# Hammer Metals

# DUAL FOCUSED EXPLORER POSITIONED FOR SUCCESS

Investor Presentation February 2021

### ASX:HMX







## **Disclaimer and Competent Persons Statement**

The announcement of this presentation to the ASX platform has been authorized by Daniel Thomas, Managing Director, Hammer Metals Limited

#### 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 for more information.

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#### **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.

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

Quality gold and copper exploration portfolio

Highly refined advanced stage drill targets

Recent copper discovery in Queensland Team responsible for world class gold discoveries in WA

Adjacent to world class mines in WA and QLD

Fully funded for upcoming exploration programs

MOUNT ISA PROVINCE One of the World's Largest Base Metal Provinces

PROJECT

YANDAL GOLD

#### YANDAL GOLD PROVINCE 24M Oz of Gold Produced

Hammer Metals

## **Corporate Snapshot - ASX:HMX**

### **BOARD AND MANAGEMENT WITH A TRACK RECORD OF SUCCESS**

Russell Davis Chairman BSc (Hons) MBA, MAusIMM, AICD

Daniel Thomas Managing Director BSc, MBA

Ziggy Lubieniecki Non-Executive Director BSc, MAIG

David Church Non-Executive Director B.Comm, MA, CA

Mark Whittle Chief Operating Officer BSc (Hons), MSc, FAusIMM, AICD

Mark Pitts Company Secretary B.Bus, FCA, GAICD +30 years resources experience Geologist with exploration and development experience Founding Director and NED of Gold Road Resources

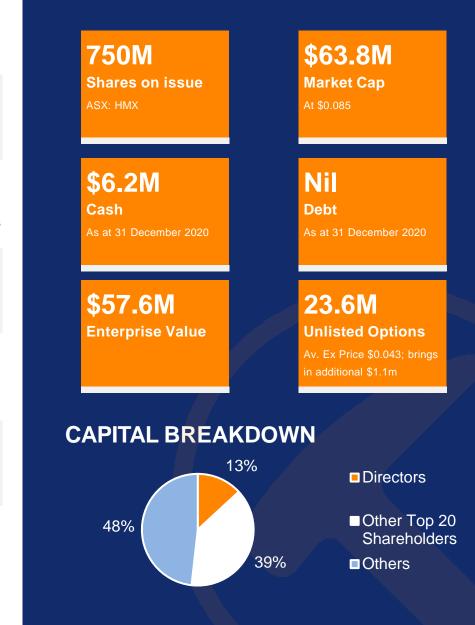
+20 years business development experience Industrial Chemist with corporate development experience Previously Business Development Manager Sandfire Resources

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

+20 years experience in Mergers and Acquisitions Lawyer with international experience in corporate transactions Consultant providing general counsel and M&A services to Regent Pacific Group

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

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



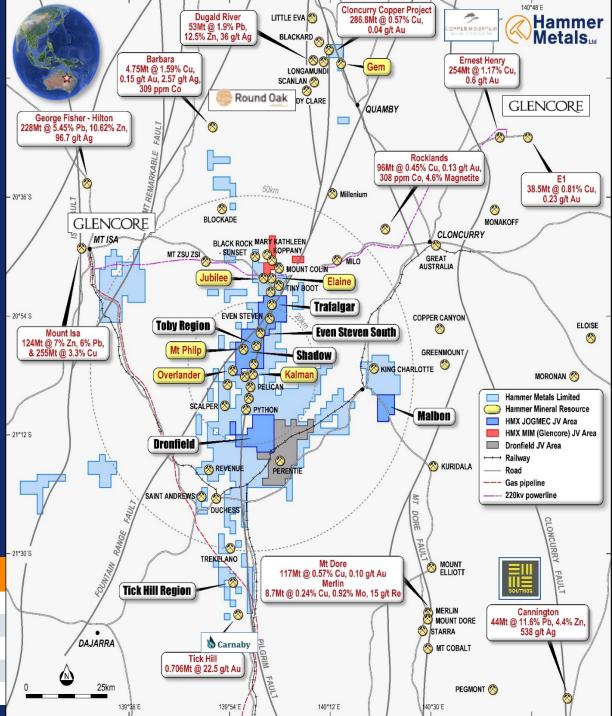
# Mt Isa Projects

### Queensland

# Strategic landholding covering a range of greenfield to advanced development study projects

- Highly prospective 2,100km<sup>2</sup> tenement holding in the largest base metal province in the world
- One of the world's most diverse base metals districts hosting numerous Tier One deposits, established mining infrastructure and major corporates
- Broad copper and gold intercepts confirm discovery at Trafalgar
- Multiple existing JORC 2012 Resources containing >400kt Cu, including the Kalman Project - 20Mt @1.8% Cu Eq
- Joint Venture with JOGMEC over ~290km<sup>2</sup> area (\$6m expenditure to earn 60%)
  - Excludes Hammer's existing Copper/Gold JORC Resources
- Active exploration on ground exploring advanced stage IOCG targets throughout the remainder of CY2020 and into early CY2021

Deposit	Tonnes Mt	CuEq %	Cu %	Au g/t	Co %	<mark>Мо</mark> %	Re g/t	Fe %	Comment
Kalman	20.0	1.80	0.61	0.34	-	0.14	3.7	-	0.75% Cu Eq 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% Cu Eq cut-off
Overlander	1.8	-	1.20	-	0.05	-	-	-	0.7% Cu cut-off
Mount Philp	30.5	-	-	-	-	-	-	39	

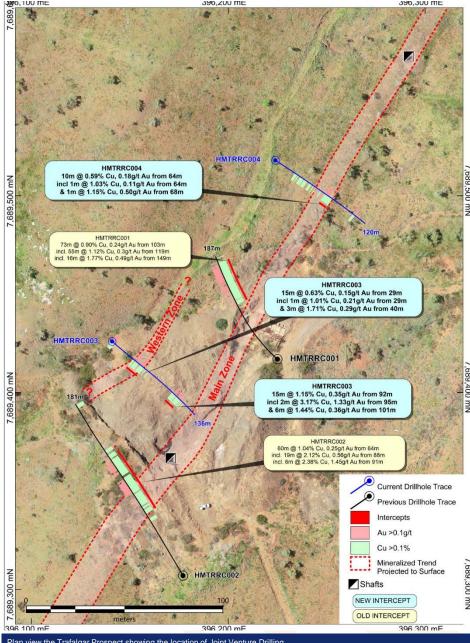


## **Mount Isa: Trafalgar**

#### New Copper Gold Discovery | JOGMEC JV

- Four holes drilled all intersecting significant copper and gold mineralisation:
  - > 55m at 1.12% Cu and 0.30g/t Au from 119m including;
    - 16m at 1.77% Cu and 0.49g/t Au from 149m<sup>1</sup>; and
  - > 60m at 1.04% Cu and 0.25g/t Au from 64m including;
    - 6m at 2.38% Cu and 1.45g/t Au from 91m<sup>2</sup>
  - > 15m at 1.15% Cu and 0.35g/t Au from 92m including;
    - 2m at 3.17% Cu and 1.33g/t Au from 95m<sup>3</sup>; and
  - > 15m at 0.63% Cu and 0.15g/t Au from 29m including;
    - 3m at 1.71% Cu and 0.29g/t Au from 40m<sup>3</sup>
  - 10m at 0.59% Cu and 0.18g/t Au from 64<sup>4</sup>
- Deposit remains open in all directions with drilling identifying a newly interpreted zone of mineralisation to the west
- Drilling confirms strike extents over 250m
- Historical workings including multiple pits and shafts over a 3km zone corresponding with anomalous soils and magnetics



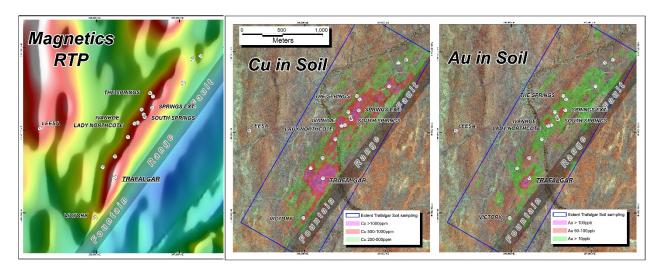


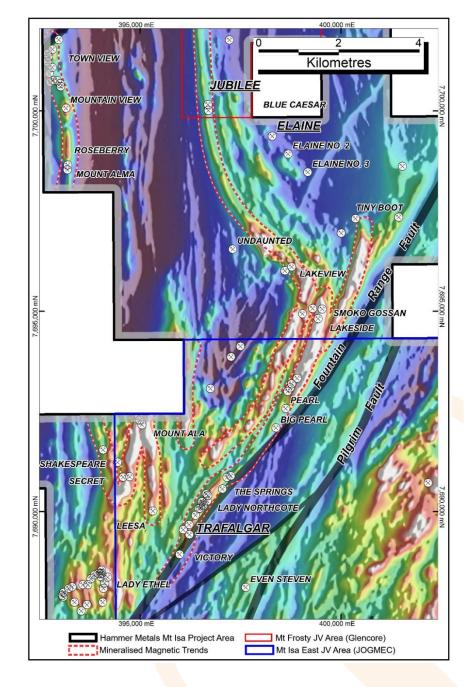
Plan view the Trafalgar Prospect showing the location of Joint Venture Drilling

## **Mount Isa: Trafalgar Trend**

### Trafalgar Trend | JOGMEC JV | 100% HMX

- Defined by extensive copper-gold soil anomalism, a strong magnetic ridge and multiple historic workings over a strike length in excess of 3km
  - > The trend has had very little systematic exploration completed
- Several kilometres further north adjacent to the Fountain Range Fault, this trend continues with historical workings at Pearl, Lakeside and Smoko Gossan
  - These prospects are located outside the JOGMEC Joint Venture in Hammer's 100% owned tenements
- Limited drilling of these prospects has previously been conducted with Hammer planning a review of these prospects with a drill program anticipated to commence across 100% owned and Joint Venture prospects in April





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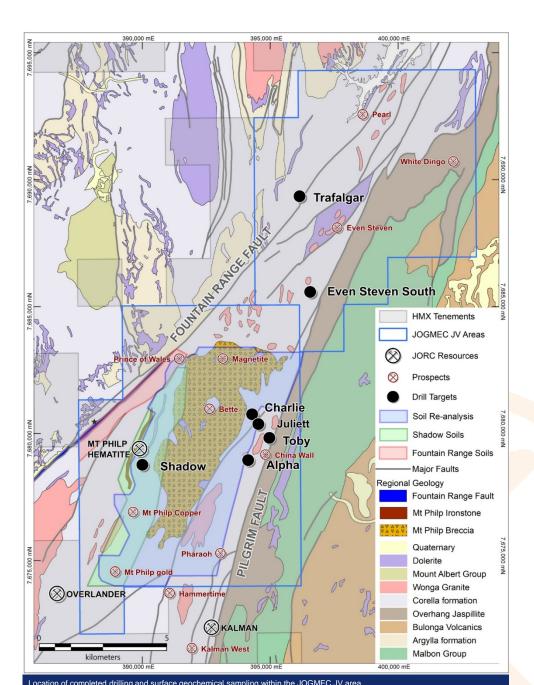
## Mount Isa: Copper & Gold

#### **Copper | JOGMEC JV**

- Drilling program in December and January tested 7 prospective target areas with the highlight of the Trafalgar Copper Gold Discovery
- Drilling of Alpha, Charlie, Juliett, Shadow and Toby East prospects was completed in mid-January with assays expected this month
- Numerous new soil geochemical anomalies identified in the four JV areas including a prospective copper and gold target zones near the Prince of Wales IOCG target
- Follow up infield soil sampling program likely for the Dronfield and Malbon areas in the next phase of the JOGMEC JV
- Detailed gravity and IP surveys being considered across prospective trends

### Copper/Gold | 100% HMX

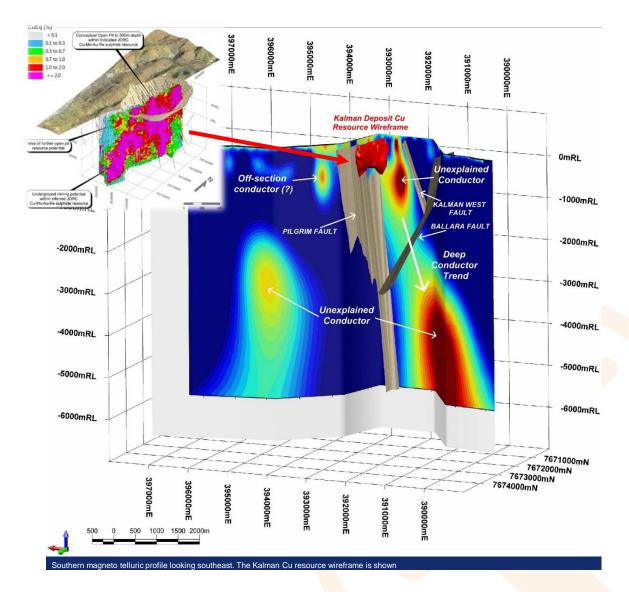
- Soil sampling program completed at Hammer's Tick Hill region tenements. Numerous broad zones of copper and gold anomalism identified with several anomalies extending over 1km in length
- On-ground review of the anomalous zones to continue with the aim of developing drill ready prospects in the Tick Hill region towards the end of the first quarter of next year
- Nearby Kalman exploration targets identified at Kalman West and along strike from Kalman.



## Kalman Deposit: Copper-Gold-Molybdenum-Rhenium

#### 100% HMX - 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<sup>1</sup>
  - > 53m @ 2.1% Cu & 0.5g/t Au from 695m<sup>2</sup>
  - > 31m @ 1.0% Cu & 1.1g/t Au from 221m<sup>3</sup>
  - > 7m @ 0.3% Cu, 3.4% Mo & 57.3g/t Re, within;
    - 62m @ 0.65% Mo & 11g/t Re
- Imagery indicates that the MT method identifies the Kalman Deposit along with a number of unexplained conductive anomalies - potential Kalman lookalike targets
- MT survey anomaly at Kalman West coincident with a broad lead and zinc soil anomaly. Further review being completed with potential drill targets to be tested in the second quarter of 2021.



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## Mt Isa

### What's Next in 2021

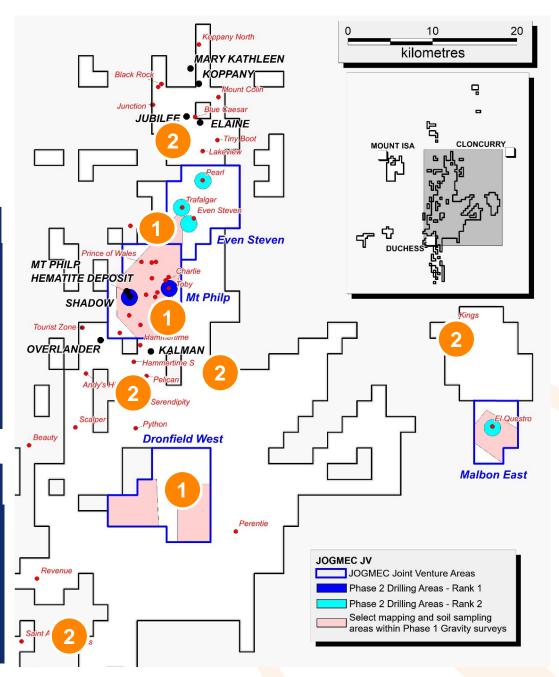
### **Exploration programs have commenced across Hammer's Mt** Isa portfolio

#### JOGMEC Joint Venture: Phase 3

- Planning for the next phase of RC drilling for the Joint Venture has commenced and RC results remain outstanding
- Third phase of JV to commence in April with priority targets at Trafalgar and along the Trafalgar trend set for further drilling
- Interpretation of significant soil survey program and field mapping exercises completed in late 2020
- A number of other advancing grassroots targets are being developed for further work in 2021

#### Hammer's Other Mount Isa Activities

- RC Drilling of Trafalgar trend analogues (e.g. Lakeview, Tiny Boot and Smoko Gossan) anticipated to commence on return to the field season in April 2021
- Drilling of Kings, Alice and Charlotte Copper Gold targets set to feature in upcoming drilling program
- Significant soil sample survey in in tenements near the Tick Hill gold mine has identified numerous high priority targets. Field review underway.

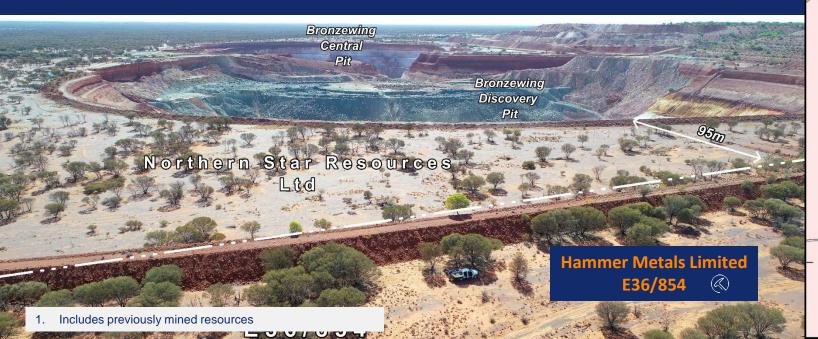


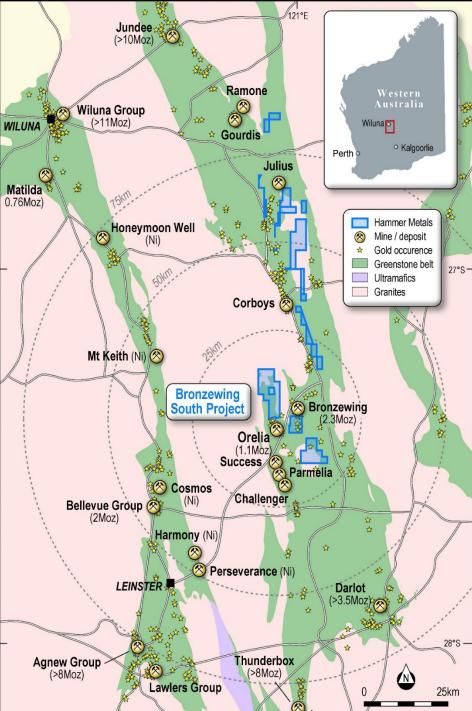
# **Yandal Gold Projects**

### Western Australia

#### Highly prospective, underexplored, land package in the heart of the Yandal

- 260km<sup>2</sup> tenement position in the highly prospective Yandal Gold Belt
- Proximal to existing multi-million ounce resources including the 4Moz Bronzewing<sup>1</sup> gold mine & 1.1Moz Orelia gold deposits
- Limited exploration due to previous legal dispute which is resolved
- Numerous zones of highly anomalous gold identified at both projects drilled to date
- Aggressive drilling programs to test high priority targets planned for 2021



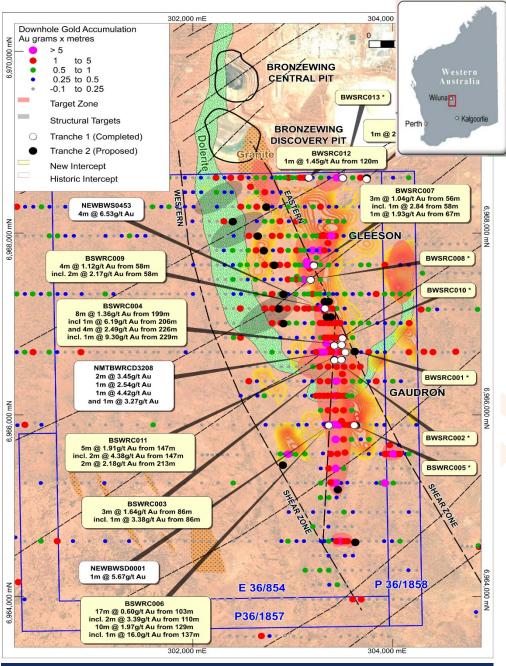


# **Bronzewing South**

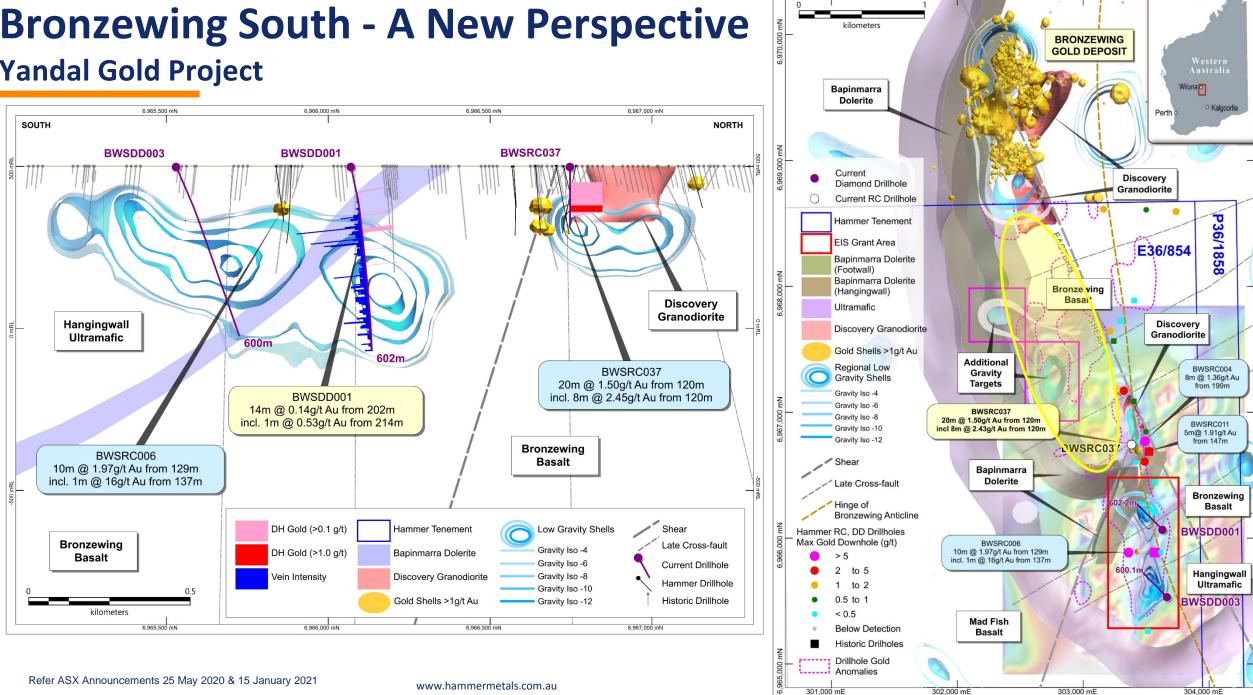
### **Yandal Gold Project**

### Lightly Explored Adjacent to World Class Ore Body

- 5km strike length has multiple high-priority targets highlighted by geochemical, geophysical and structural analysis
- Limited exploration exceeding 100m depth across the property (26 RC/DD holes)
- Recent diamond drilling encountered zones of significant carbonate and quartz veining, validating gravity low targets
- Geology learnings from drilling program to defined new high priority targets immediately south of Bronzewing Central and Discovery pits
- High-grade, shallow mineralisation intercepted in limited drilling to date<sup>1</sup>:
  - 20m at 1.5g/t Au from 120m<sup>1</sup>, including;
    - > 8m at 2.4g/t Au from 120m; and 4m at 3.9g/t Au from 120m
  - 10m at 1.97g/t Au from 129m<sup>3</sup>, 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<sup>2</sup>, including;
    - Im 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<sup>4</sup> in, including;
    - > 2m at 4.38g/t Au from 147m



Drill locations to date (\* - indicates no intersections >1g/t Au)



301,000 mE

302.000 mE

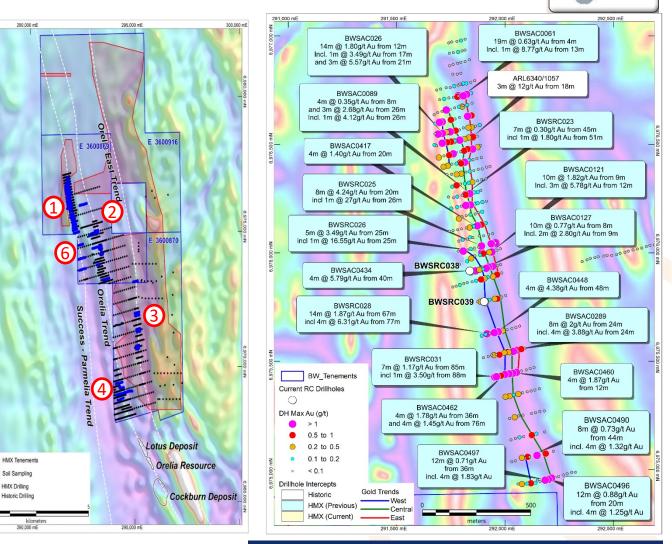
303.000 mE

### **Bronzewing South - A New Perspective Yandal Gold Project**

### **North Orelia - Prospective Structural Trends Yandal Gold Project**

#### Mineralisation, Structure & Geology

- Multiple targets identified in 14km Orelia Trend
- Along strike from former Cockburn & Lotus pits (Mt Mclure Operation) held by Northern Star hosting the 1.1Moz Au Orelia Resource
- Upcoming air core drilling program at broad soil anomaly at Target 3 and at Target 4 immediately on trend from the Orelia deposits
- Results from AC & RC drilling to date confirm the presence of shallow gold mineralisation >2km strike length at Target 1 and anomalous levels of gold at Target 4
- Recent assays from RC drilling program at Orelia North provided the following shallow gold results including:
  - 8m at 4.2g/t Au from 20m in BWSRC0025 including:
    - $\rightarrow$  1m at 27.1g/t Au from 26m;
  - 5m at 3.5g/t Au from 25m in BWSRC0026 including:
    - 1m at 16.6g/t from 25m; and
  - 4m at 6.3g/t Au from 77m in BWSRC0028



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Soil Sampling

HMX Drilling

Historic Drillin

Wiluna

Perth

Kalgoorlie

# **Bronzewing South Gold Project**

### What's Next in 2021

Further untested prospects to be drilled at Bronzewing South, Orelia North and the broader Yandal porfolio

#### **Orelia North - AC Program - Planned**

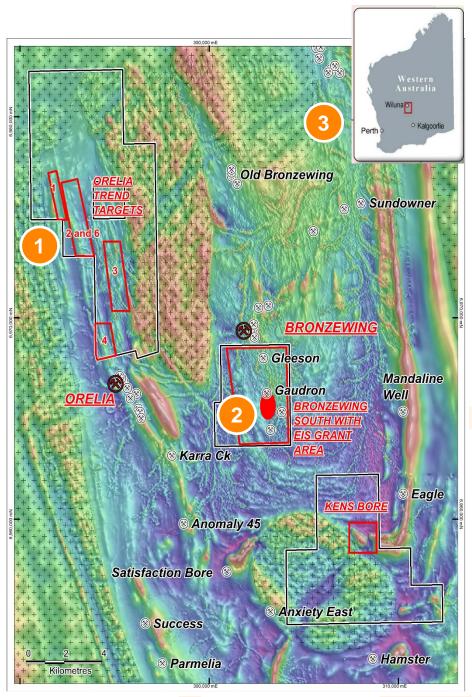
- AC program to test extensive soil anomaly at Target 3
- AC program to test prospective zone at Target 4 to the north of the Orelia deposits
- ~10,000 meters of drilling planned commencing in March 2020

#### Bronzewing South - Diamond Drilling - Planned

- RC and DD program to test compelling gravity and structural repetition at the gravity lows lying on the edge of the Bapinmarra Dolerite – Ultramafic contact
- 2020 RC & DD hole's encountered mineralisation and prospective geology identifying exciting trends that remain untested

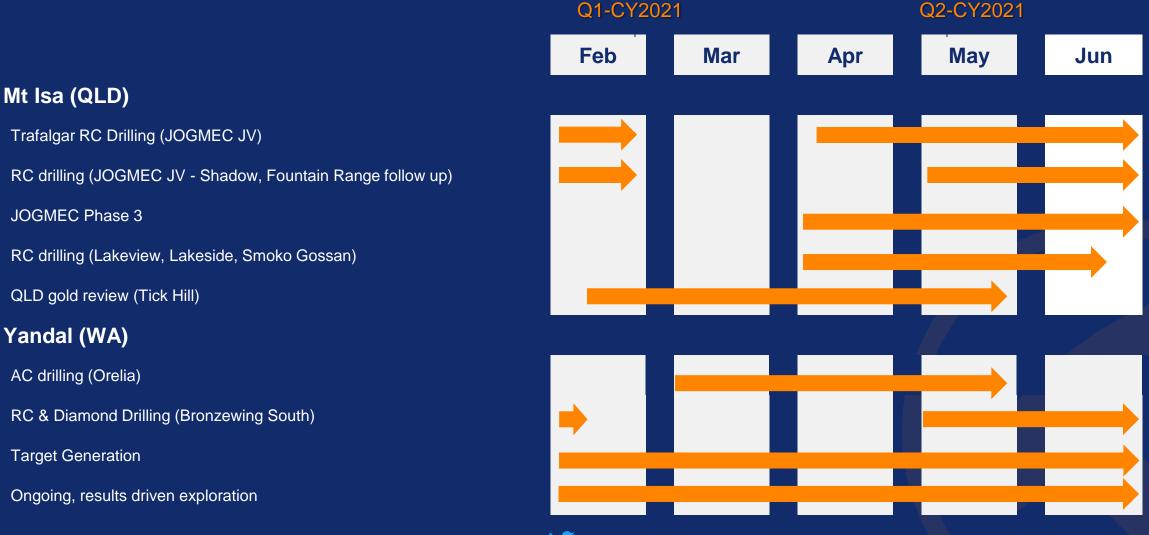
#### Broader Yandal Portfolio - Ongoing

- Ongoing soil sampling and target generation across the broader Yandal portfolio
- Review of acquired Yandal North properties continuing with field activities planned for 2021
- Ongoing analysis and discussions with surrounding tenement owners



## Aggressive Exploration | ongoing and results driven News & Milestones

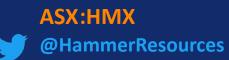
Parallel workstreams to provide consistent newsflow





### Contact

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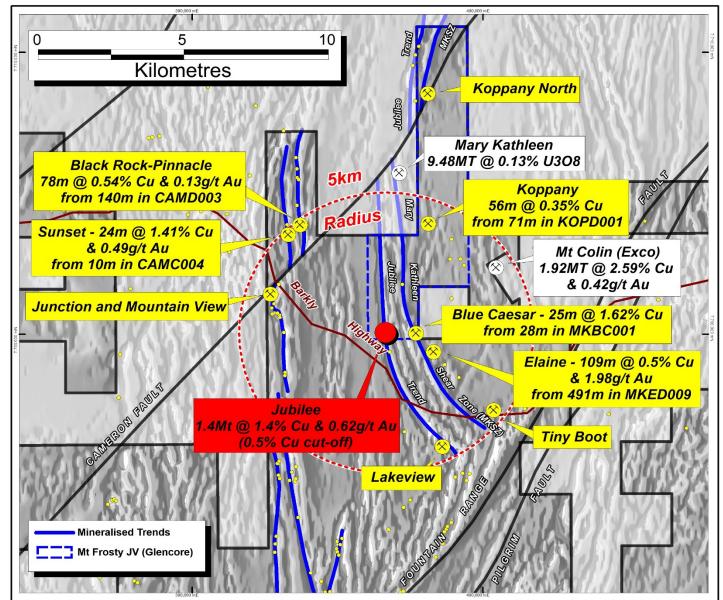


## **Appendix**

**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 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
- Jubilee & Elaine analogous greenfield targets 5km to the west at Black Rock & Sunset



## **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

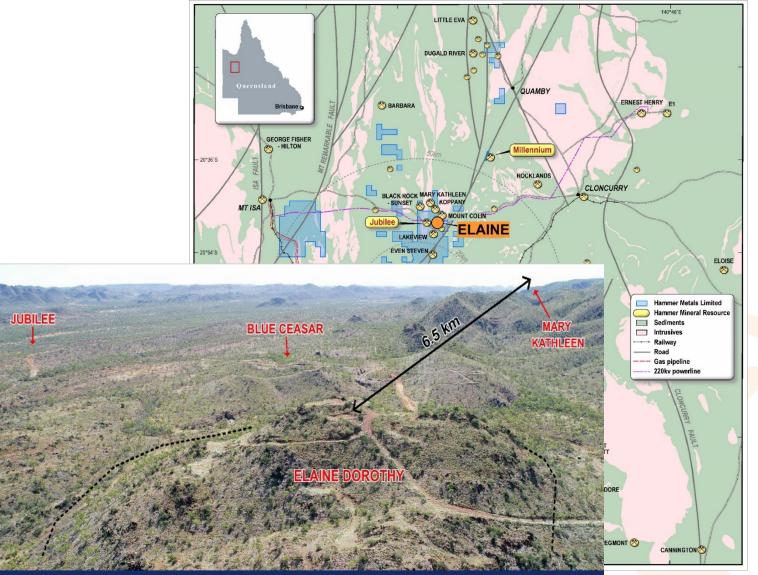
High-grade gold mineralisation is evident within the broader Elaine deposit, with drilling intersecting up to 30m @ 6.73g/t Au from 508m & 26m @ 1.7g/t Au from 160m\*

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

# **North Orelia - Successful Drilling to Date**

### **Yandal Gold Project**

#### Mineralisation over a 2km strike length within multiple structures

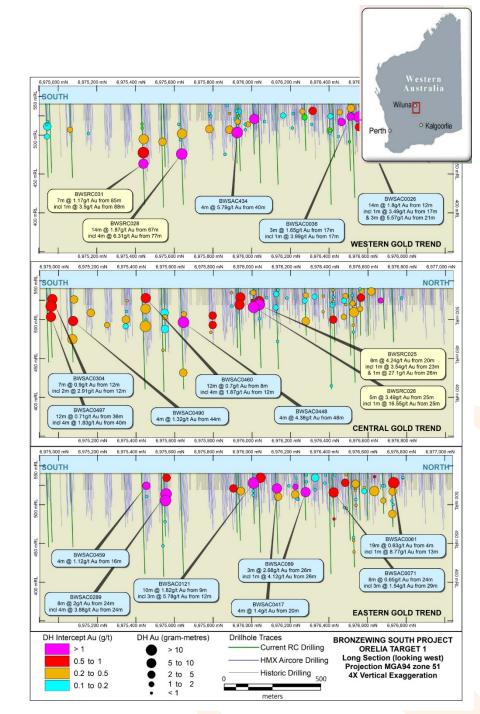
Recent assays from RC drilling program at Orelia North provided the following shallow gold results including:

- 8m at 4.2g/t Au from 20m in BWSRC0025 including:
  - Im at 27.1g/t Au from 26m;
- 5m at 3.5g/t Au from 25m in BWSRC0026 including:
  - Im at 16.6g/t from 25m;
- 4m at 6.3g/t Au from 77m in BWSRC0028;
- 7m at 1.2g/t Au from 85m in BWSRC0031 including:
  - > 1m at 3.5g/t Au from 88m; and
- 1m at 1.8g/t Au from 51m in BWSRC0023.

Previous drilling has identified several mineralised gold zones at North Orelia whilst also providing valuable regional geological context for follow up programs. Significant intersections from Target 1 included:

- 14m at 1.80g/t Au from 12m including;
  - 3m at 5.57g/t Au from 21m;
- 4m @ 5.79g/t Au from 40m
- 4m @ 4.38g/t Au from 48m
- 4m @ 1.83g/t Au from 40m

Drilling at Target 4 confirms the position of a semi-massive sulphide unit is also present on the western edge of the Orelia deposits and is a stratigraphic marker for the prospective mineralised zone at Target



## Appendix

### Ken's Bore & Anomalies

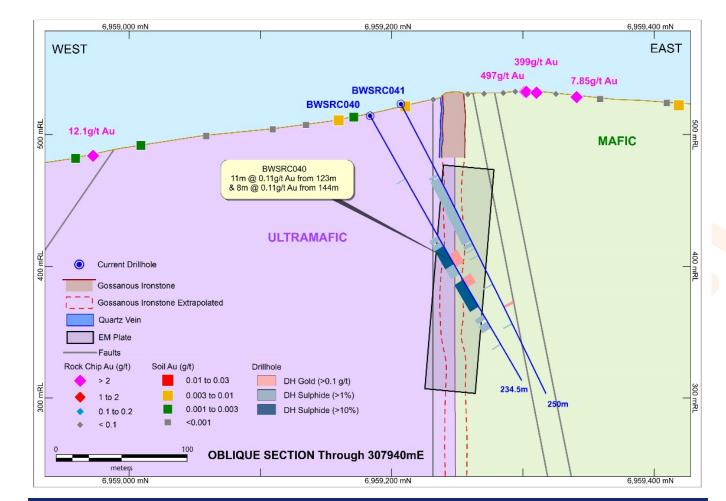
# Compelling Target to be drilled in ongoing RC program

 Two reverse circulation holes for 480m were drilled to test an EM anomaly (see ASX announcement dated 13 October 2020). These holes encountered massive and semi massive sulphide with true widths of up to 50m

Significant gold results include:

- 11m @ 0.11g/t Au from 123m in BWSRC040; and
- > 2m @ 0.12g/t Au from 175m in BWSRC041.
- Broad intervals of massive sulphide occur at the contact of an ultramafic unit that extends through the Ken's Bore tenement.
- Several nickel sulphide prospects occur in association with similar ultramafic units in the district and the presence of other untested EM anomalies along this unit upgrades the nickel potential Hammer's broader tenure





Section through the Kens Bore Target showing modelled geophysical plate, rock chip locations and one of the proposed RC holes.

### 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
	Total		20.0	1.8	0.61	0.14	0.34	1.9	3.7

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>	(1) No data available for Silver recoveries
Bulk Rougher	% Rec'y	95	95	82	86	82	so they have been assumed similar to
Overall	% Rec'y	86	86	74	77	74	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.

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### **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 shearhosted 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)

	Overlande	er North Re	source		
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
	Overlande	r South R	esource		
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 Com	bined Min	eral 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
•Note: (1)	<b>Total</b> Totals may differ due to round	<b>1.41</b> lina	1.41	20,000	0.62	28,300

### Elaine Project Mineral Resource Estimate & Notes Copper Eqv Calculation & 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
0.70	9.31	0.95	0.82	0.19
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 ppm *
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 M	letallurgic	al Testwork			
Test No.	Deaduct	(	Cu	4	Au	
	Product	%	% Rec'y	ppm	% Rec'y	
Test 11	Final cleaner concentrate	29.9	92.2	2.73	31.7	
Test TI	Rougher concentrate	8.1	96.0	1.22	54.4	
Test 13	Final cleaner concentrate	22.9	77.1	0.88	23.9	
165(15	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 %	Р%	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		
Total	30.51	39	0.02	42	1.6	0.30		

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