



# Havilah Resources

*Strategic Minerals in South Australia*



## **2024 AGM Technical Presentation**

### Realising Shareholder Value

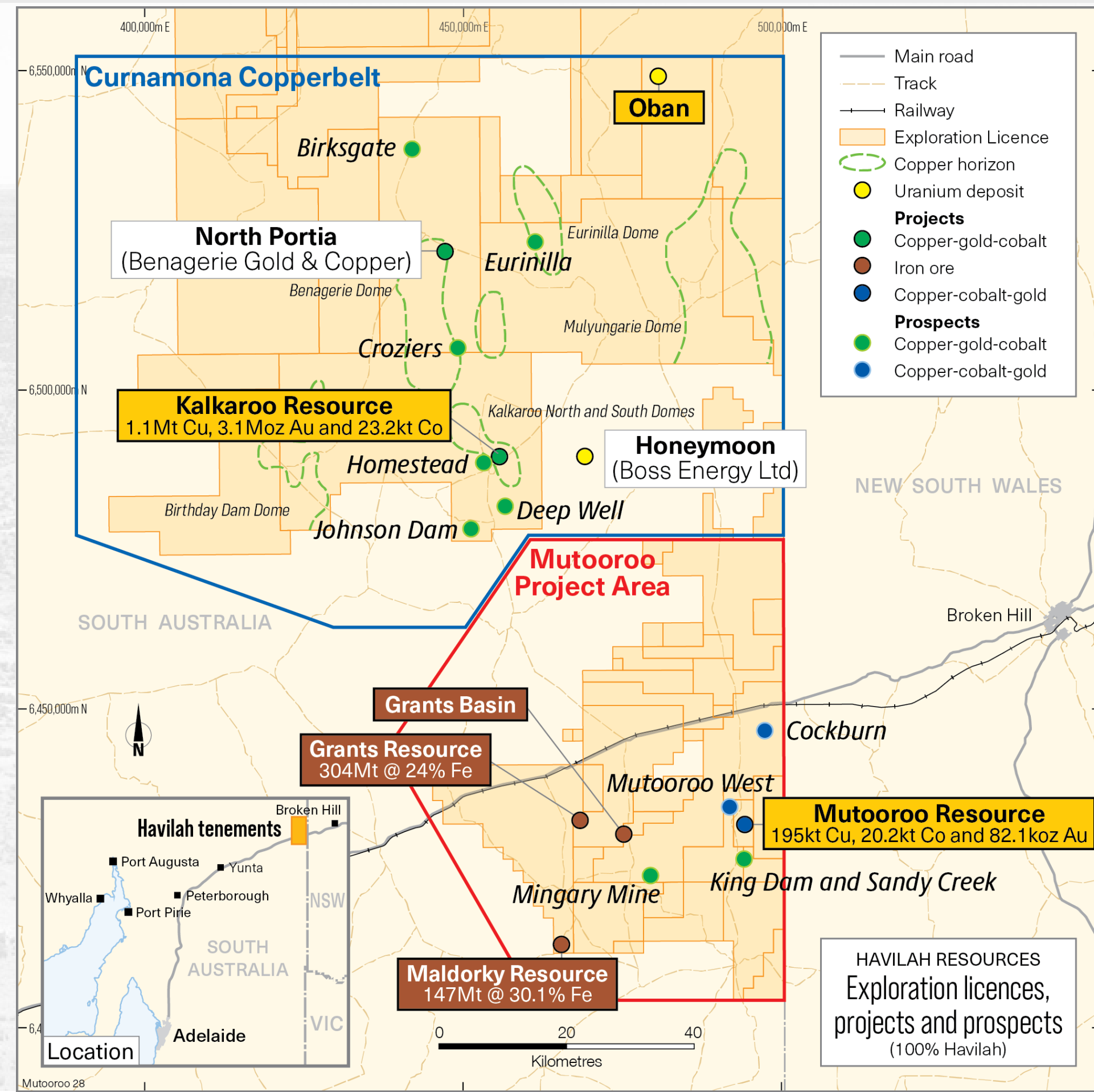
Chris Giles, Technical Director, Havilah Resources



# 2024 – Another busy and productive year

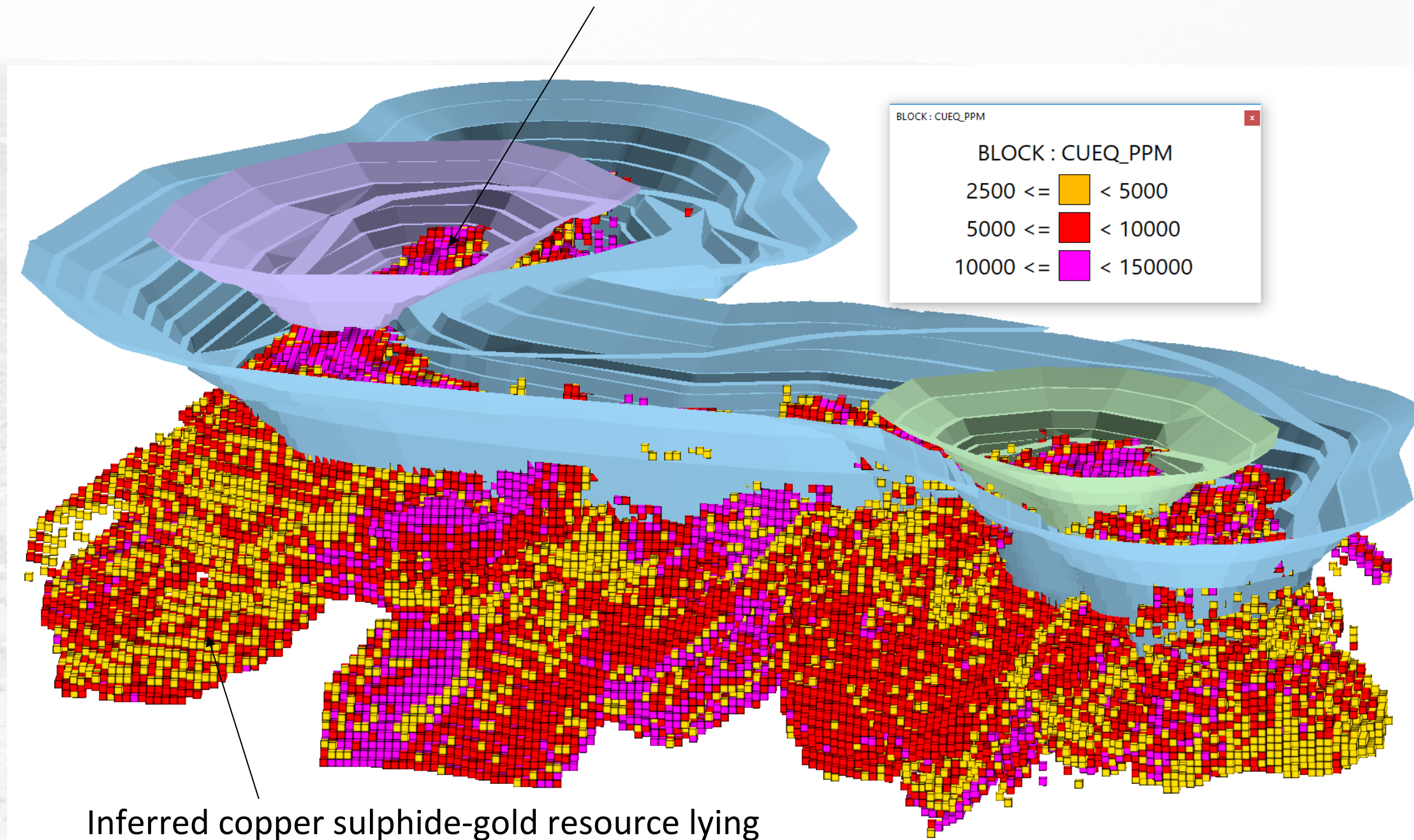


- We achieved many of our stated objectives.
- Commenced an association with JX Advanced Metals Corporation of Japan for a study program at Mutooroo.
- Divested palaeochannel and other non-core uranium assets to Koba Resources Limited and Heavy Rare Earths Limited for shares and options for an earn-in right on relevant Havilah tenements exclusively for uranium (excepting for Radium Hill).
- Active engagement with parties on Kalkaroo project sale. In the meantime benchmark values were provided by two recent undeveloped Australian copper-gold project transactions (Rex Minerals Limited's Hillside project and Rio Tinto's Winu project).
- Exploration success in discovery of significant mineralisation outside of the Mutooroo resource and also within potential trucking distance of Kalkaroo, namely:
  - Birksgate prospect – extensions of copper mineralised zone
  - Eurinilla dome prospect – high grade supergene copper
  - Kalkaroo North Dome Closure prospect – molybdenum
  - Croziers prospect – beryllium and tungsten (plus copper, gold and rare earth elements).



# Kalkaroo sale process

**Main Kalkaroo** copper-gold oxide and sulphide open pit 3.5 km long, > 200m deep, containing 100 Mt Ore Reserve at 0.81% CuEq



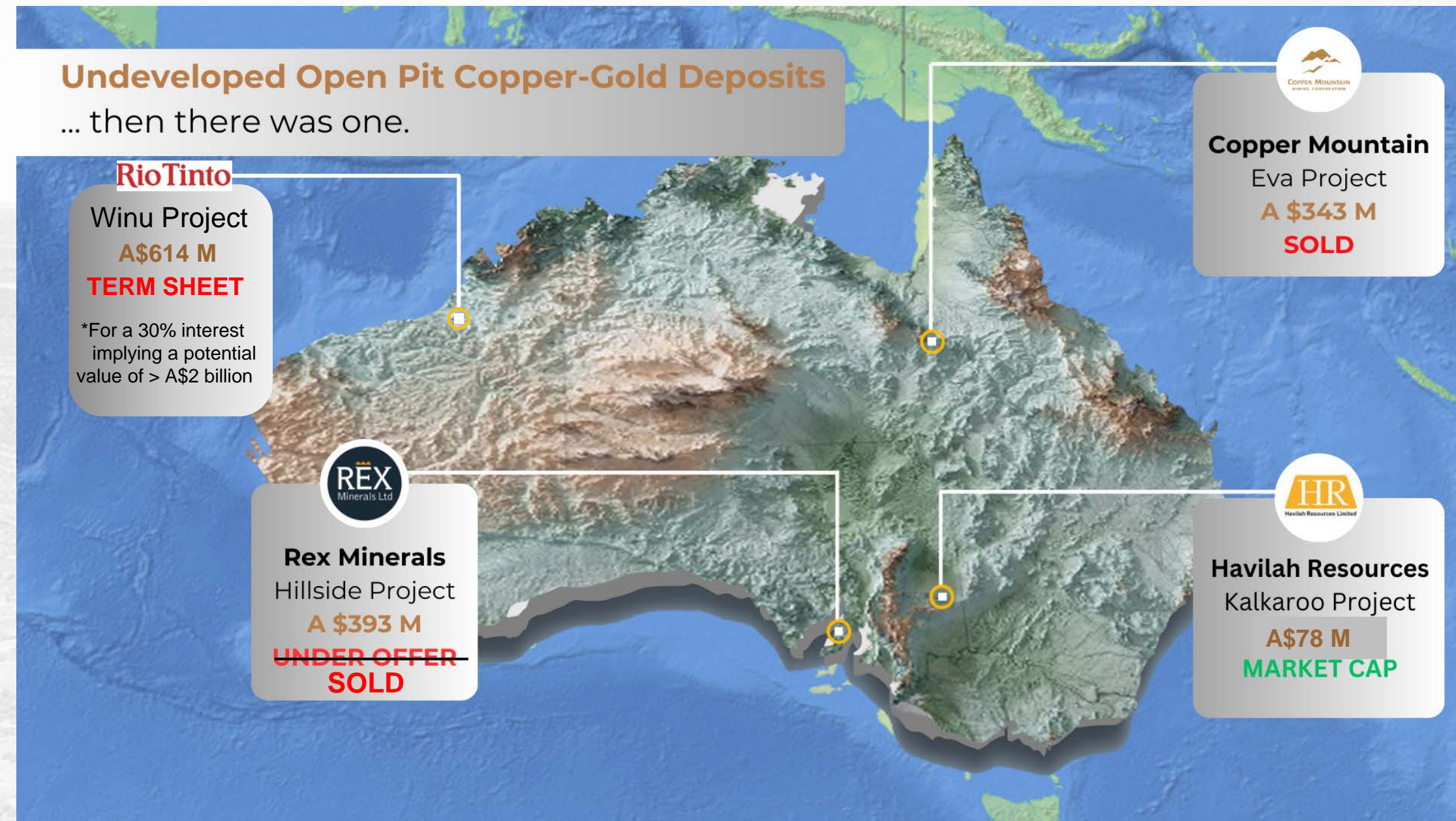
Inferred copper sulphide-gold resource lying outside of current Main Kalkaroo open pit design

- During 2024 we have engaged with a number of capable parties. We have found that:
  - The resource, metallurgy and exploration upside present no issues.
  - Mismatched timing and sometimes too busy or pre-occupied with their other acquisitions.
  - Not willing to accept Havilah’s financial terms.
  - A reluctance to take on the capital and construction risk of a new copper-gold development.
  - Havilah possibly handicapped by not having an up to date PFS, which was the original objective of the OZ Minerals agreement.
- At this time, we are still engaged with interested parties who are continuing with internal due diligence.

\* CuEq calculation is based on the formula:  $CuEq = Cu \text{ ore reserve grade} + (\text{value } 1g/t \text{ Au} / \text{value of } 1\% \text{ Cu} \times Au \text{ ore reserve grade} \times Au \text{ recovery} / Cu \text{ recovery})$ . Assumptions: gold price USD2700 /oz, copper price USD9,100 /tonne, ore metal grades and metal recoveries are from published Kalkaroo JORC Ore Reserve table and PFS (refer to slide 16).

# Kalkaroo is more compelling than ever

- Recent sales of comparable undeveloped open pit copper-gold projects indicates there is significant demand. Notably all have been sold to overseas parties.
- Benchmarking against sale prices indicates multiples of Havilah's present market capitalisation.
- Kalkaroo is comparable to these projects and has a number of additional positive attributes:
  - Excellent upside for delineation of additional resources within the existing granted mining lease.
  - Multi-metal deposit – copper-gold plus cobalt, molybdenum, tungsten, rare earth elements.
  - Low sovereign risk northeastern South Australia.
  - Good logistics – near highway, railway, Broken Hill.
  - Land ownership, granted ML, native title agreement.
  - Potential access to renewable energy sources.
  - Part of a wider copper-gold-strategic metals play covered by Havilah's extensive surrounding tenement holding in the Curnamona Province.



Three large undeveloped open pit copper-gold deposits in Australia have been (Eva and Hillside) or are being sold in part (Winu) to overseas parties. **Kalkaroo is the only comparable deposit in Australia with a PFS that remains 100% owned by an ASX listed junior resource company, namely Havilah Resources Limited (ASX: HAV).**

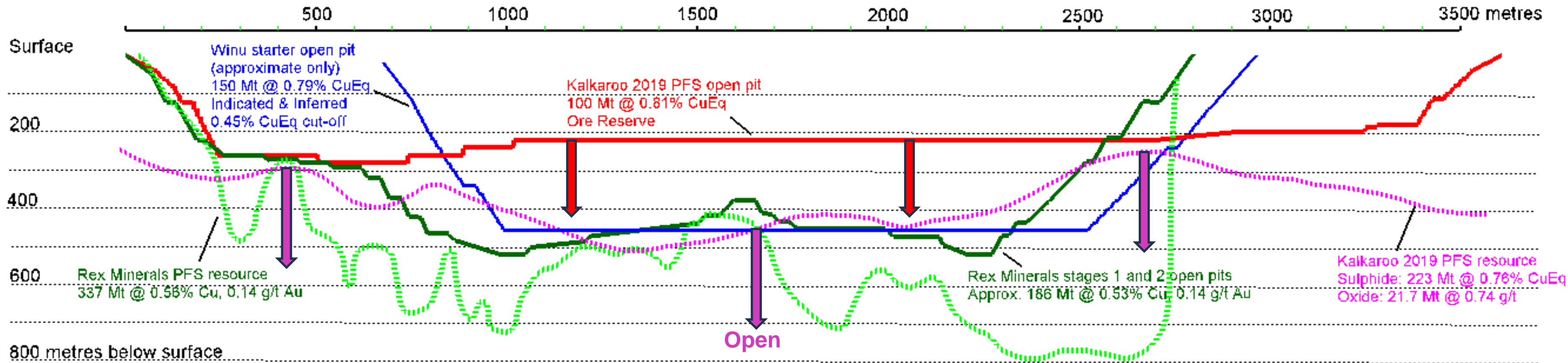
Note that in choosing the peer comparison assets, the Company's material assumption was that each asset had to be an undeveloped potentially open pit copper-gold deposit within Australia that was of similar size to Havilah's own Kalkaroo project. Each asset is at an advanced study stage with substantial JORC Mineral Resources of copper and gold.

For further details on the transaction terms for the three copper-gold deposits, refer to Appendix A.

# Kalkaroo compares favourably with its peers



Schematic, comparative long sections through Kalkaroo, Hillside and Winu copper-gold projects based on published reports



Project*	Owner	Acquisition cost (A\$)	Sunk cost (A\$)	Ore Reserve	Status
<b>Kalkaroo</b>	Havilah 100%	n/a	\$22 M	Proved: 90.2 Mt @ 0.48% Cu, 0.44 g/t Au Probable: 9.9 Mt @ 0.45% Cu, 0.39 g/t Au	PFS update ML granted
<b>Hillside</b>	MACH 100% Rex Minerals takeover by MACH Metals	<b>\$393 M</b>	not available	Proved: 61 Mt @ 0.50% Cu, 0.16 g/t Au Probable: 125 Mt @ 0.55% Cu, 0.13 g/t Au	FS pre-develop. Fully permitted
<b>Winu</b>	RioTinto 100% Term sheet for sale of 30% to Sumitomo	<b>\$614 M</b> for 30%	\$674 M	No Ore Reserve PFS not completed	PFS in progress
<b>Eva</b>	Harmony Gold Acquisition from Copper Mountain (C6C)	<b>\$343 M</b>	not available	Proved: 93 Mt @ 0.48% Cu, 0.08 g/t Au Probable: 78 Mt @ 0.43% Cu, 0.05 g/t Au	FS review and update

\*For sources of JORC Mineral Resource and Ore Reserve data and other information for each of these copper-gold deposits, as shown in the long section and the table, refer to Appendix B and for Kalkaroo, slide 16. Note that in choosing the peer comparison assets, the Company's material assumption was that each asset had to be an undeveloped potentially open pit copper-gold deposit within Australia that was of similar size to Havilah's own Kalkaroo project. Each asset is at an advanced study stage with substantial JORC Mineral Resources of copper and gold.

# Mutooroo – Havilah’s other advanced copper-cobalt-gold project

- JX Advanced Metals Corporation (JXAM) has been funding an ~\$3 million study program at Mutooroo that includes drilling and metallurgical studies ([ASX announcement 19 August 2024](#)).
- Since commencement Havilah and JXAM have completed over 5,500 metres of drilling including reverse circulation pre-collar drillholes, mostly with Havilah’s drilling rig, and diamond tail extensions using a contractor drilling rig. Continuing as we speak.

## About JX Advanced Metals:

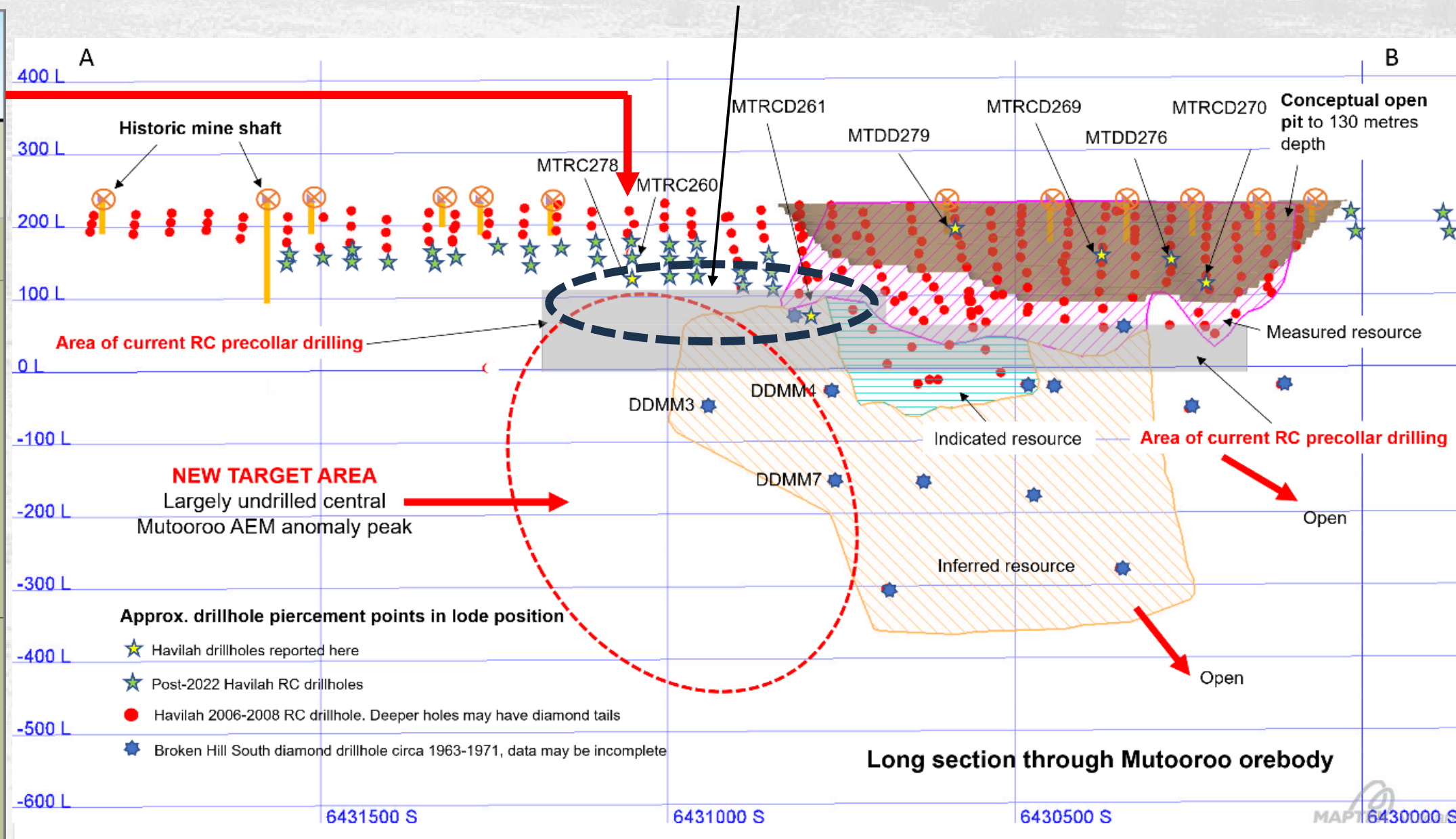
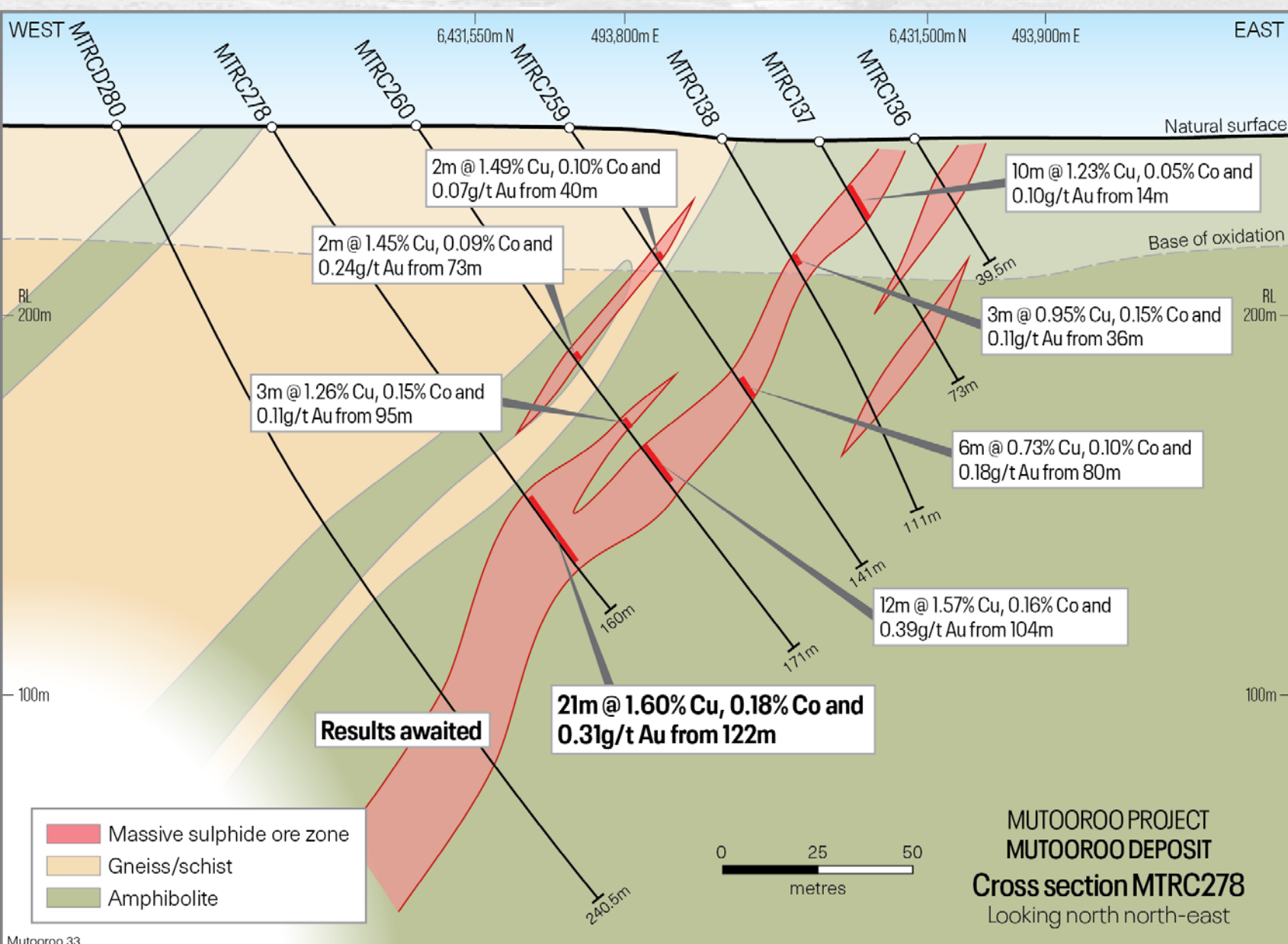
- A large Japanese non-ferrous metals enterprise whose operations encompass mining, smelting, refining, recycling, and manufacture of advanced materials.
- Own the 450,000 tpa capacity Saganoseki Smelter and Refinery.
- Sell refined copper, semiconductor materials and smelting byproducts including sulphuric acid, chemical products, precious and rare metals.
- Experienced in investing in copper mining operations in order to secure future sources of metal supply.



# Mutooroo upside – why these ‘sections’ are important

- Initial drilling within the Mutooroo resource to obtain metallurgical samples, now completed and samples with lab in Brisbane.
- Subsequently, focused on drilling outside of the current resource at the northern end with the aim of expanding the shallow potentially open pittable ore.
- Encouraging thick intersections that are above the average Mutooroo resource grade ([ASX announcement 27 November 2024](#)).
- These intersections lie above an electromagnetic (AEM) conductive zone at depth that is largely untested, hence further upside.

Most recent drillholes in this area



# Multiple exploration success in prospective terrain

Discovered eight large copper-gold-strategic metals mineralised systems that are within potential trucking distance of Kalkaroo

## Croziers prospect ([ASX announcement 11 December 2024](#) and [7 January 2020](#))

- 20 metres of 0.54% Cu plus associated >1000 ppm Nd and W in skarn horizon.
- Abundant magnet REE, W and Be over > 4 km strike potential in multiple zones.

## North Dome Closure prospect ([ASX announcement 27 May 2024](#))

- 30 metres of 0.21% Mo and 5 metres of 4.79 g/t Au in K2 unit and widespread low grade Cu, HREE, uranium.
- >12 km of untested prospective strike around the dome.

## Eurinilla Dome prospect ([ASX announcement 8 March 2024](#))

- 32 metres of 1.96% Cu and 0.84 g/t Au including 8 metres of 6.38% Cu and 2.72 g/t Au in supergene zone.
- >20 km prospective strike around the dome.

## Birksgate prospect ([ASX announcement 15 January 2024](#))

- 10.9 metres of 0.84% Cu, 0.64/g/t Au, 493 ppm Mo plus U and V in MMG-Havilah JV diamond drilling confirmed by HAV RC drilling more than 1.5 km to the east.
- Mineralised K3 unit target potentially covers an area of >8km<sup>2</sup> in a synclinal structure.

## North Dome prospect ([ASX announcement 16 Nov. 2023](#))

- 54 metres of 0.27% Cu; 60 metres 0.56 g/t Au to end of hole in fault/quartz breccia zone.
- > 5 km untested strike of fault zone.

## Homestead prospect ([ASX announcement 29 Aug. 2023](#))

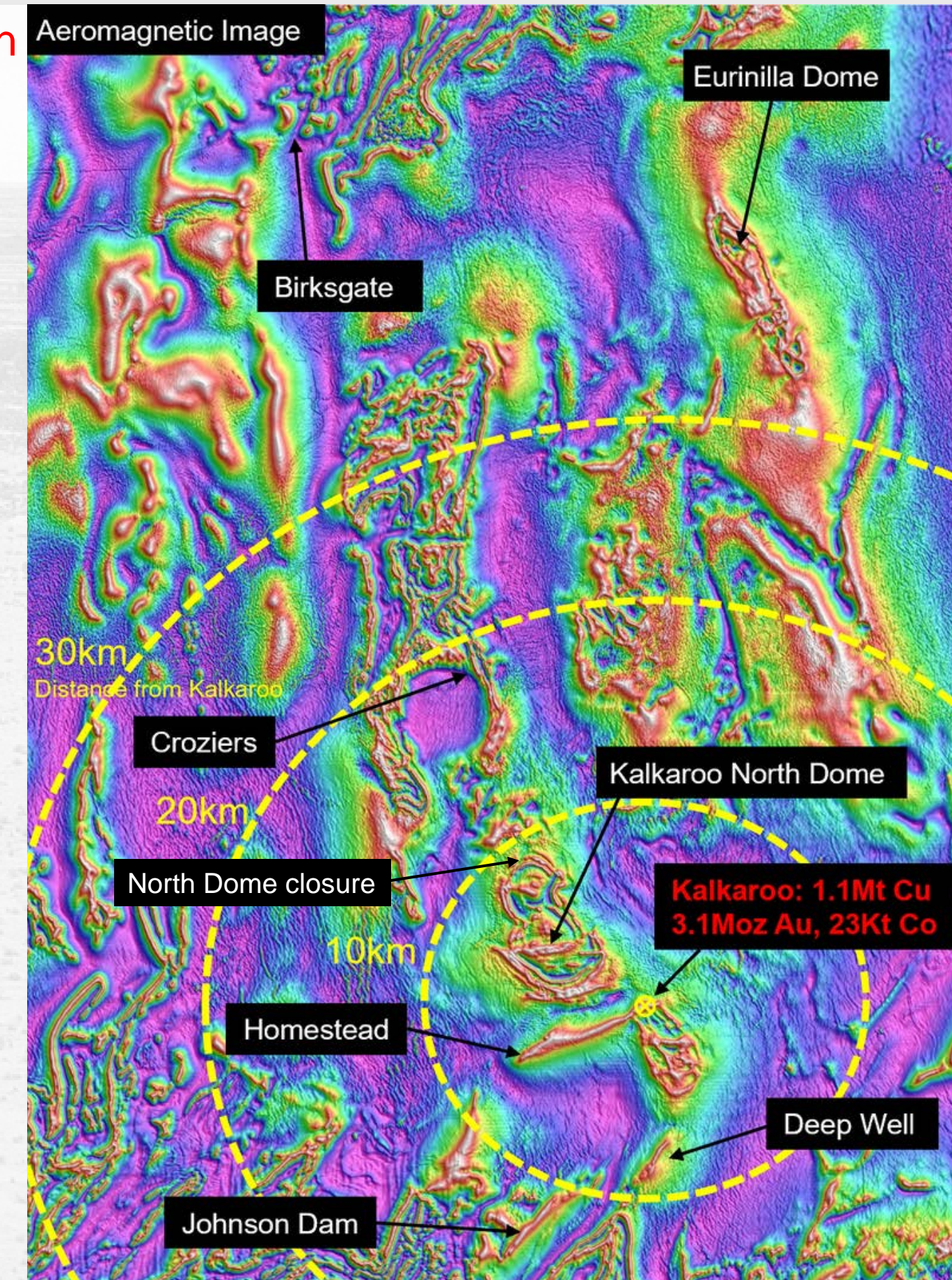
- 27 metres of 0.23% Cu, 3 metres of 5,530 ppm TREEO, 4 metres of 3.3 lbs/tonne U<sub>3</sub>O<sub>8</sub> in extension of West Kalkaroo – faulted anticline. > 5 km untested strike of K2 unit.

## Johnson Dam prospect ([ASX announcement 17 May 2023](#))

- 22 metres of 0.27% Cu, 15 metres 405 ppm Co, 22 metres of 3,533 ppm TREEO, 6 metres of 3.3 lbs/tonne U<sub>3</sub>O<sub>8</sub> on eastern faulted anticlinal limb. > 3 km untested strike of K2 unit.

## Deep Well prospect ([ASX announcement 9 May 2023](#))

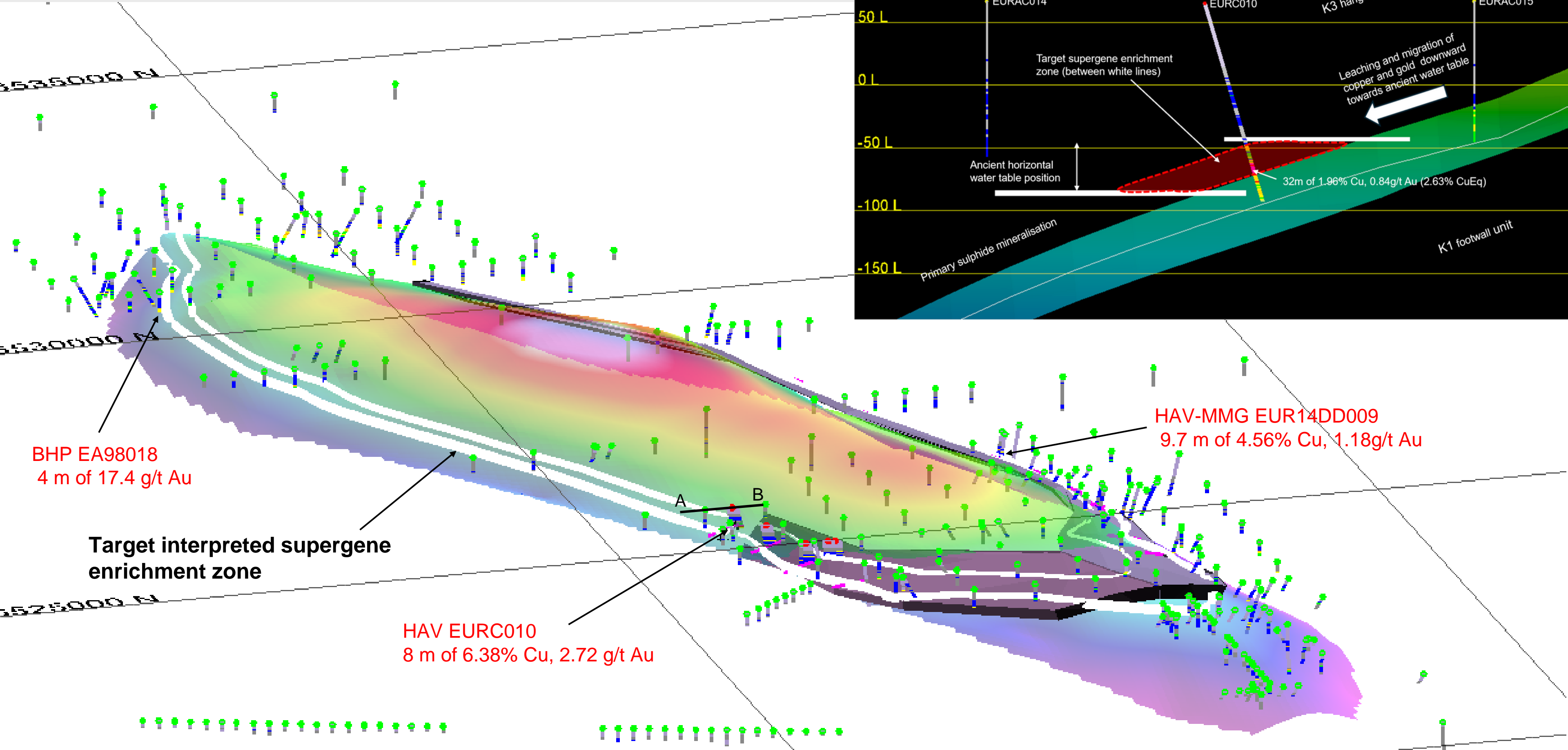
- 19 metres of 0.42% Cu and 206 ppm Co in faulted anticlinal closure.
- > 4 km untested strike of prospective horizon (K2 unit) and fault zone.







# Eurinilla Dome prospect

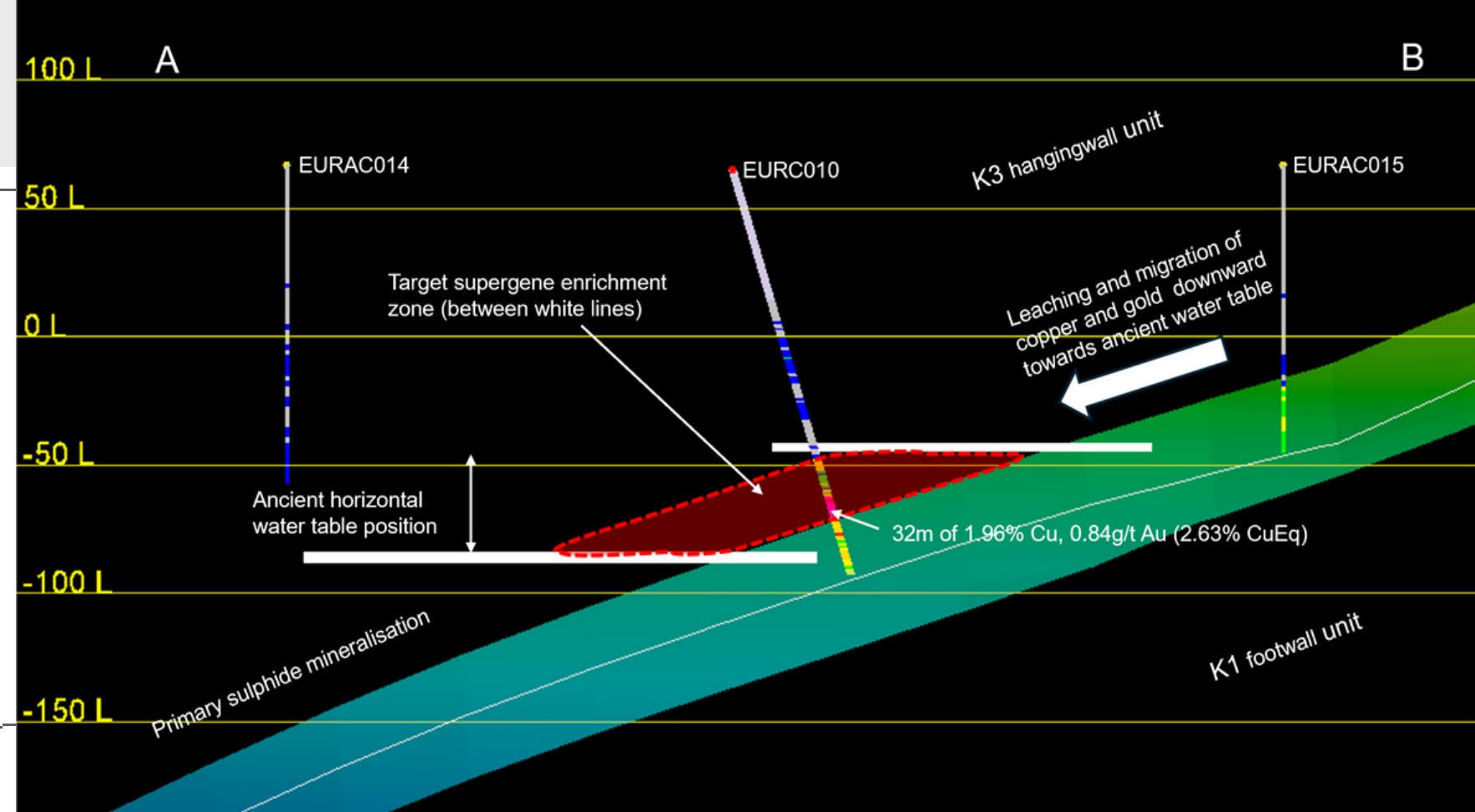


BHP EA98018  
4 m of 17.4 g/t Au

Target interpreted supergene  
enrichment zone

HAV EURC010  
8 m of 6.38% Cu, 2.72 g/t Au

HAV-MMG EUR14DD009  
9.7 m of 4.56% Cu, 1.18g/t Au



Primary sulphide mineralisation

Target supergene enrichment  
zone (between white lines)

Ancient horizontal  
water table position

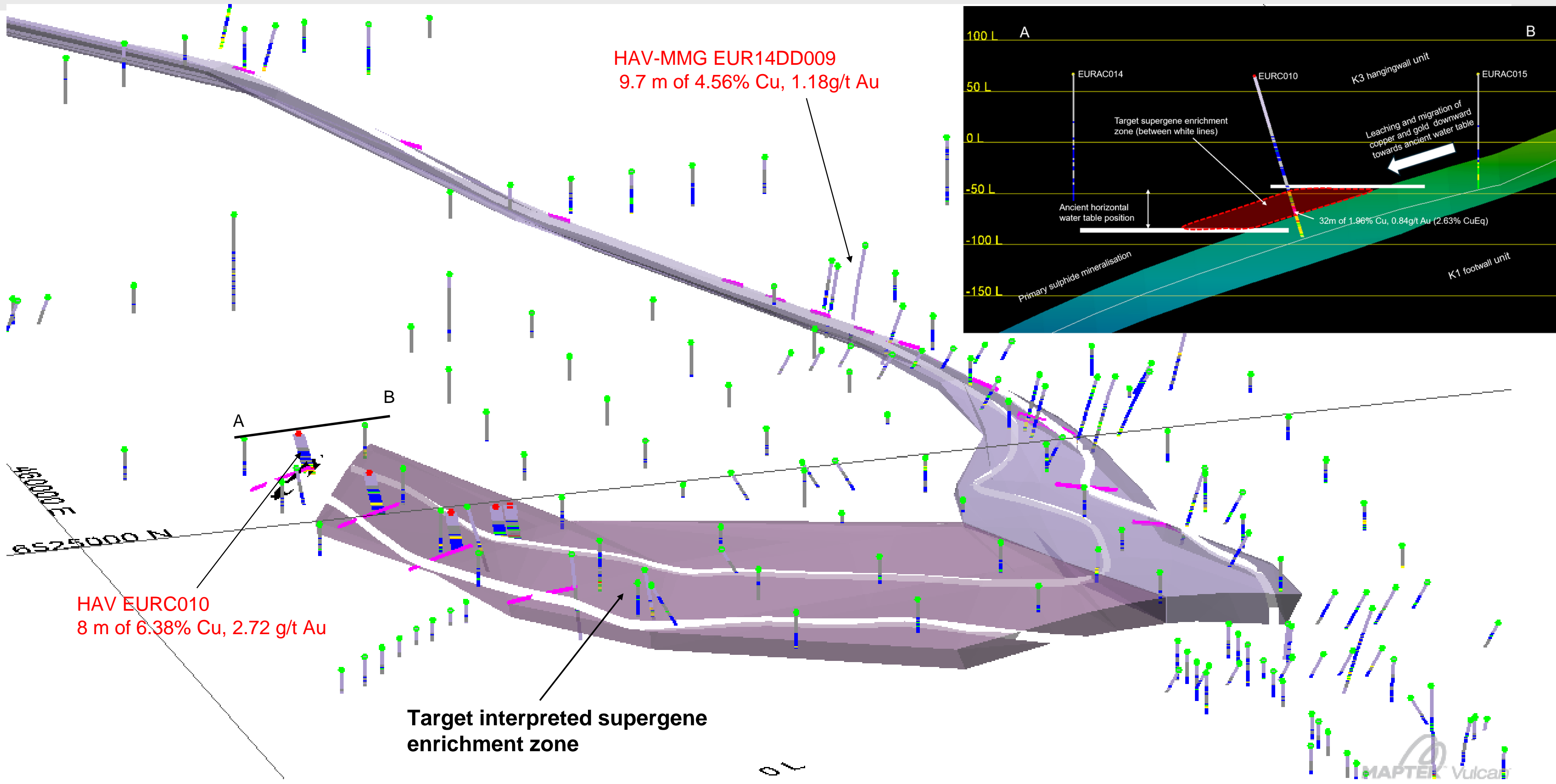
K3 hangingwall unit

Leaching and migration of  
copper and gold  
downward  
towards ancient water table

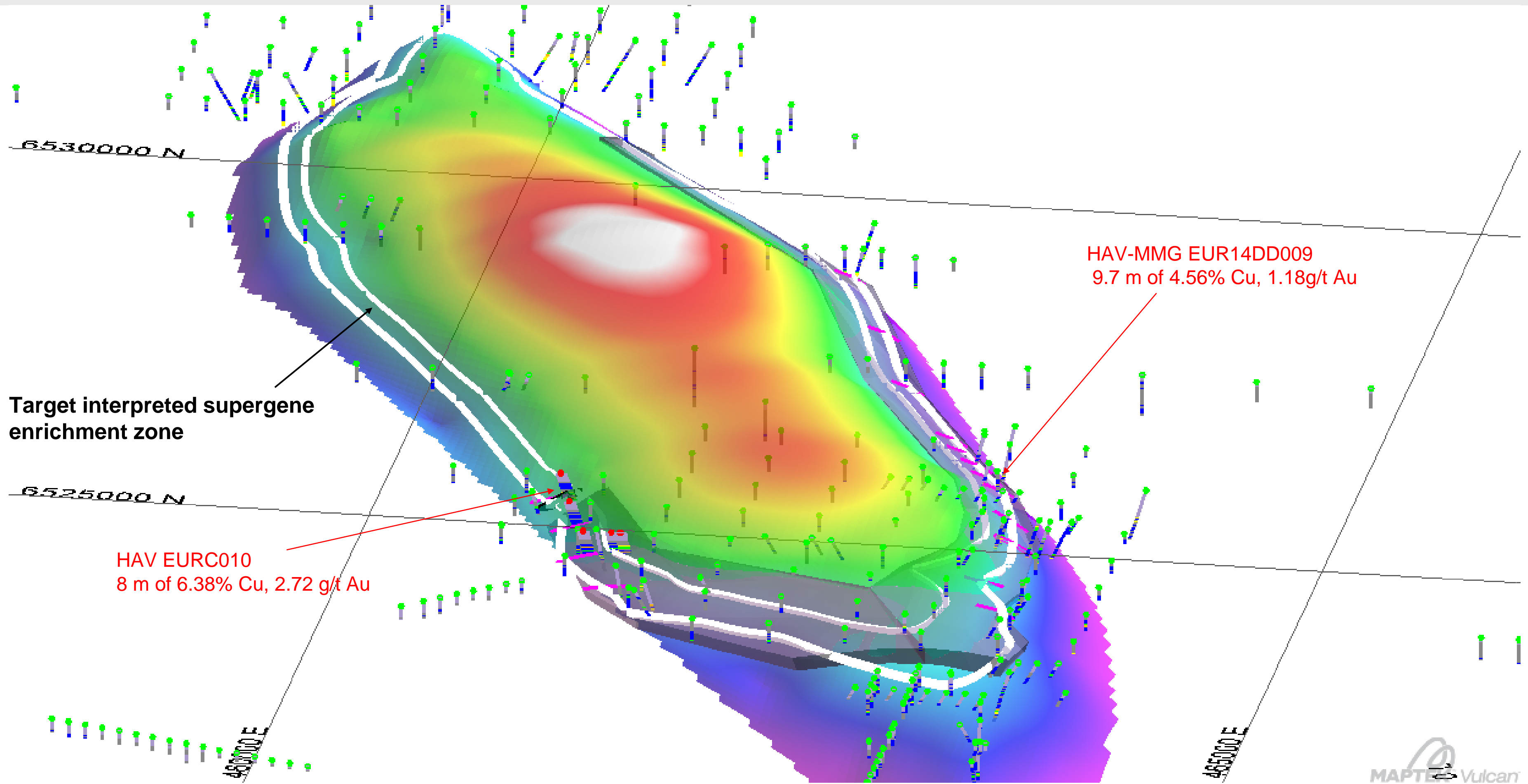
32m of 1.96% Cu, 0.84g/t Au (2.63% CuEq)

K1 footwall unit

# Eurinilla Dome exploration model



# Eurinilla Dome - >20km strike length to explore

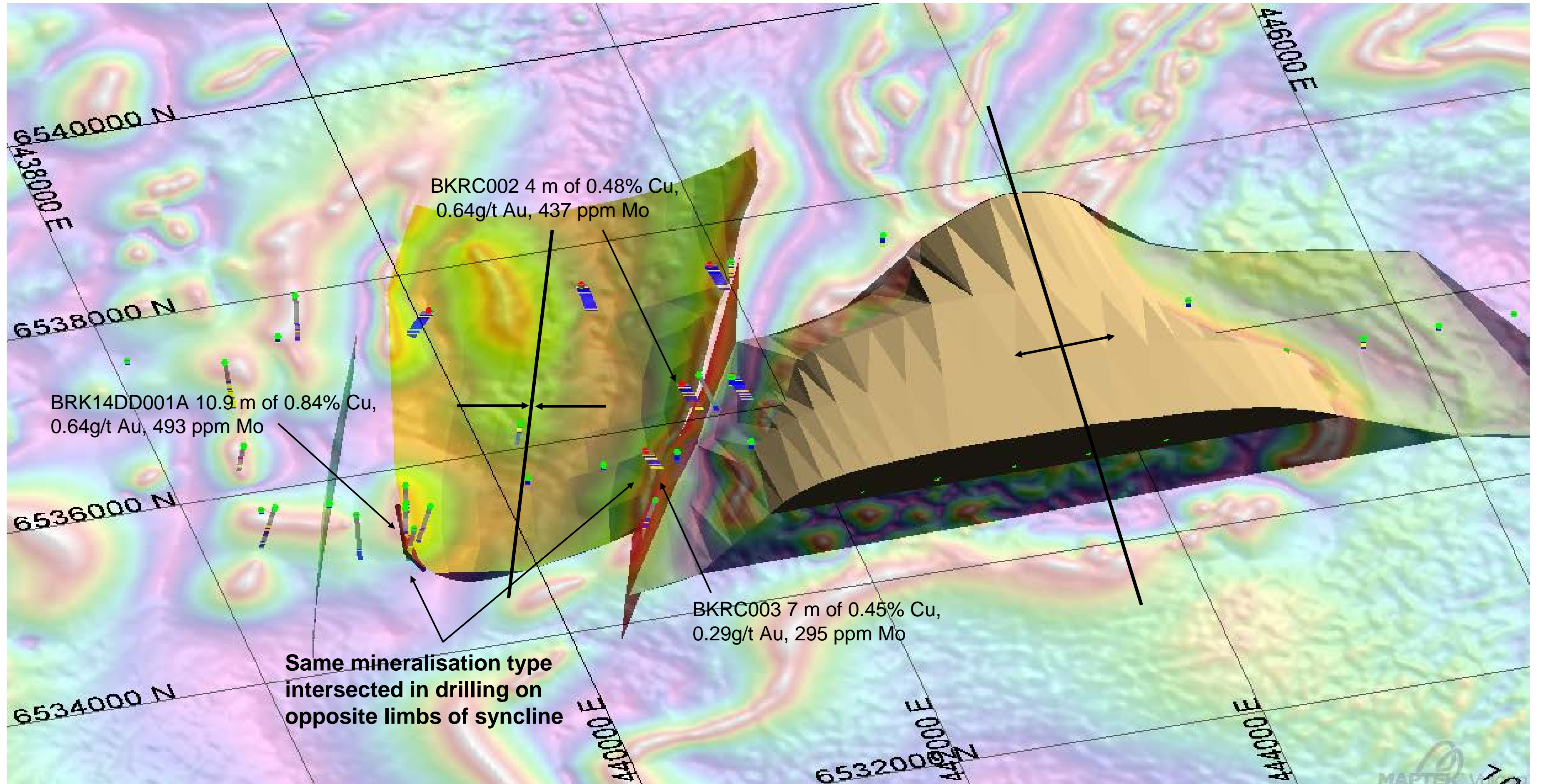


Target interpreted supergene enrichment zone

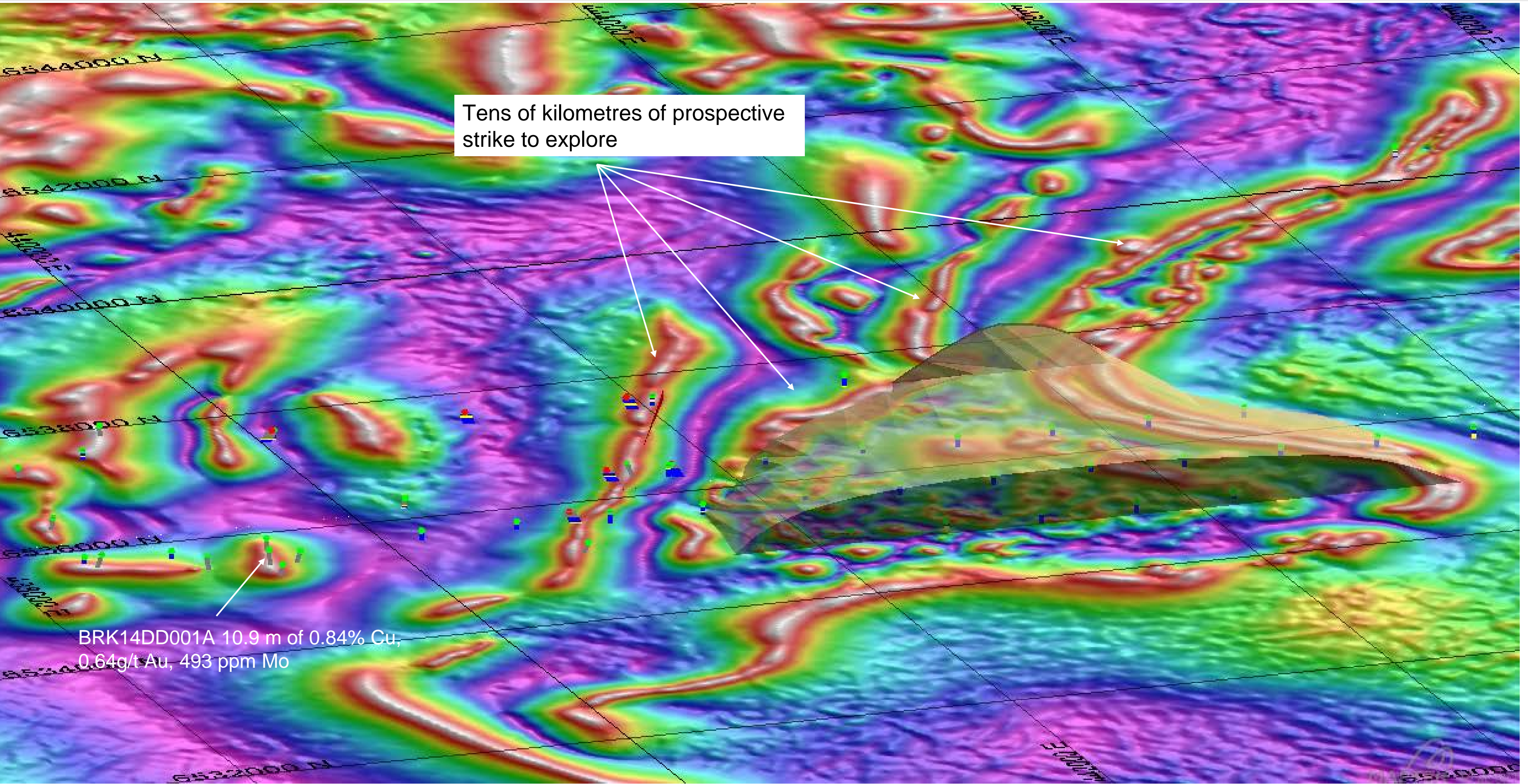
HAV-MMG EUR14DD009  
9.7 m of 4.56% Cu, 1.18g/t Au

HAV EURC010  
8 m of 6.38% Cu, 2.72 g/t Au

# Birksgate prospect – a geological puzzle



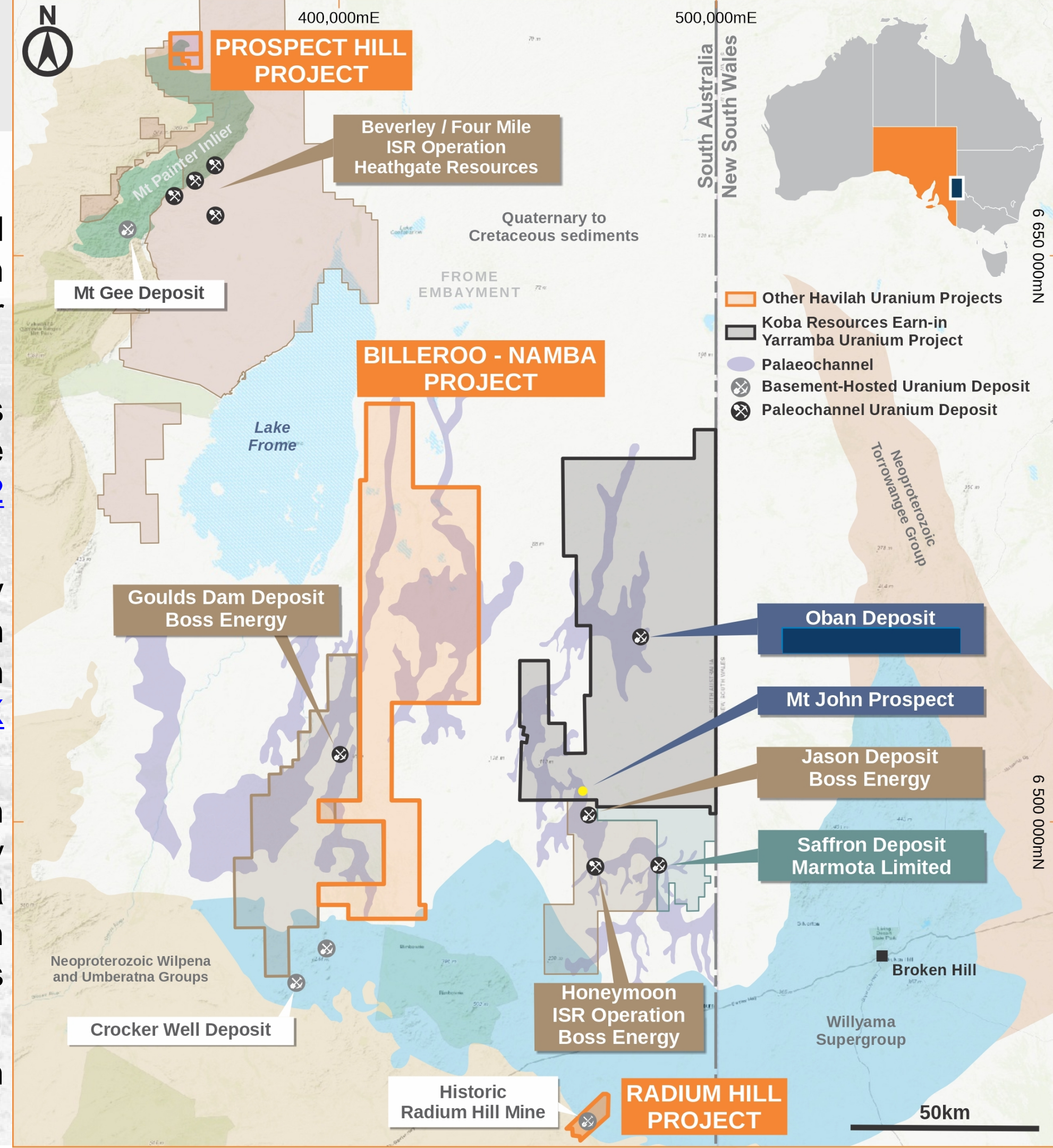
# Birksgate prospect – where to drill next?



Tens of kilometres of prospective strike to explore

BRK14DD001A 10.9 m of 0.84% Cu, 0.64g/t Au, 493 ppm Mo

- Havilah tenements cover a Tier 1 uranium province.
- To realise value from this non-core asset Havilah has entered earn-in agreements for a number of its promising uranium prospects to well managed and funded ASX listed junior companies in exchange for shares and options.
- **Koba Resources Limited (ASX: KOB)** has reported a series of encouraging drilling results from its drilling at and near the Oban deposit (most recently [ASX announcement 12 December 2024](#)).
- **Heavy Rare Earths Limited (ASX: HRE)** has reported highly elevated rare earth elements (up to 3.6% total rare earth oxides) and scandium (up to 1,081 scandium oxide) in uranium mineralised samples from Radium Hill ([refer to ASX announcement 30 October 2024](#)).
- In both cases Havilah retains a 20% free carried interest in any uranium discovery until completion of a feasibility study and substantial upside in the event of exploration success via its equity interests in both companies. The exploration expenditure incurred by KOB and HRE contributes towards Havilah's tenement expenditure commitments.
- Havilah retains full ownership of its promising Johnson Dam hard rock uranium opportunity south of Kalkaroo.



## Cautionary Statement

The information contained in this presentation is not financial product advice and does not constitute an offer. The presentation is for information purposes and is of a general and summary nature only. Neither Havilah Resources Limited (Havilah) nor any member of the Havilah Group of companies, gives no warranties in relation to the statements and information in this presentation. Investors should seek appropriate advice on their own objectives, financial situation and needs.

It is not recommended that any person makes any investment decision in relation to Havilah or the Kalkaroo project based on this presentation. This presentation should be read in conjunction with the latest Annual Report together with any announcements made by Havilah in accordance with its continuous disclosure obligations arising under the Corporations Act 2001.

This presentation contains certain statements which may constitute 'forward-looking statements'. Such statements are only predictions and are subject to inherent risks and uncertainties which could cause actual values, performance or achievements to differ materially from those expressed, implied or projected in any forward-looking statements.

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Where discovery upside is identified, this is a collective opinion of Havilah's geologists based on their best interpretations of the available data and their experience in the region. Further work may disprove any or all the interpretations and models put forward in this presentation.

## Competent Person's Statement

The information in this presentation that relates to Exploration Results, Mineral Resources and Ore Reserves is based on data compiled by geologist Dr Chris Giles, a Competent Person who is a member of The Australian Institute of Geoscientists. Dr Giles is Technical Director of the Company, a full-time employee and is a substantial shareholder. Dr Giles has sufficient experience, which is relevant to the style of mineralisation and type of deposit and activities described herein to qualify as a Competent Person as defined in the 2012 Edition of 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Giles consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Information for Ore Reserve & Mineral Resources complies with the JORC Code 2012. Information for the Kalkaroo Ore Reserve & Mineral Resource and the Mutooroo Inferred cobalt & gold Mineral Resources complies with the JORC Code 2012. All other information was prepared and first disclosed under the JORC Code 2004 and is presented on the basis that the information has not materially changed since it was last reported. Havilah confirms that all material assumptions and technical parameters underpinning the reserves and resources continue to apply and have not materially changed. Except where explicitly stated, this presentation contains references to prior exploration results and JORC Mineral Resources, which are cross-referenced to previous ASX announcements made by Havilah. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant ASX announcements.

## JORC Mineral Resources as at 31 July 2024

Project	Classification	Resource Category	Tonnes	Copper %	Cobalt %	Gold g/t	Copper tonnes	Cobalt tonnes	Gold ounces	
Mutooroo <sup>2</sup>	Measured	Oxide	598,000	0.56	0.04	0.08				
	<b>Total</b>	<b>Oxide</b>	<b>598,000</b>	<b>0.56</b>	<b>0.04</b>	<b>0.08</b>	<b>3,300</b>	<b>200</b>	<b>1,500</b>	
	Measured	Sulphide Copper-Cobalt-Gold	4,149,000	1.23	0.14	0.18				
	Indicated	Sulphide Copper-Cobalt-Gold	1,697,000	1.52	0.14	0.35				
	Inferred	Sulphide Copper-Cobalt-Gold	6,683,000	1.71	0.17	0.17				
	<b>Total</b>	<b>Sulphide Copper-Cobalt-Gold</b>	<b>12,529,000</b>	<b>1.53</b>	<b>0.16</b>	<b>0.20</b>	<b>191,700</b>	<b>20,000</b>	<b>80,600</b>	
		<b>Total Mutooroo</b>	<b>13,127,000</b>				<b>195,000</b>	<b>20,200</b>	<b>82,100</b>	
Kalkaroo <sup>3</sup>	Measured	Oxide Gold Cap	12,000,000			0.82				
	Indicated	Oxide Gold Cap	6,970,000			0.62				
	Inferred	Oxide Gold Cap	2,710,000			0.68				
	<b>Total</b>	<b>Oxide Gold Cap</b>	<b>21,680,000</b>			<b>0.74</b>			<b>514,500</b>	
	Measured	Sulphide Copper-Gold	85,600,000	0.57		0.42				
	Indicated	Sulphide Copper-Gold	27,900,000	0.49		0.36				
	Inferred	Sulphide Copper-Gold	110,300,000	0.43		0.32				
	<b>Total</b>	<b>Sulphide Copper-Gold</b>	<b>223,800,000</b>	<b>0.49</b>		<b>0.36</b>	<b>1,096,600</b>		<b>2,590,300</b>	
			<b>Total Kalkaroo</b>	<b>245,480,000</b>				<b>1,096,600</b>		<b>3,104,800</b>
		Inferred	Cobalt Sulphide <sup>4</sup>	193,000,000		0.012			23,200	
<b>Total All Projects</b>		<b>All Categories (rounded)</b>	<b>258,607,000</b>				<b>1,291,600</b>	<b>43,400</b>	<b>3,186,900</b>	
Project	Classification	Tonnes (Mt)	Iron (%)	Fe concentrate (Mt)	Estimated yield					
Maldorky <sup>5</sup>	Indicated	147	30.1	59	40%					
Grants <sup>6</sup>	Inferred	304	24	100	33%					
<b>Total all projects</b>	<b>All categories</b>	<b>451</b>		<b>159</b>						

## JORC Ore Reserves as at 31 July 2024

Project	Classification	Tonnes (Mt)	Copper %	Gold g/t	Copper tonnes (Kt)	Gold ounces (Koz)
Kalkaroo <sup>1</sup>	Proved	90.2	0.48	0.44	430	1,282
	Probable	9.9	0.45	0.39	44	125
<b>Total</b>		<b>100.1</b>	<b>0.47</b>	<b>0.44</b>	<b>474</b>	<b>1,407</b>

### Footnotes to the JORC Ore Reserve and Mineral Resource Tables

Numbers in tables are rounded. Ore Reserves are a subset of the Mineral Resources.

<sup>1</sup> Details released to ASX: [18 June 2018](#) (Kalkaroo)

<sup>2</sup> Details released to ASX: [18 October 2010](#) and [5 June 2020](#) (Mutooroo)

<sup>3</sup> Details released to ASX [30 January 2018](#) & [7 March 2018](#) (Kalkaroo)

<sup>4</sup> Note that the Kalkaroo cobalt Inferred resource is not added to the total tonnage

<sup>5</sup> Details released to ASX: [10 June 2011](#) applying an 18% Fe cut-off (Maldorky)

<sup>6</sup> Details released to ASX: [5 December 2012](#) applying an 18% Fe cut-off (Grants)  
For the CuEq calculations for Kalkaroo the metal recoveries are 92% for copper and 72% for gold based on average metal recoveries from the PFS (as released to the ASX on [18 June 2018](#)). Based on the PFS metallurgical and mining studies, Havilah considers the Kalkaroo Ore Reserve and Mineral Resources have reasonable prospects for eventual economic extraction.



## Slide 4 - references to asset sales

- 1. Rex Minerals Limited, Hillside Project** – refer to ASX announcements of [8 July 2024](#) and [18 July 2024](#).
- 2. Copper Mountain Mining Corporation, Eva Project** – refer to ASX announcement of [6 October 2022](#). Note that Eva copper-gold project sold for US\$230 million, which equates to A\$343 million at A\$:US\$ 0.67 conversion rate.
- 3. RioTinto Limited, Winu Project** – refer to ASX announcement of [4 December 2024](#). A Term Sheet has been signed and exclusive negotiations commenced regarding Sumitomo Metal Mining Co.,Ltd 's potential acquisition of a 30% interest in the Winu copper-gold project for an upfront cash payment of US\$195 million (A\$300 million) and a deferred consideration of US\$204 million (A\$314 million) contingent on milestones and adjustments to be agreed (using A\$:US\$ 0.65 conversion rate).

Note that in choosing the peer comparison assets, the Company's material assumption was that each asset had to be an undeveloped potentially open pit copper-gold deposit within Australia that was of similar size to Havilah's own Kalkaroo project. Each asset is at an advanced study stage with substantial JORC Mineral Resources of copper and gold.

# Appendix B – Supporting information for slide 5



1. Rex Minerals Limited, Hillside Project, [Annual Report 2024](#) is the source of the following JORC Mineral Resource, Ore Reserve and other information.

Zone	Resource Category	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (kt)	Contained Gold (koz)
Oxide Copper	Measured	16	0.54	0.22	88	114
	Indicated	4.4	0.49	0.12	21	17
	Inferred	0.2	0.76	0.22	1.6	1.5
Secondary Sulphide	Measured	8.8	0.62	0.20	55	58
	Indicated	3.0	0.57	0.13	17	13
	Inferred	0.1	0.61	0.07	0.7	0.3
Primary Sulphide	Measured	47	0.54	0.16	253	248
	Indicated	143	0.59	0.13	837	596
	Inferred	114	0.55	0.13	623	479
<b>Total</b>		<b>337</b>	<b>0.56</b>	<b>0.14</b>	<b>1,897</b>	<b>1,528</b>

Table 1: Hillside Mineral Resources Estimate – December 2022 0.2% copper cut-off applied

**Project status:** pre-development, with an optimised feasibility study completed, fully permitted and key approvals in place to allow commencement of development and mining operations

2. Copper Mountain Mining Corporation, Eva Project, [Annual Report 2022](#) (page 30), for resource estimate prior to acquisition by Harmony Gold as follows:

Measured 112 Mt @ 0.45% Cu, 0.05 g/t Au

Indicated 141 Mt @ 0.40% Cu, 0.04 g/t Au

Inferred 46.3 Mt @ 0.42% Cu, 0.04 g/t Au (cut-offs not available)

3. RioTinto Limited, Winu Project, [supporting information and Table 1 checklists](#) (from page 32) and ASX announcement of [4 December 2024](#) (footnote 1).

Indicated 114 Mt @ 0.64% Cu, 0.48 g/t Au (0.79% CuEq) applying a 0.45% CuEq cut-off

Inferred 36 Mt @ 0.71% Cu, 0.54 g/t Au (0.78% CuEq) applying a 0.45% CuEq cut-off

Note that the Winu indicative starter pit outline was extrapolated by Havilah from RioTinto’s published plans and sections and is approximate only.

Note that in choosing the peer comparison assets, the Company’s material assumption was that each asset had to be an undeveloped potentially open pit copper-gold deposit within Australia that was of similar size to Havilah’s own Kalkaroo project. Each asset is at an advanced study stage with substantial JORC Mineral Resources of copper and gold.

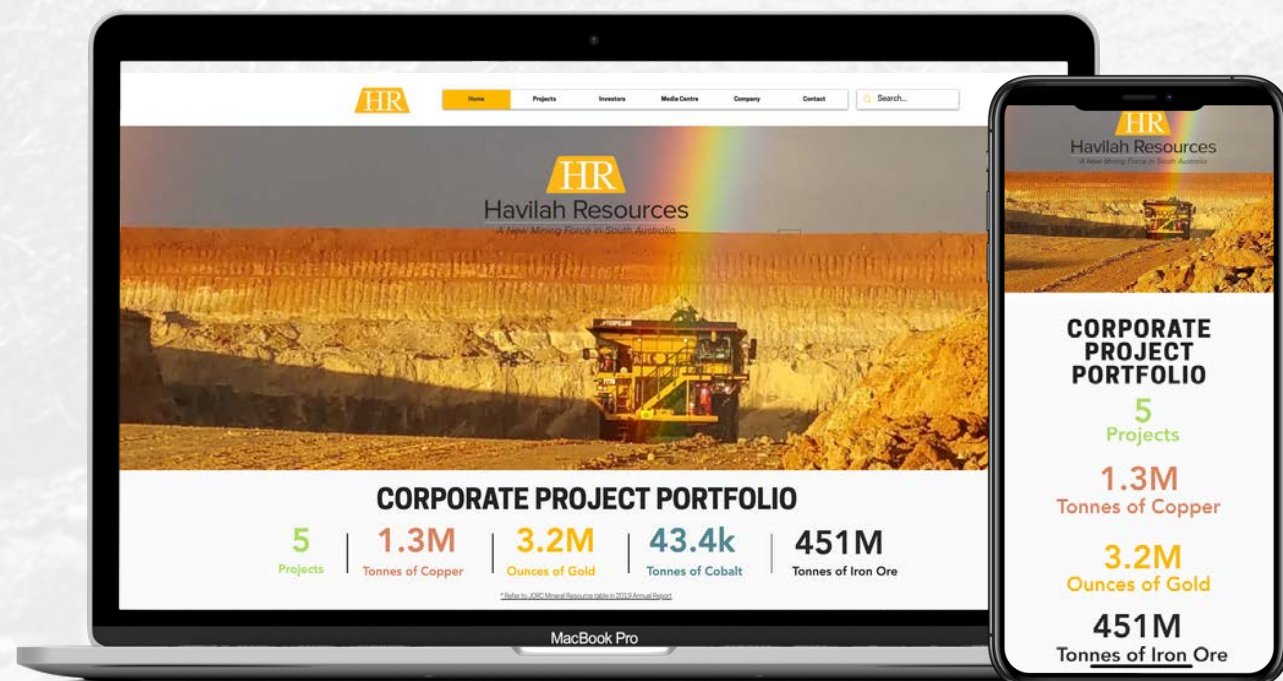
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### CORPORATE

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