

## MARCH INVESTOR PRESENTATION

### ASX RELEASE

5 March 2020

### DIRECTORS / MANAGEMENT

**Russell Davis**  
Non – Executive Chairman

**Daniel Thomas**  
Managing Director

**Nader El Sayed**  
Non-Executive Director

**Ziggy Lubieniecki**  
Non-Executive Director

**Mark Pitts**  
Company Secretary

**Mark Whittle**  
Chief Operating Officer

### CAPITAL STRUCTURE

#### ASX Code: HMX

Share Price (4/3/2020)	\$0.02
Shares on Issue	559m
Market Cap	\$11.1m
Options Listed	190m
Options Unlisted	33m
Performance Rights	8m

Hammer Metals Limited (ASX:HMX) (Hammer or the Company) is pleased to attach a March Investor Presentation.

#### For further information please contact:

**Daniel Thomas**  
Managing Director

**Mark Whittle**  
Chief Operating Officer

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*This Announcement has been approved for release by Mr Daniel Thomas, Managing Director of Hammer Metals Limited*

#### About Hammer Metals

Hammer Metals Limited (ASX: HMX) holds a strategic tenement position covering approximately 2,200km<sup>2</sup> within the Mount Isa mining district, with 100% interests in the Kalman (Cu-Au-Mo-Re) deposit, the Overlander North and Overlander South (Cu-Co) deposits and the Elaine (Cu-Au) deposit. Hammer also has a 51% interest in the emerging Jubilee (Cu-Au) deposit. Hammer Metals also recently acquired the Bronzewing South Gold Project located adjacent to the 2.3 million-ounce Bronzewing gold deposit in the highly endowed Yandal Belt of Western Australia.



# Exploring Two of the World's Great Mineral Provinces

Investor Presentation **March 2020**

**ASX:HMX**



# Positioned in Two of the World's Great Metal Provinces

## YANDAL GOLD PROVINCE

### 24M Oz of Gold Produced

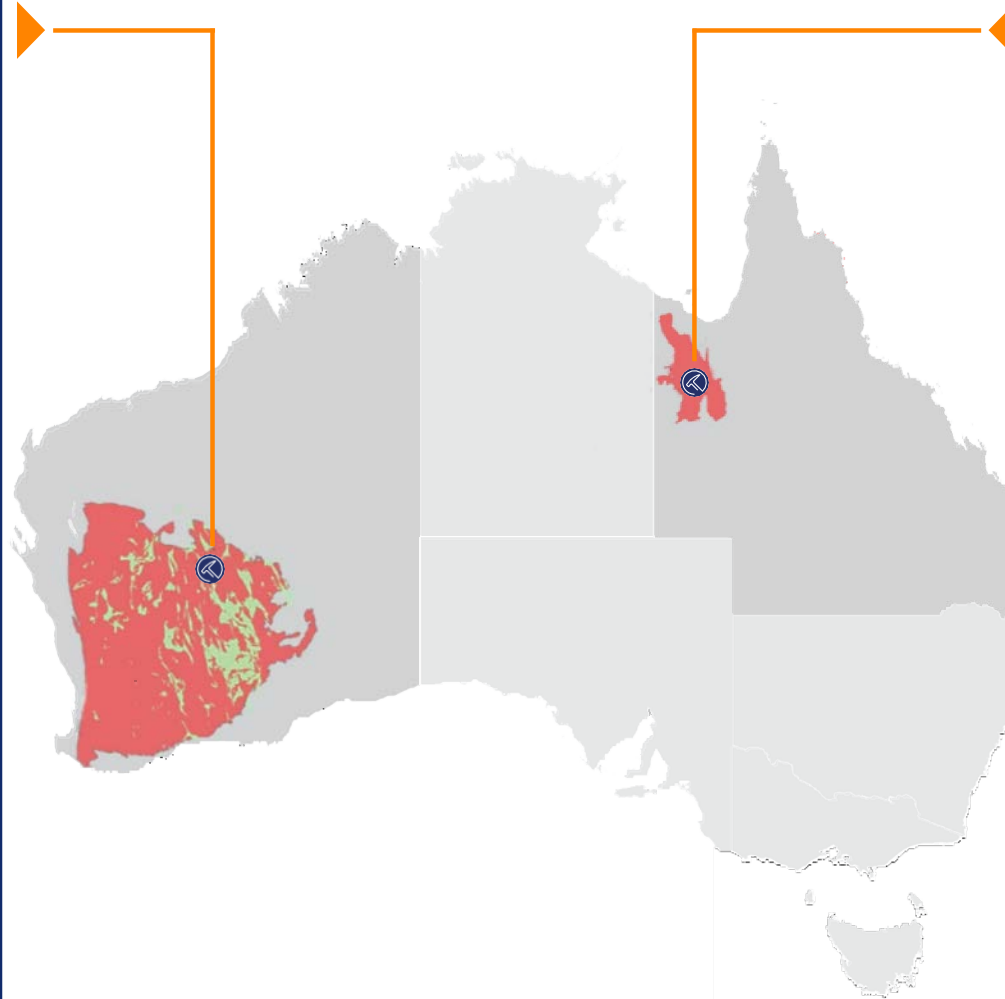
The Bronzewing South project is located in the heart of the highly prospective Yandal Belt

111km<sup>2</sup> of highly prospective 100% owned tenements that cover corridors of the 4 Moz Bronzewing gold mine & 1.1Moz Orelia gold deposits

Region of established infrastructure, adjacent to 2Mtpa plant at Bronzewing, recently acquired by Northern Star for A\$243 million

Multiple anomalies from shallow geochemical RAB and aircore drilling with limited follow-up drilling

Analogous alteration and multi-element geochemistry to Bronzewing that produced over 1.5 Moz from 1997-2012



## MOUNT ISA PROVINCE

### World's Largest Base Metal Province

Strategic 2100km<sup>2</sup> tenement holding in the largest base metal province in the world

One of the world's most significant iron oxide copper-gold (IOCG) provinces hosting 30% of the world's lead-zinc reserves

Defined JORC 2012 Resources

Kalman – 20Mt @ 1.8% Cu Eq.

Jubilee – 1.4Mt @ 1.4% Cu, 0.6g/t Au

Overlander – 1.8Mt @ 1.2% Cu

Elaine – 9.3Mt @ 1.0% Cu Eq.

Highly prospective IOCG grassroots exploration targets

Joint Venture with JOGMEC over ~290km<sup>2</sup> area



# Corporate Snapshot - ASX:HMX

## BOARD AND MANAGEMENT WITH A TRACK RECORD OF SUCCESS

### Russell Davis

Chairman

BSc (Hons) MBA, MAusIMM, AICD

+30 years experience in the industry  
Geologist with exploration and development experience  
Founding Director and NED of Gold Road Resources

### Daniel Thomas

Managing Director

BSc, MBA

+20 years experience in the industry  
Industrial Chemist with corporate development experience  
Previously Business Development Manager Sandfire Resources

### Ziggy Lubieniecki

Director

BSc, MAIG

+30 years experience in the industry  
Geologist with exploration and mine management experience  
Credited with the discovery of Gruyere Gold Deposit (+6.5Moz)  
AMEC Prospector of the Year 2015

### Nader El-Sayed

Director

B.Comm, MA, CA

+15 years experience in the industry  
Accountant with risk management and corporate experience  
Currently Chief Executive Officer of Multiplant Holdings

### Mark Whittle

Chief Operating Officer

BSc (Hons), MSc, FAusIMM, AICD

+30 years experience in the industry  
Geologist with 10 years experience in the Mount Isa Region  
Previously Exploration Manager of Syndicated Metals Limited

### Mark Pitts

Company Secretary

B.Bus, FCA, GAICD

+30 years experience in the industry  
Accountant with commercial, corporate finance and public practice experience in Australia and overseas.  
Partner in corporate advisory firm, Endeavour Corporate

## CAPITAL STRUCTURE

SHARES ON ISSUE (M)(Undiluted)	558.8
MARKET CAP (M) (at A\$0.02)	11.2
CASH (M) (End Dec. Q2019)	2.1
DEBT (M)	0
ENTERPRISE VALUE (M)	9.1
LISTED OPTIONS (M)	190.4a
UNLISTED OPTIONS (M)	33
PERFORMANCE RIGHTS (M)	8

a) Listed options are exercisable at \$0.03 each with 30 Sep 2020 expiry; would raise c.\$5.5m if exercised

## CAPITAL BREAKDOWN

DIRECTORS	11.9%
OTHER TOP 20 SHAREHOLDERS	39.3%
OTHERS	48.8%

As at 24<sup>th</sup> February 2020

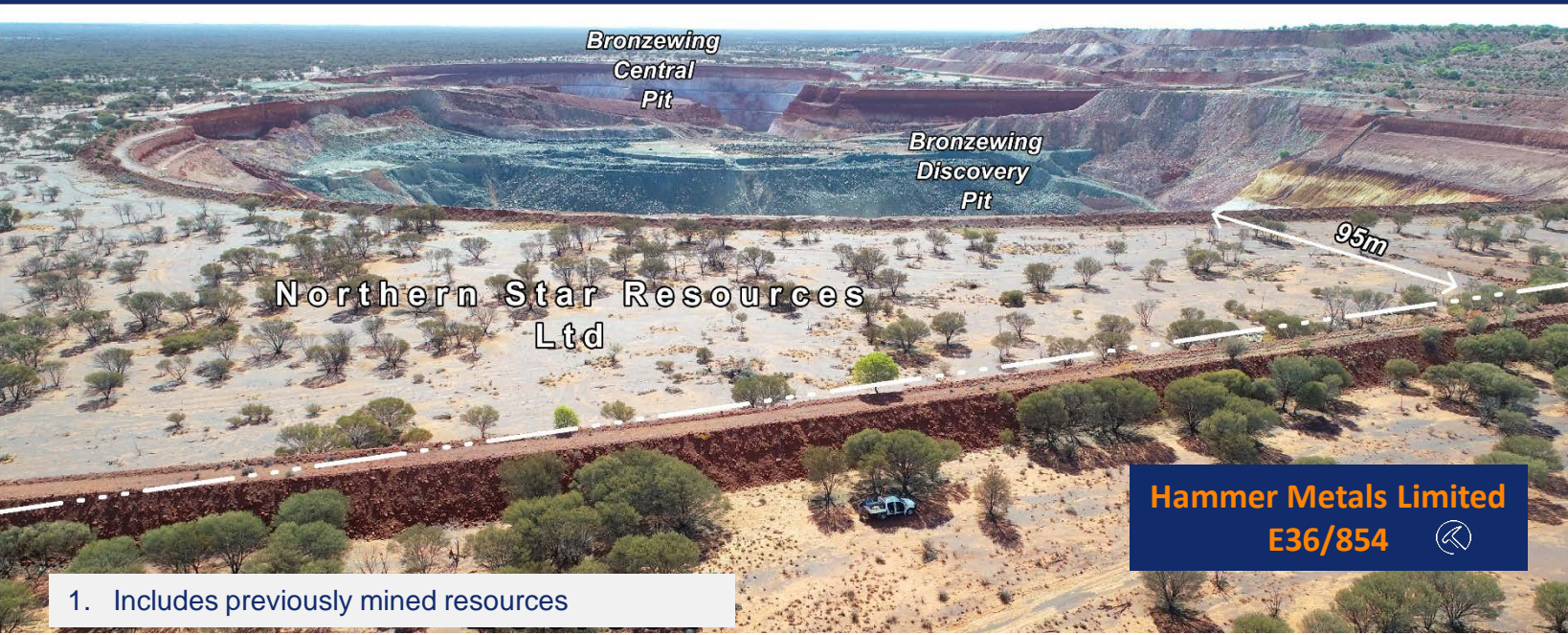


# Bronzewing South Gold Project

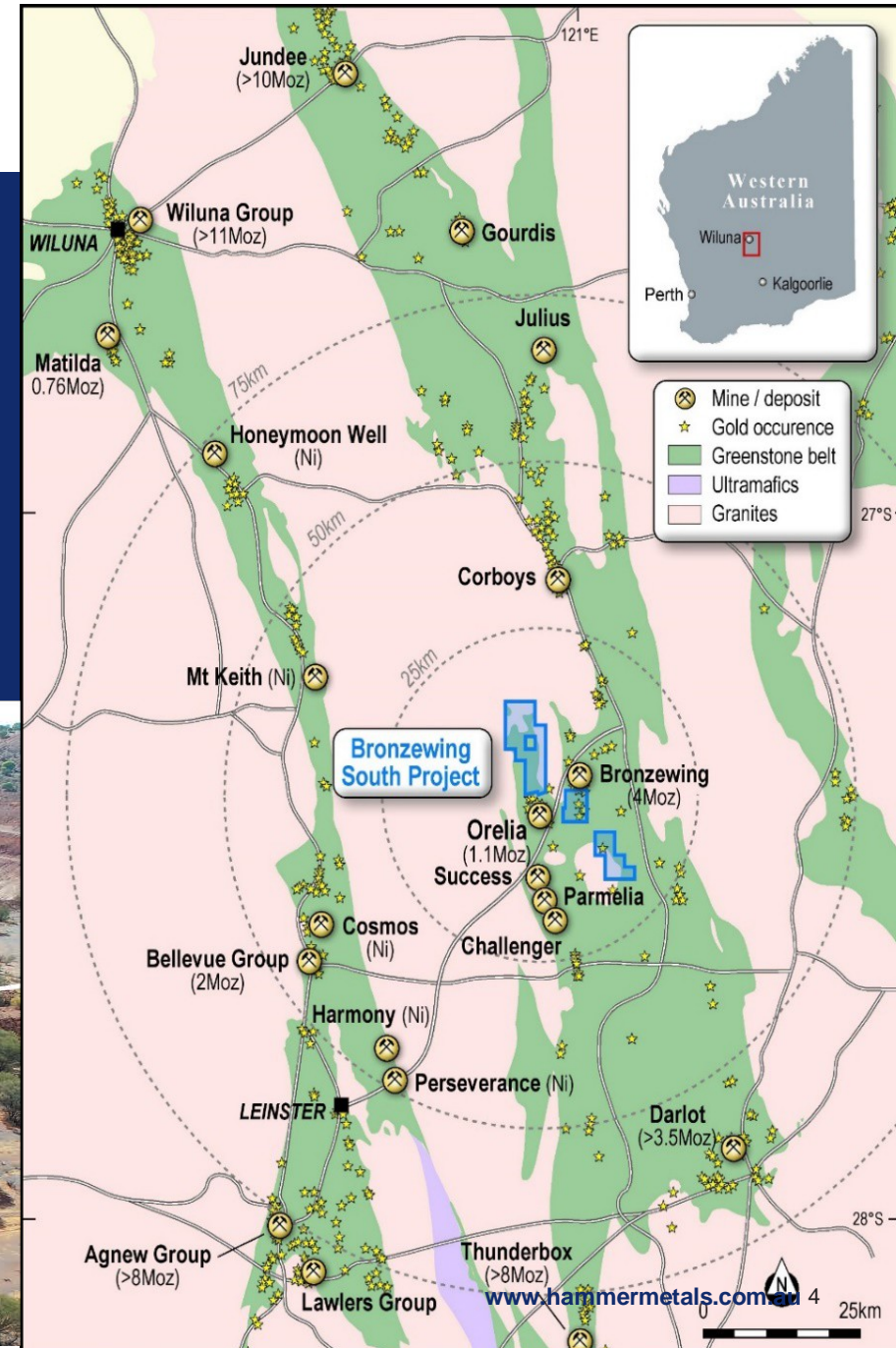
## Hammer acquired the Bronzewing South Gold Project in May 2019

100% owned, no royalty - 111km<sup>2</sup> located immediately south of the Bronzewing gold mine (4Moz<sup>1</sup>) & north of the Orelia deposit (1.1Moz)

- Limited exploration over past decade due to previous legal dispute
- Completed Phase 1 exploration at Bronzewing South and North Orelia projects in 2<sup>nd</sup> Half 2019
- Numerous zones of highly anomalous gold identified at both projects
- Commenced Phase 2 exploration - an aggressive follow-up aircore and reverse circulation program



1. Includes previously mined resources





# Bronzewing South – Our First Pass

## Mineralisation, Structure & Geology

Bronzewing South's 5km strike length has multiple high-priority targets highlighted by geochemical, geophysical and structural analysis

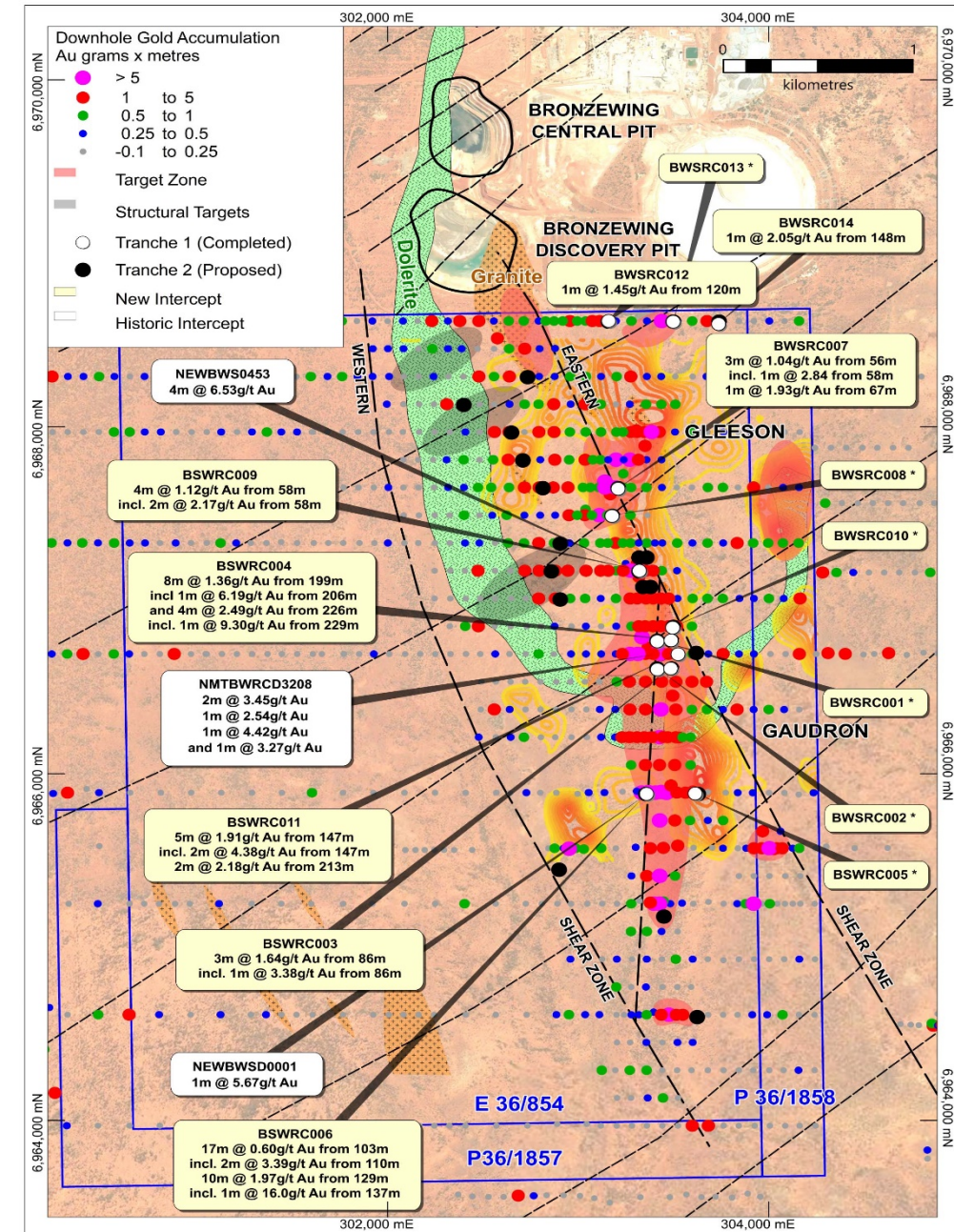
Multiple steeply plunging orebodies which are elongated in the E-W direction within a N-S target corridor

Limited exploration at a depth of >100m has occurred (~ 20 RC holes)

Hammer's Phase 1 drilling campaign focussed on the existing geochemical anomalies, reprocessed geophysics and an IP survey.

\* High-grade, shallow mineralisation intercepted in recent reconnaissance drilling:

- 10m at 1.97g/t Au from 129m in BSWRC006, including;
  - 1m at 16g/t Au from 137m and 2m at 3.39g/t Au from 110m
- 8m at 1.36g/t Au from 199m in BWSRC004, including;
  - 1m at 6.2g/t Au and 4m at 2.49g/t Au from 226m including 1m at 9.3g/t Au from 229m
- 5m at 1.91g/t Au from 147m in BWSRC011, including;
  - 2m at 4.38g/t Au



Phase 1 drill locations (\* - indicates no intersections >1g/t Au)

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# Bronzewing South – A New Perspective

## Multiple untested targets identified from Hammer's first pass program

Updated view of project geology based upon the first phase RC program adding further definition to the geological domains of the area.

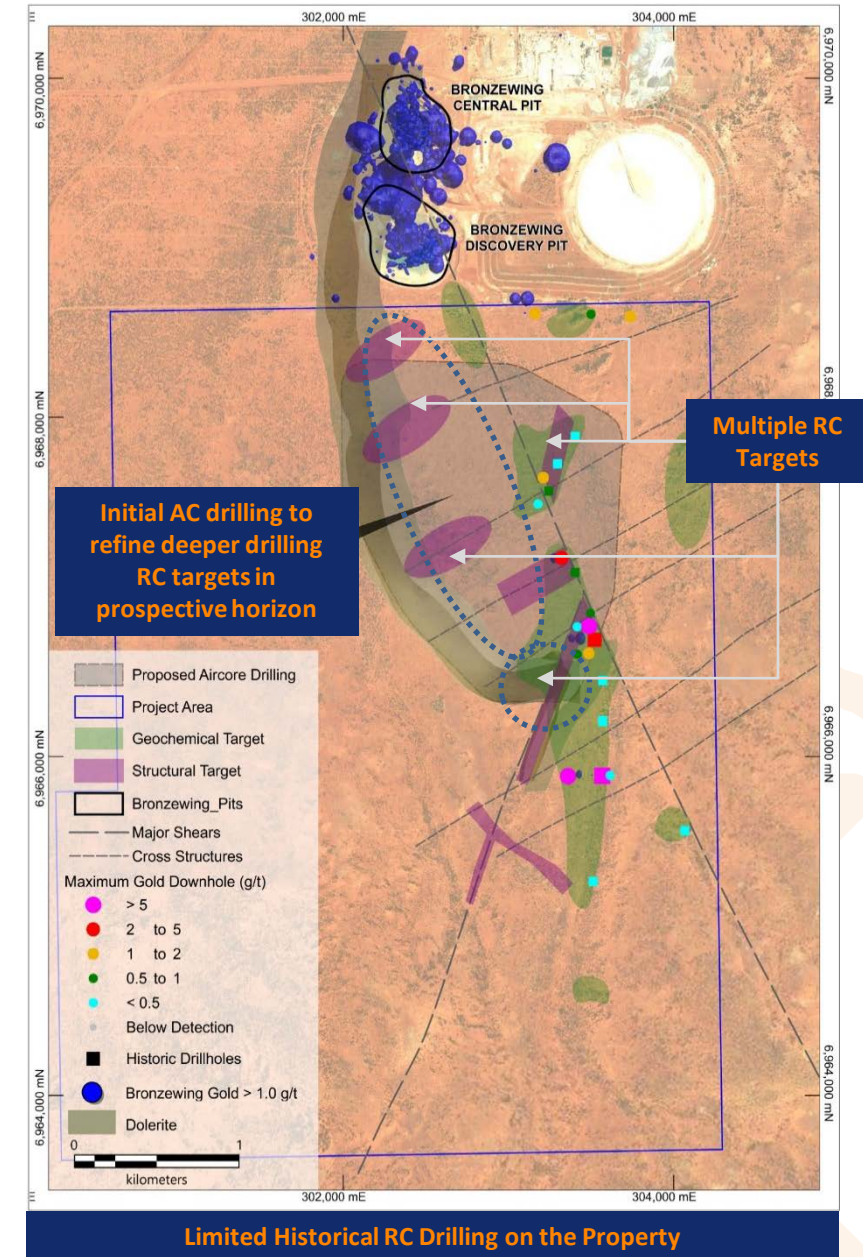
Focus of exploration has predominantly been on the Eastern Shear zone where historical air core results have shown significant promise.

Updated geophysical interpretation has identified gravity lows, which at Bronzewing appear to be coincident with gold mineralisation.

Coincident geochemical and structural targets with limited deep RC drilling. Some of the best RC results were on the periphery of the dolerite contact.

Initial H1 2020 program at Bronzewing South will be an air core program focusing on the edge of the dolerite package also coincidental to the Bronzewing gold mineralisation.

Detailed gravity survey also planned for H1 2020 program.





# North Orelia Trend – Aircore Program with 4 Target Areas

## Mineralisation, Structure & Geology

### Multiple targets identified in 14km Orelia Trend

Orelia Trend is along strike from former Cockburn & Lotus pits (Mt Mclure Operation) now held by Northern Star Resources hosting the 1.1 Moz Au Orelia Resource.

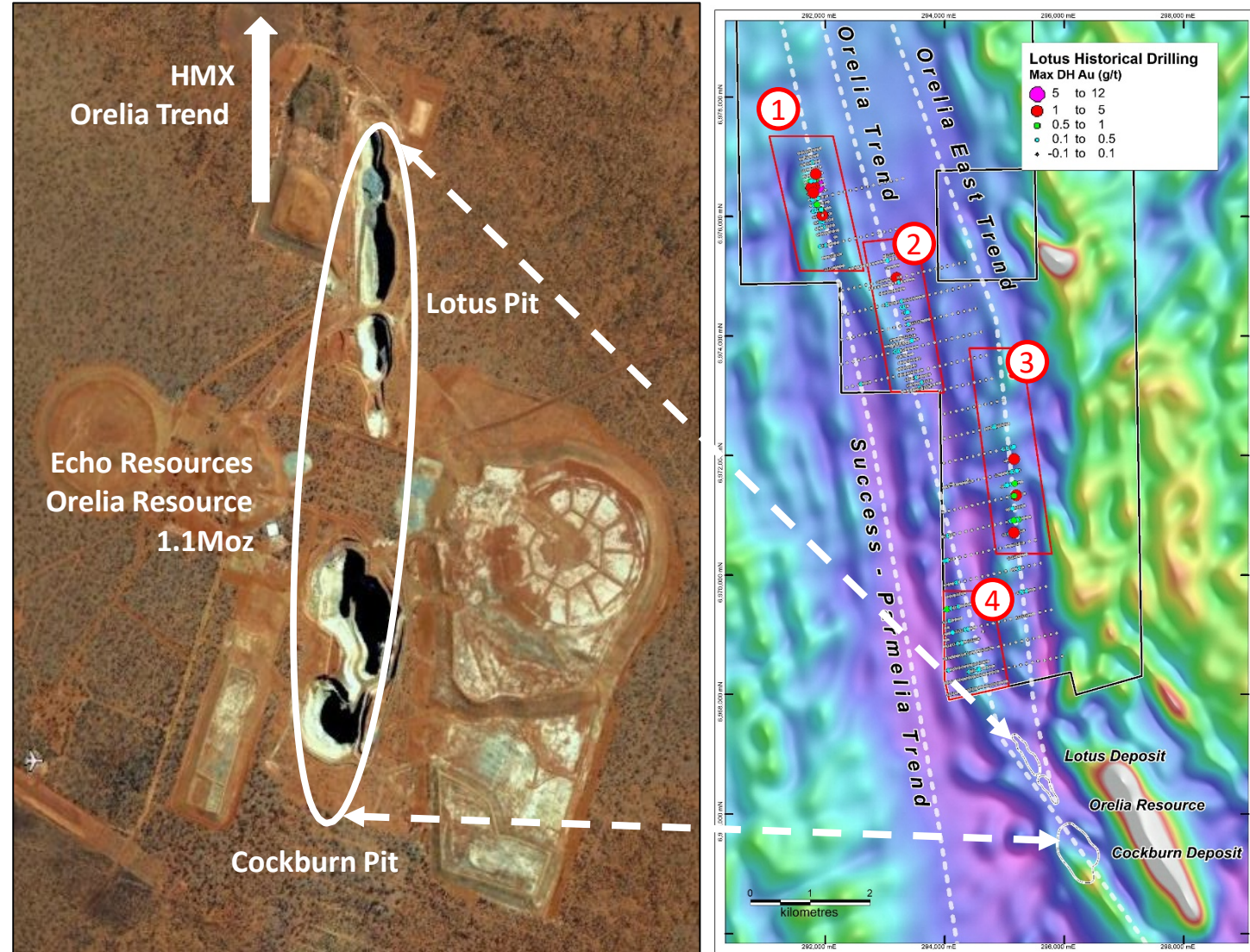
Hammer completed its first air core program at Targets 1-3 in November 2019.

Drilling identified several mineralised gold zones at Target 1 whilst also providing valuable regional geological context for follow up programs.

Historical aircore drilling on Hammer's tenure was inadequate often drilling vertical holes with a depth of less than 35m.

Orelia is characterised by near vertical shear hosted mineralisation. Angled holes have an increased chance of discovering mineralised zones.

Magnetic imagery also assisting in the identification of the ultramafic contact zones which appear to be closely associated with gold mineralisation at Target 1.





# North Orelia — Successful First Aircore Program

## Three parallel trends of gold mineralisation defined at Target 1

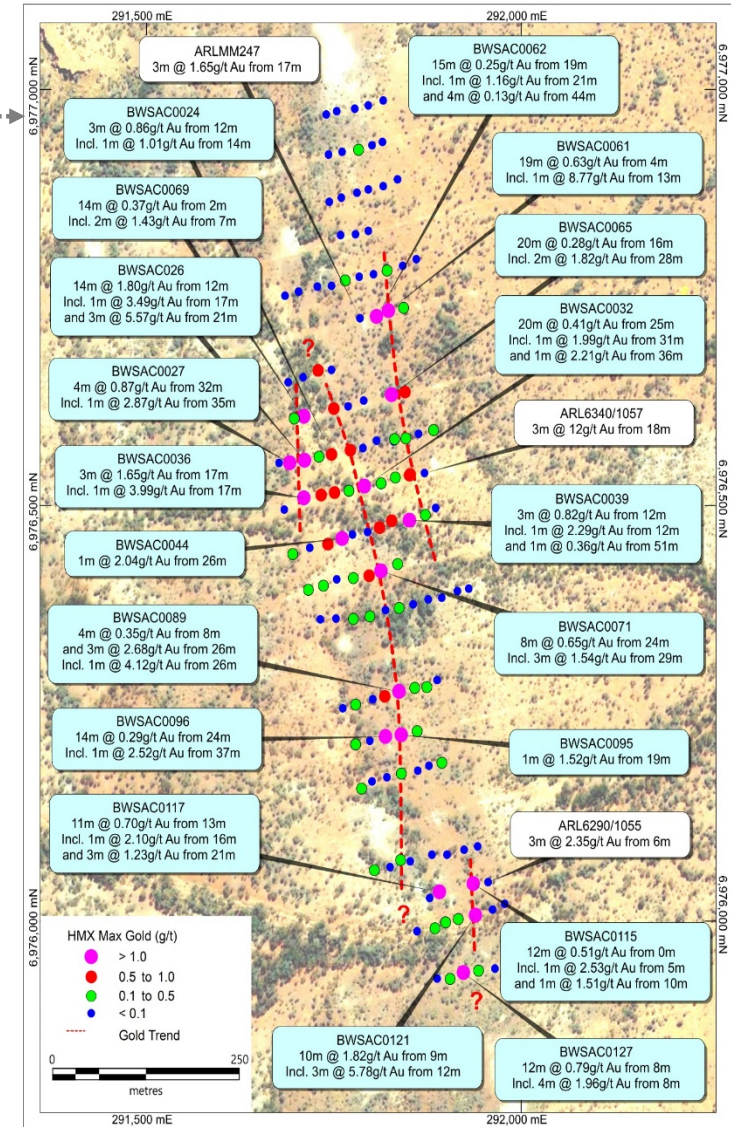
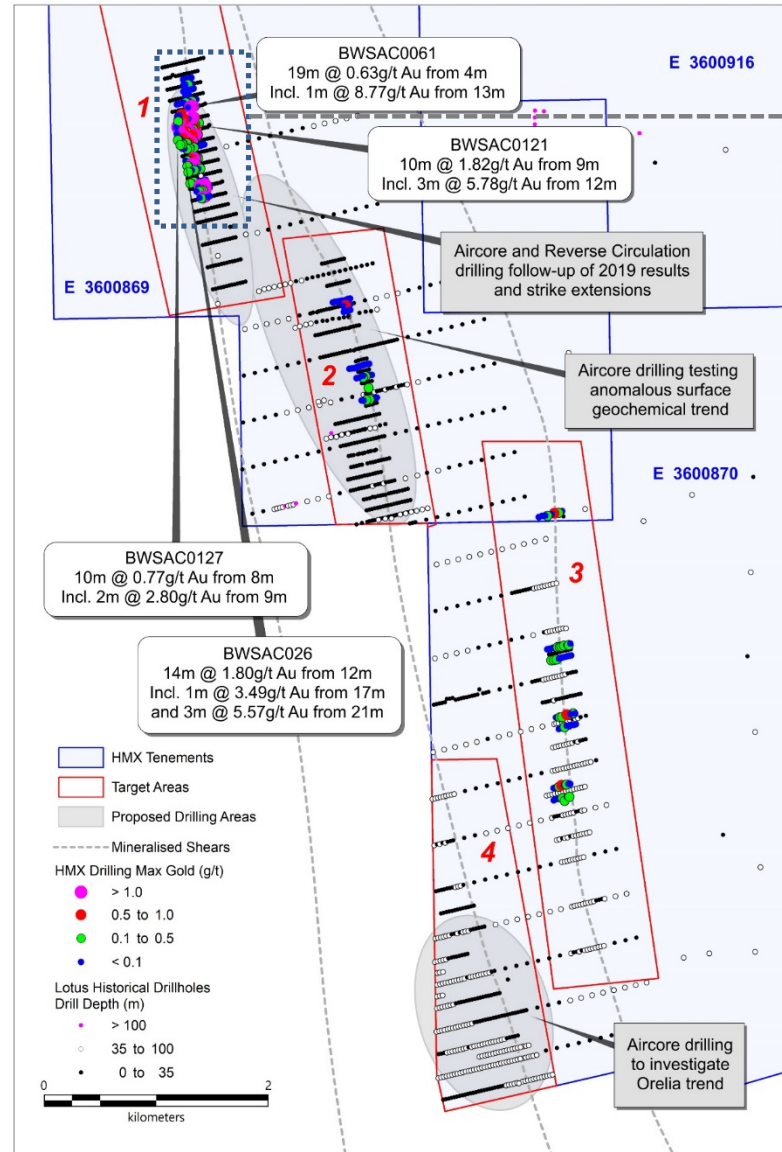
Shallow intersection of significant mineralisation include:

- 14m at 1.80g/t Au from 12m in BWSAC0026, including 3m at 5.57g/t Au from 21m;
- 10m at 1.82g/t Au from 9m in BWSA00121, including 3m at 5.78g/t from 12m;
- 19m at 0.63g/t Au from 4m in BWSAC006, including 1m at 8.87g/t Au from 13m; and
- 12m at 0.79g/t Au from 8m in BWSAC0127, including 4m at 1.96g/t Au from 8m.

Mineralisation encountered to date appears to be located on the margins of magnetic ridges.

Follow up reverse circulation and aircore drilling on Target 1 to be completed.

Follow up air core to be completed on western edge of Target 2 and first drilling by Hammer at Target 4.



\* Refer ASX Announcement 23 December 2019

# Bronzewing South Gold Project - Ken's Bore

## Further untested prospects to be drilled in current Bronzewing South program

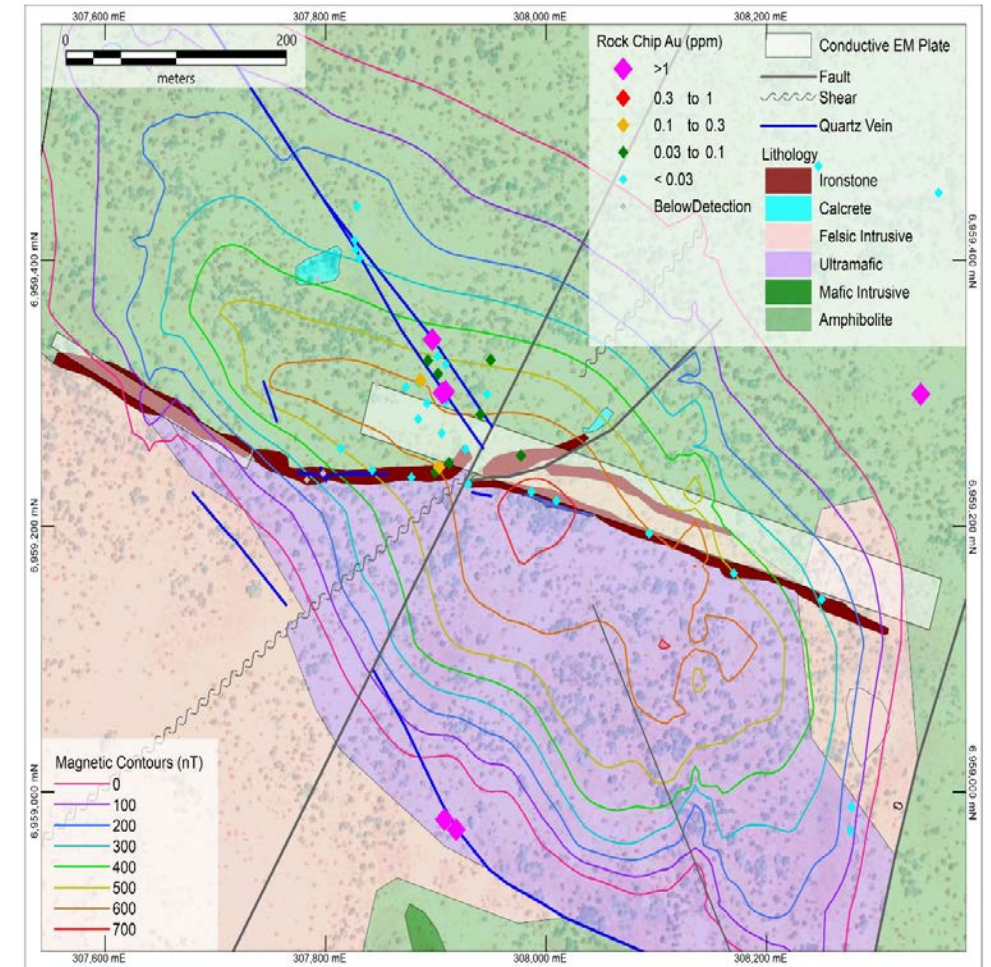
Located 12km to the south of Bronzewing on the intersection between an anticlinal axis and the Ken's Bore Granite.

Significant gold grades of 22.2g/t, 12.95g/t, 6.09g/t and 7.73g/t have been returned from rock chip sampling in this area.

A review of historic work conducted by Audax Resources Ltd noted that rock chip sampling in the same area reported grades of up to 497g/t gold.

Hammer's recently re-modelled a previously identified EM anomaly on the property which occurs in close proximity to the high-grade historical rock chips.

The upcoming RC drilling at North Orelia to include testing these anomalies.





# Mt Isa Province

## 2,100km<sup>2</sup> landholding covering a range of early stage greenfield to advanced development study projects

High quality IOCG grassroots targets including Overlander, Andy's Hill, Perentie & the Mt Philip Breccia.

Hammer's Mt Isa tenements are surrounded by existing producing mines and established infrastructure owned major corporates, including:

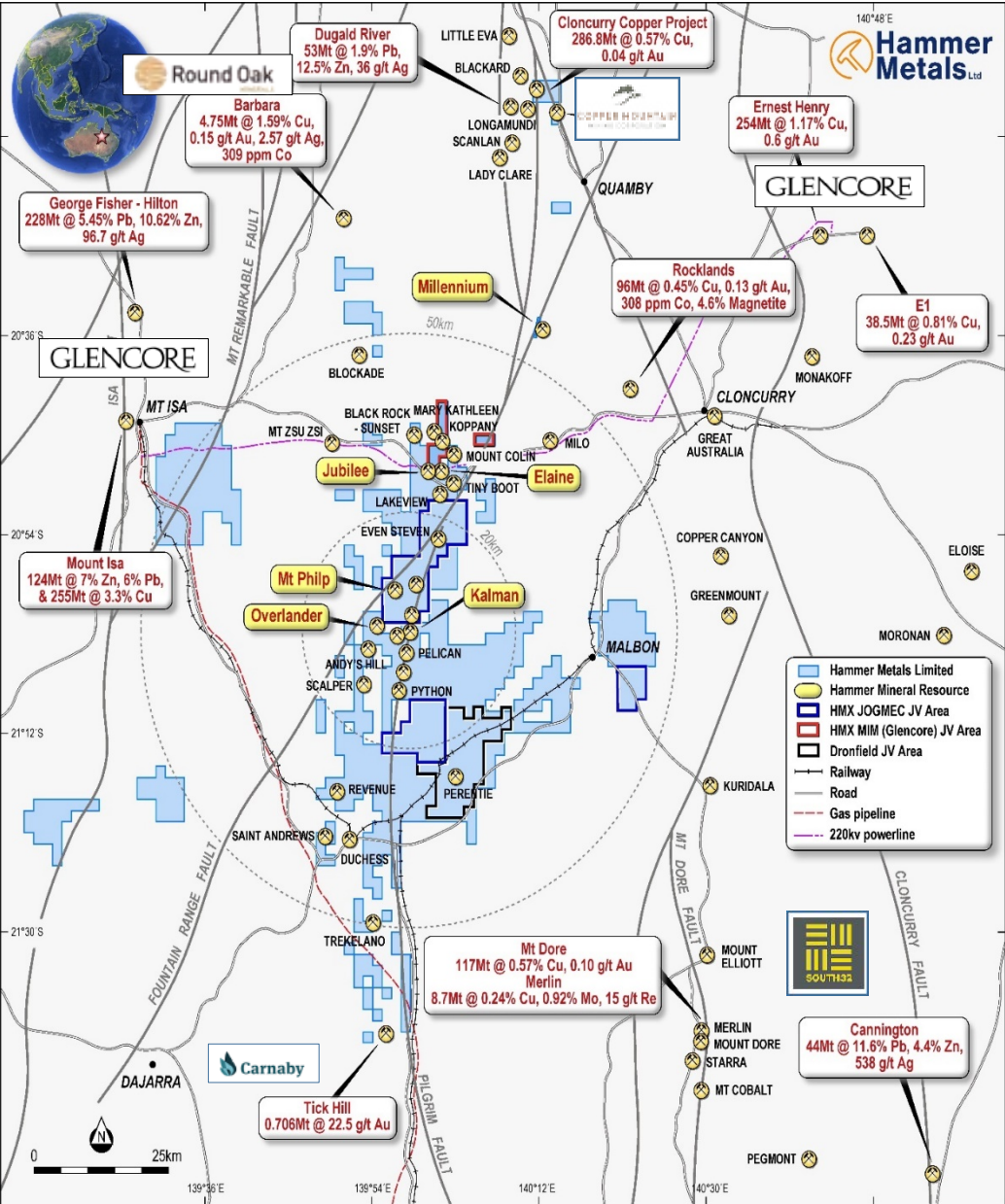
- Glencore (Mt Isa, George Fisher, Ernest Henry, Lady Loretta)
- South 32 (Cannington)
- MMG (Dugald River)

Hammer's 2020 program at Mt Isa has commenced, focusing on Hammer's Joint Venture with JOGMEC over the Mt Philp, Even Steven, Dronfield and Malbon targets.

Hammer retains its interest in all its JORC compliant resources (all 100%, except for the Jubilee deposit which is in joint venture with Mount Isa Mines – HMX 51%).

Hammer has received two Queensland Government funded Collaboration Exploration Initiatives for the advancement of Hammer's critical minerals projects.

Deposit	Tonnes Mt	CuEq %	Cu %	Au g/t	Co %	Mo %	Re g/t	Fe %	Comment
Kalman	20	1.8	0.61	0.34	-	0.14	3.7	-	0.75% CuEq cut-off
Jubilee	1.4	-	1.41	0.62	-	-	-	-	0.5% Cu cut-off
Elaine	9.3	0.95	0.82	0.19	-	-	-	-	0.7% CuEq cut-off
Overlander	1.8	-	1.20	-	0.05	-	-	-	0.7% Cu cut-off
Mount Philp	30.5	-	-	-	-	-	-	39	



# Joint Venture with JOGMEC

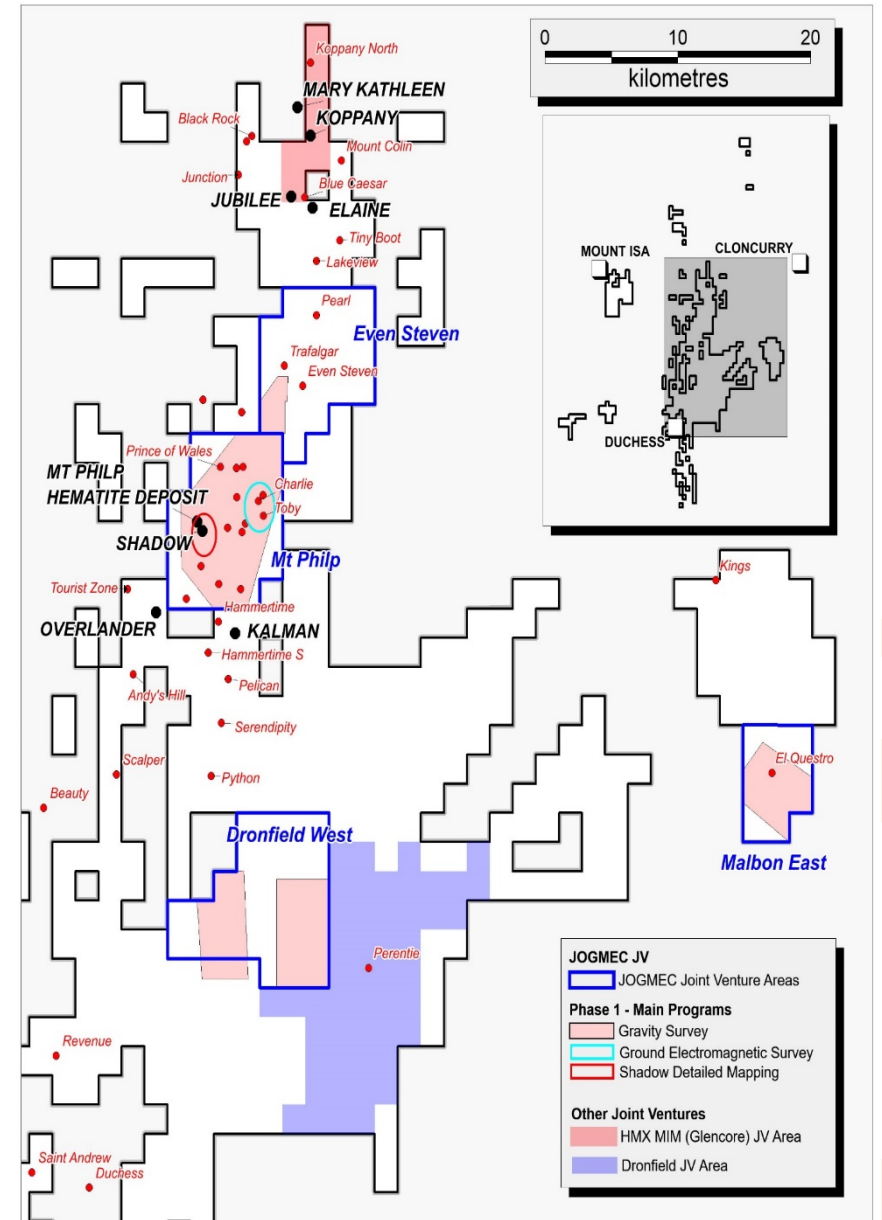
## JOGMEC to spend up to A\$6million to earn 60% interest in JV tenure

Field work on JV area commenced in January this year on each of the four joint venture areas (Even Steven, Mount Philp Breccia, Dronfield West and Malbon).

The Phase 1 program is designed to collect baseline data on large IOCG targets in addition to programs designed to enable drill targeting of prospects such as Shadow, Toby-Charlie, Trafalgar and Pearl with drilling planned early in the next quarter.

Initial program includes:

- Ground-based Gravity surveys in each area conducted by 2 survey teams;
- Ground electromagnetic survey at Toby and Charlie following up on previously reported coincidental VTEM anomalies and rock chip mineralisation with maximum individual grades of up to 18.4g/t Au and 15.15% Cu (see ASX release dated 15 October 2018); and
- Detailed mapping at the Shadow defining drill targets. Shadow is located on the margin of the Mt Philp Breccia and is composed of a magnetite rich breccia body over 350m long and 100m wide.

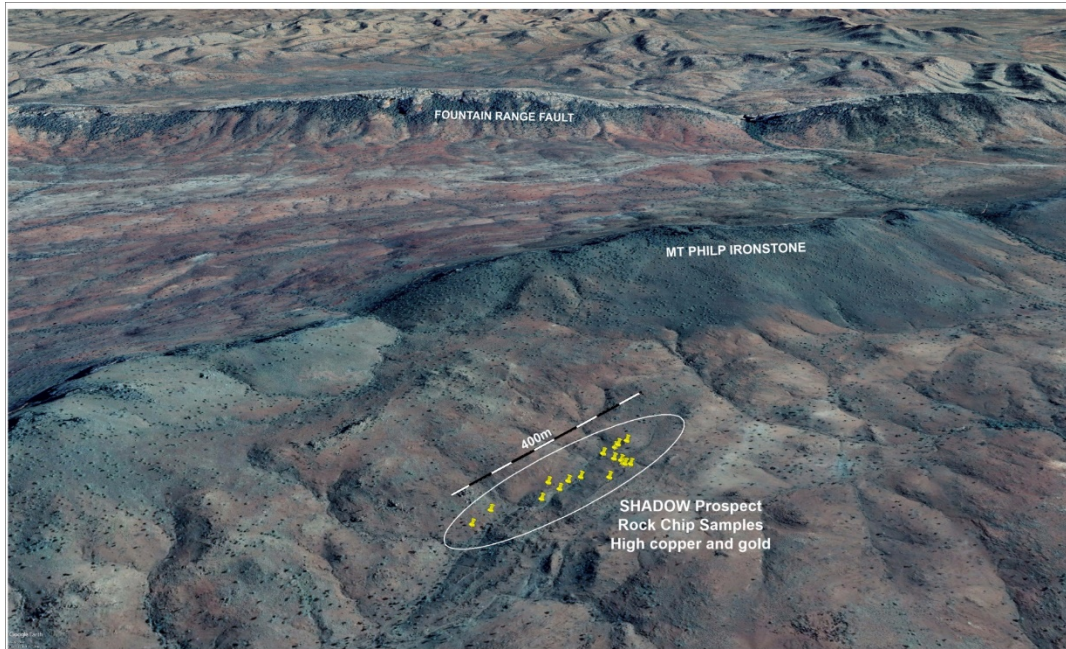




# Mt Isa: Shadow Prospect

## Mt Philip Breccia IOCG Target

- Adjacent to Mt Philp Hematite Deposit, Outcropping copper oxides and sulphides.
- Breccia hosted - favourable structural position.
- Sampling in 2019 indicated mineralisation with maximum individual grades of up to 4.64g/t Au and 27.7% Cu (see ASX release dated 10 September 2019).
- Firming as a quality drill target in early Q2.





# Kalman Deposit: Copper-Gold-Molybdenum-Rhenium

## 100% HMX owned - 360kt of Copper Equivalent Metal

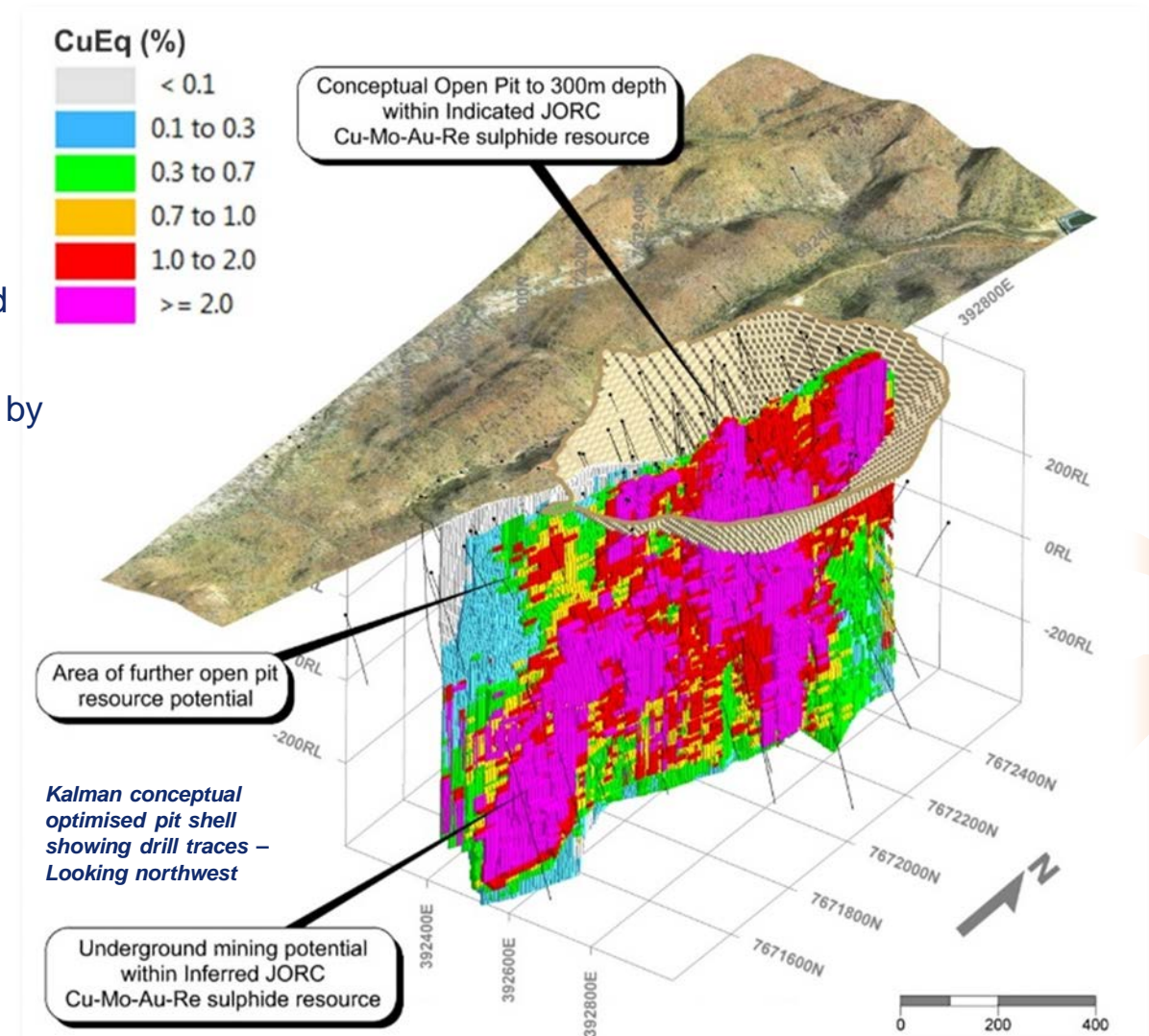
Indicated and Inferred Mineral Resource Estimate of **20Mt @ 0.61% Cu, 0.34g/t Au, 0.14% Mo, 3.7g/t Re**.

Open pit and underground potential; the deposit remains open at depth and along strike.

High-grade mineralisation is evident within the Kalman deposit, highlighted by drill intercepts including:

- **7.7m @ 23.4% Cu & 0.5g/t Au from 582m (K-106C);**
- **53m @ 2.1% Cu & 0.5g/t Au from 695m (K-106C);**
- **31m @ 1.0% Cu & 1.1g/t Au from 221m (K-53); and**
- **7m @ 0.3% Cu, 3.4% Mo & 57.3g/t Re, within 62m @ 0.65% Mo & 11g/t Re.**

Unlocking value and strategic options are the focus for 2020.



# Critical Minerals Exploration – Mount Isa

## Two Collaborative Exploration Initiative grants from the Queensland Government to advance Hammer's critical mineral exploration activities

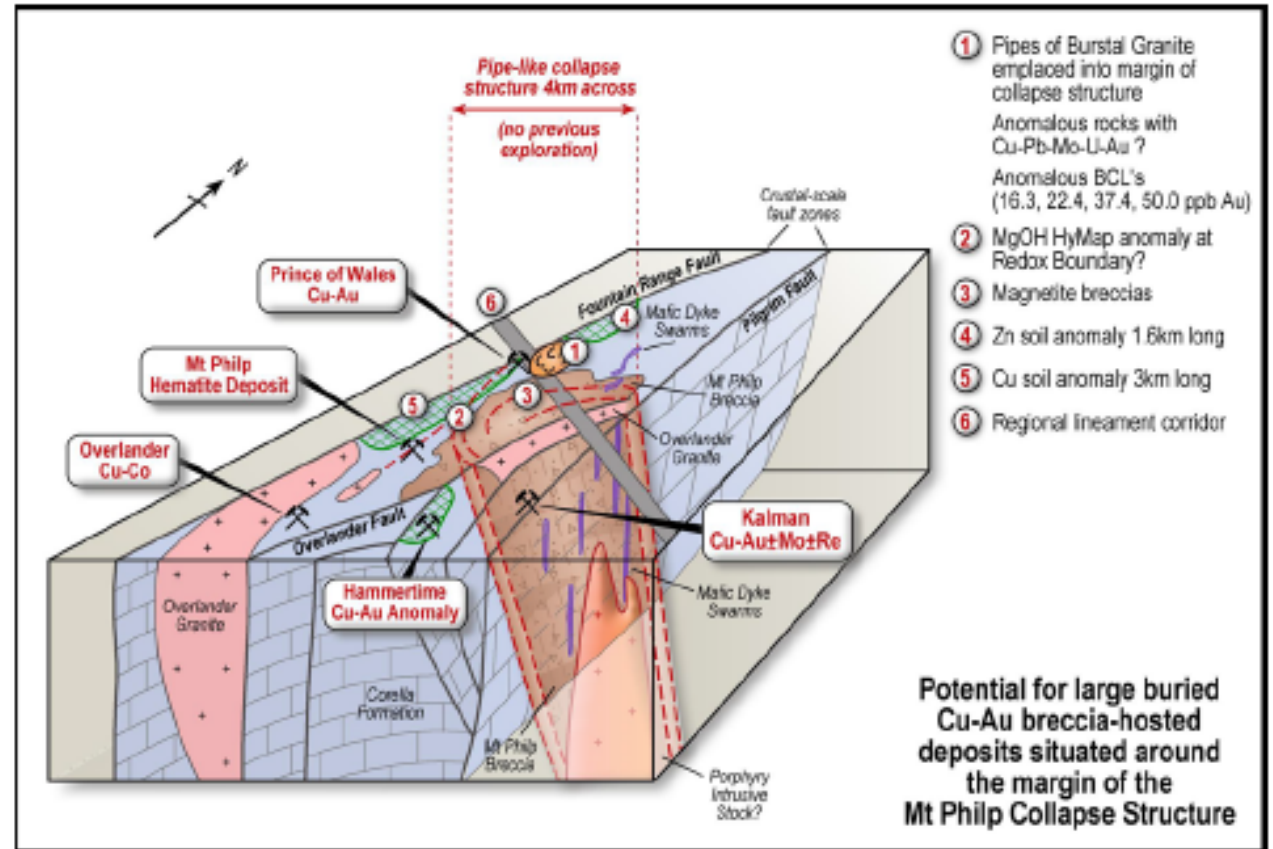
100% funding of two high potential projects within Hammer's portfolio:

1.) A magnetotelluric survey is proposed to investigate subsurface fault architecture in the vicinity of:

- the Kalman Cu-Au-Mo-Re Deposit and
- the Mount Philp Breccia

2.) Diamond drilling of two holes at Rare Earth Element (REE) prospects at Koppany. Hammer identified REE anomalism in historical Koppany drilling, including:

- 158m at 0.39% LREO from 76m including 12m at 2% LREO from 156m in KOP005
- 121m@ 0.38% LREO from 142m including 22m at 0.79% LREO in KOP007.
- Peak values over any one metre interval include 1.7% Cerium, 1.15% Lanthanum, 0.26% Neodymium and 0.13% Praseodymium





# Mt Isa: Greenfield Exploration Profile

**Hammer retains ~1570km<sup>2</sup> of 100% owned tenure – Wide ranging targets with significant potential**

## **Advanced Exploration Targets**

**Kalman – open at depth and along strike**

- Increasing grade at depth.

**Kalman – Repetitions along the Pilgrim Fault**

- Coincidental soil and AEM anomalies.

## **Large Scale IOCG Greenfield Targets**

**Andy's Hill, Overlander, Scalper, Hammertime IOCG Targets – Copper-Gold**

- Massive +20km<sup>2</sup> breccia complex with extensive alteration, brecciation and intrusive activity.
- Never been assessed for IOCG mineralisation.
- Significant scale Copper and Gold soil anomalies.

**Malbon IOCG Target: Copper-Gold**

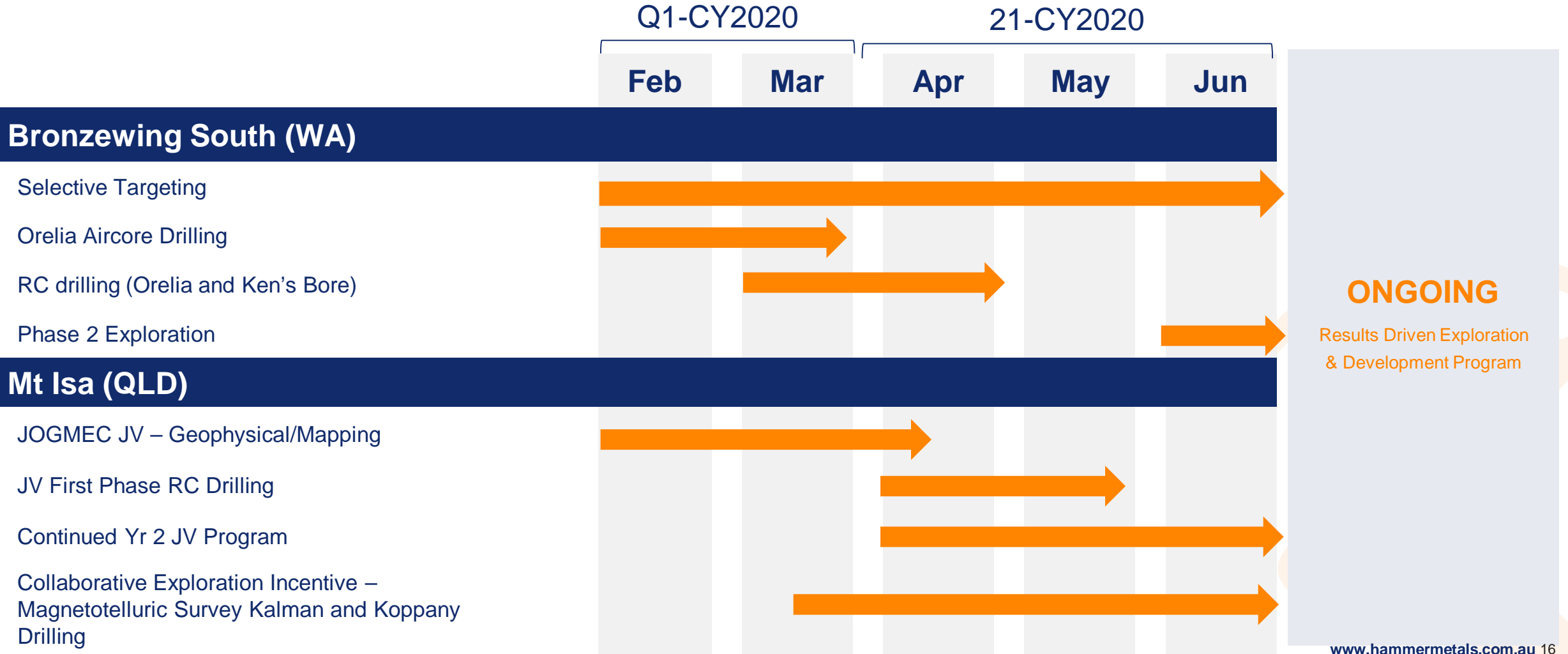
- Parallel prospective trends up to 1.8km in length, 40km east of Kalman.
- Rock chip samples of up to 15.8% Cu & 12.9g/t Au identified





# Aggressive Exploration to Deliver News & Milestones

Parallel workstreams to provide consistent newsflow





## Contact

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Mark Whittle, Chief Operating Officer  
[mark.whittle@hammermetals.com.au](mailto:mark.whittle@hammermetals.com.au)

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# Appendix: Jubilee Deposit: Copper-Gold

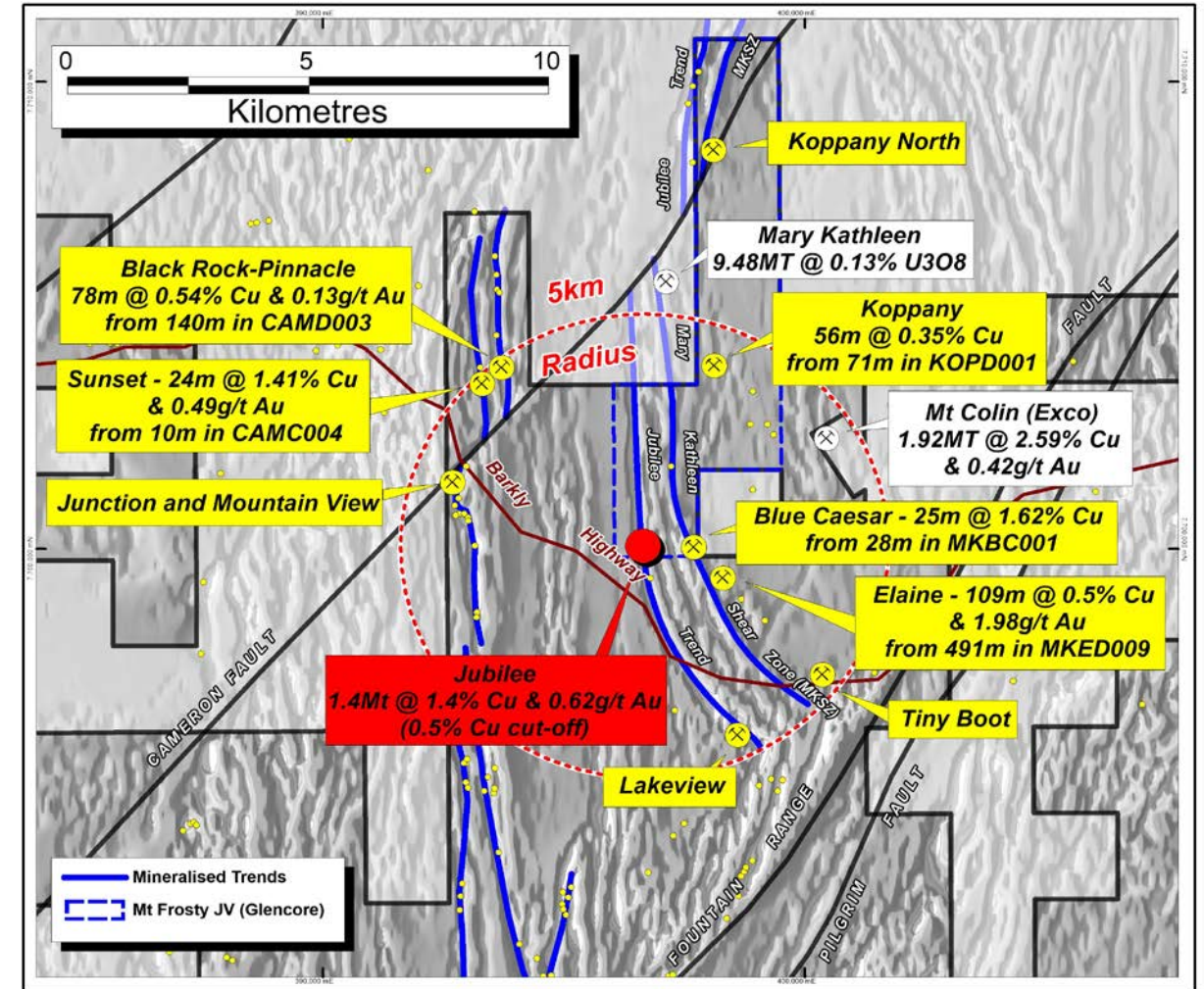
Jubilee is part of the Mt Frosty JV (HMX, 51% and operator) with Mount Isa Mines (MIM, 49%) and is <1km from the Barkly highway & 55km from Mt Isa

Maiden Inferred Resource Estimate released in December 2018 of **1.41Mt @ 1.41% Cu & 0.62 g/t Au for 20kt Cu & 28koz Au**

Excellent preliminary metallurgical results of >90% copper recovery to rough concentrate

Jubilee deposit extends from surface with significant potential to extend the resource at depth and along strike

Hammer have identified Jubilee & Elaine analogous greenfield targets 5km to the west at Black Rock & Sunset



# Appendix: Overlander Deposit - Copper-Gold

100% HMX owned and located 6km west from Hammer's 100% Kalman project

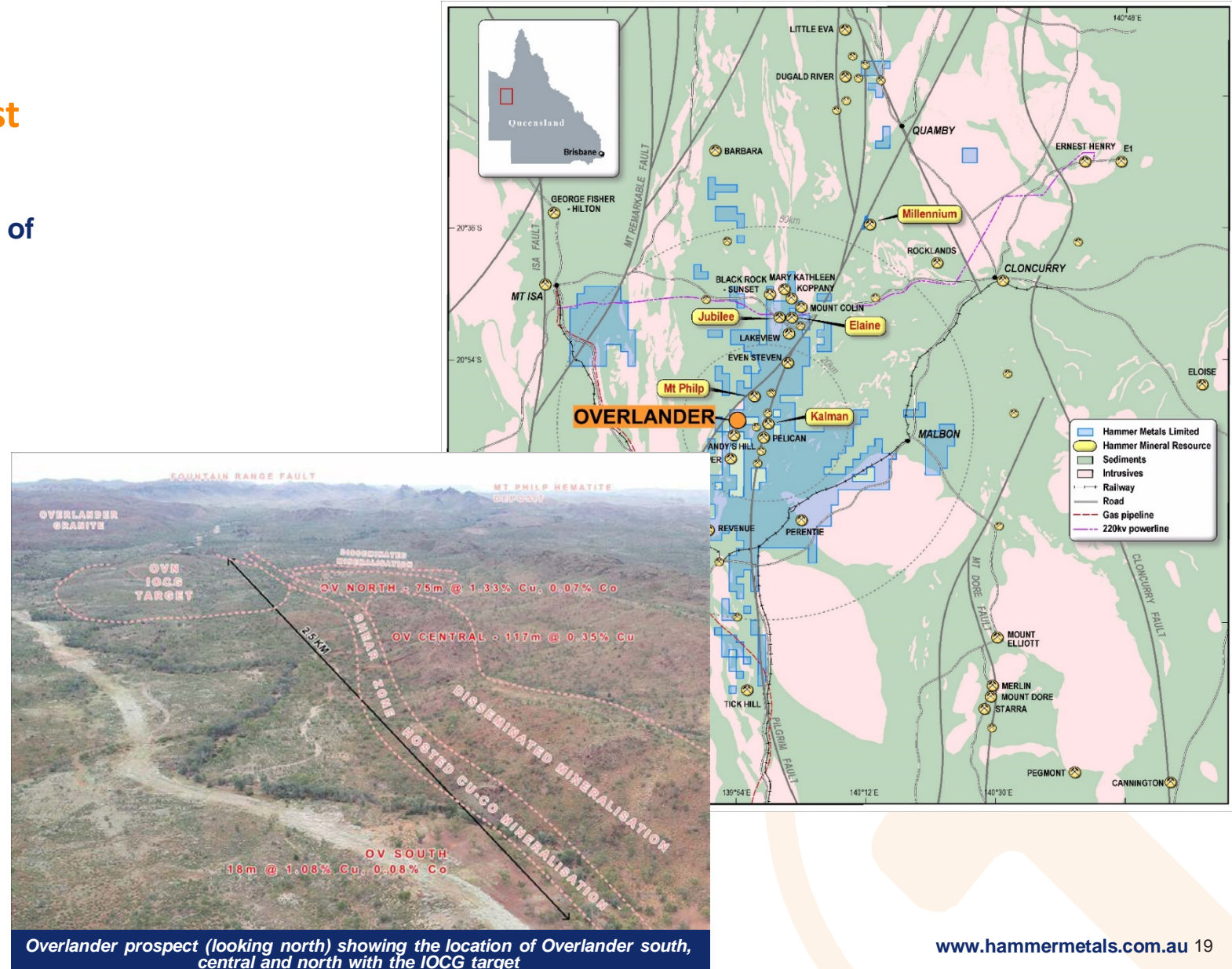
Indicated and Inferred Mineral Resource Estimate of 1.8Mt at 1.2% Cu (0.7% Cu cut-off)

Large mineralised system with 6km in strike length  
Significant copper grades and thickness, including:

- 28m @ 1.90% Cu & 16m @ 1.90% Cu, within 75m @ 1.33% Cu (OVR29)
- 27m @ 1.40% Cu, within 87m @ 0.74% Cu (OVR30)
- 56m @ 1.40% Cu & 11m @ 2.40% Cu & 10m @ 1.60% Cu, within 89m @ 1.10% Cu (OVR31)

Potential to extend current resource as the deposits remains open at depth and along strike

\* Refer ASX Announcement 26 August 2015





# Appendix: Elaine Deposit - Copper-Gold

**100% HMX owned and located 5km east from Hammer's 51% controlled Jubilee project**

**Inferred Mineral Resource Estimate of 9.3Mt @ 0.82% Cu & 0.19g/t Au**

Drilling has identified broad copper mineralisation, highlighted by up to 206m @ 0.53% Cu & 159m @ 0.50% Cu from 503m

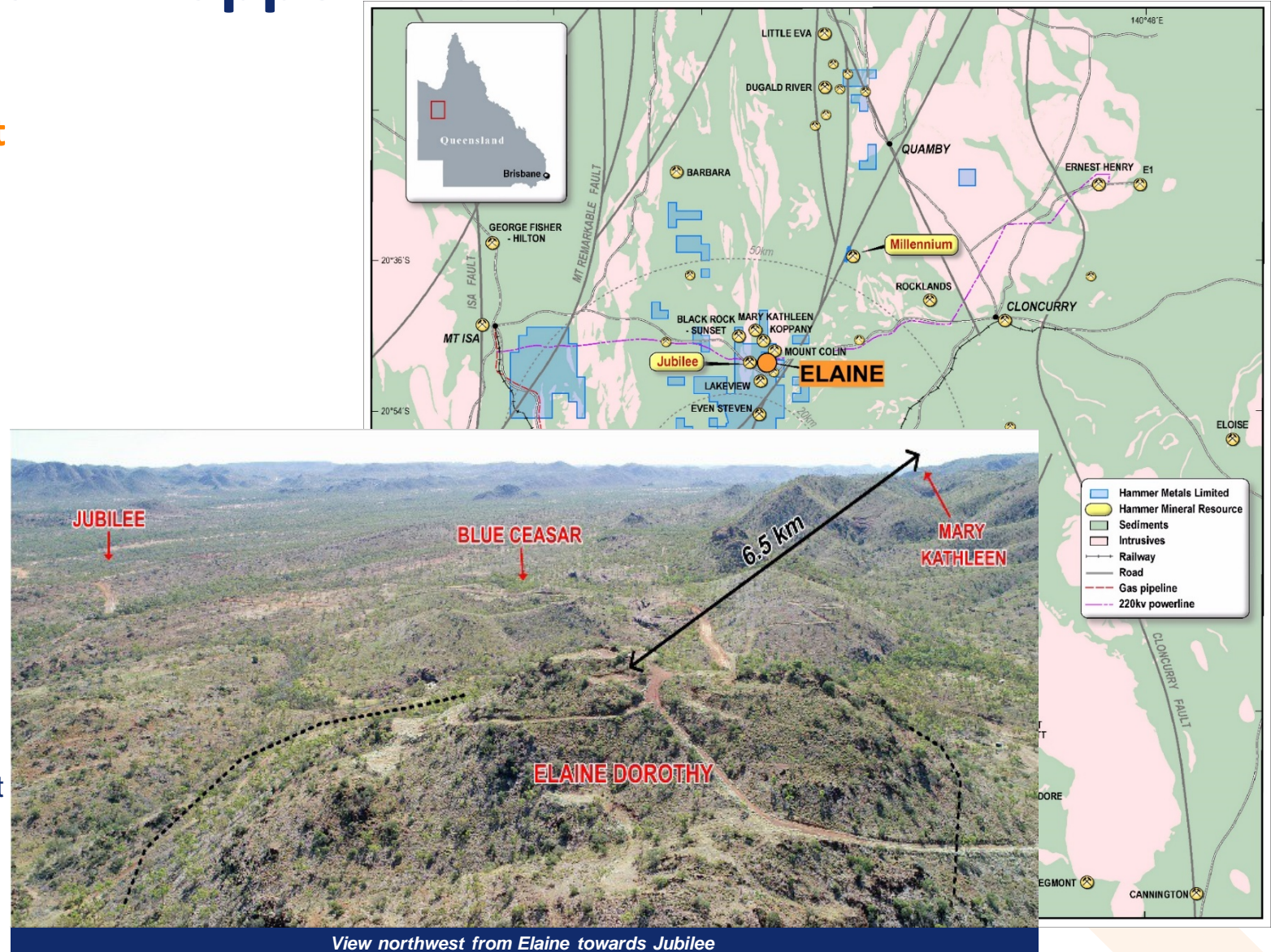
High-grade gold mineralisation is evident within the broader Elaine deposit, with drilling intersecting up to 30m @ 6.73g/t Au from 508m & 26m @ 1.7g/t Au from 160m\*

Preliminary metallurgical results of 90% copper recovery to cleaner concentrate\*\*

Multiple targets identified along strike from the current resource – Elaine 2, Elaine 3 & Blue Caesar

\* Refer ASX HMX Announcement 15 December 2016, ASX AKN Announcements dated 7 November 2011 and 13 June 2012 and the Competent Persons Statement

\*\* Refer ASX AKN Announcement 23 July 2013 and the Competent Persons Statement



View northwest from Elaine towards Jubilee

# Disclaimer and Competent Persons Statement

## Disclaimer

This presentation by its nature contains summarised information. See Hammer's other periodic and continuous disclosure announcements lodged with the Australian Securities Exchange, which are available at [www.asx.com.au](http://www.asx.com.au) for more information.

Within this presentation there may be certain forward-looking statements, opinions and estimates. These are based on assumptions and contingencies which are subject to change without notice and are not guarantees of future performance. Hammer assumes no obligation to update such information. Recipients of this document are cautioned to not place undue reliance on such forward-looking statements.

To the extent permitted by law, Hammer and its officers, employees, related bodies corporate and agents disclaim all liability, direct, indirect or consequential for any loss or damage suffered by a recipient or other persons arising out of, or in connection with, any use or reliance on this presentation or information.

## Competent Persons Statements

Certain exploration drilling results relating to the Mount Isa Project were first disclosed under JORC code 2004 and have not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed.

### Resource Estimates

Where the Company refers to Mineral Resource Estimates for the following projects:

- the Kalman Deposit (refer ASX 27 Sept 2016);
- the Overlander North and South Deposit (refer ASX 26 Aug 2015); and
- the Jubilee Deposit (refer ASX 21 December 2018).

It confirms that it is not aware of any new information or data that materially affects the information included in those announcements and all material assumptions and technical parameters underpinning the resource estimates with those announcements continue to apply and have not materially changed.

The Minerals Resource Estimates shown for Mt Philp and Elaine were prepared and disclosed by previous owners refer to attached Mineral Resource Estimate Appendices

The information in this presentation that relates to Exploration Results or Mineral Resources is based on information compiled by Mark Whittle who is a fellow of the Australian Institute of Mining and Metallurgy and an employee of Hammer Metals Limited. Mr Whittle has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (The JORC Code). Mr Whittle consents to the inclusion in the presentation of the matters based on their information in the form and context in which it appears.

Mr Whittle has an interest in Hammer Metals Limited shares and options.

The information in this report that relates to previous exploration results was prepared and first disclosed under a pre-2012 edition of the JORC code.

The data has been compiled and validated. It is the opinion of Hammer Metals that the exploration data is reliable. Nothing has come to the attention of Hammer Metals that causes it to question the accuracy or reliability of the historic exploration results.

In the case of the pre-2012 JORC Code exploration results, they have not been updated to comply with 2012 JORC Code on the basis that the information has not materially changed since it was last reported.



# Kalman Resource Estimate & Notes on Copper Equivalence Calculation and Metallurgical Recoveries

The Kalman Mineral Resource Estimate was updated in August 2016 in accordance with the JORC Code (2012 Edition). (Refer to the ASX Release dated 27th September 2016 for full details of the Resource Estimate.) The company is not aware of any new information or data that materially affects the information in the HMX ASX announcement dated September 27<sup>th</sup>, 2016. All material assumptions and technical parameters underpinning the mineral resource estimate continue to apply and have not materially changed.

## Kalman Deposit Mineral Resource Estimate

(Reported at 0.75% CuEq cut-off above 100m RL and 1.4% CuEq cut-off below 100m RL)

Classification	Mining Method	CuEq Cut-Off	Mt	Cu Eq %	Cu %	Mo %	Au g/t	Ag g/t	Re g/t
Indicated	Open Pit	0.75%	7.1	1.5	0.48	0.12	0.27	1.4	2.9
Inferred	Open Pit	0.75%	6.2	1.6	0.44	0.15	0.24	1.5	3.9
Inferred	Underground	1.40%	7.0	2.4	0.89	0.16	0.5	2.9	4.5
<b>Total</b>			<b>20.0</b>	<b>1.8</b>	<b>0.61</b>	<b>0.14</b>	<b>0.34</b>	<b>1.9</b>	<b>3.7</b>

•Note: (1) Numbers rounded to two significant figures  
 •Note: (2) Totals may differ due to rounding  
 •Note: (3)  $CuEq = Cu + (0.864268 * Au) + (0.011063 * Ag) + (4.741128 * Mo) + (0.064516 * Re)$

Copper equivalent (CuEq) grades were calculated using estimated block grades for Cu, Au, Ag, Mo and Re.

The CuEq calculation is based on commodity prices and metallurgical recovery assumptions as detailed in this release. Prices agreed to by Hammer were a reflection of the market as at 14/02/2014 and forward looking forecasts provided by consensus analysis. Metal prices provided are:

The CuEq calculation is based solely on commodity prices without assumptions about recovery or payability of the different metals. Prices agreed to by Hammer were a reflection of the market as at 14/02/2014 and forward looking forecasts provided by consensus analysis. Metal prices provided are: Cu: US\$7,165/t, Au: US\$1,324.80/oz, Ag: US\$22.40/oz, Mo: US\$16.10/lb  
 The forward looking price for Rhenium was estimated using available historical and current prices - Re: US\$5,329/kg

The CuEq equation is  $CuEq = Cu + 0.594464Au + 0.010051Ag + 4.953866Mo + 0.074375Re$  and was applied to the respective elements estimated within the resource block model.

## Assumed Metallurgical Recoveries

Based on the testing completed and the current understanding of the material characteristics it has been assumed that the Kalman material can be processed using a “typical” concentrator process flowsheet. The mass balance and stage metallurgical recovery of the four major elements were based on the metallurgical test results from the molybdenum zone sample and benchmarks. The final overall recovery (Table 3) was established from the mass balance and benchmarked against other operations and projects.

Process Stage		Copper	Molybdenum	Gold	Rhenium	Silver <sup>(1)</sup>
Bulk Rougher	% Rec'y	95	95	82	86	82
Overall	% Rec'y	86	86	74	77	74

(1) No data available for Silver recoveries so they have been assumed similar to Gold Recoveries

It is the company's opinion that the metals used in the metal equivalent equation have reasonable potential for recovery and sale based on metallurgical recoveries in flotation test work undertaken to date. There are a number of well-established processing routes for copper molybdenum deposits and the sale of resulting copper and molybdenum concentrates.

# Overlander Mineral Resource Estimate

The 100%-owned Overlander Project is situated 60 kilometres to the southeast of the mining centre of Mount Isa in North West Queensland and 6 kilometres to the west of Hammer's Kalman copper-gold-molybdenum-rhenium deposit. It is a high-priority target area for both shear-hosted copper and IOCG copper mineralisation. The Overlander North and South copper Deposits are situated approximately one kilometre apart within a common shear zone.

Drilling in the Overlander North deposit extends to a vertical depth of approximately 430m and the mineralisation was modelled from surface to a depth of approximately 420m below surface. Drilling in the Overlander South deposit extends to a vertical depth of approximately 215m and the mineralisation was modelled from surface to a depth of approximately 180m below surface. The resource estimates are based on good quality RC and diamond drilling data. Drill hole spacing is predominantly on a 40m by 20m spacing with additional drill holes between sections targeted at the higher grade cores of the deposits.

Following additional drilling in 2014 and 2015, The Mineral Resource Estimates for the Overlander North and South shear-hosted copper Deposits were revised by Haren Consulting and reported in accordance with the guidelines of the JORC Code (2012 Edition). They contain combined resources of 1,772,000 tonnes at 1.2% copper in the indicated and inferred categories (Refer to the ASX release dated August 26<sup>th</sup> 2015). The company is not aware of any new information or data that materially affects the information in the HMX ASX announcement. All material assumptions and technical parameters underpinning the mineral resource estimate continue to apply and have not materially changed.

## Overlander North and South Mineral Resource Estimate

(Reported at 0.7% Cu cut-off)

Overlander North Resource					
Classification	Tonnes	Cu %	Co (ppm)	Cu t	Co t
Indicated	253,000	1.4	254	3,414	64
Inferred	870,000	1.3	456	11,350	396
Total	1,123,000	1.3	410	14,764	461

Overlander South Resource					
Classification	Tonnes	Cu %	Co (ppm)	Cu t	Co t
Indicated	-	-	-	-	-
Inferred	649,000	1	500	6,352	327
Total	649,000	1	500	6,352	327

Overlander Combined Mineral Resource					
Classification	Tonnes	Cu %	Co (ppm)	Cu t	Co t
Indicated	253,000	1.4	254	3,414	64
Inferred	1,518,000	1.2	476	17,700	723
Total	1,772,000	1.2	445	21,112	788

•Note: (1) Numbers rounded to two significant figures to reflect appropriate levels of confidence  
•Note: (1) Totals may differ due to rounding

# Jubilee Mineral Resource Estimate

The 51%-owned Jubilee Deposit is situated 50 kilometres west of Mount Isa in North West Queensland.  
It is a high-priority target area for shear-hosted copper mineralisation.

Mineralisation was modelled from surface to a depth of approximately 325m below surface.

The resource estimates are based on good quality RC and diamond drilling data. Drill hole spacing is predominantly on a 50m by 40m spacing with additional drill holes between sections targeted at the higher grade cores of the deposits.

The Mineral Resource Estimate was conducted by H&S consultants Pty Ltd and reported in accordance with the guidelines of the JORC Code (2012 Edition). They contain combined resources of 1.41Mt at 1.41% copper and 0.62g/t Au in the inferred category (Refer to the ASX release dated December 20<sup>th</sup>, 2018). The company is not aware of any new information or data that materially affects the information in the HMX ASX announcement. All material assumptions and technical parameters underpinning the mineral resource estimate continue to apply and have not materially changed.

## Jubilee Inferred Mineral Resource Estimate

(Reported at 0.5% Cu cut-offs)

Category	Domain	Mt	Cu %	Cu (t)	Au g/t (Cut)	Au oz (Cut)
Inferred	Mod-Slightly Weathered	0.07	1.51	1,000	0.55	1,200
Inferred	Fresh	1.34	1.41	19,000	0.63	27,100
Inferred	Total	1.41	1.41	20,000	0.62	28,300

•Note: (1) Totals may differ due to rounding



# Elaine Project Mineral Resource Estimate & Notes on Copper Eqv Calculation and Metallurgical Recoveries

The 100%-owned Elaine Cu-Au deposit is situated on granted exploration licence 14022, approximately 50km east of Mount Isa in North West Queensland.

A resource estimate was first completed and reported to ASX by previous owners (Chinalco Yunnan Copper Resources Limited, now AUKing Limited) on 18<sup>th</sup> October 2012. The resource was conducted by Mine Development Associates. The company is not aware of any new information or data that materially affects the information in the AKN ASX announcement. All material assumptions and technical parameters underpinning the mineral resource estimate continue to apply and have not materially changed.

A review of the Resource Estimate was completed for the purpose of compiling this statement and the principles and methodology of the resource estimation procedure and the resource classification procedure are considered to comply. The Elaine Project Mineral Resource Estimate is based on approximately 30 holes to a depth of 450 metres below surface. The current resource totals 9.3 million tonnes (Mt) grading 0.82% Cu and 0.19g/t Au and is classified as being all in the Inferred category. The resource is tabulated below at a variety of CuEq % cut-offs.

CuEq cut-off %	Mt	CuEq %	Cu %	Au g/t
0.10	64.34	0.34	0.31	0.05
0.20	32.77	0.54	0.49	0.08
0.25	26.10	0.62	0.56	0.09
0.30	22.81	0.67	0.60	0.10
0.40	17.81	0.76	0.68	0.12
0.50	15.05	0.82	0.73	0.13
0.60	12.47	0.88	0.77	0.15
<b>0.70</b>	<b>9.31</b>	<b>0.95</b>	<b>0.82</b>	<b>0.19</b>
0.80	6.46	1.04	0.87	0.25

**Elaine Inferred Mineral Resource Estimate Metal Equivalent Information** - The Copper Equivalent (CuEq) equation has been calculated to reflect current and forecast pricing. CuEq grades were calculated using estimated block grades for Cu and Au. Metal prices used were:

- Cu: US\$5,400/t;
- Au: US\$1,300/oz;

The copper equivalent equation is:  $CuEq \% = Cu \% + (Au \text{ ppm} \times 0.70216)$

Cut-offs of 0.7% have been applied for reporting Mineral Resources.

Metallurgical test-work indicated that acceptable copper-cobalt sulphide concentrates could be produced via conventional processing methods. Based on the test-work conducted, it is the company’s opinion that all metals used in the metal equivalent calculation have a reasonable potential to be recovered.

April 2013 Elaine Metallurgical Testwork					
Test No.	Product	Cu		Au	
		%	% Rec'y	ppm	% Rec'y
Test 11	Final cleaner concentrate	29.9	92.2	2.73	31.7
	Rougher concentrate	8.1	96.0	1.22	54.4
Test 13	Final cleaner concentrate	22.9	77.1	0.88	23.9
	Rougher concentrate	11.6	91.6	0.67	42.3

# Mt. Philp Mineral Resource Estimate

The Mineral Resource Estimate is based on 48 diamond and reverse circulation (RC) drillholes completed in 2011 for a total of 3,801 metres (m). Drilling comprises fans located on a nominal 100 m pattern along the strike length of the ironstone. The Mineral Resource was estimated and reported in-house by Cerro Resource NL.

The current resource totals 19.1 million tonnes (Mt) grading 41.4% iron and 37.9% silica (Table 1-1) in the Indicated category and 11.4 million tonnes (Mt) grading 33.8% iron and 47.4% silica in the Inferred category. This resource is open at depth.

A resource estimate was first completed and reported to ASX by previous owners on 28<sup>th</sup> September 2012. The company is not aware of any new information or data that materially affects the information in the ASX announcement. All material assumptions and technical parameters underpinning the mineral resource estimate continue to apply and have not materially changed.

## Mt Philp Deposit Mineral Resource Estimate

Mt Philp Mineral Resource						
Classification	Mt	Fe %	P %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	LOI %
Indicated	19.11	41	0.02	38	1.2	0.29
Inferred	11.40	34	0.02	48	2.0	0.31
<b>Total</b>	<b>30.51</b>	<b>39</b>	<b>0.02</b>	<b>42</b>	<b>1.6</b>	<b>0.30</b>

- Note: (1) Numbers rounded to two significant figures to reflect appropriate levels of confidence
- Note: (1) Totals may differ due to rounding