

## ASX Announcement

29 July 2022

ASX: MKR



# Mineral Resources Update - Mt Boppy Gold Project

Manuka Resources Limited (“**Manuka**” or the “**Company**”) is pleased to release an updated Mineral Resources Estimate after open cut mining (current pit floor RL165) completed in Q4 2021. This estimate incorporates additional drill hole data post cessation of mining conducted in Q1 2022.

## Highlights:

- **Mineralisation with the pit shell provides basis for continued exploration at depth and for nearby prospects**

## Mt Boppy Resource Statement

The total remaining Resource as at 19 May 2022 is 281,850 tonnes at a grade of 4.95 g/t Au for 44,820 ounces. The mineral resource estimate for Mt Boppy is reported within a pit shell that reaches a depth of 215m below surface at the southern end of the deposit. Resources are reported with respect to the current pit design. Material within the pit design is reported at a 1.6 g/t cut off and material below the pit design is reported to a 3.0 g/t cut off.

Resource Category	Tonnes	Grade	Contained gold
		g/t Au	Troy ounces
Measured	106,850	5.25	18,020
Indicated	158,000	4.85	24,700
Inferred	17,000	3.93	2,100
<b>Total</b>	<b>281,850</b>	<b>4.95</b>	<b>44,820</b>

Table 1 - Mt Boppy Gold Resource at 19 May 2022

The Mt Boppy Resource reported in the previous year as at 30 June 2021<sup>1</sup> is reproduced below. Gold production since 1 July 2021 from Mt Boppy ~18,500oz Au

Resource Category	Tonnes	Grade	Contained gold
		g/t Au	Troy ounces
Measured	159,470	4.64	23,800
Indicated	175,700	4.44	25,100
Inferred	4,000	5.70	1,000
<b>Total</b>	<b>339,170</b>	<b>4.58</b>	<b>49,900</b>

Table 2 – Comparative Mt Boppy Gold Resource at 30<sup>th</sup> June 2021

<sup>1</sup> MKR Annual Report 2021 ASX release 24 September 2021.

Resources were classified in accordance with the guidelines of JORC (2012), using a combination of average distance to informing samples, number of informing samples used and kriging statistics (conditional bias slope and kriging variance).

The following classification criteria were applied:

- Measured: blocks estimated in pass 1 using a distance to the nearest sample of < 10 m, average sample distance of < 20 m and conditional bias slope >0.7 and kriging variance <0.4.
- Indicated: blocks estimated in pass 1 using a distance to the nearest sample of 20m, and average sample distance of < 40 m, with a conditional bias slope >0.5, plus all stope fill material
- Inferred: remaining blocks estimated with at least 6 samples
- Unclassified: blocks estimated with less than 6 samples.

An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and cannot be converted to an Ore Reserve. It is reasonably expected that most of the Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

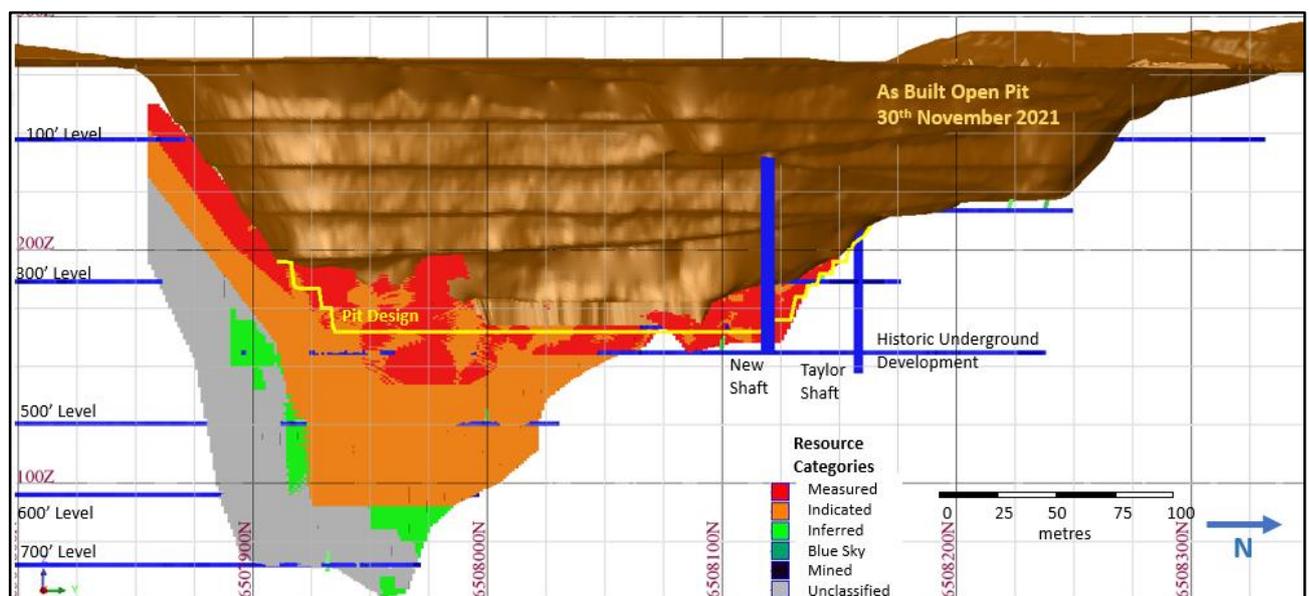


Figure Error! No text of specified style in document.. Long Section: Resource Classification

Based on the study herein reported, delineated mineralization of Mt Boppy deposit is classified as Measured, Indicated and Inferred resources according to the definitions of the JORC Code (2012) as presented in Table 3. The mineral resource is depleted to the November 30<sup>th</sup> projected pit pick-up.

**Table 3. Resource Summary (Mineral Resource 2022)**

Resource	Category	Tonnes	Grade g/t Au	Ounces Au	Stope fill %
Current Open Pit (> 1.6 g/t)	Measured	36,200	4.6	5,350	0%
	Indicated	16,100	3.60	1,900	100%
Below current Pit (> 3.0 g/t)	Measured	70,650	5.58	12,670	0%
	Indicated	141,900	5.00	22,800	41%
	Inferred	17,000	3.9	2,100	0%
Sub Total	Measured	106,850	5.25	18,020	0%
	Indicated	158,000	4.85	24,700	47%
	Inferred	17,000	3.9	2,100	0%
<b>Total</b>		<b>281,850</b>	<b>4.95</b>	<b>44,820</b>	<b>26%</b>

\*The preceding statements of Mineral Resources conforms to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2012 Edition. Due to rounding to appropriate significant figures, minor discrepancies may occur. All tonnages reported are dry metric

## COMPETENT PERSON'S CONSENT FORM

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

Report Name: Resources estimate on the Mt Boppy gold mine, NSW, Australia ("the Estimate") dated 19<sup>th</sup> May 2022.

I, Ian Taylor confirm that I am the Competent Person for the Report and:

I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).

I am a Competent Person as defined by the JORC Code, 2012 Edition, having a minimum of five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.

I am a Member or Fellow of The Australasian Institute of Mining and Metallurgy or the Australian Institute of Geoscientists or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by the ASX from time to time.

I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of Mining Associates Pty Ltd, and have been engaged by Manuka Resources Ltd to prepare the documentation for the Mt Boppy mineral resource on which the Report is based, for the period ended 19<sup>th</sup> May 2022.

I have disclosed to the reporting company the full nature of the relationship between myself and the Company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Reporting.

### CONSENT

I consent to the release of the Report and this Consent Statement by the Directors of Manuka Resources Ltd.

**Signature of Competent Person:**

*Signature 19/05/22 - do not copy*

**Ian Taylor**  
**B.Sc (Hons), G.Cert. Geostats, FAusIMM (110090)**  
**(Bellbowrie, Qld)**  
**19 May 2022**

**Signature of Witness:**

*signature 19/05/22 - do not copy*

**Peter Caristo**  
**(The Gap, Qld)**  
**19 May 2022**

## About Manuka

Manuka Resources Limited (ASX: MKR) is an Australian mining company located in the Cobar Basin, central west New South Wales. It is the 100% owner of two fully permitted gold and silver projects which include the following:

Mt Boppy Gold mine and neighbouring tenements hosting an existing open pit Measured Indicated and Inferred Resource of 281,850 tonnes grading 4.95 g/t gold, based on a cut-off grade of 1.6 g/t for material within its current open pit design and a cut-off grade of 3.0 g/t for material below the current pit design. The Mt Boppy project having ceased current open pit mining activities in Q4 2021 is in advanced exploration as additional exploration is conducted beneath the pit floor and nearby prospects.

Wonawinta silver project, with mine, processing plant and neighbouring tenements, hosting 51 million ounces of silver in a JORC compliant silver resource grading 42 g/t silver at a cut-off grade of 20 g/t silver. The Wonawinta processing plant has a nameplate capacity of 850,000 tonnes per year. Stockpile processing at Wonawinta commenced in Q2 2022 as a trial to optimise the processing plant.



**This announcement has been approved for release by the chairman of Manuka Resources Limited.**

**For further information contact:**

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### Important Information

This report includes forward-looking statements and comments about future events, including the Company's expectations about the performance of its businesses. Forward-looking words such as "expect", "should", "could", "may", "predict", "plan", "will", "believe", "forecast", "estimate", "target" or other similar expressions are intended to identify forward-looking statements. Such statements involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company and which may cause actual results, performance or achievements to differ materially from those expressed or implied by such statements. Forward-looking statements are provided as a general guide only, and should not be relied on as an indication or guarantee of future performance. Given these uncertainties, recipients are cautioned to not place undue reliance on any forward-looking statement. Subject to any continuing obligations under applicable law, the Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements in this report to reflect any change in expectations in relation to any forward-looking statements or any change in events, conditions or circumstances on which any such statement is based. No Limited Party or any other person makes any representation, or gives any assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statements in the report will occur.

# Appendix 1: JORC Code 2012 Edition – table 1

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were collected from a variety of methods from three main phases of drilling: Polymetals (PML, 2002-2015), Black Oak Minerals (BOK, 2015), MAAS (2016) and Manuka Resources (MKR, 2020-present).</li> <li>From historic reports, PML and BOK sampling techniques all followed industry best practice.</li> <li>Sampling techniques for RC drilling comprised 1 m reverse circulation samples, from which 3 kg was pulverised to produce a 50 g charge for fire assay.</li> <li>Diamond drill core was cut in half over varying interval lengths depending on logged geological units and was crushed and pulverised to produce a 50 g charge for fire assay.</li> <li>Open hole percussion and blast hole samples collected over 2.5 m intervals sectioned the drill returns and pulverised to produce a 50g charge for fire assay or 200g charge for bottle roll leach</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>PML and BOK: Diamond (HQ diameter) and RC drilling (5.5 inch face sampling bit), Open hole percussion blasthole drilling</li> <li>MAAS: RC drilling (5.5 inch face sampling bit)</li> <li>MKR: RC drilling (5.5 inch face sampling bit), open hole percussion blasthole drilling</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No recovery information is available for pre-2011 drilling</li> <li>For PML and BOK RC drilling from 2011 onwards, recoveries were recorded by comparing the weight of each metre of sample to a theoretical sample weight, estimated using the hole diameter and the degree of weathering. The average recovery was calculated to be 80%, with no appreciable difference between weathering domains.</li> <li>PML and BOK Diamond drilling recoveries were measured and recorded, with average recoveries of 98% within mineralized zones. There was no correlation between recovery and gold grades.</li> <li>MKR RC drilling did not quantitatively record recovery but RC piles were qualitatively assessed. Poor to no recovery zones were commonly associated with historic stopes.</li> <li>No relationship exists between gold grades and recoveries in either RC or diamond logging.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections</li> </ul>	<ul style="list-style-type: none"> <li>Drill holes were geologically logged to various standards over the project history. Hardcopy logs are available for historic drilling.</li> <li>For post-2011 PML diamond core drilling, core recovery and RQD data were recorded for the core run intervals, and core was routinely photographed.</li> <li>It is unlikely that the historical grade control drilling was logged geologically. Recent (post-2013, BOK and MKR) grade control RC and blasthole drilling was logged for the presence of stope fill.</li> </ul>

Criteria	• JORC Code explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	<p><i>logged.</i></p> <ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>• PML Diamond core intervals for sampling were cut in half, following the orientation line to ensure a consistent side of the core was sent for assay.</li> <li>• PML and BOK RC samples were split at the rig by cone splitter at 1 m intervals.</li> <li>• MKR RC samples were split at the rig by a 3 tier riffle splitter at 1 m intervals</li> <li>• BOK and PML blasthole grade control samples were split at the rig by a 3-tier riffle splitter.</li> <li>• MKR blasthole samples were collected by quartering of the blasthole cuttings cone.</li> <li>• MKR Field duplicate results for RC data showed &gt; 87% above 0.1g/t Au within <math>\pm 40\%</math>.</li> <li>• Laboratory duplicate results for RC and diamond core samples for PML, BOK and MKR showed &gt;95% of data within <math>\pm 15\%</math>, with no appreciable difference between drilling phases.</li> <li>• Drilling muds and bit shrouds were used to improve recovery.</li> <li>• Gold is finely disseminated and associated with sulphides in quartz veins and the RC sub-sample size is considered appropriate. Drill chips dried and pulverised to a nominal 90% passing 75 <math>\mu\text{m}</math> screen before further sub sampling at the laboratory.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• 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.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• PML, BOK, MAAS and MKR RC samples were analysed at ALS Laboratories Orange using Fire Assay with a 50g charge. Fire Assay is considered a 'total' technique for non-coarse gold.</li> <li>• Blank and standard samples were included in batches sent to ALS at a rate of 1 standard and one blank for every 30 routine samples. No issues were noted with blank and standard analysis.</li> <li>• ALS laboratories undertake internal QC checks including standards, blanks and duplicates.</li> <li>• Some BOK and MKR blasts hole grade control samples were analysed by 200 g bottle roll leach with AAS finish. A series of BOK duplicates were analysed by both fire assay and bottle roll leach to determine an average leach recovery.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>• Two PML RC holes were twinned with diamond core holes.</li> <li>• Analyses of twinned RC and diamond holes showed a very close match between grade and length of intersected mineralization.</li> <li>• No recent MKR RC drill holes have been twinned with diamond</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole collars were located by either Total Station or differential GPS (DGPS) surveys to a high degree of accuracy using the Map Grid of Australia zone 55 coordinate system.</li> <li>• Down hole surveys were collected Reflex magnetic single system at 30 m intervals.</li> <li>• Some RC grade control and other drill holes were unable to be surveyed due to hole collapse during or after drilling.</li> <li>• Topographic control is via a triangulated wireframe surface derived from an aerial photogrammetry survey as well as Total station surveys of the pit.</li> <li>• Topographic control is considered adequate given the relatively</li> </ul>

Criteria	JORC Code explanation	Commentary
		<i>subdued relief in the resource area.</i>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling was undertaken on a nominal 10-12.5 m (along strike) by 20 m grid throughout the majority of the Resource as well as closely spaced grade control drilling (2.5 m x 3 m).</li> <li>The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for estimation by Ordinary Kriging and the classifications of Measured, Indicated and Inferred Resources.</li> <li>RC and diamond core samples were composited over 2 m and grade control holes over 2.5 m to minimize sample splitting.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation is controlled by steeply west dipping vein structures.</li> <li>PML, BOK and MKR surface RC and diamond drilling is generally at high angles to the gold mineralisation, drilled towards the east at 50°-70°, several recent (2021) MKR holes had to be drilled from the west due to wall stability issues.</li> <li>MKR in-pit grade control RC drilling was completed using a variety of drill hole orientations due to access and space constraints on the pit floor, with vertical holes avoided where possible.</li> <li>All blast hole grade control holes are vertical, however the greater density of this sampling reduces the chances of introducing bias.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>BOK and MKR sampling was supervised by a company representative up to the point of dispatch to ALS laboratories using a local freight company.</li> <li>Samples dispatched by MKR to ALS in Orange were bagged in larger polyweave sacks secured with zip ties and delivered by a local freight company. Sample numbers received by ALS were checked against dispatched numbers.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits/reviews of sampling techniques and data have been undertaken on any drill programs.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>ML1681, ML311, MPL 240, GL 3255, GL 5836, GL 5848, and GL5898 and exploration licence EL 5842 are all held by Mt Boppy Resources Pty Ltd. (wholly owned by MKR)</li> <li>The property on which the Mount Boppy mine situated is Crown Land.</li> <li>A Native Title Agreement is in place with the traditional owners.</li> <li>The Company notes that no land within the licence area may be classified as sensitive land. No further approvals other than those required under the Mining Act 1992 are required.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The deposit was first discovered in 1896 and mined by underground methods up to 1923.</li> <li>Various companies (notably PML, Golden Cross and BOK) have conducted exploration activities around Mt Boppy since the 1960s, with treatment of tailings and open pit mining up until</li> </ul>

Criteria	JORC Code explanation	Commentary
		2015.
<b>Geology</b>	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>• The Mount Boppy deposit is located in the northern part of Devonian Canbelego-Mineral Hill Rift Zone, flanked by the Kopyje Shelf, on the far eastern side of the Cobar Basin.</li> <li>• Mineralisation occurs in brecciated and silicified sediments and quartz veining developed along a west-dipping fault that down-throws Devonian aged Baledmund Formation rocks on its western side against Orodovician age Girilambone Group rocks on its eastern side.</li> <li>• The higher grades tend to lie in the hanging wall rocks (Baledmund Formation) on the western side of the Main Lode where the dip shallows.</li> <li>• The Main Lode strikes approximately north-south and dips at approximately 70-80° west.</li> <li>• Historical underground workings were supported with timber and back-filled with tailings sands from processing. Sand fill samples grade between 0.05 g/t Au and 38 g/t Au with an average of 3.5 g/t Au.</li> <li>• Mineralisation is predominantly gold, associated with grey quartz veins and minor pyrite.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• 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: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Resources are the penultimate result of an exploration work programme.</li> <li>• All drill holes were considered in the definition of the resources.</li> <li>• Drill hole data is stored in the Manuka Drillhole Database off site (EarthSQL), Data is managed by Manuka staff.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Samples are generally taken over one metre lengths, all samples are composited to two metre lengths for estimation.</li> <li>• Grade capping is assessed on a domain basis and applied to individual composites</li> <li>• No minimum sample cuts were applied</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	<ul style="list-style-type: none"> <li>• Shoots have long been recognised within the Mt Boppy ore body. There is a no correlation between thickness (true or downhole) and gold grades.</li> <li>• Generally true thickness is approximately 70% to 80% of the down hole drill intercept widths.</li> <li>• 3D wireframes used to define mineralisation mitigate the difference between drill hole intercepts and true widths.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>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').</li> </ul>	
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Diagrams are provided in the body of the Report</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes were used in the interpretation of the location and thickness of the mineralised halo.</li> <li>Reasonable prospects for economic extraction are considered when reporting resources</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Geological Mapping (lithology and structure), historic workings and drill holes were used to aid the interpretation of mineralisation at Mt Boppy.</li> <li>Mt Boppy ore was processed until February 2022 at MKR's Wonawinta plant, which uses a carbon-in-leach (CIL) process to extract gold, generally achieving recoveries of between 75% and 80%.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>There is scope for further definition of high grades that extend below the current planned pit floor. Note this area is currently classified as indicated.</li> </ul>

### 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
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>MA was provided with an export of the current MKR drill hole database</li> <li>The database contained tables for Collar details and metadata, downhole surveys, assays, lithology, alteration, core recoveries, veins, minerals and oriented structures.</li> <li>MS Access queries were used to perform basic validation checks, and holes were then loaded into Surpac for a second round of validation, hole lengths,</li> </ul>

Criteria	JORC Code explanation	Commentary
		sample lengths, down hole survey errors.
<b>Site visits</b>	<ul style="list-style-type: none"> <li>• Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>• If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>• Ian Taylor (FAusIMM(CP)) of Mining Associates visited the property several times during 2020 including a period acting as Mt Boppy mine geologist.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>• Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>• Nature of the data used and of any assumptions made.</li> <li>• The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>• The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>• The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>• Geological and mineralisation interpretation was carried out on approximately 10 m spaced sections, oriented perpendicular to the strike of mineralization.</li> <li>• Mineralisation was modelled as a single domain above 1 g/t Au, which represents a clear natural break in grade statistics.</li> <li>• Intercepts of lesser grade were included where necessary to aid continuity.</li> <li>• The mineralised domain surrounds the 3D shapes modelled to represent historic underground workings.</li> <li>• Historic workings outlines were derived from old mine plans and drill hole logging.</li> <li>• Historic underground workings are generally filled with tailings material and timber supports.</li> <li>• Drill hole logging and sampling, surface mapping and grade control blast hole sampling were all used to help build the geological and mineralisation model to a high degree of confidence.</li> <li>• Mineralisation displayed very good continuity between sections.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• The Mineral Resource has a strike length of 455 m and a maximum depth below surface of 230 m. The horizontal width of combined mineralised domains averages 60 m near surface, where the western lode tapers out, the main lode maintains approximately 10 - 12 m width.</li> <li>• Mineralisation dips 85° to the west.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>• The assumptions made regarding recovery of by-products.</li> <li>• Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>• Any assumptions behind modelling of selective mining units.</li> <li>• Any assumptions about correlation between variables.</li> <li>• Description of how the geological interpretation was used to control the</li> </ul>	<ul style="list-style-type: none"> <li>• Estimation was carried out in Surpac 7.5.</li> <li>• Statistical analyses was carried out on composite samples from mineralization within the domains to establish declustered means, top cuts and spatial variability (Variography).</li> <li>• Directional variography indicated differences in spatial anisotropy between the northern and southern parts of the deposit, divided by an interpreted cross-structure striking northwest.</li> <li>• Gold grades were estimated by Ordinary Kriging (OK) interpolation methods into a Surpac block model with parent block dimensions of 10 m (along strike) by 5 m (across strike) by 5 m (vertical).</li> <li>• The parent block size is approximately equal to the sample separation distance within the pit and approximately half the sample separation distance below the pit. The parent blocks were sub-celled to 1.25 m (along strike) by 0.625 m (across strike) by 0.625 m (vertical) for volume resolution.</li> <li>• All estimates were made into parent blocks. Blocks were filled using two estimation passes, with an increasing search radius and decreasing minimum number of samples. Details are given in the report.</li> <li>• Search ellipse directions and anisotropy were aligned with variography results.</li> <li>• Domain boundaries were treated as hard boundaries (stopes and lodes), stope grade were estimated though a final decision to use a historic fixed grade (3.6 g/t) to all stope material was applied.</li> <li>• The estimates were validated by visual inspection of block grades and drill hole data, comparison of alternate estimation methods</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>resource estimates.</p> <ul style="list-style-type: none"> <li>• Discussion of basis for using or not using grade cutting or capping.</li> <li>• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	
Moisture	<ul style="list-style-type: none"> <li>• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>• Tonnages are based on dry tonnes.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>• The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>• Cut-off grades applied according to potential mining and processing methods. A cut-off grade of 1.6 g/t was used for material within the designed open pit, based on current production. Resources below the pit are reported to a 3.0 g/t Au cut off, to reflect higher mining costs associated with underground mining methods.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>• 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 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.</li> </ul>	<ul style="list-style-type: none"> <li>• The current mineral resource does not include any dilution or ore loss associated with practical mining constraints.</li> </ul>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Metallurgical test work and previous processing operations indicate recoveries of around 78% for CIL. Metallurgical recoveries average 75.3%, based on an aqua regia determined head grade at the plant. Average recovery for February 2022 were 80.6%.</li> </ul>
Environmental factors or assumptions	<ul style="list-style-type: none"> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• The project is located within existing mining leases</li> <li>• The Annual Rehabilitation Reports (to Jan 2022) for Mt Boppy have been finalised and submitted to the regulator.</li> <li>• No specific issues beyond normal requirements for open pit mining in NSW</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>reported with an explanation of the environmental assumptions made.</p>	
Bulk density	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>Bulk density values used for conversion of block model volumes to tonnages were derived from 1,306 core sample density measurements using water displacement methods. No density readings by MKR have been undertaken.</li> <li>Density was assigned to the block model based on weathering domain; 2.4 t/m<sup>3</sup> for oxide, 2.68 t/m<sup>3</sup> for transitional and 2.77 t/m<sup>3</sup> for fresh material.</li> <li>Weathering domains were defined by drill hole logging for the oxide/transitional boundary and an RL of 175 m for the transitional/fresh boundary.</li> <li>Stope fill was assigned a density value 1.5 t/m<sup>3</sup> based on a density of 1.8 t/m<sup>3</sup> and 1/6th of the stopes assumed to be voids. Level drives are assumed to be open, not back filled. This figure is considered a representative based on recent mining and haulage experience.</li> <li>No correlation was observed between grade and density.</li> </ul>
Classification	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>Resources were classified according to the number of samples used, distance to samples and estimation confidence statistics:</li> <li>relative confidence in tonnage and grade estimates are reflected in the resource classification, Input data quality, quantity and distribution is considered appropriate for use in resource estimation.</li> <li>The understanding and confidence in the geology model is robust and has been tested with drilling.</li> <li>Resource categories Measured, Indicated and Inferred were assigned to the resource reflecting the Competent Persons view of the deposit</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>No external audits or reviews of the resource estimate have been carried out to date.</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>A combination of data spacing, geological understanding and the application geostatistical procedures to quantify the relative accuracy of the resource where considered when applying Resource confidence levels.</li> <li>The interpretations of geology and mineralisation are well constrained and support high confidence in the estimate. Measured resources are considered representative of local tonnes and grade. Grade control drilling and pit mapping has informed the measured resource areas. Indicated and inferred resources are considered representative of the global tonnes and grade contained within the area of the deposit tested by diamond and RC drilling</li> <li>The deposit was mined by MKR between June 2020 and November 2021. Reconciliation to mill production is provided in the body of the report</li> </ul>

## ***Section 4 Estimation and Reporting of Ore Reserves***

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

No Reserves are reported at this time.