17,850/t, Co Payability 80%, Ni Payability 85%. Post tax NPV A\$25.7M. Refer ASX Announcement 20/2/20 for full details.



## **Australian Cobalt Projects**

	Mt Thirsty JV	Cobalt Blue	Ardea GCNP	Australian Mines Sconi	Cleanteq Sunrise
Study Completed	PFS	PFS	PFS	BFS	DFS
Capex	A\$ 371 M	A\$ 550 M	A\$ 599 M+	A\$ 1,372 M	A\$ 1,988 M
Mineral Resource	26.9 Mdt	72 Mt	216 Mt+	76 Mt	183 Mt
Ore Reserve	18.8 Mdt	46 Mt	40 Mt	34 Mt	147 Mt
Co Reserve Grade	0.13%	0.08%	0.09%	0.10%	0.09%
Ni Reserve Grade	0.55%	-	0.82%	0.67%	0.56%
Proportion Co Revenue*	72%	86%^	27%	34%	36%
Market Cap	BAR A\$ 11M CNJ A\$ 3M	A\$ 20 M	A\$ 59 M	A\$ 48 M	A\$ 194 M

Mt Thirsty is the lowest capex, highest grade, most leveraged cobalt project in Australia

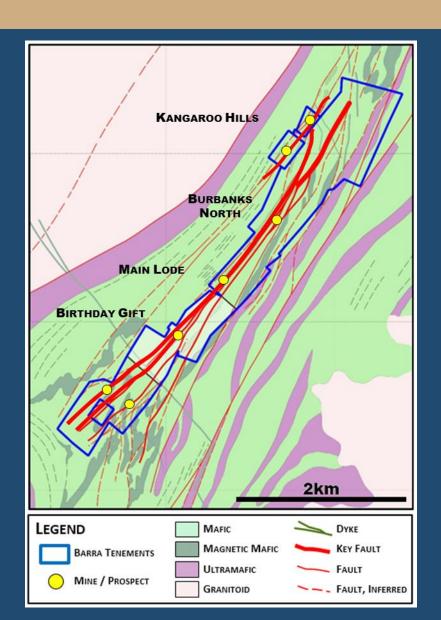
<sup>\*</sup>Co Grade x Co Recovery X Co Price US\$61,000/t / (Co Grade x Co Recovery X Co Price US\$61,000/t + Ni Grade x Ni Recovery x Ni Price US\$17,850/t)
^COB revenue proportion from ASX:COB PFS 4/7/2018

<sup>+</sup>The Global Mineral Resource for ARL's Kalgoorlie Nickel Project is 773Mt @ 0.05% Co 0.70% Ni. Higher capex options also studied.



#### **BURBANKS – OVERVIEW**





Historical U/G production

**420** kOz Au

Indicated and Inferred Mineral Resources

145 kOz Au 1

- Positive 2019 scoping study <sup>1</sup>
- Actively seeking mining partners
- RC drilling planned

<sup>&</sup>lt;sup>1</sup> Refer to Appendix and ASX Announcements 23/09/19 for full details; Inferred Resources have a low level of geological confidence; mining quantities and financial metrics not published in line with regulatory requirements.

#### **BURBANKS – SCOPING STUDY**



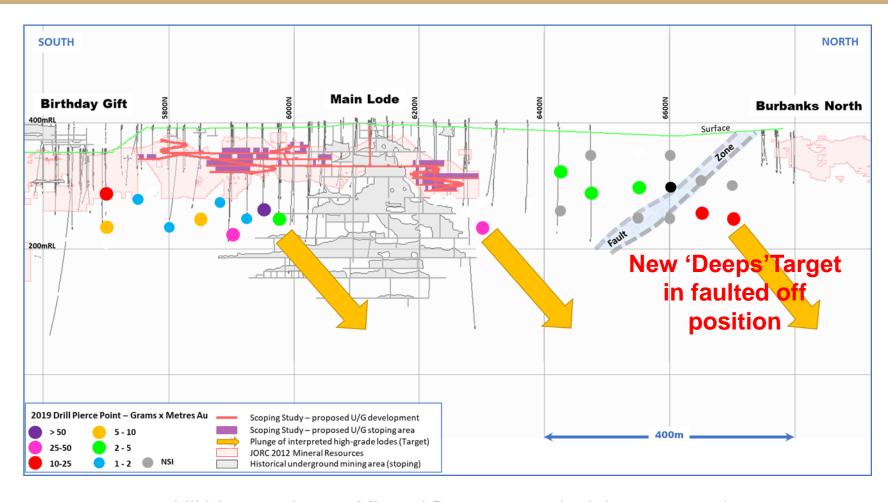


- Potentially economic mining identified<sup>1</sup>
- Fast track approvals available
- Multiple toll treatment mills nearby
- Leverages existing infrastructure

<sup>&</sup>lt;sup>1</sup> Refer to Appendix and ASX Announcements 23/09/19 for full details; Inferred Resources have a low level of geological confidence; mining quantities and financial metrics not published in line with regulatory requirements.

#### **BURBANKS – FURTHER TARGETS**





- 2019 drill hits to enhance Mineral Resource and mining opportunity
- 2020 drilling to target down plunge extensions of known positions
- New 'Deeps' target may represent the discovery of a new lode



## SUMMARY

Advanced, high grade, low capex, undervalued cobalt nickel project

## MT THIRSTY PFS

High quality PFS engineering will withstand end user scruitiny



Maiden Ore Reserve published



Preferred next step – farm out or outright sale to end user



Near Term Gold Production Opportunity and Exploration at Burbanks



## THANK YOU

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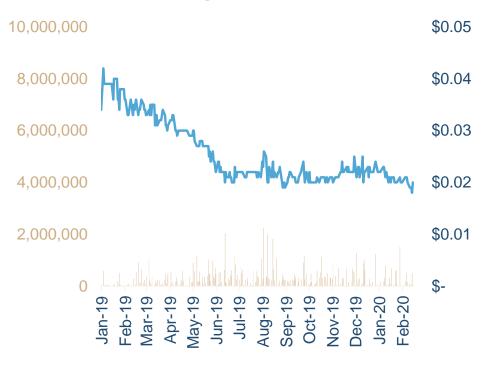


### APPENDIX: CORPORATE OVERVIEW

- 596.5M shares outstanding
- Market cap \$11.3m @ 1.9c
- Cash
  - \$1,180,000 31 December 2019
- Shareholders
  - FMR Investments Pty Ltd 14.0%
  - Mineral Resources Ltd 9.6%
  - >3000 other shareholders
- Up to \$500k loan to Conico Ltd agreed to fund their 50% share of PFS completion costs
- Experienced board and management
  - Sean Gregory, MD & CEO
  - Gary Berrell, Chairman
  - Grant Mooney, NED & Co Sec
  - Jon Young, NED
  - Gary Harvey, Exploration Manager



#### **ASX:BAR**





Deposit	Cut-Off g/t Au kt		Indicated		Inferred		Total		Refer ASX		
		kt	Grade g/t Au	Ounces	kt	Grade g/t Au	Ounces	kt	Grade g/t Au	Ounces	Ann.
Christmas Open Pit	1.0	5.7	6.2	1,100	4.0	7.8	1,050	9.7	6.9	2,150	23/9/19
Birthday Gift Underground Mine	2.5	180	6.0	34,750	325	5.6	58,500	505	5.7	93,250	23/9/19
Main Lode Deposit	1.0	106	2.8	9,700	254	2.5	20,200	360	2.6	29,900	30/10/18
Burbanks North	1.0				360	1.8	20,400	360	1.8	20,400	2/08/19
Total	1.0/2.5	291	4.9	45,550	943	3.3	100,150	1235	3.7	145,700	

All tonnages reported are dry metric tonnes. Minor discrepancies may occur due to rounding to appropriate figures.



## APPENDIX: COMPETENT PERSON STATEMENT & DISCLAIMER

Discipline	JORC Section	Competent Person	Employer	Professional Membership
Mt Thirsty Geology	Exploration Results and	Michael J	Tasman Resources Ltd; Consultant	MAIG
	Mineral Resources	Glasson	to MTJV; holds shares in Conico Ltd	
Mt Thirsty Resource Estimation	Mineral Resources	David Reid	Golder Associates Pty Ltd	MAusIMM
Mt Thirsty Metallurgy	Exploration Results and	Peter Nofal	AMEC Foster Wheeler Pty Ltd	FAusIMM
	Ore Reserves		trading as Wood	
Mt Thirsty Mining	Ore Reserves	Frank	Snowden Mining Industry	FAusIMM
		Blanchfield	Consultants Pty Ltd	
Burbanks and Phillips Find Geology	Exploration Targets,	Gary Harvey	Barra Resources Ltd; holds shares in	MAIG
	Exploration Results and		Barra Resources Ltd	
	Mineral Resources			
Burbanks North and Main Lode	Mineral Resources	Andrew	BM Geological Services Pty Ltd	MAIG
Resource Estimation		Bewsher		
Burbanks Birthday Gift and Christmas	Mineral Resources	Richard	Mining Plus Pty Ltd	MAIG
Pit Resource Estimation		Buerger		

#### **COMPETENT PERSONS' STATEMENT**

The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves for the Mt Thirsty Cobalt-Nickel Project is based on and fairly represents information compiled by the Competent Persons listed in the table above. The Competent Persons have sufficient relevant experience to the style of mineralisation and type of deposits under consideration and to the activity for which they are undertaking to qualify as a Competent Person as defined in the JORC Code (2012 Edition). The company is not aware of any new information or data that materially affects the information presented and that the material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

#### FORWARD LOOKING STATEMENTS DISCLAIMER

This report contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this report. No obligation is assumed to update forward-looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.