

## **ASX RELEASE**

31 January 2023

## DIRECTORS / **MANAGEMENT**

**Russell Davis** Chairman

**Daniel Thomas** Managing Director

Ziggy Lubieniecki Non-Executive Director

**David Church** Non-Executive Director

**Mark Pitts** Company Secretary

**Mark Whittle** Chief Operating Officer

#### **CAPITAL STRUCTURE**

## **ASX Code: HMX**

Share Price (30/01/2023) \$0.076 Shares on Issue 821m \$62m Market Cap 25m Options Unlisted Performance Rights 8m Cash (31/12/2022) \$2.6m

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## **QUARTERLY ACTIVITIES REPORT**

## FOR THE PERIOD ENDING 31 DECEMBER 2022

#### MOUNT ISA COPPER-GOLD PROJECTS

## Southern Tenure - Mount Hope, Pilgrim Fault South, Mascotte (100% HMX)

- Four new high-grade copper-gold prospects delineated from recent drilling in the highly prospective Mount Hope region.
- Broad zone of copper-bearing sulphides intersected at the South Hope prospect:
  - 25m at 2.41% Cu and 0.47g/t Au from 74m1 in HMHSRC001 including 6m at 3.12% Cu and 0.36g/t Au from 85m.
- Follow-up drilling confirmed additional high-grade copper zones, including:
  - 4m at 3.03% Cu and 0.29g/t Au from 39m in HMSHRC003 from 40m.
- Down-hole Electromagnetic (DHEM) anomalies detected with two off-hole conductors.
- Drilling at Mascotte and Mascotte Junction delivered the following intercepts:
  - 6m at 3.73% Cu and 1.47g/t Au from 50m in HMMARC002 at Mascotte: and
  - 6m at 2.04% Cu, 0.03g/t Au, 684ppm Co and 0.17% Ni from 30m and 1m at 5.85% Cu and 0.14g/t Au (from 18m) in HMMARC003 within a mineralised envelope of 33m at 0.73% Cu at Mascotte Junction.
- Drilling at The Stubby recorded the following mineralised intercepts:
  - 6m at 1.57% Cu and 0.13g/t Au from 28m within a mineralised envelope of 32m at 0.62% Cu and 0.05g/t Au from 9m in hole HMSHRC002B; and
  - 3m at 2.14% Cu and 0.44g/t Au from 45m in HMSHRC002
- Further drilling planned at South Hope, Stubby and Mascotte for mid-late February 2023.

## Northern Tenure - Kalman, Lakeview, Ajax, Ajax East, Kalman West, Hardway and Lord Nelson (100% HMX)

- Trial ore-sorting test work using a bulk sample taken from the Kalman deposit has shown that ~80% of ore can potentially be recovered with a ~40-45% reduction in mass processed. Specifically:
  - Copper grade increase of 28% (0.71% to 0.91% Cu) with a mass reduction of 35% and recovery of 83.4%;
  - Gold grade increase of 39% (0.23g/t to 0.32g/t Au) with a mass reduction of 35% and recovery of 91%; and
  - Molybdenum grade increase of 103% (0.33% to 0.67% Mo) with a mass reduction of 62% and a recovery of 77%2.

<sup>&</sup>lt;sup>1</sup> True thicknesses not yet established for South Hope Prospect

<sup>&</sup>lt;sup>2</sup> As Rhenium is hosted within Mo the sample recovery and mass reduction will be similar to Mo.

- Ore sorting technology, if applied at Kalman, has the potential to reduce mill throughput, resulting in favourable capital and operational expenditure outcomes. This could also result in an opportunity to optimise cut-off grades and update the Mineral Resource model at Kalman and in-house pit optimisation studies.
- Extensional RC drilling program completed at the north end of Kalman deposit. Update of Kalman Mineral Resource Estimate planned for Q1 2023.
- Initial Mineral Resource Estimate completed for the Lakeview copper-gold deposit comprising 0.58 million tonnes at 1.03% Cu and 0.30g/t Au in the Inferred category at a 0.3% Cu cut-off.
- The Lakeview deposit extends from surface and is open at depth with excellent potential for extensions both at depth and along strike.
- Further drilling targeting EM plates at Ajax East has increased the tested strike length to in excess of 1km, Key intercept of:
  - 2m at 4.23% Cu and 0.23g/t Au from 138m within a broader envelope of 15m at 0.82% Cu from 129m in HMLVRC025
- At Ajax itself, drilling to the south of HMLVRC014, which intersected 11m at 5% Cu and 2.5g/t Au from 24m (see ASX Announcement, 9 March 2022), has opened up the Ajax structure to the south with a new intercept of:
  - 48m @ 0.43% Cu and 0.12g/t Au from 10m in HMLVRC021, including:
  - o 4m at 2.4% Cu and 0.41g/t Au from 27m in HMLVRC021.
- Assays awaited for drilling completed in late 2022 at Kalman, Kalman West, Ajax, Hardway and Lord Nelson.

#### Mount Isa East JV (MIE JV) (SMMO earning 60% interest)

- Maiden drill program at the Pearl prospect now complete (five drill-holes for 990m).
- Broad copper mineralisation intersected in most holes over a strike length of some 700m, with the program targeting a cluster of fixed-loop EM plates and Induced Polarisation ("IP") anomalies along the Trafalgar-to-Jubilee Trend. Significant intercepts include:
  - o **68m at 0.29% Cu and 0.06g/t Au from 31m** in HMPLRC001, including 1m at 2.55% Cu and 0.22g/t Au from 75m and 2m at 1.45% Cu and 0.46g/t Au from 79m; and
  - o **96m at 0.2% Cu and 0.03g/t Au from 156m** and 22m at 0.22% Cu from surface in HMPLRC002.
- Drilling further south along the Trafalgar trend at The Springs, Trafalgar and Victory prospects (seven holes for 1,703m) has continued to intersect zones of copper mineralisation, including:
  - o 44m at 0.29% Cu from 12m in HMTRRC021 including 2m at 1.8% Cu from 14m and 3m at 1.04% Cu from 34m.
- Work programs and budgets are being reviewed for 2023 with follow-up drilling to be prioritised at Pearl.
   Additional drilling targets include Secret, Shakespeare and Thunderer.
- Research program with CSIRO continuing to assist in the definition of new large-scale IOCG targets.

## YANDAL GOLD/LITHIUM PROJECT

- Lithium-bearing zone with initial outcropping strike length of approximately 200m identified from a
  reconnaissance rock chip sampling campaign over Hammer's Yandal tenements in WA's North-eastern
  Goldfields.
- Rock chip results of up to 0.65% Li<sub>2</sub>O returned from the newly-discovered Tapenade prospect.
- Multiple LCT Pegmatites also identified to the west of the Orelia Target 1 prospect.

- Associated sampling program returns maximum assay results in key pathfinder elements of up to 180ppm Caesium, 1,795ppm Rubidium and 164ppm Niobium.
- The targets are situated on the eastern side of the Kathleen Valley granite, approximately 40km east of the world-class Kathleen Valley Lithium project.
- Review of bottom-of-hole geochemistry from gold drilling at Target 1 North Orelia contained an anomalous lithium response of up to **275ppm**.
- An air-core drilling program is being designed for early 2023 focusing on several high-quality targets within the Yandal Project, including these exciting new lithium targets.



Figure 1. Hammer director, Ziggy Lubieniecki, on site at Yandal.

## **CORPORATE**

- Cash balance at the end of September is \$2.6 million, which includes \$0.04 million held on behalf of the Company's Joint Ventures.
- Research and Development Tax Refund submission being finalised with returns due during the first quarter of this year. **Estimated refund expected to be ~\$1.1million**.

#### **MOUNT ISA COPPER-GOLD PROJECTS**

## Southern Tenure - Mount Hope, Pilgrim Fault South, Mascotte, Mascotte Junction (100% HMX)

#### Mount Hope

A second drill rig was deployed in the Mount Hope region, with 1,305m of Reverse Circulation (RC) drilling completed, testing five separate targets with 11 drill holes. This work identified several new high-grade copper prospects with successful initial drill testing at Hope South, The Stubby, Mascotte and, Mascotte Junction (see ASX announcements 31 August 2022, 19 December 2022).

Follow-up drilling at South Hope, Stubby, Mascotte and Mascotte Junction is currently being planned. This program is anticipated to commence in mid-late February 2023.

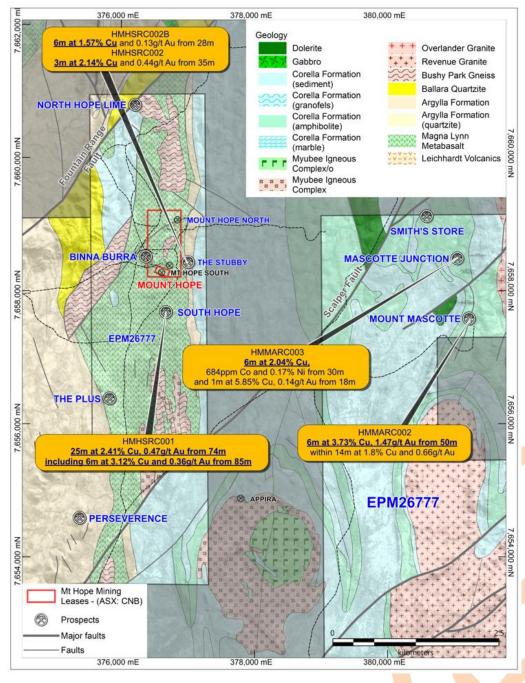


Figure 2. Overview plan of the Mascotte region showing the location relative to the Mt Hope area (see ASX Announcement 19 December 2022).

### **South Hope**

The first drill hole at South Hope delivered a significant intersection of copper and gold mineralisation:

 25m at 2.41% Cu and 0.4g/t Au from 74m in HMHSRC001 including 6m at 3.12% Cu and 0.36g/t Au from 85m.

Three follow-up holes at South Hope were completed with zones of high-grade copper mineralisation confirmed in two of the holes:

- 4m at 3.03% Cu and 0.29g/t Au from 39m in HMSHRC003 including 1m at 10.1% Cu and 0.98g/t Au from 40m.
- 13m at 0.81% Cu and 0.17g/t Au from 161m in HMHSRC005 including 3m at 1.41% Cu and 0.35g/t Au from 163m.

A DHEM (down-hole electromagnetic) survey was conducted at HMHSRC005 with initial geophysical modelling indicating a south-plunging conductor. Follow up drilling targeting this conductor and extensions to the mineralised zone is planned.

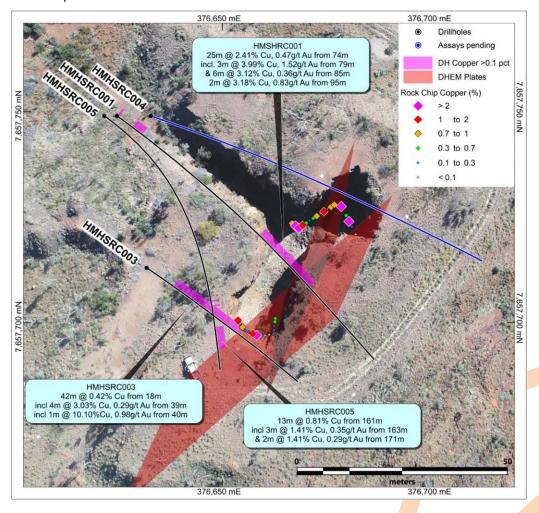


Figure 3. Plan view of drill-holes, with modelled DHEM plates (see ASX announcement 22 November 2022).

## **Mascotte and Mascotte Junction**

The Mascotte group consists of two prospects approximately 900m apart, both of which are located approximately 4.5km to the east of the Mt Hope prospect. The northern prospect, Mascotte Junction, consists of a gossan zone approximately 250m long and up to 30m wide. Along strike (both to the north and south) from this gossan lens, the position of the controlling structure is marked by coarse-grained carbonate veins.

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Mt Mascotte, located approximately 900m to the south, consists of a north-striking, vertically-dipping gossan zone which has been historically mined by a small open cut and two shafts (now collapsed).

In total, three holes were drilled for 316m with two holes at Mascotte Junction and a single hole at Mt Mascotte.

Significant intercepts at Mt Mascotte include:

6m at 3.73% Cu and 1.47g/t Au (from 50m) and 1m at 1.97% Cu and 0.23g/t Au (from 63m) in HMMARC002. These higher-grade zones occurred within a mineralised envelope of 14m at 1.80% Cu and 0.66g/t Au from 50m.

Significant intercepts from Mascotte Junction include:

- 6m at 2.04% Cu, 0.03g/t Au, 0.07% Co and 0.17% Ni (from 30m) in HMMARC003 and 1m at 5.85% Cu and 0.14g./t Au (from 18m) and. These higher-grade zones occurred within a mineralised envelope of 33m at 0.73% Cu; and
- o 2m at 1.05% Cu (from 18m) in HMMARC001.

The work undertaken by Hammer indicates that there is potential at Mount Mascotte to define mineralisation at depth and down-plunge and plans are underway to include these prospects in 2023 drilling campaigns.

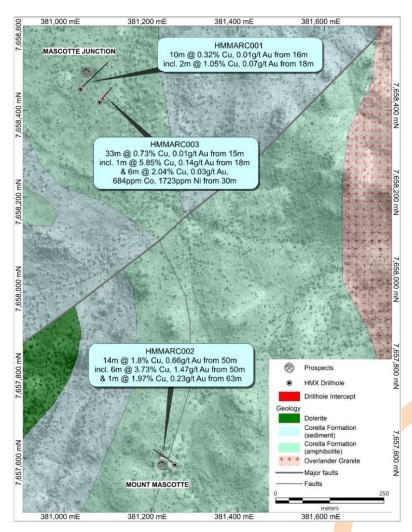


Figure 4. Plan view showing the relative location of Mt Mascotte and Mascotte Junction.

#### The Stubby

At The Stubby, three holes were drilled for 143m to test artisanal workings. Unfortunately, the first two holes hit underground voids and had to be abandoned. Hammer was surprised by the depth of these voids, indicating that more significant workings are located at The Stubby than originally anticipated.

Copper mineralisation encountered in one of the abandoned holes may represent a second mineralised zone located in the hangingwall of the mined sequence.

Significant recorded intercepts include:

- 6m at 1.57% Cu and 0.13g/t Au from 28m within a mineralised envelope of 32m at 0.62% Cu and 0.05g/t Au from 9m in hole HMSHRC002B; and
- o 3m at 2.14% Cu and 0.44g/t Au from 45m in HMSHRC002

Further drill testing at this prospect will be conducted as part of Hammer's next Reverse Circulation program targeting the lode at depth below the existing workings.

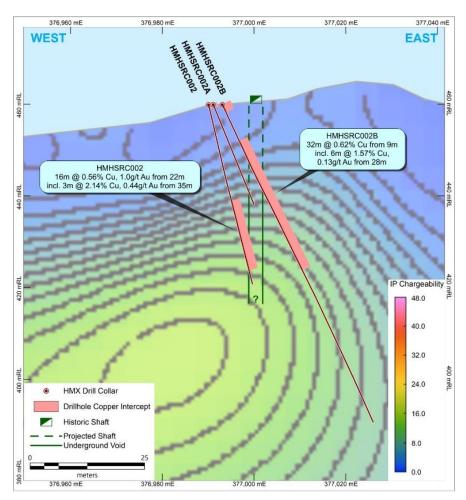


Figure 5. Cross-section 7658435mN (The Stubby prospect), looking north. The backdrop is IP chargeability.

## **Mount Hope North IP Anomaly**

Hammer targeted an IP anomaly located approximately 400m to the south-east of the North Mount Hope workings. The single 300m hole intersected minor mineralisation which was considered insufficient to explain the strength of the modelled IP response.

Further testing of this anomaly is required with the potential for an obliquely trending mineralised zone. Further IP surveys will be conducted to model the response more accurately in three dimensions before undertaking any follow-up drilling.

## **Mount Hope Boundary Dispute**

As outlined in Hammer's previous announcements (refer to ASX announcement 10 January 2023), the Company was alerted to potential changes to the southern boundary of the Mining Lease encapsulated within Hammer's tenement (EPM26777).

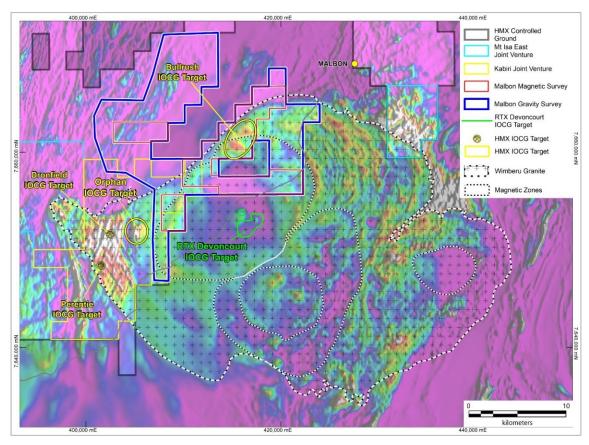
Hammer awaits the final decision from the Queensland Department of Resources and the key reasons accompanying any final decision. Upon receipt of the decision and reasoning, Hammer's Board of Directors will appropriately consider any potential avenues for review and/or appeal.



Figure 6. Existing EPM 26777 and ML90240 boundaries and potential changes

## Georgina - Bullrush

Further refinement of gravity and magnetic models is being completed for the Bullrush area (refer to ASX announcement 19 September 2022). Basement depth modelling is also being conducted to ascertain the best drill method to test the identified targets with a view to potential drill testing in 2023. Hammer will also consider offering the Bullrush prospect to selective groups for possible Joint Venture.



**Figure 7.** Detailed view of the Bullrush magnetic and gravity survey area showing the location of the Rio Tinto Exploration Devoncourt Project.

## Northern Copper Corridor - Ajax, Ajax East, Lakeview, Kalman and Hardway (100% HMX)

#### **Ajax Trend**

Follow-up drilling was undertaken to test EM targets along the Ajax and Ajax East trends. These holes have tested the conductor along its 1km strike length in addition to testing higher frequency conductive (sulphide) zones occurring near-surface and near the original copper intercept encountered at Ajax (refer to ASX Announcement 9 March 2022):

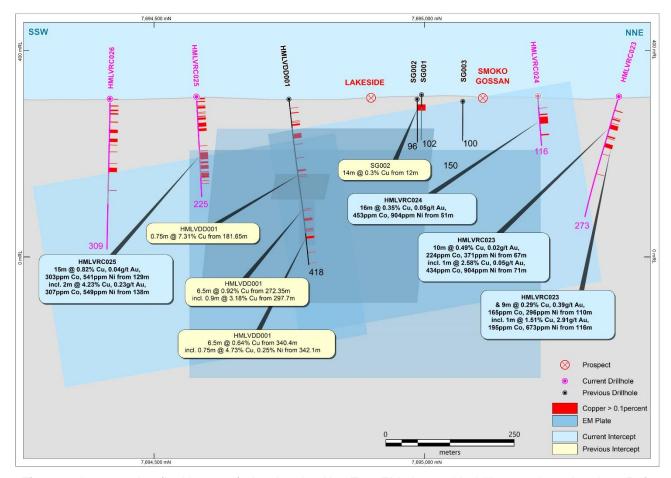
o 11m at 5% Cu and 2.5g/t Au from 24m in HMLVRC014, within a broader interval of:16m at 3.5% Cu and 1.8g/t Au from 22m.

#### **Ajax East**

Five holes (for 1,050m) were drilled along the Ajax East FLEM anomaly. These holes targeted FLEM anomalies and zones of demagnetisation. The rationale is to test varying geophysical properties along the strike length of the EM anomaly, as these properties reflect the underlying alteration and sulphide mineralisation.

Significant intercepts include:

- 2m at 4.23% Cu and 0.23g/t Au from 138m within an envelope of 15m at 0.82% Cu from 129m in HMLVRC025. This interval included 1m at 0.11% Co and 0.18% Ni from 137m
- 1m at 2.58% Cu from 78m within an envelope of 10m at 0.49% Cu from 71m in HMLVRC023
- 1m at 1.51% Cu and 2.91g/t Au from 116m in HMLVRC023



**Figure 8.** Long section (looking west) showing the Ajax East EM plates with drilling conducted to date. Refer to HMX, ASX announcement dated 24 October 2022.

#### Ajax

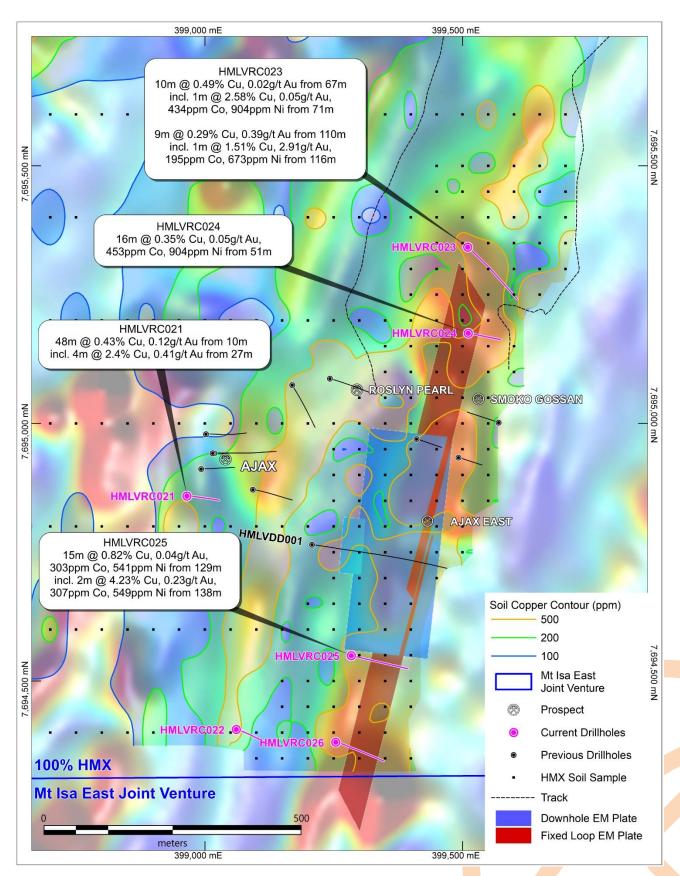
Following the initial success with HMLVRC014 and a follow-up loupe EM survey, Hammer drilled HMLVRC021 (to a total depth of 105m), 100m to the south of HMLVRC014. The hole was designed to target both the Ajax trend and also a loop EM response (Figure 9).

Significant intercepts include:

- 4m at 2.4% Cu and 0.41g/t Au from 27m, 1m at 1.16% Cu and 0.02g/t Au from 45m and 1m at 0.53% Cu and 1.96g/t Au from 52m
- These high-grade zones occur within a wider mineralised envelope of 48m @ 0.43% Cu and 0.12g/t Au from 10m.

This intercept opens up the Ajax mineralised position to the south. Further drilling was completed along strike of this zone to test its extents.

Assays are expected during the first quarter of 2023.



**Figure 9.** Plan view showing the location of the Ajax and Ajax east regional with copper-in-soil contours and combined EM plates. The base image is the magnetic first vertical derivative (RTP). (Refer also ASX announcements 2 March, 9 March, and 5 September 2022).

#### Lord Nelson

Lord Nelson is a new prospect located at the southern end of the Neptune trend on the northern side of the regional-scale Fountain Range Fault Zone. Two drill holes were completed at Lord Nelson as an initial test of this target. Assay results are awaited and expected during the coming month.



Figure 10. Oblique view showing the location of Lord Nelson through to Ajax.

#### Kalman Cu-Au-Mo-Re Deposit

Hammer's is continuing to undertake activities at Kalman designed to enhance the development potential of this significant deposit.

Drilling has been completed to further delineate shallow extensions to the deposit's northern resource envelope indicated by extensional drilling completed earlier in 2022. Hammer also undertook an initial round of ore sorting testwork to determine whether ore sorting technology could be effectively applied to upgrading Kalman ore.

The test work was conducted by Steinert at its Bibra Lake facility utilising a combination of 3D laser and X-Ray sensors to differentiate inputs into waste and those matching parameters of target elements. These two sensors were utilised to tailor an optimum combination for specific mineralisation mineralogy.

The results indicate that >80% of the combined value of the ore can be recovered with a 40-45% reduction in mass processed. Specifically, the ore sorting setting of rejecting low density material could achieve:

- Copper grade increase of 28% (0.71% to 0.91% Cu) with a mass reduction of 35% and recovery
  of 83.4%;
- Gold grade increase of 39% (0.23g/t to 0.32g/t Au) with a mass reduction of 35% and recovery
  of 90.7% %; and
- Molybdenum grade increase of 103% (0.33% to 0.67%Mo) with a mass reduction of 61.8% and a recovery of 76.6%<sup>3</sup>.

<sup>&</sup>lt;sup>3</sup> As Rhenium is hosted within Mo the sample recovery and mass reduction will be sim<mark>ilar</mark> to Mo.

The initial work indicates that the Kalman deposit is very amenable to ore sorting and a larger bulk testwork program was recommended. This follow-up testing program is scheduled to be completed during the first quarter of 2023 (see ASX Announcement 1 November 2022).

Table 1. KMET01, KMET02 and KMET03 Composite sample – Cumulative Cu, Mo and Au recoveries.

Mixed Composite - KMET01, KMET02 and KMET03							
Sort Fraction	Mass	Mass Yield	Cum. Mass Yield	Cu Grade	Cu Cum. Grade	Cu Recovery	Cu Cum. Recovery
Continuedon	kg	%	%	%	%	%	%
P1E - High Density	4.37	9.9%	9.9%	2.87	2.87	40.0%	40.0%
P2E - Medium Density	9.46	21.4%	31.3%	0.72	1.40	21.6%	61.6%
P3E - Medium-Low Density	14.84	33.6%	64.8%	0.46	0.91	21.8%	83.4%
P3D - Waste (+10mm)	15.54	35.2%	100.0%	0.33	0.71	16.6%	100.0%
Total	44.20	100.0%	-	0.71	-	100.0%	-

Mixed Composite - KMET01, KMET02 and KMET03								
Sort Fraction	Mo Grade	Mo Cum. Grade	Mo Recovery	Mo Cum. Recovery	Au Grade	Au Cum. Grade	Au Recovery	Au Cum. Recovery
Soft Fraction	%	%	%	%	ppm	ppm	%	%
P1E - High Density	0.10	0.10	24.6%	24.6%	1.30	1.30	56.3%	56.3%
P2E - Medium Density	0.05	0.06	27.6%	52.2%	0.10	0.48	9.4%	65.7%
P3E - Medium-Low Density	0.03	0.05	25.1%	77.3%	0.17	0.32	25.0%	90.7%
P3D - Waste (+10mm)	0.03	0.04	22.7%	100.0%	0.06	0.23	9.3%	100.0%
Total	0.04	-	100.0%	-	0.23	-	100.0%	-

#### Lakeview

Hammer Metals completed an initial Mineral Resource Estimate (MRE) for the Lakeview copper-gold deposit. The MRE has been estimated in accordance with the 2012 Edition of the JORC code<sup>4</sup>. Drilling results from the Lakeview Deposit have previously been reported to the ASX on 9 March 2021 and 22 June 2021.

The Mineral Resource Estimate was based on 13 Reverse Circulation holes for a total of 1,380m and 717 samples. All drill-holes utilised in the estimate were drilled by Hammer Metals.

The mineralised domains were constrained by wireframes constructed using a 0.3% Cu cut-off grade guided by geological and geochemical interpretation. This process identified two main mineralised areas termed the northern and southern zone. Within the southern zone, three separate lodes were interpreted however the lower two zones could not be identified on adjacent sections.

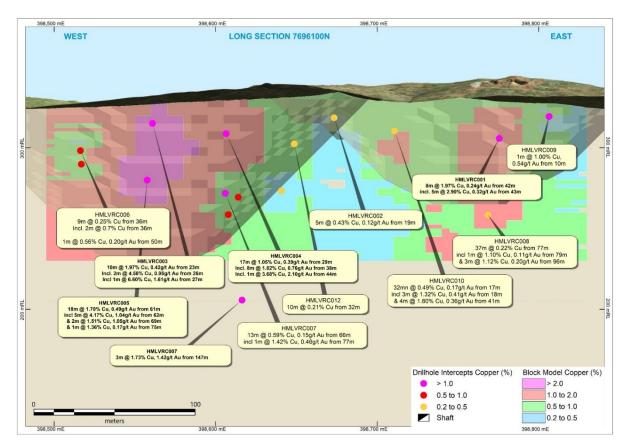
The Mineral Resource has been classified based on the guidelines specified in the JORC Code. Although the RC drilling has defined three continuous mineralised lodes, exploration of the Lakeview deposit is in the early stages and more drilling is required to better define the extent of the deposit.

Due to the limited amount of drilling, the MRE has been classified as Inferred based on the guidelines specified in the JORC Code (see ASX Announcement 21 December 2022).

**Table 2.** Lakeview MRE by JORC classification – December 2022

Lakeview Deposit - Inferred Mineral Resource Estimate by weathering type (Cu 0.3% cut-off) - December 2022						
Oxide	Tonnes	Cu (%)	Au (g/t)	Cu (t)	Au (Ozs)	
Fresh	0.48	1.06	0.31	5,100	4,800	
Oxide	0.10	0.84	0.25	800	800	
Total 0.58 1.03 0.30 6,000 5,600						
Total	Totals may not sum exactly due to minor rounding errors					

<sup>&</sup>lt;sup>4</sup> Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).



**Figure 11.** Long section (looking north) through the Lakeview Deposit showing drilling, significant intercepts, optimised pit and block model (at a cut off of 0.3% Cu) (see ASX announcement 2022).

#### Mount Isa - Ongoing Exploration Activities

Hammer has also completed an initial test of the Hardway copper-REE prospect. Assays are awaited from this program with additional drilling being planned for the current period.

As Hammer continues its programs in the northern portions of its tenure, it has reviewed the exploration potential around the **Yellowstone** prospects, located ~3.5km from Jubilee and 600m south of the Barkly Highway.

This prospect comprises a series of historical copper workings, several which are untested by drilling. Rock chip samples were taken at a variety of the prospective zones recording strong grades of copper and gold mineralisation including individual grades of 24.6% Cu and 5.3g/t Au (refer to ASX announcement 22 November 2022). Yellowstone will be subject to further review with an initial drill test of prospective zones likely in early 2023.



Figure 12. Hardway North Pit looking South

#### Mount Isa East JV (MIE JV) (SMMO earning 60% interest)

## Pearl

Five holes (for 990m) were drilled into the Pearl Fixed Loop Electromagnetic (FLEM) anomaly. These holes targeted both surface workings and different aspects of the FLEM response. The holes were spaced at wide intervals with significant potential remaining between the completed drilling.

Significant intercepts include mineralised system envelopes of:

- 68m at 0.29% Cu and 0.06g/t Au from 31m in HMPLRC001 including higher grade zones of:
  - o 1m at 1.44% Cu (from 31m), 1m at 1.31% Cu and 0.56g/t Au (from 59m), 1m at 1.54% Cu and 0.91g/t Au (from 62m), 1m at 2.55% Cu and 0.22g/t Au (from 75m) and 2m at 1.45% Cu and 0.46g/t Au from 79m.
- 96m at 0.2% Cu and 0.03g/t from 156m in HMPLRC002 with 22m at 0.22% Cu from surface including 2m at 1.28% Cu and 0.6g/t Au from 19m.
- 48m at 0.2% Cu from 5m and 78m at 0.23%Cu from 134m in HMPLRC004 including higher grade zones
  of:
  - 4m at 1.15% Cu and 0.49g/t Au (from 45m) and 2m at 1.77% Cu from 153m.

In common with Ajax East, the mineralisation at Pearl contains geochemically significant levels of copper, nickel and cobalt associated with zones of massive and semi-massive sulphides, predominantly pyrrhotite. Additionally, Pearl has a wide low-grade mineralised envelope with a wide zone of over 120m grading above 0.2% Cu intersected in HMPLRC004 (249m total depth).

As Figure 13 shows, the drill-holes at Pearl remain widely spaced with extensive EM anomalism untested along this strike. These zones will likely be prioritised for follow-up drilling in early 2023 with the JV currently confirming work programs and budgets for 2023 (see ASX Announcement 12 December 2022).

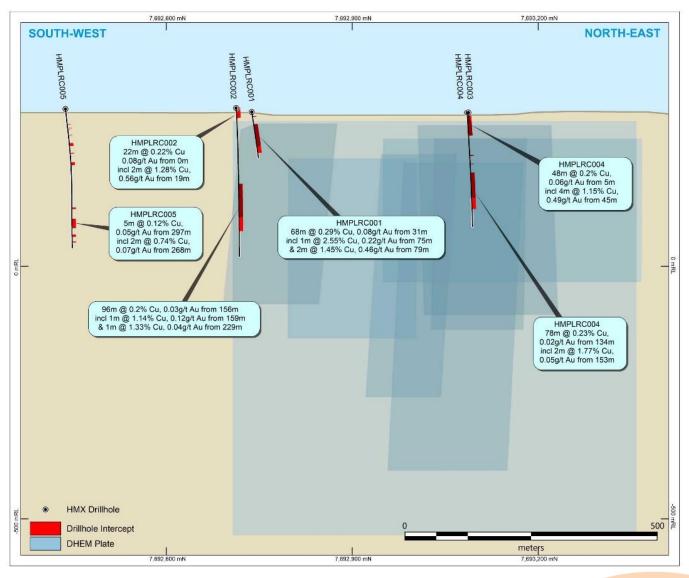


Figure 13. Long Section (looking west) showing the Pearl EM plates with drilling conducted to date. (Refer to HMX ASX announcement dated 29 June 2022 and 12 December 2022).

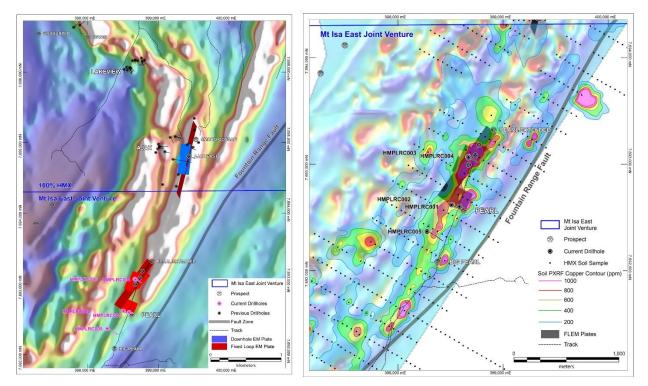


Figure 14. Plan view showing the location of the Pearl (within the Mt Isa East Joint Venture Area) relative to the Ajax Prospect. (Refer to ASX Announcement dated 29 June 2022).

Figure 15. Plan view showing the location of the Pearl prospect with portable XRF copper in soil contours and combined EM plates. The base image is the magnetic first vertical derivative (RTP). (Refer to ASX announcement dated 5 September 2022).

## **Trafalgar**

Seven holes (for 1,703m) were drilled along the Trafalgar trend at The Springs (two holes), Trafalgar (four holes) and Victory prospects (one hole). The drilling was primarily designed to test Induced Polarisation chargeability zones defined earlier in 2022 (refer to ASX announcement 29 June 2022).

Drilling at The Springs remains wide-spaced with several potential targets to be tested between the zones of mineralisation intersected in this drilling and previous drilling programs. Significant intercepts from the two holes at The Springs include (see ASX Announcement 12 December 2022):

 A mineralised system envelope of 25m at 0.19% Cu from 40m with a second envelope of 10m at 0.94% Cu and 0.16g/t Au from 152m in HMTRRC017

At Trafalgar Central, HMTRRC023 targeted a potential down-plunge position of the main Trafalgar shoot. It is suspected that the drill-hole missed the target with an intercept of **24m at 0.26% Cu form 48m**.

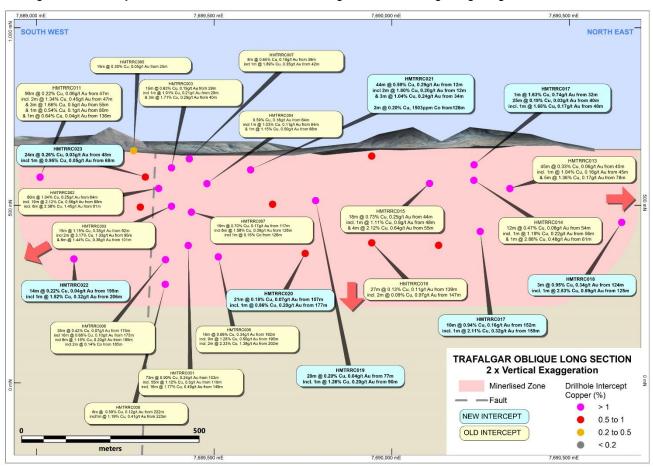
Significant intercepts from the three holes drilled at Trafalgar North include:

- A mineralised system envelope of 20m at 0.2% Cu from 77m in HMTRRC019 from 90m.
- A mineralised system envelope of 44m at 0.29% Cu from 12m in HMTRRC021 including higher grade zones of:
  - o 2m at 1.80% Cu and 0.20g/t Au (from 12m), 3m at 1.04% Cu and 0.24g/t Au (from 34m) and 2m at 0.2% Cu and 0.15% Co (from 128m).

HMTRRC022, drilled at Victory, intersected:

1m at 1.52% Cu, 0.32g/t Au, 0.14% Cu and 0.21% Ni (from 206m) within a mineralised system envelope of 14m at 0.22% Cu.

Drilling has now identified several broad zones of copper mineralisation along this extensive mineralised trend. Drilling results in conjunction with the IP models are being reviewed to target higher grade zones.



**Figure 16.** Long Section looking west showing the location of recently drilled holes (see ASX announcement 12 December 2022).

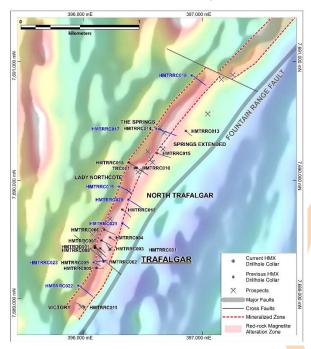


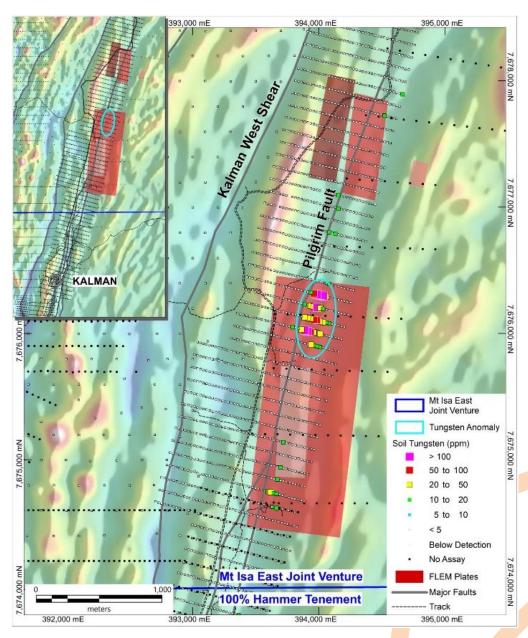
Figure 17. Plan view showing the location of the Trafalgar holes drilled in the recent program (see ASX announcement 12 December 2022).

## Pharaoh/Tungsten Hill

A review of historic soil data revealed a zone of elevated tungsten with a strike length of approximately 450m (using a 20ppm threshold)<sup>5</sup>. Hammer Metals reviewed this historic data and conducted rock chip sampling of this zone (refer to ASX announcement 12 December 2022).

Field work noted a prospective occurrence of elevated tungsten associated with manganese-bearing quartz breccias located on the Pilgrim Fault Zone, 4km north of the Kalman Cu-Au-Mo-Re deposit. This area is also spatially associated with FLEM plates identified during a 2022 Fixed Loop EM survey (refer to ASX announcement dated 29/6/2022 for further information on the Pharaoh FLEM survey).

Further work will be undertaken to better understand the tungsten anomalism and determine whether this area is a valid 2023 drilling target.



**Figure 18.** Tungsten Fill area showing the location of the tungsten-in-soil anomaly and vertical projection of the EM plates delineated during the Pharaoh FLEM Survey (see ASX Announcement 12 December 2022).

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<sup>&</sup>lt;sup>5</sup> Sourced from historic reports by Kings Minerals NL – a former tenement holder in the region. The data underlying these soil samples has been validated by Hammer Metals Limited personnel and it is the opinion of Hammer Metals that the historic exploration data are reliable.

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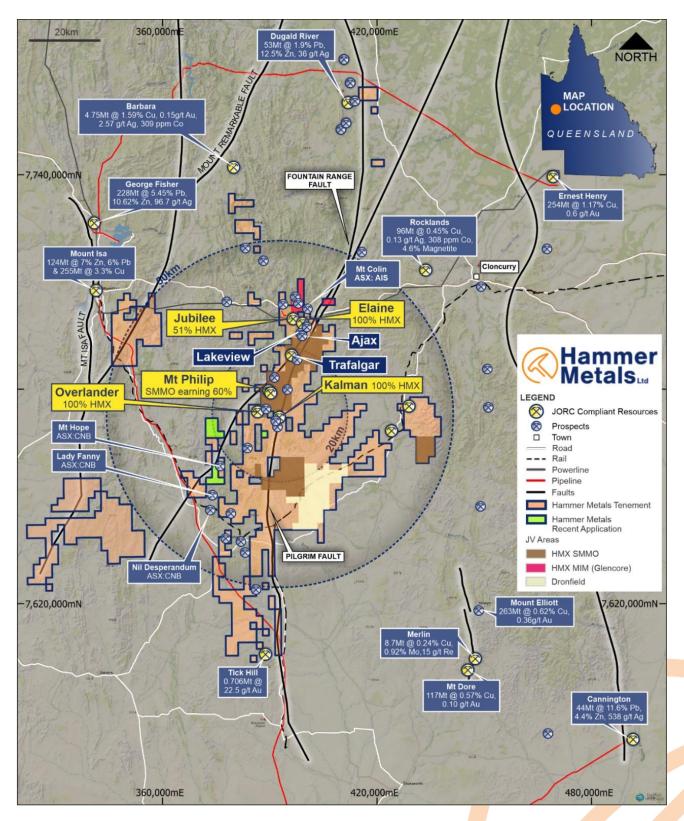


Figure 19. Mt Isa Project Area

#### **YANDAL GOLD PROJECTS (100% Hammer)**

Following an extensive soil geochemical program during the second quarter of 2022, Hammer completed a follow-up field program reviewing the various geochemical anomalies. This work identified several lithium and gold targets that will be subject to an air-core drilling program in the first half of 2023.

#### **Lithium Potential**

Hammer's geologists undertook an extensive surface rock chip sampling campaign across areas considered prospective for pegmatite occurrences within the Bronzewing Project area. This sampling was the first of its type in the area and its success opens a new search space within Hammer's Yandal Greenstone Belt tenements.

Preliminary portable XRF analyses of the Kathleen Valley Granite in the Orelia region were undertaken which determined that the large intrusive complexes have the capacity to produce late Lithium-Caesium-Tantalum (LCT) pegmatites.

Subsequent sampling undertaken using initial Portable XRF analysis also determined that the pegmatites sampled could be classified as being an LCT type based on their chemical composition.

#### **Tapenade**

On the eastern margin of the Orelia Greenstone Belt, close to the margin of the Kathleen Valley Granite, an outcropping zone of lithium enrichment has been delineated over a 200m strike length. This newly discovered zone is called Tapenade.

Elevated lithium rock chip responses up to 0.65% Li<sub>2</sub>O are present. These responses are accompanied by elevated Rubidium, Caesium, Tantalum and to a lesser extent several other rare earth elements (see ASX Announcement 6 December 2022).

More sampling is required to further delineate this zone along strike and sample the associated pegmatites, however the initial results are encouraging (Figure 20).



Figure 20. Samples at left MW2211\_58 (0.58% Li<sub>2</sub>O) and right MW2211\_61 (0.6<mark>5%</mark> Li<sub>2</sub>O). Both samples are from a strongly micaceous granite margin (see ASX Announcement 6 December 2022).

#### Target 1

Sampling was also conducted on the western side of the Orelia Target 1 gold prospect close to the eastern margin of the Kathleen Valley Granite intrusion. Reconnaissance and preliminary sampling showed the presence of multiple pegmatites oriented perpendicular (east-west) to the margin of the granitic intrusion (north-south).

The initial sampling in this area has not uncovered significant lithium-bearing zones, however multi-element geochemistry indicates that the pegmatites have low Niobium to Tantalum ratios (<5) and low Zirconium to Hafnium ratios (<15). Moreover, the pegmatites have geochemically anomalous levels of Be, Cs, Ta and Rb.

Considering all these geochemical indicators together, this indicates that the pegmatites have the potential to host lithium-bearing minerals.

Further prospecting to the east along the strike of the pegmatite swarms will be undertaken to vector towards more fractionated zones within the pegmatite system. In other words, the search for the lithium-bearing portion of the Target 1 pegmatite swarms will move further east to increase the chances of success.

Of note is that bottom of air-core hole multi-element analyses conducted over the Target 1 gold prospect also show zones of geochemically anomalous lithium response in the range of 100ppm to 300ppm.

This is interpreted to represent a primary geochemical dispersion related to the presence of pegmatites (figure 22). It should be noted that any potential pegmatites are unlikely to have been tested in Hammer's gold drilling at Target 1 due to the pegmatite swarms being parallel with historical drilling traverses.

## **Tapenade East**

Preliminary sampling of quartz vein zones to the north-east of Tapenade identified an area of stacked quartz veins which have thin zones of silica with a banded haematitic texture.

The hematite is interpreted as a weathered sulphidic precursor. Samples taken from this zone were elevated in Au, Ag and Bi with individual maximum values of 0.35g/t Au, 341g/t (11oz/t) Ag and 0.38% Bi respectively. Little is known of this zone, but further rock chip sampling and geological mapping are required to determine the distribution of these banded zones and their significance (Figure 21) (see ASX announcement 6 December 2022).



Figure 21. Sample MW2211\_68. Sulphidic Quartz Vein. This specimen analysed at 0.35g/t Au, 341g/t (or 10.96oz) Ag and 0.25% Bi (see ASX announcement 6 December 2022).

The results of both the lithium sampling at Tapenade and zones of elevated Au, Ag and Bi response warrant immediate follow up-sampling.

At Target 1, the litho-chemical indicators are that the pegmatites defined during the initial sampling are LCT type, but further traverses are required along strike away from the granite source. Planning is underway for aircore drilling of the soil anomalies in early 2023.

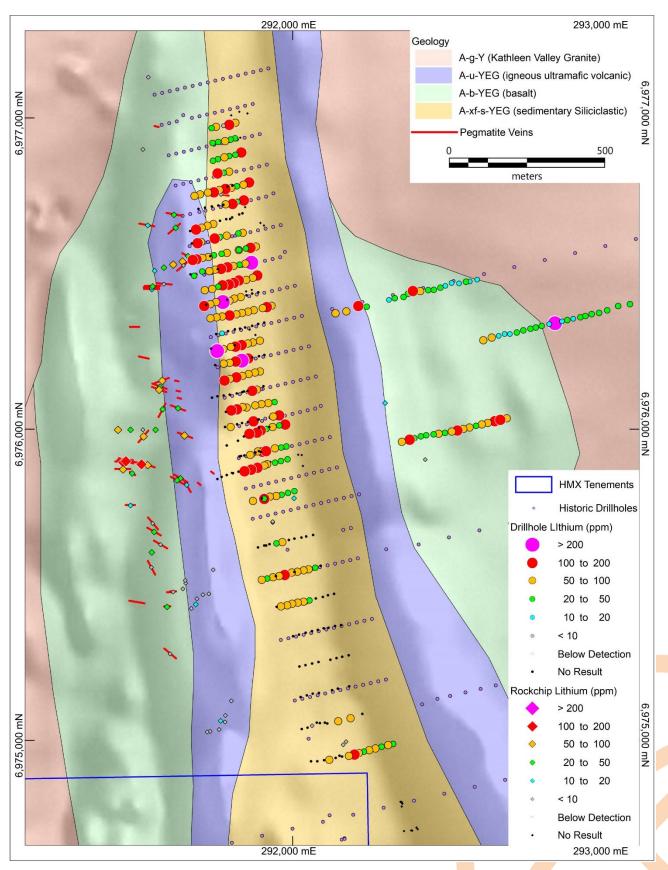


Figure 22. Orelia Target 1 showing the anomalous bottom of hole Lithium responses, mapped pegmatites and rock chip sample locations (see ASX announcement 6 December 2022).

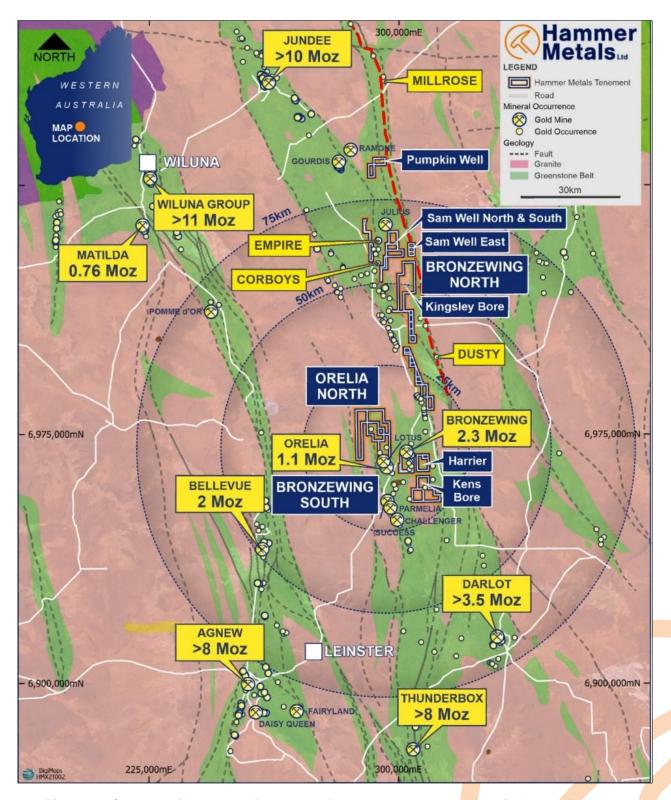


Figure 23. Overview of the greater Bronzewing Project showing the location of soil sampling areas.

#### **CORPORATE**

Hammer's cash balance at 31 December 2022 was \$2.6 million including \$0.04 million held in Joint Venture expenditure accounts.

In accordance with the reporting requirements of ASX Listing Rule 5.3, the Company incurred \$839,000 on exploration and evaluation activities during the quarter. There was no mining development or production activities conducted during the quarter.

Expenditure was on activities as described in this report and predominantly related to:

- Exploration Drilling within the Mt Isa Project area;
- Geophysical and geochemical surveys within the Mt Isa Project area;
- · Geochemical surveys at the Yandal Gold Project;
- Technical consulting services; and
- General fieldwork including rehabilitation work.

In addition, during the quarter, related party payments totalling \$126,000 were paid to the Directors of the company, representing Directors' salary and fees for the period.

This announcement has been authorised for issue by the Board of Hammer Metals Limited in accordance with ASX Listing Rule 15.5.

For further information please contact:

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- END -



#### **About Hammer Metals**

Hammer Metals Limited (ASX: HMX) holds a strategic tenement position covering approximately 2,600km2 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 51% interest in the Jubilee (Cu-Au) deposit. Hammer is an active mineral explorer, focused on discovering large coppergold deposits of the Ernest Henry style and has a range of prospective targets at various stages of testing. Hammer also holds a 100% interest in 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.

## **Competent Person Statements**

The information in this report as it relates to exploration results and geology was compiled by Mr. Mark Whittle, who is a Fellow of the AusIMM and an employee of the Company. Mr. Whittle who is a shareholder and option-holder, has sufficient experience which is relevant to the styles of mineralisation and type of deposits under consideration and to the activity which he is undertaking 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'. Mr. Whittle consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

Where reference is made to previous releases of exploration results and mineral resource estimates in this announcement, the Company 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 exploration results and mineral resource estimates included in those announcements continue to apply and have not materially changed.

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.

Appendix A. Tenement Interests at the end of December 2022 as per Listing Rule 5.3.3

				Acquired	
PROJECT	TENEMENT	STATUS	INTEREST %	during quarter	COMMENT
	EPM 11919	Granted	100%	No	Subject to 1.5% NSR
	EPM 12205	Granted	100%	No	
	EPM 13870	Granted	100%	No	Subject to 2% NSR
	EPM 14019	Granted	100%	No	25% of tenement area held in trust to Global Energy Metals Corporation
	EPM 14022 EPM 14467	Granted	100% 51%	No No	
	EPM 18084	Granted Granted	80%	No	
	EPM 25145	Granted	100%	No	
	EPM 25165	Granted	100%	No	Subject to 1.5% NSR
	EPM 25866	Granted	100%	No	
	EPM 25867	Granted	100%	No	
	EPM 26126	Granted	100% 100%	No	
	EPM 26127 EPM 26130	Granted Granted	100%	No No	
	EPM 26474	Granted	100%	No	
	EPM 26511	Granted	100%	No	
Mt Isa Project - QLD	EPM 26512	Granted	100%	No	
	EPM 26628	Granted	100%	No	
	EPM 26694	Granted	100%	No	
	EPM 26775 EPM 26776	Granted Granted	100% 100%	No	6.2% of tenement area held in trust to Global Energy Metals Corporation
	EPM 26777	Granted	100%	No No	
	EPM 26902	Granted	100%	No	
	EPM 26904	Granted	100%	No	
	EPM 27018	Granted	100%	No	
	EPM 27355	Granted	100%	No	
	EPM 27469	Granted	100%	No	
	EPM 27470 EPM 27806	Granted Granted	100% 100%	No No	
	EPM 27815	Granted	100%	No	
	EPM 27861	Granted	100%	No	
	EPM 28189	Granted	100%	Yes	Granted During Quarter
	EPM 28285	Application	100%	No	
	E36/854	Granted	100%	No	C. http://www.d.Fo/AICD
	E36/855 E36/868	Granted Granted	100%	No No	Subject to 1.5% NSR
	E36/869	Granted	100%	No	
	E36/870	Granted	100%	No	
	E36/882	Granted	100%	No	Subject to 1.5% NSR
	E36/916	Granted	100%	No	
	E36/996	Granted	100%	No	
	E36/1006	Application	100%	No	
	E53/1989 E53/1996	Granted Granted	100% 100%	No No	
	E53/2030	Granted	100%	No	
	E53/2085	Granted	100%	No	
	E53/2112	Granted	100%	No	
	E53/2113	Granted	100%	No	
	E53/2114	Granted	100%	No	
	E53/2115 E53/2116	Granted Granted	100% 100%	No No	
	E53/2116 E53/2117	Granted	100%	No	
December 6th Built is 1111	E53/2118	Granted	100%	No	
Bronzewing Sth Project - WA	E53/2127	Granted	100%	No	
	E53/2128	Granted	100%	No	
	P36/1857	Granted	100%	No	
	P36/1858 P53/1682	Granted Granted	100% 100%	No No	
	P53/1682 P53/1683	Granted	100%	No	
	P53/1684	Granted	100%	No	
	P53/1685	Granted	100%	No	
	P53/1686	Granted	100%	No	
	P53/1687	Granted	100%	No	
	P53/1688	Granted	100%	No	
	P53/1689 P53/1690	Granted Granted	100% 100%	No No	
	P53/1690 P53/1691	Granted	100%	No	
	P53/1692	Granted	100%	No	
	P53/1693	Granted	100%	No	
	P53/1694	Granted	100%	No	
	P53/1695	Granted	100%	No	
	P53/1696	Granted	100%	No	
	P53/1697	Granted	100%	No	

# Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

## Name of entity

Hammer Metals Limited					
ABN	Quarter ended ("current quarter")				
87 095 092 158	31 December 2022				

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation		
	(b) development		
	(c) production		
	(d) staff costs	(93)	(186)
	(e) administration and corporate costs	(158)	(395)
1.3	Dividends received (see note 3)		
1.4	Interest received	6	10
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Government grants and tax incentives		
1.8	Other (provide details if material)		
1.9	Net cash from / (used in) operating activities	(245)	(571)

2.	Ca	sh flows from investing activities		
2.1	Pay	yments to acquire or for:		
	(a)	entities		
	(b)	tenements		
	(c)	property, plant and equipment	-	(18)
	(d)	exploration & evaluation	(839)	(2,038)
	(e)	investments		
	(f)	other non-current assets		

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
	<ul> <li>Recovery of exploration and administration costs from JV partners</li> </ul>	19	42
	<ul> <li>Exploration expenditure on behalf of JV partners</li> </ul>	(1)	(9)
2.6	Net cash from / (used in) investing activities	(821)	(2,023)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options	35	35
3.4	Transaction costs related to issues of equity securities or convertible debt securities		
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
	- Lease payments made	(43)	(77)
3.10	Net cash from / (used in) financing activities	(8)	(42)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	3,632	5,194
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(245)	(571)

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(821)	(2,023)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(8)	(42)
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	2,558	2,558

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	2,493	3,566
5.2	Call deposits	22	22
5.3	Bank overdrafts	-	-
5.4	Other – Balance of JV bank accounts	43	44
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,558	3,632

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	82
6.2	Aggregate amount of payments to related parties and their associates included in item 2	44
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include pation for such payments	de a description of, and an

7.	Financing facilities  Note: the term "facility' includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end -		
7.6 Include in the box below a description of each farate, maturity date and whether it is secured or facilities have been entered into or are propose include a note providing details of those facilitie		or unsecured. If any add osed to be entered into af	itional financing

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(245)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(839)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(1,084)
8.4	Cash and cash equivalents at quarter end (item 4.6)	2,558
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	2,558
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	2.36

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: Not applicable

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: Not applicable

8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?
Answer: Not applicable	
Note: where item 8.7 is less than 2 guarters, all of guestions 8.8.1, 8.8.2 and 8.8.3 above must be answered.	

## **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date:	31 January 2023
	,
Authorised by:	The Board
	(Name of body or officer authorising release – see note 4)

#### **Notes**

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.