INITIAL MINERAL RESOURCE FOR LAKEVIEW COPPER-GOLD DEPOSIT, NW QUEENSLAND

ASX RELEASE
21 December 2022

DIRECTORS / MANAGEMENT

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CAPITAL STRUCTURE

ASX Code: HMX

Share Price (20/12/2022)	$0.068
Shares on Issue	821m
Market Cap	$56m
Options Unlisted	25m
Performance Rights	8m
Cash (30/9/2022)	$3.6m

- **Initial Mineral Resource Estimate MRE) completed for the Lakeview copper-gold deposit** in NW Queensland, 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 deposit contains an estimated **~5,952 tonnes of copper and ~5,618 ounces of gold**.
- The deposit extends from surface and is open at depth with excellent potential to extend the deposit both at depth and along strike.
- **There is a reasonable expectation that this Resource can be extracted within an optimised pit based on a copper price of A$5.30 per pound and a gold price of A$2,500 per ounce.**
- Lakeview is located within EPM26775, which is 100%-owned by Hammer Metals Limited's subsidiary, Mount Dockerell Mining Pty Ltd.
- A future development scenario is likely to consider Lakeview in conjunction with the **nearby Jubilee deposit** (51% HMX)**, which has a Mineral Resource Estimate of 1.41 million tonnes at 1.41% Cu and 0.62g/t Au in the Inferred category (refer to ASX announcement dated 20 December 2018).**
- Further open pit mining and optimisation studies will include Lakeview as part of Hammer's overall copper JORC Mineral Resource portfolio in the Mt Isa region of NW Queensland which includes the Jubilee Cu-Au, Overlander Cu and the Kalman Au-Cu-Mo-Re deposits as well as the Elaine Cu-Au deposit.

Table 1. *Lakeview MRE by JORC classification – December 2022*

Lakeview Deposit - Mineral Resource Estimate (Cu% 0.3 cut-off)					
Classification	**Tonnes (Mt)**	**Cu (%)**	**Au (ppm)**	**Cu (t)**	**Au (Ozs)**
Inferred	0.58	1.03	0.3	6,000	5,600
Note rounding of metal contents					

Hammer's Managing Director, Daniel Thomas said:

"The Lakeview JORC Resource, whilst modest, is shallow and contains economic grades of copper and gold mineralisation. Its location, less than 2km from the Barkly Highway, means that it is ideally placed to provide mineable tonnes to a future regional copper development.

"Lakeview is Hammer's third copper-gold JORC Resource located on the highly prospective trend extending from Trafalgar to Jubilee. This trend continues to deliver anomalous zones of copper mineralisation and has the potential to contribute significantly to Hammer's growing resource inventory with ongoing exploration.

"Hammer will look to build on its mineral inventory in 2023 with an update to the Kalman Resource following our current extensional drilling program while also taking into consideration the positive results from the recent ore sorting testwork completed at the project."

Hammer Metals Ltd (**ASX: HMX**) ("**Hammer**" or the "**Company**") is pleased to announce an initial Mineral Resource Estimate (MRE) for the Lakeview copper-gold deposit, located 2km south of the Barkly Highway approximately mid-way between Mt Isa and Cloncurry in north-west Queensland.

The deposit lies approximately 4.5km south-east of the Jubilee copper-gold deposit which forms part of the Mt Frosty Joint Venture (HMX 51% and Glencore 49%). The Mount Colin mine, operated by Aeris Resources, is located approximately 7.5km to the north.

Lakeview Mineral Resource Estimate

Geowiz Consulting was commissioned by Hammer Metals Limited to undertake a 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[*].

The understanding of the geology, mineralisation, continuity, and methodology is sufficient for the mineralisation to be classified as an Inferred Mineral Resource. The deposit is similar in style to other copper-gold deposits in the region that have been successfully mined by small-scale open pit mining techniques and, together with the pit optimisation hurdle, the implications are that the mineralisation can be successfully extracted.

Hammer plans to conduct sighter metallurgical studies on the deposit in order to further de-risk eventual economic extraction.

Drilling results from the Lakeview Deposit have previously been reported to the ASX on 9 March 2021 and 22 June 2021.

Ownership

The Lakeview deposit lies within EPM26775, which is held by Mt Dockerell Mining Pty Ltd, a 100%-owned subsidiary of Hammer Metals Limited. Hammer Metals Limited is the operator of the tenement.

Geology

The Lakeview Deposit occurs within the Mary Kathleen Fold Belt of the Eastern Succession of the Mount Isa Inlier. The deposit is hosted by the Corella Formation less than 200m from the contact with the Argylla Formation. The mineralisation consists of up to three parallel lenses which dip at 65 to 75 degrees to the north and are interrupted by a north trending shear zone which has the effect of imparting a sigmoidal shape to the mineralised structure.

Mineralisation is associated with sulphidic quartz vein zones and petrology indicates that the main sulphide minerals are pyrite, pyrrhotite and chalcopyrite. The mineralised zone is open at depth.

Drilling techniques

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 Limited. The sampling length varies between 1m and 4m with an average of 1.92m. Drill fence spacing is irregular with 7 drill fence spacings of approximately 40m. Drillholes were primarily drilled to the south with dips varying between 55 to 70 degrees.

The rig utilised was a Sandvik DE840 with a face sampling bit diameter of approximately 5.25". Down-hole orientation surveys were conducted by gyro.

[*] 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).

Sub-sampling techniques

Sampling was conducted using a face sampling RC bit. Sample was collected via a configurable cone splitter and the output of each meter consisted of 2 calico bag samples (A & B) with weights between 2.5 and 3kg and a third sample which weighed approximately 15kg.

Samples were assessed on site and sample length decisions were made based on observable and portable XRF indicated copper mineralisation. Mineralised samples were submitted for assay at 1m intervals. Barren samples were submitted as 4m composites. Composite creation was done at the drill rig by Hammer personnel utilising a 12.5% riffle splitter to create an appropriately sized composite sample.

Sample analysis methods

Samples were submitted to SGS Townsville and ALS Mount Isa. At both labs the methodology was the same with sample preparation of coarse crush with 70% passing 2mm followed by pulverisation of a riffle split 1kg subset to 85% passing 75 microns.

Analyses conducted were via 50gm fire assay fusion with AAS determination for Au and a four-acid digest ICP MS method to determine multielement concentrations. Specific gravity determinations were selectively conducted on samples via Gas Pycnometric analysis and 30 analyses were undertaken with 18 samples within the three interpreted lode wireframes and the remainder used to assess waste rock specific gravity.

During the sample collection process Hammer inserted company certified reference samples (or CRM's) at a rate of one standard and one blank per 25 inserted samples. In addition, duplicate samples were inserted at a rate of two samples per 50 ordinary samples.

Cut-off grades

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, 3 separate lodes were interpreted however the lower two zones could not be identified on adjacent sections.

Mineral Resource estimation methods

Hammer Metals provided Geowiz with interpreted mineralisation string files and a drill hole database. Geowiz used Hammer's mineralised zone outlines to create strict wireframes at the 0.3% Cu cut-off.

A block model was constructed in the regional datum (GDA94 Zone 51) to encompass the full extent of the Lakeview deposit. Block parameters, based on a possible open pit mining scenario were a parent block size extent of 4m north, 10m east and 5m elevation with block sub-celling to 2m north, 5m east and 2.5m elevation.

Based on the weathering profile encountered in drilling a weathering surface was created assigned to blocks within the block model (Table 2).

Both Au and Cu were estimated via univariate ordinary kriging using only the input data from the mineralised zone. An oriented ellipsoid (based on variography) was used to select data for the interpolation.

Validation of the block model was conducted by visual checks on screen in plan and cross section, statistical comparison of sample and block grades and swath plots to visualise the correlation between the composite grades and block model grades.

Mineral Resource reporting – JORC Classification

The Mineral Resource has been classified based on the guidelines specified in the JORC Code. Although the RC drilling has defined 3 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 only based on the guidelines specified in the JORC Code.

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**
Totals may not sum exactly due to minor rounding errors					

Mineral Resource reporting – Reasonable Prospects of extraction hurdle and JORC Classification
Clause 20 of the JORC Code (2012) requires that all reports of Mineral Resources must have reasonable prospects for eventual economic extraction, regardless of the classification of the resource. The Competent Person deems that there are reasonable prospects for eventual economic extraction as the Lakeview deposit is of sufficient grade and tonnage to be mined from surface.

To satisfy the JORC guideline that the resources should have the potential to be mined, the resource was constrained within an optimised pit shell run using a Cu price of A$5.30 per pound and a A$2,500 per ounce Au price.

Blocks above a 0.3% Cu cut-off grade within the optimised open pit shell are determined to have reasonable prospects of future economic extraction by open pit mining and are included in the Resource estimate on that basis.

The optimised pit model was run using a Lerch-Grossman optimiser with the following parameters.

- Au price of $2,500 per oz - $83 per gram;
- Cu price of $5.30 per lb – $116 per 1%;
- Recoveries of 80% for Au and 98% for Cu;
- Ore Mining costs of $2.50/t and waste mining costs of $2.00/t;
- Processing costs of $20.00/t; and
- Pit slopes of 45º

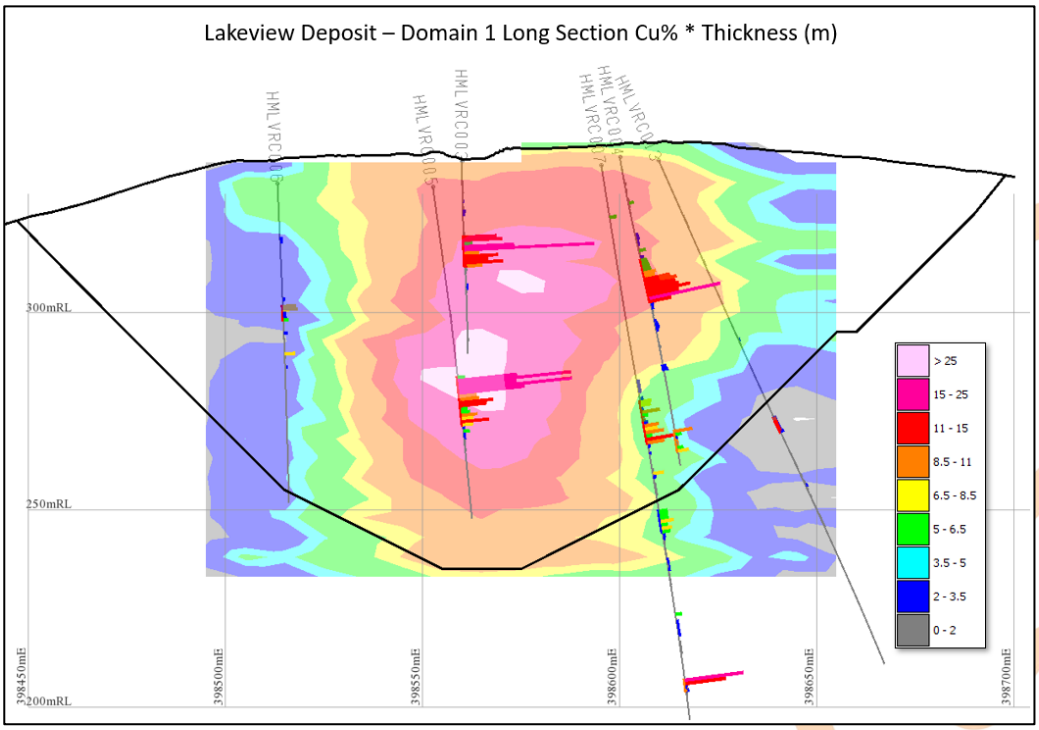

Figure 1. *Domain 1 – Long section grade-thickness plot showing the optimised pit shell*

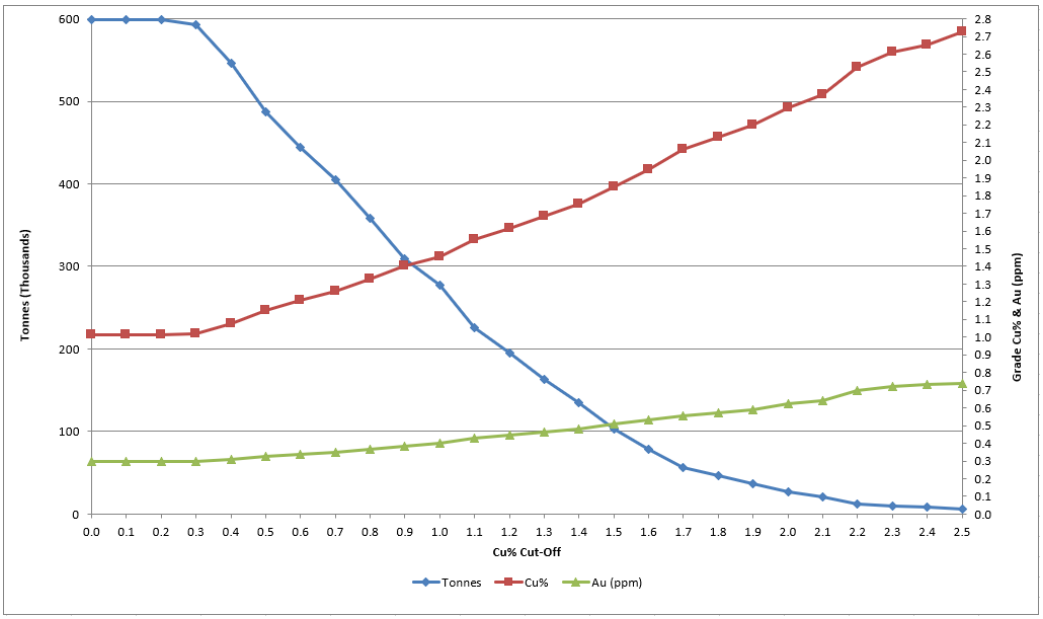

Figure 2. *Grade tonnage curve for the Lakeview mineral resource estimate*

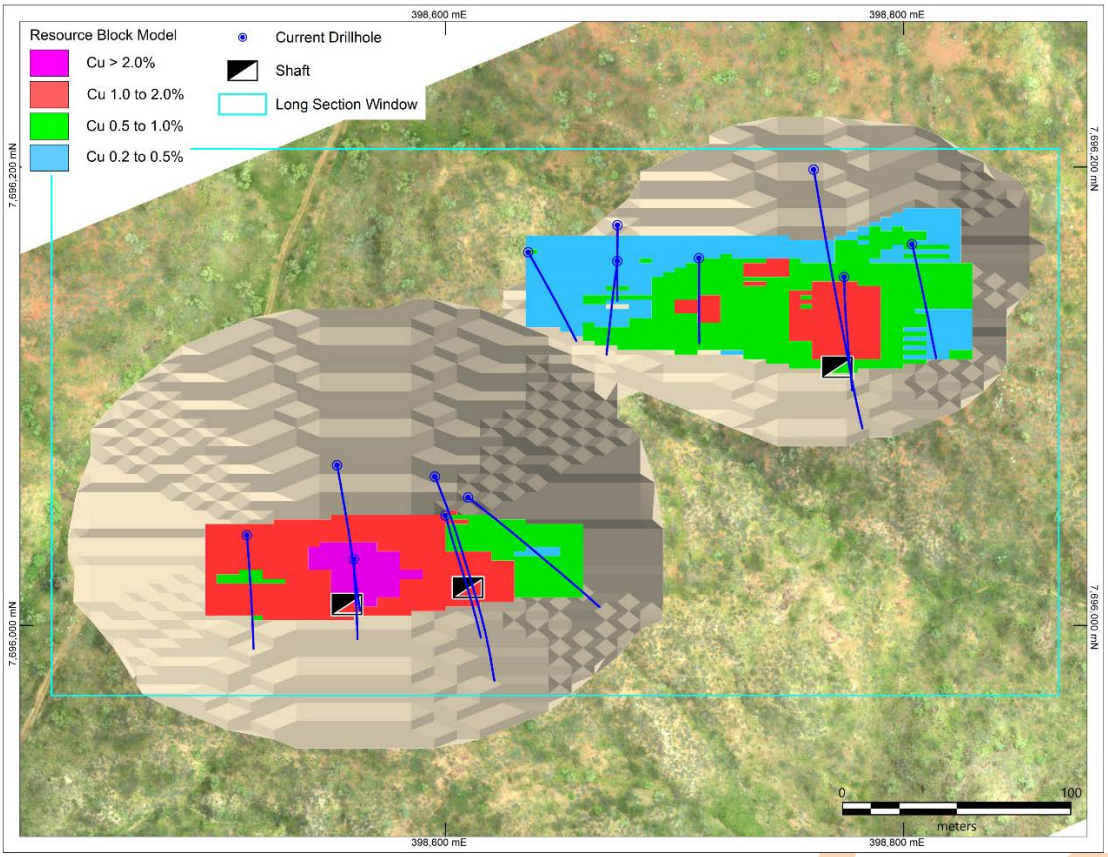

Figure 3. *Plan view of the Lakeview MRE showing the Block model within the optimised pit*

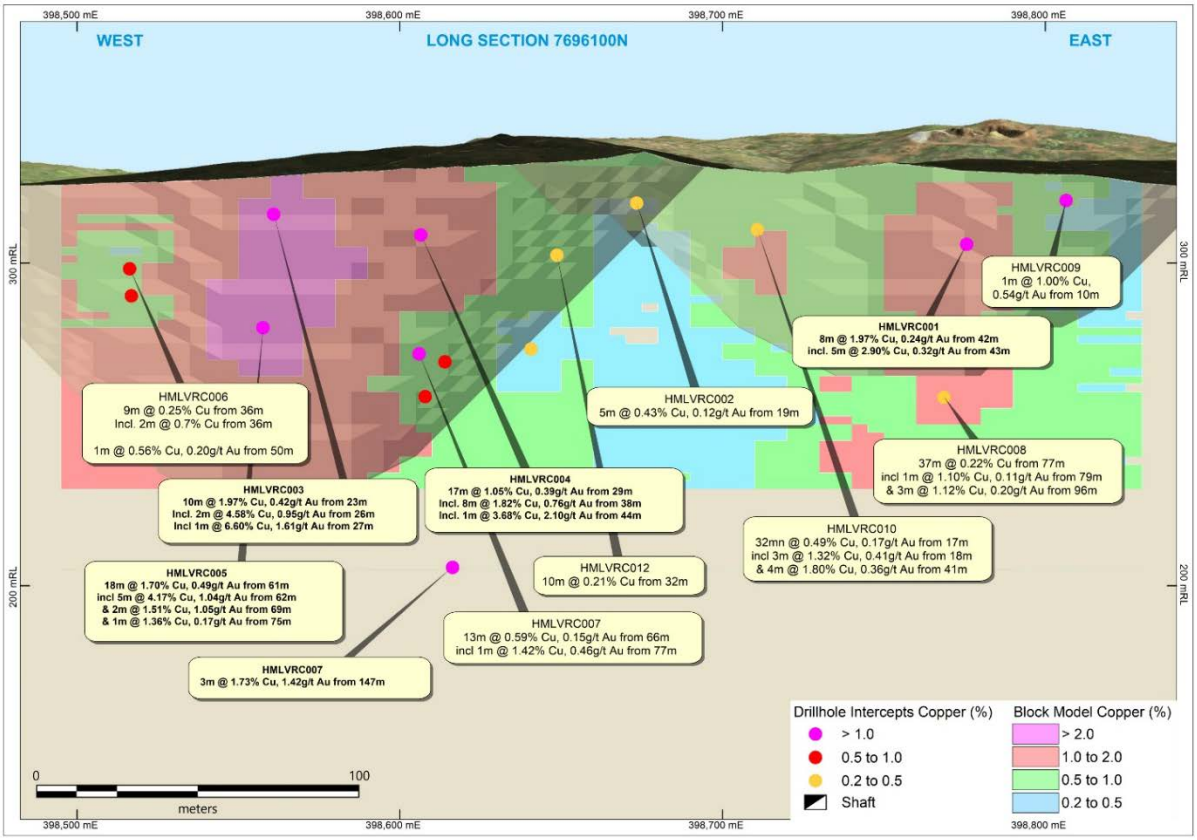

Figure 4. *Long section (looking north) through the Lakeview Deposit showing drilling, significant intercepts, optimised pit and block model (at a cut off of 0.3% Cu). Note that drilling has previously been reported on 9 March 2021 and 22 June 2021.*

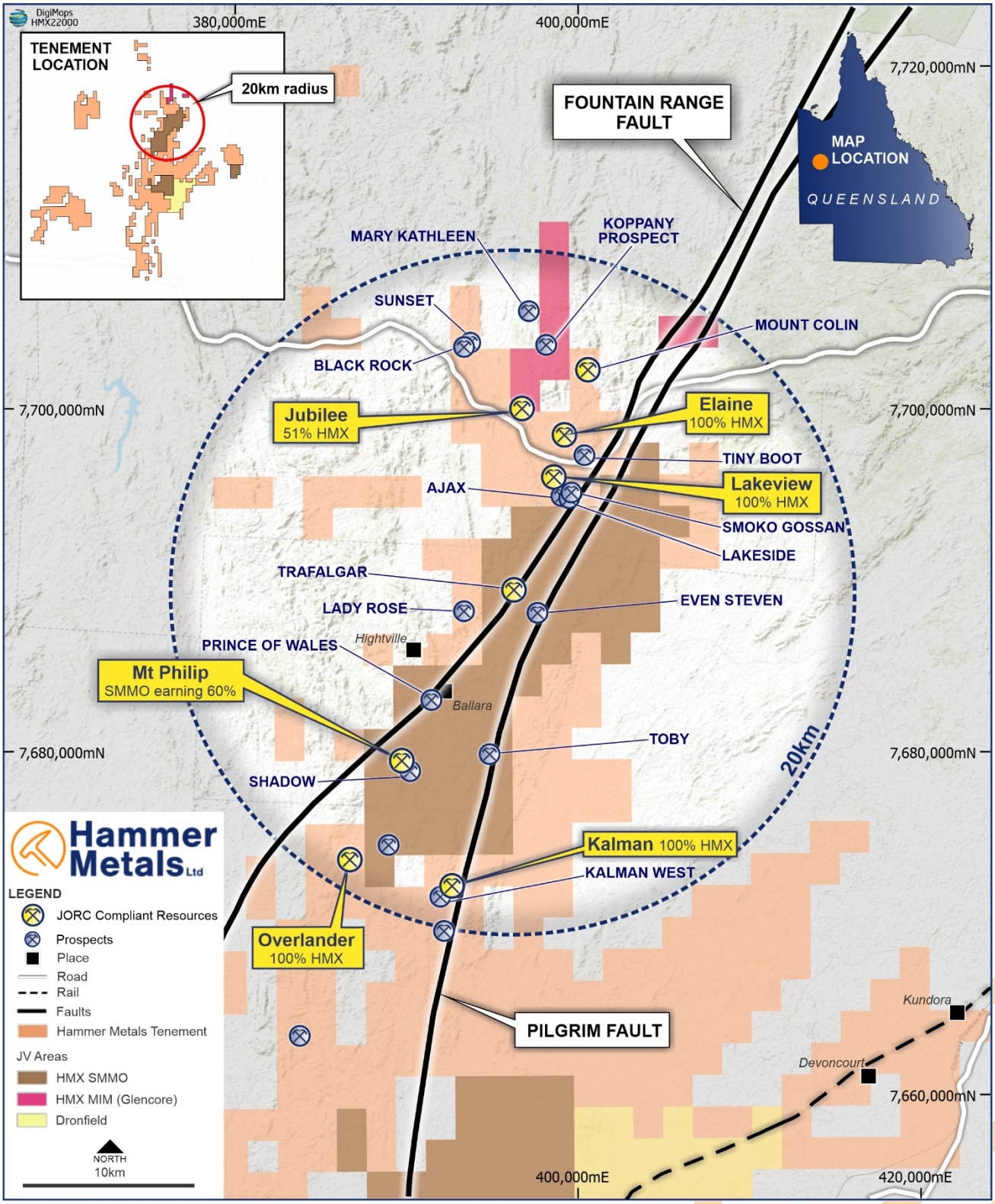

Figure 5: *Hammer's northern tenement area*

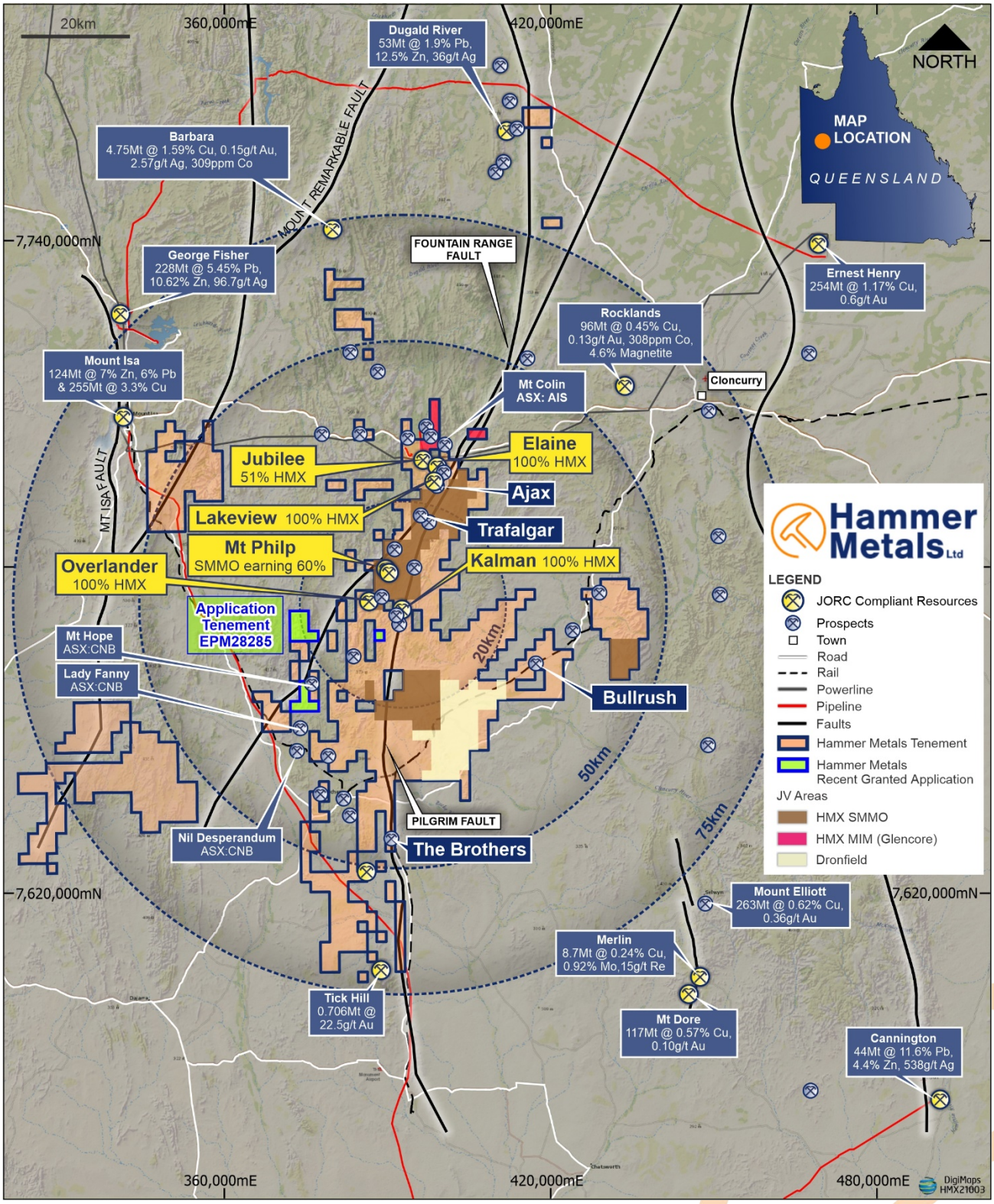

Figure 6: *Mt Isa Project Area*

Expected Newsflow

- **January:** Kalman drilling results,
- **January:** Kalman West, Ajax and Hardway drilling results
- **January:** HMX Q2 Quarterly
- **Q1 2023**: Follow up drilling programs: South Hope, Mascotte, Mascotte Junction and Stubby.
- **Q1 2023:** Yandal Lithium prospect follow up
- **Q1/Q2 2023:** Kalman Resource Upgrade

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

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About Hammer Metals

Hammer Metals Limited (ASX: HMX) holds a strategic tenement position covering approximately 2,600km^2 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 Jubilee (Cu-Au) deposit. Hammer is an active mineral explorer, focused on discovering large copper-gold deposits of Ernest Henry style and has a range of prospective targets at various stages of testing.

Hammer 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 types of deposit under consideration and to the activities 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.

The information relating to the Lakeview Mineral Resource Estimate is based on information compiled by Mr. Ross Corben who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr. Corben is a consultant geologist commissioned by Hammer Metals and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Corben consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Where the Company references Mineral Resource Estimates previously announced, 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.

JORC Table 1 report – Lakeview Maiden Mineral Resource Estimate

- This table is to accompany an ASX release updating the market with information pertaining to the maiden mineral resource estimate for the Lakeview Cu-Au deposit (EPM26775).
- The estimation was conducted by Mr. Ross Corben of Geowiz Consulting “Geowiz”.
- Historic exploration data noted in this, and previous releases has been compiled and validated. It is the opinion of Hammer Metals that the exploration data are reliable. Hammer Metals drilling noted herein has been previously reported to the ASX on 9 March 2021 and 22 June 2021.

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections in this information release.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc).* *These examples should not be taken as limiting the broad meaning of sampling.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralisation that are Material to the Public Report.* *In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	The drilling was conducted using reverse circulation. The dataset utilised in the estimation consisted of 13 holes, 1380m and 717 samples. Drill chip samples were taken at dominantly 1m intervals. When multiple metre intervals were sampled, a riffle split of each metre interval was conducted with the split portions then being combined to produce a composite sample. Where mineralisation was anticipated or encountered, the sample length was reduced to 1m with lab submission of the 1m samples. All samples submitted for assay underwent fine crush with 1kg riffled off for pulverising to 75 microns. Samples were submitted to both SGS and ALS for: • Fire Assay with AAS finish for gold (30gm or 50gm charge). • 4 acid digest followed by ICP for a comprehensive element suite. • Thirty selected samples sent for Gas Pycnometric analysis to determine specific gravity. Portable XRF analysis was conducted in the field on each 1m interval. Re-analyses will be conducted as required to investigate element repeatability.
Drilling techniques	*Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Holes were drilled by DDH1 using a Sandvik DE840 using the reverse circulation drilling method and a face sampling bit. Downhole orientation surveys were conducted using a gyro. Each orientation was reconciled with its neighbours before being accepted.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	Sample recoveries were generally in excess of 80%. Recoveries are typically low in the first 5m of each hole. Size differences between primary and duplicate samples were monitored at the rig and remedial action taken immediately. Any size bias in the collected sample was noted at the rig and corrected immediately. Sample size vs grade was analysed and no correlation was seen. Primary and QAQC assays were examined for signs of smearing. None was detected.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* *The total length and percentage of the relevant intersections logged.*	All drilling was geologically logged by Hammer Metals Limited Geologists. Quantitative portable XRF analyses were conducted on metre intervals on site. All metres drilled were analysed by the lab methods listed above.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Samples consist of RC drill chips. Samples from the hole were collected by a three-way splitter with A and B duplicates taken for every sample. Samples were taken at dominantly one metre intervals however where 2 or 4 metre composites were created, samples were composited by riffle splitting material from each one metre sample bag. Where evidence of mineralisation was encountered or anticipated, the sample length was reduced to 1m. The sample length for the dataset in the MRE averaged at 1.92m. Standard reference samples and blanks were each inserted into the laboratory submissions at a rate of 1 per 25 samples. Duplicate samples were taken at an interval of approximately 1 in 50 samples. The sample collection methodology and sample size is considered appropriate to the target-style and drill method, and appropriate laboratory analytical methods were employed.
Quality of assay data and	*The nature, quality and appropriateness of the assaying and laboratory procedures used*	All samples submitted for assay underwent fine crush with 1kg riffled off for pulverising to 75 microns.

Criteria	JORC Code explanation	Commentary
laboratory tests	*and whether the technique is considered partial or total.* *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Samples were submitted to both SGS and ALS for: • Fire Assay with AAS finish for gold (50gm charge). • 4 acid digest followed by ICP-MS for a comprehensive element suite. • Select samples sent for Gas Pycnometric analysis to determine specific gravity In addition to the Hammer in-house certified reference materials, the assay laboratory maintains a comprehensive QAQC regime, including check samples, duplicates, standard reference samples, blanks and calibration standards. QAQC analysis indicates that in general, the Cu and Au assay performance is within acceptable limits and shows no systematic bias. The S3 (ore-grade copper) certified standard used for SGS lab job TSV21-07001 (HMLVRC001 to HMLVRC004) exhibited a low bias for copper (averaging 2 standard deviations from the certified value) and a low bias for gold (averaging over 3 standard deviations from the certified value), trending towards the certified value over the life of the job. The S1 and S2 (ore-grade copper) certified standards were used across the life of the drilling campaign and performed within acceptable limits with no systematic bias.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	Geowiz has not independently verified any intervals however two company personnel independently verified analyses and assay intervals. Geological logging was directly into Excel spreadsheets on a Panasonic Toughbook computer, which were subsequently imported to a Sql Server relational database. The assay data was verified against portable XRF results and sample logs. Assay values below detection were stored in the database as minus the detection limit. Intervals with no samples were recorded in the sample table and excluded from the assay table in the database. Assay files were received electronically from the laboratory.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Drill holes HMLVRC001 to HMLVRC013 had their collar positions surveyed by a certified surveyor using a cm-accuracy DGPS instrument. Down hole surveys were conducted using gyro or digital down-hole camera.

Criteria	JORC Code explanation	Commentary
	Specification of the grid system used. *Quality and adequacy of topographic control.*	LiDAR survey data was used to create a topographic surface; this was confirmed by independent DGPS drill hole collar locations.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.* *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* *Whether sample compositing has been applied.*	The dataset utilised in the MRE was conducted on approximately 7 fences with an approximate spacing of 40m. Downhole intercept separation varied between 40m to 60m down plunge. For Mineral Resource estimation, samples have been composited to 1m lengths using 'best fit' techniques. The mineralised domains have demonstrated sufficient continuity in both geology, and geochemistry to support the definition of Inferred Mineral Resources classification applied under the 2012 JORC Code.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Drillhole azimuths average 166 degrees UTM which is close to perpendicular to the strike of mineralisation. Drill dip averages -57 degrees south, against a dip of mineralisation of -65 to -75 to the north. Therefore, the orientation of the drilling is typically at a high angle to the strike and dip of the mineralisation.
Sample security	*The measures taken to ensure sample security.*	Pre-numbered bags were used, and samples were transported to ALS by company personnel. Samples were packed within sealed polywoven sacks.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	All assay data has been reviewed by two company personnel. No external audits have been conducted.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The Mt Isa Project consists of 34 tenements. The Lakeview Deposit is located within EPM26775. This tenement is held by Mt Dockerell Mining Pty Ltd, a 100% owned subsidiary of Hammer Metals Limited.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Exploration over the region has been conducted by a number of companies including Rio Tinto, Mary Kathleen Uranium, Uranerz, Mount Isa Mines Limited (MIM), Delta Gold and Kings Minerals NL. The current tenement was granted on 16 November 2018.

Criteria	JORC Code explanation	Commentary
		Assessment of the deposit occurred in 2021 and Hammer Metals was the first party to seriously drill test the deposit.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Lakeview Deposit occurs within the Mary Kathleen Fold Belt of the Eastern Succession of the Mount Isa Inlier. The deposit is hosted by the Corella Formation less than 200m from the contact with the Argylla Formation. The mineralisation consists of up to three parallel lenses which dip at 65 to 75 degrees to the north and are interrupted by a north trending shear zone which has the effect of imparting a sigmoidal shape to the mineralised structure. Mineralisation is associated with sulphidic quartz vein zones and petrology indicates that the main sulphide minerals are Pyrite, Pyrrhotite and Chalcopyrite.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* *easting and northing of the drill hole collar* *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *dip and azimuth of the hole* *down hole length and interception depth* *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	A complete list of the drillholes which were utilised in the MRE is attached to this report as Appendix 2. Hammer Metals has previously reported to the ASX in relation to drilling conducted over the Lakeview Deposit on 9 March 2021 and 22 July 2021.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Exploration results are not being reported.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Drillhole azimuths average 166 degrees UTM which is close to perpendicular to the strike of mineralisation. Drill dip averages -57 degrees south, against a dip of mineralisation of -65 to -75 to the north.

Criteria	JORC Code explanation	Commentary
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	Therefore, the orientation of the drilling is typically at a high angle to the strike and dip of the mineralisation.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Appropriate figures are in the body of this report
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.*	Exploration results are not being reported.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Exploration results are not being reported.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Further drilling is planned to examine the underground potential of the Lakeview Deposit. Sighter metallurgy is planned to determine the recovery parameters of the deposit.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	Drill logging data and assay results are generated digitally, compiled and validated prior to import to a central database. Assay results are not compiled for import until final QAQC data and certification has been received from the analytical laboratory. A suite of validation routines is carried out across the database on a regular basis. Geowiz understands that Hammer have undertaken detailed and systematic cross

Criteria	JORC Code explanation	Commentary
		checking of historical data to ensure maximum integrity in the data used for Mineral Resource estimation. Geowiz also performed general data audits and checks on the supplied data. Minor corrections were made. Geowiz did not receive, and thus not able to check, the original assay reports for the CYU drilling. The Lakeview database is considered adequate for resource estimation at the Inferred level.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	A site visit has not been conducted by Geowiz as the project is at an early stage.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	The interpretations are guided by the broader regional geological setting and local field observations. The geology of the Lakeview deposit has been mapped on-surface and down-hole, to produce a 3D interpretation of the main geological components. Drill hole logging by geologists, through direct observation of samples have been used to interpret the detailed geological setting. The mineralised lodes are clearly defined and continuous; closely constrained by a combination of unique geological attributes, lithochemical indices and multi-element grades. Drilling and resource modelling suggest the current interpretation is robust. The detailed spatial distribution of high-grade material within the main lodes is open to alternate interpretations. Further drilling may have some impact on the understanding of grade-continuity within the mineralised lodes. Lithology contributed to the interpretation and generation of wireframes for the Mineral Resource. Wireframes were based on copper (and gold) assays, with refinement from multi-element indices. The confidence in the geological interpretation is considered to be good. The deposit is similar in style to many polymetallic deposits in Mount Isa Inlier. The geological logging and the results of the geostatistical analyses have been useful in predicting the continuity of the mineralisation for the Mineral Resource estimation.

Criteria	JORC Code explanation	Commentary
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The interpreted Lakeview Mineral Resource mineralisation is hosted within an east-west striking shear zone which is deformed around a north-south striking shear. This structural interference has resulted in a mineralised envelope which is sigmoidal in shape. Within this envelope two zones of mineralisation have been defined which are termed the north and south zones. The north zone is approximately 200m in strike length and drilling has intersected mineralisation approximately 90m from surface. The south zone is approximately 150m in strike length and drilling has intersected mineralisation approximately 170m from surface, Mineralisation in both zones can approach 10m in true thickness.
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* *The assumptions made regarding recovery of by-products.* *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* *Any assumptions behind modelling of selective mining units.* *Any assumptions about correlation between variables.* *Description of how the geological interpretation was used to control the resource estimates.* *Discussion of basis for using or not using grade cutting or capping.* *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation*	Modelling was undertaken in Surpac™ V6.6 software. • The mineralised zone was initially defined by the Hammer geologists using a nominal lower cutoff of 0.3% Cu. Geowiz, used the Hammer interpretation as a guide to re-code the zones in each drill hole using the Cu and Au assays to define the mineralised zones. • Prior to compositing, a background value of zero was assigned to all unsampled drill hole intervals. Samples were then composited to 1.0 m intervals within the domain wireframes • A statistical analysis was undertaken on the sample composites and top cuts were applied to the Cu and Au composites on a domain-by-domain basis in order to reduce the influence of extreme values on the resource estimates. The top-cut values were chosen by assessing the high-end distribution of the grade population within each domain and selecting the value at which the distribution became erratic. • Variography was carried out using Leapfrog Edge software program on the one-meter composited data from the mineralised domains. • A block model was set up on the regional datum (GDA94 Zone 51). A

Criteria	JORC Code explanation	Commentary
	data if available.	parent cell size of 10 m(E) x 4 m(N) x 5 m(RL) was adopted with standard sub-celling to 5.0 m(E) x 2.0 m(N) x 2.5 m(RL) to maintain the resolution of the mineralised lenses. The 20 metre X block size was chosen to reflect the drill hole spacing and the shorter 4 metre Y dimension was used to reflect the mineralisation width. • Two variables; Cu and Au in each domain were estimated using Ordinary Kriging using only data from within that domain. The orientation of the search ellipse and variogram model was reflects the local orientation of the mineralized structures. • An oriented "ellipsoid" search was used to select data for interpolation for each domain. The search ellipse for the domains were oriented with an -65° to 80° dip towards 0° north. • An average density of 2.9 was assigned based on 18 samples taken within the interpreted mineralisation zones. • Validation checks included statistical comparison between drill sample grades and ordinary kriging block estimate results for each domain. Visual validation of grade trends for each element along the drill sections was also completed in addition to swath plots comparing drill sample grades and model grades by eastings. These checks show good correlation between estimated block grades and drill sample grades.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages and grades were estimated on a dry insitu basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	A cut off of 0.3% Cu was applied for reporting mineral resources assuming that the deposit would be mined as an open pit
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the*	The Mineral Resource estimate has assumed that the deposit would be amenable to open pit mining given that the mineralisation is exposed at surface. A pit optimisation was run using a Cu price of AUD$5.30 per pound and a AUD$2,500 per ounce Au price. Blocks above a 0.3% Cu grade cut-off within the optimised open

Criteria	JORC Code explanation	Commentary
	assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	pit shell are determined to have reasonable prospects of future economic extraction by open pit mining and are included in the Resource estimate on that basis. The optimised pit model was run using a Lerch-Grossman optimiser with the following parameters. • Au price of $2,500 per oz - $83 per gram; • Cu price of $5.30 per lb – $116 per 1%; • Recoveries of 80% for Au and 98% for Cu; • Ore Mining costs of $2.50/t and waste mining costs of $2.00/t; • Processing costs of $20.00/t; and • Pit slopes of 45º
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	An assumption has been made that metallurgical behaviour of mineralisation will be similar to the Jubilee Deposit located approximately 5km to the northwest. At Jubilee Preliminary hydrometallurgical studies were undertaken by Hammer on sulphide drill samples from a total of 3 diamond drillholes. They concluded that saleable copper and gold concentrates could be recovered. At Jubilee, flotation recovered 99.3% of the Cu and 87.2% of the Au. Gravity recovered 15.0 to 18.9 % of the -80um Au. In the Lakeview MRE an assumption of 80% Au and 98% Cu recovery has been used.
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	No assumptions have been made by Geowiz regarding possible waste and process residue disposal options.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	The bulk density was derived via Gas Pycnometric analysis and 30 analyses were undertaken with 18 samples within the 3 interpreted lode wireframes and the remainder used to assess waste rock specific gravity.

Criteria	JORC Code explanation	Commentary
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Based on this information assigned average densities were assigned as follows: • 2.9g/cm^3 fresh mineralisation • 2.5g/cm^3 fresh waste • 2.6g/cm^3 oxide mineralisation.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012 Edition). The deposit has been tested with high quality drilling, sampling and assaying. Geological logging has defined structural and lithological controls that provide reasonable confidence in the interpretation of mineralisation boundaries. Geowiz considers that geological and mineralisation continuity has been demonstrated with sufficient confidence to allow the Lakeview deposit to be classified as Inferred Mineral Resources. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	Internal audits have been completed which verified the technical inputs, methodology, parameters, and results of the estimate.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The Lakeview Mineral Resource estimates have been reported with a degree of confidence commensurate with Inferred Mineral Resources. The data quality is good, and the drill holes have detailed logs produced by qualified geologists for all recent drilling. A recognised laboratory has been used for all analyses. The Mineral Resource statement relates to global estimates of tonnes and grade. No significant mechanised mining has occurred at the deposit.

Appendix 2 – Drillhole listing

Hole	Type	Total Depth	Company	Started	E_GDA94	N_GDA94	RL	Survey method
HMLVRC001	RC	78	HMX	20-May-21	398772.46	7696150.08	341.05	DGPS
HMLVRC002	RC	66	HMX	22-May-21	398675.51	7696157.04	336.27	DGPS
HMLVRC003	RC	60	HMX	22-May-21	398561.3	7696029.47	338.23	DGPS
HMLVRC004	RC	96	HMX	23-May-21	398601.32	7696046.92	339.52	DGPS
HMLVRC005	RC	106	HMX	11-Jul-21	398552.581	7696069.901	332.024	DGPS
HMLVRC006	RC	95	HMX	13-Jul-21	398513.181	7696039.43	332.746	DGPS
HMLVRC007	RC	200	HMX	15-Jul-21	398595.32	7696064.984	337.378	DGPS
HMLVRC008	RC	196	HMX	18-Jul-21	398760.738	7696198.963	337.298	DGPS
HMLVRC009	RC	88	HMX	20-Jul-21	398803.674	7696166.392	336.644	DGPS
HMLVRC010	RC	76	HMX	20-Jul-21	398710.633	7696160.314	337.424	DGPS
HMLVRC011	RC	95	HMX	21-Jul-21	398675.06	7696174.688	334.982	DGPS
HMLVRC012	RC	76	HMX	22-Jul-21	398636.106	7696162.864	334.571	DGPS
HMLVRC013	RC	148	HMX	23-Jul-21	398609.832	7696055.917	338.649	DGPS
Note								
Locations relative to GDA94 Zone 54								
RL relative to AUSGeoid09								