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# **ASX Announcement**

5 June 2023

#### **ERNEST HENRY MINE LIFE EXTENDED TO 2040 – ORE RESERVES DOUBLED**

Mine Extension Pre-Feasibility Study completed. Highlights include:

- 17 year mine life to 2040 defined
- Internal Rate of Return of 28%1 to 38%2 and an incremental NPV of \$690 million1 to \$1,010 million2
- Commitment to \$15 million Feasibility Study and \$7.5 million drilling program to deliver a further significant mine life extension

#### Updated Ore Reserve doubles previous estimate:

- 126% increase in tonnes to 77.4Mt
- 103% increase in contained copper to 589kt
- 124% increase in contained gold to 1,109koz
- Mineral Resource outside of Pre-feasibility Study scope presents further opportunity

Evolution Mining Limited (ASX:EVN) ("Evolution") is pleased to advise that the Board has approved the Ernest Henry Mine Extension Project to progress to the Feasibility Study phase following completion of the Pre-Feasibility Study (PFS) which demonstrated a compelling opportunity to extend the Ernest Henry sub-level cave operation. Details on the PFS outcomes, including the updated Ore Reserve, are provided below.

Commenting on the approval, Evolution's Managing Director and CEO, Lawrie Conway said:

"In under 18 months of owning 100% of Ernest Henry, we have doubled copper and gold reserves and extended the mine life out to 2040. By any measure this is an outstanding achievement.

The Pre-Feasibility Study demonstrates excellent financial returns, but the most exciting aspect is that all of the outstanding exploration success we are enjoying is not yet captured and will be included in Feasibility Study that we are now commencing.

We have never been so excited about the future of Ernest Henry."

#### Mine Extension Pre-Feasibility Study Outcomes

The PFS indicates the base case has an incremental net present value (NPV) of \$690 million, with an internal rate of return (IRR) of 28%. Associated execution capital of \$450-500M<sup>3</sup> (study, infrastructure and mine development capital) includes approximately 60% of this capital providing infrastructure to extend below the 750mRL. Based on the timings in the PFS, the majority of this capital is not required until FY27 and FY28. The PFS delivers an additional ~11 years of mine life, versus a 'do nothing' case that would have mining conclude in FY29 at 1125mRL.

The PFS will deliver an increase of approximately 56 million tonnes for 343,000 tonnes of Cu and 609,000 ounces of Au payable below 1125mRL. There is also an associated increase in Ore Reserve of 44.7 million tonnes at 0.70% Cu and 0.44q/t of Au.

The Mine Extension PFS evaluated options for the continuation of sub-level cave mining below the 1,125mRL,

<sup>&</sup>lt;sup>1</sup> Based on gold price assumption of \$2,400/oz and Copper price of \$12,000/t

<sup>&</sup>lt;sup>2</sup> Based on gold price assumption of \$2,965/oz and Copper price of \$12,790/t (spot price)

<sup>&</sup>lt;sup>3</sup> Capital estimates are using real dollars in July 2023 terms



assessing conventional trucking against a crushing and conveyor (C&C) system, with due consideration for future geological upside. The PFS has determined both options are value accretive, but the C&C option (between 1,100-750mRL) (base case) provides greater economic upside and optionality when anticipated Mineral Resource estimate growth is considered.

Whilst not included in the current PFS, there is a high likelihood of mineralisation extensions and associated Mineral Resource growth from the current drilling (post December 2022 Mineral Resource estimate). The C&C option provides the optimal way to access potential value from future orebody extensions of the cave zone at increased depth.

The PFS has utilised the December 2022 Mineral Resource estimate<sup>4</sup>. An updated Mineral Resource estimate will be completed in the September 2023 quarter to incorporate new drill data and will be used in the Feasibility Study. The Ore Reserve grade is expected to revert to the current mine grade when new drilling is included.

Table 1 below outlines the key metrics from the Pre-Feasibility Study.

Table 1: Ernest Henry Mine Extension Pre-Feasibility Financial metrics

Investment metrics	Mine extension at \$2,400/oz <sup>1</sup> / \$2,965/oz <sup>2</sup>
NPV (\$M)	690 / 1,010
Internal Rate of Return	28% / 38%
Project capital (\$M)	450 – 500M
Payback (1 July 2023) years after first ore <sup>5</sup>	1.2 / 0.9
Payable gold (koz)	655
Payable copper (kt)	375

<sup>&</sup>lt;sup>4</sup> See ASX release titled "Annual Mineral Resources and Ore Reserves Statement" dated 16 February 2023 for information on the Ernest Henry December 2022 Mineral Resource available to view at www.evolutionmining.com.au

<sup>&</sup>lt;sup>5</sup> The payback period after first ore is short as the mine extension is producing revenue via trucking prior to commissioning of the crusher



#### Overview - Ernest Henry Ore Reserve Statement

The June 2023 Ernest Henry Ore Reserve estimate is 77.4Mt at 0.76% copper and 0.45g/t gold for 589kt of contained copper and 1,109koz of contained gold. This represents an increase of 299kt copper and 614koz gold compared to the December 2022 Ore Reserve estimate of 34.3Mt at 0.85% copper and 0.45g/t gold. The material increase to the Ore Reserve estimate is driven primarily by the addition of the Mine Extension, which has been included following completion of a PFS in June 2023. The stated Ore Reserve estimate accounts for expected mining depletion to 30 June 2023. Tables 2 – 4 detail the total Ore Reserve and provide a breakdown of the different components.

The Mine Extension consists of fifteen (15) levels between 1100 RL and 0750 RL, as depicted by Figure 1. The additional levels will apply the same sub-level caving method as the existing mine, which is well proven on site following a decade of reliable production. Extraction at depth will be supported by a new crusher positioned close to the base of the production horizon and connected to the existing hoisting shaft via an extension of the associated conveyor system. Additional underground infrastructure including upgrades to the ventilation and dewatering systems, emergency egress, workshops and stores will also support planned mining activities. Surface works including Tailing Storage Facility (TSF) raises will also be required as part of the mine life extension and have been demonstrated as technically feasible through the PFS.

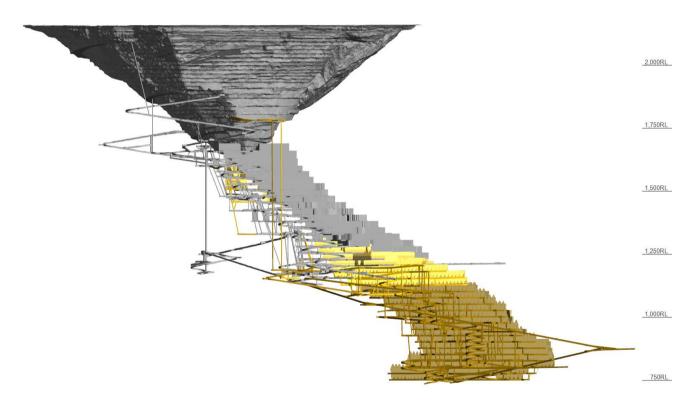


Figure 1. North-south section looking east, showing completed mining (grey), Base Ore Reserve design (gold) and Extension Ore Reserve design (brown)



Table 2: Ernest Henry Ore Reserves as at June 2023

	June 2023 Proved	June 2023 Probable	June 2023 Total	December 2022 Total
Tonnes (Mt)	26.5	50.9	77.4	34.3
Copper grade (%)	1.08	0.59	0.76	0.85
Copper metal (kt)	287	302	589	290
Gold grade (g/t)	0.62	0.36	0.45	0.45
Gold metal (koz)	527	582	1,109	495

Table 3: Ernest Henry Ore Reserves as at 30 June 2023 - Contained Copper

			Proved			Probable		Tota	al Ore Res	erve
Project	Cut-off (flow model)	Tonnes (Mt)	Copper Grade (%)	Copper Metal (kt)	Tonnes (Mt)	Copper Grade (%)	Copper Metal (kt)	Tonnes (Mt)	Copper Grade (%)	Copper Metal (kt)
Ernest Henry (Base)	0.75 CuEq	17.6	1.07	189	15.2	0.58	87	32.7	0.84	276
Ernest Henry (Extension)	0.50 CuEq	9.0	1.10	99	35.7	0.60	214	44.7	0.70	313
Total		26.5	1.08	287	50.9	0.59	302	77.4	0.76	589

Data is reported to significant figures to reflect appropriate precision and may not sum precisely due to rounding
The Ore Reserve estimate is based on the December 2022 Mineral Resource detailed in the ASX release titled "Annual Mineral Resources and Ore Reserves Statement" dated 16 Feb 2023 and available to view at www.evolutionmining.com.au

Level footprints are designed to align with Domain 7 (0.70 % Cu), which defines the Mineral Resource, while also maintaining a geometry amendable to caving. The cut-off (shut-off) grades of 0.75 % CuEq and 0.50 % CuEq, as applied in the cave flow model software, are determined through an economic evaluation

. The utlised copper equivalent equation is: CuEq = Cu + Au NSR/56.4 where; Au NSR = 38.5 \* Au - 0.04Ernest Henry Ore Reserve Competent Person is Michael Corbett

Table 4. Ernest Henry Ore Reserves as at 30 June 2023 - Contained Gold

			Proved			Probable		Tota	l Ore Res	erve
Project	Cut-off (flow model)	Tonnes (Mt)	Gold Grade (g/t)	Gold Metal (koz)	Tonnes (Mt)	Gold Grade (g/t)	Gold Metal (koz)	Tonnes (Mt)	Gold Grade (g/t)	Gold Metal (koz)
Ernest Henry (Base)	0.75 CuEq	17.6	0.57	324	15.2	0.30	148	32.7	0.45	472
Ernest Henry (Extension)	0.50 CuEq	9.0	0.70	203	35.7	0.38	434	44.7	0.44	637
Total		26.5	0.62	527	50.9	0.36	582	77.4	0.45	1,109

Data is reported to significant figures to reflect appropriate precision and may not sum precisely due to rounding

The Ore Reserve estimate is based on the December 2022 Mineral Resource detailed in the ASX Release titled "Annual Mineral Resources and Ore Reserves

Statement" dated 16 Feb 2023 and available to view at www.evolutionmining.com.au
Level footprints are designed to align with Domain 7 (0.70 % Cu), which defines the Mineral Resource, while also maintaining a geometry amendable to caving.
The cut-off (shut-off) grades of 0.75 % CuEq and 0.50 % CuEq, as applied in the cave flow model software, are determined through an economic evaluation

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Ernest Henry Ore Reserve Competent Person is Michael Corbett



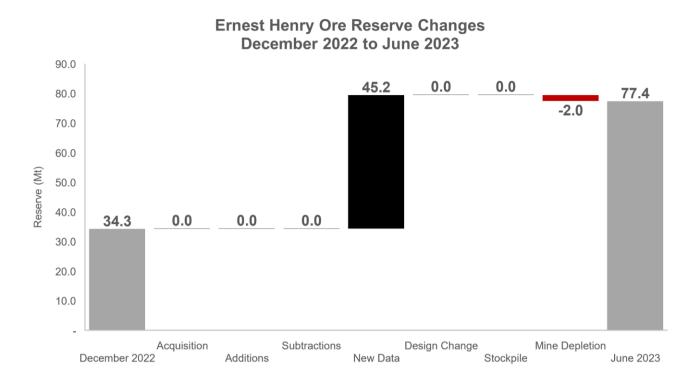


Figure 2. Waterfall chart demonstrating the change in Ore Reserve tonnes from December 2022 to June 2023

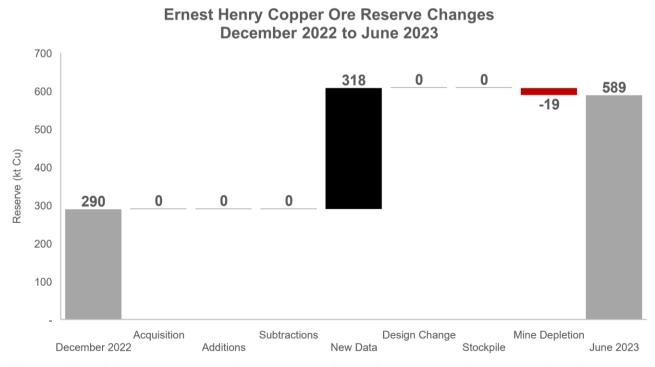


Figure 3. Waterfall chart demonstrating the change in Ore Reserve contained copper from December 2022 to June 2023



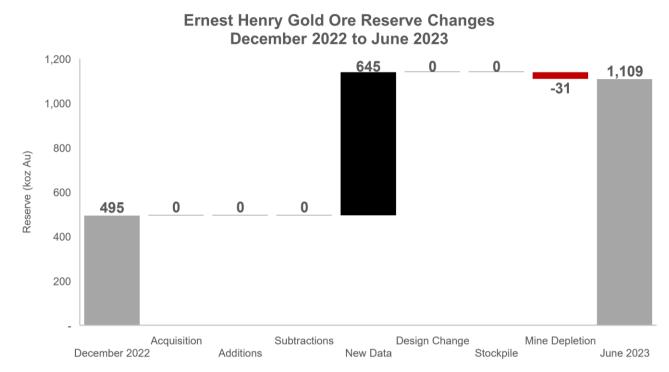


Figure 4. Waterfall chart demonstrating the change in Ore Reserve contained gold from December 2022 to June 2023

In addition to the stated Ore Reserve estimate there is a considerable volume of material within the December 2022 Mineral Resource that has not been incorporated as part of the PFS. The Mineral Resource zones depicted in Figure 5 present greater than 31.0 Mt of additional material within Domain 7, which will be targeted in future mining studies. Of this material, 21.0 Mt is located below the existing crusher station and could utilise the Mine Extension crusher.



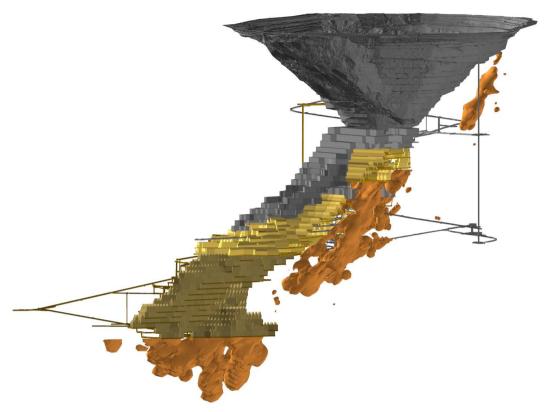


Figure 5. Isometric view looking northwest, showing completed mining (grey), Base Ore Reserve design (gold), Extension Ore Reserve design (brown) and available December 2022 Mineral Resource (orange)



#### **JORC 2012 and ASX Listing Rules Requirements**

The Ernest Henry Ore Reserve estimate has been reported in accordance with the 2012 Edition of the "Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code 2012) and the ASX Listing Rules.

This Material Information summary has been provided for the Ernest Henry Mineral Resource pursuant to ASX Listing Rules 5.8 and 5.9 and the Assessment and Reporting Criteria in accordance with JORC Code 2012 requirements. The Assessment and Reporting Criteria in accordance with JORC Code 2012 – Table 1 is presented in Appendix A.

## **Competent Person's Statement**

The information in this Ore Reserve statement that relates to the 30 June 2023 reported Ernest Henry Ore Reserve is based on information compiled by Michael Corbett who is a full time employee of Evolution Mining. Mr Corbett is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken 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 Corbett consents to the inclusion in this report of the matters based on his information in the form and context in which it appears

Evolution employees acting as a Competent Person may hold equity in Evolution Mining Limited and may be entitled to participate in Evolution's executive equity long-term incentive plan, details of which are included in Evolution's annual Remuneration Report. Annual replacement of depleted Ore Reserves is one of the performance measures of Evolution's long-term incentive plans.

## **Approval**

This release has been approved by the Evolution Board of Directors.

#### Forward looking statements

This report prepared by Evolution Mining Limited (or "the Company") includes forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs. Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation. Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control. Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or



revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

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# **About Evolution Mining**

Evolution Mining is a leading, globally relevant gold miner. Evolution operates five wholly-owned mines – Cowal in New South Wales, Ernest Henry and Mt Rawdon in Queensland, Mungari in Western Australia, and Red Lake in Ontario, Canada. Financial Year 2024 gold production outlook is 770,000 ounces +/- 5% at an All-in Sustaining Cost of A\$1,370 per ounce (+/- 5%).



# **Ernest Henry Mineral Resource and Ore Reserve Material Information Summary**

A Material Information Summary is provided for the Mineral Resource and Ore Reserve at Ernest Henry Operation (EHO) pursuant to ASX Listing Rules 5.8 and 5.9 and the Assessment and Reporting Criteria in accordance with JORC Code 2012 requirements. The Assessment and Reporting Criteria in accordance with JORC Code 2012 is presented in Appendix 2.

## 1.1 EHO Mineral Resource Material Information Summary

#### 1.1.1 Material Assumptions for Mineral Resources

The Ernest Henry Mineral Resource estimate is defined within an interpreted 0.7% Cu grade shell. Assigned mining and processing costs and metallurgical recoveries used in the development of underground Mineral Resource reporting shapes are supported by current mining data and metallurgical recoveries. The EHO underground mine uses a sub-level caving (SLC) mining technique.

## 1.1.2 Geology and Geological Interpretation

The Ernest Henry copper-gold deposit is hosted in a hydrothermal breccia pipe plunging at roughly 45 degrees to the south, bounded between two shear zones. At depth, the orientation of shearing appears to be having a greater effect on the orebody and the primary mineralised lenses are becoming more elongate north-south, separating into discrete pods and lenses.

The Ernest Henry deposit is hosted entirely in felsic intermediate metavolcanic rocks, within a unit of the Mount Fort Constantine Volcanics, circa 1800 to 1750 million years. Regionally these lithologies lie adjacent to a large meta-diorite body which traverses the deposit from the south-west to the north-east. Timing of mineralisation at the Ernest Henry deposit is commonly accepted by many workers as occurring between regional D3 through to D4 deformation events circa 1530 to 1500 million years.

Mineralisation is associated with a matrix supported hydrothermal breccia that is enveloped by crackle veined potassium feldspar altered meta-volcanic rocks. The matrix is largely composed of magnetite, quartz, biotite, chalcopyrite, pyrite, fluorite, gold, molybdenite, uraniferous minerals and potassic feldspar. Other gangue minerals in the matrix consist of chlorite, calcite, dolomite, barite, apatite, muscovite, garnet, scapolite, sphene, rutile and tourmaline.

Chalcopyrite, the only copper mineral observed within the primary orebody, and pyrite are the only significant sulphide minerals within the orebody. Chalcopyrite is fine to medium grained, anhedral and commonly occurs as disseminated grains attached to magnetite and/or pyrite. Chalcopyrite and pyrite are contained mostly within the breccia matrix, comprising 1% to 20% of the matrix volume.

Gold occurs about 98% of the time in the form of native gold-electrum (65-95wt % Au), other minor contributions come from sylvanite, auriferous cobaltite, pyrite and chalcopyrite. It is believed that gold precipitation was closely associated with, but preceded some of the chalcopyrite deposition, as indicated by the lower gold and copper ratios of late-stage chalcopyrite rich veins. Although the Ernest Henry orebody contains arsenic, fluorine and uranium minerals, they typically fall below product thresholds, and aren't considered deleterious.

Both clast and matrix supported breccias typically coincide with copper grades above 0.7% Cu. Felsic altered, clast supported hydrothermal breccia exists as a halo around the main +0.7% Cu zone which also typically hosts gold grades > 0.5 g/t Au. Zones of elevated gold grades (>1 g/t, Au) are coincident with a magnetite / carbonate rich structure or structural zone logged as secondary generation breccia which are constrained predominantly within the interpreted 0.7% Cu zone.

A total of five copper mineralisation domains and six gold mineralisation domains were developed for the Ernest Henry deposit.

#### 1.1.3 Drilling and Survey Techniques

Drilling at Ernest Henry has been completed between 1980 and 2022. Diamond drill holes (HQ, NQ2 and NQ size) are the primary source of geological and grade data informing the grade estimate. Reverse Circulation



(RC) and Air Core (AC) drilling was also used to delineate oxide areas of the resource which are now depleted. Core has been oriented using a variety of techniques in line with standard industry practice of the time. Core recovery through the deposit is excellent (>99.5%).

Collar coordinates were picked up by site surveyors using a Leica total station survey instrument and reported in MGA94 Zone 54 grid. A variety of downhole survey methods have been utilised in the underground resource, however 95% of the diamond drill holes have been surveyed using a recognised high quality gyroscopic instrument recording down hole survey data in 3m intervals.

# 1.1.4 Data, Data spacing and distribution

A total of 1,169 drill holes with 101,279 intervals containing assays were extracted from acQuire for the 2022 Mineral Resource estimate. Of these, 836 drill holes contain copper assays and 835 contain gold assays. This is an increase of 85 new drill holes used for geological interpretation and grade estimation in the December 2022 model compared to the June 2022 model. A total of 18 drill holes have been excluded from use in both domain generation and grade estimation in the 2022 resource model update due to issues associated with the quality of either assay or survey data.

A total of 85 new drill holes (38 with assays) totalling an additional 6,252 samples are included in the updated 31 December 2022 Mineral Resource estimate compared to the previous Mineral Resource estimate reported as at 30 June 2022. Of the 85 new drillholes, 26 were drilled inside the PFS area (below 1125 mRL) and the remaining 59 holes were targeting the current 'Life of Mine' (LOM) area.

Initial resource definition drillhole programs are designed to achieve a nominal mineralisation intersection spacing of 60 m centres. Drillholes are designed and drilled to intersect perpendicular to mineralisation and shear zones bounding mineralisation wherever possible. Subsequent to the initial phase of resource definition drilling, infill drilling is completed to nominal mineralisation intersection spacing of between 30m and 40m centres.

# 1.1.5 Sampling and Sub-sampling

Following logging to a standardised geological legend, each core sample is sawn in half with a diamond saw. One half is placed back in the core tray with the other submitted to ALS laboratory in Townsville.

Samples undergo further preparation and analysis by an external laboratory, involving crushing to 2 mm, riffle splitting and pulverising using an LM5 mill to 85% passing 75 microns. Crushing and grinding equipment are cleaned using compressed air and brushes between each sample and blanks are inserted at a rate of 1:15 samples in mineralised core and 1:30 samples in waste zones to ensure sample contamination is not occurring. Following the pulverisation of the sample a 0.4g sub-sample is prepared for base metal analysis via aqua regia digestion and a 50g sub-sample is taken for analysis via fire assay.

In addition to assaying being completed at ALS in Townsville, a component of samples was sent to Onsite Laboratory Services (OSLS) to ensure drillhole assays were returned in time for grade estimation. Samples sent to OSLS are crushed to 90% passing 2 mm, rotary split (if required to 3.5kg) and pulverised using an LM5 mill to 90% passing 75 microns. Crushing and grinding equipment are cleaned using compressed air and brushes between each sample and blanks are inserted at a rate of 1:21 samples to ensure sample contamination is not occurring. Duplicate samples are taken at a rate of 2:21 at this stage. Following the pulverisation of the sample a 0.5 g sub-sample is prepared for base metal analysis via aqua regia digestion and determined by ICP. A 25g sub-sample is taken for analysis via fire assay. Replicate analysis is performed as required after internal QA/QC protocols. Ore grade analysis for copper is performed on all samples above 1.00% Cu and determined by AAS.

#### 1.1.6 Sample Analysis Methods

Following sample preparation, a 50 g sub-sample is analysed for gold (Au) using a fire assay method at ALS Geochemistry Townsville's facility. Multi-element analysis for copper (Cu), silver (Ag), cobalt (Co), iron (Fe), molybdenum (Mo), nickel (Ni), phosphorous (P), sulphur (S), uranium (U) and arsenic (As) is completed on a 0.4g sample using aqua regia digestion with an AES finish at ALS Brisbane's laboratory. Drill core samples are



not routinely analysed for fluorite. Concentrate samples however are analysed for all potentially deleterious elements.

Historic quality assurance (QA) procedures include the use of six certified standards as well as field duplicates inserted at 1:25 ratio for all sample batches sent to the ALS laboratory. Pulverised blank samples have been used by Ernest Henry for QA from 2017. A coarse crush blank sample has been used from April 2022.

#### 1.1.7 Density

The method of density determination in the current model follows the same process outlined in the 2018/19, 2020 and 2021 models. Since the discovery of Ernest Henry, an extensive database of in-situ density measurements has been collected using the Archimedes water displacement principal formula from wet and dry sample weights.

Density measurements are used in conjunction with an elemental assay analysis to generate a stoichiometric regression formula that is applied to every sample and subsequently used in resource estimation.

#### 1.1.8 Quality Assurance and Quality Control

EHO currently uses eight matrix matched CRMs and a pulverised blank and coarse crush blank sample to monitor preparation and assaying processes. CRMs were inserted at a rate of 1 in every 15 samples while blanks were inserted at 1 in every 15 samples within mineralised samples and 1 in every 30 samples in waste zones. Field duplicates inserted at 1 in every 15 samples and crush and pulp duplicates inserted at 1 in every 25 samples were used to monitor the deposit variability and analytical precision. Historic field duplicates were inserted at 1 in every 25 samples. ALS laboratory inserts QA samples during the analytical process in line with their internal protocols.

The Competent Person has completed a review of the quality control (QC) results received between May 2022 and December 2022 and considers that the new data utilised to complete the estimate is accurate and precise (subject to some concerns about recent Au results) and has been collected and stored using industry standard practices. The site also has a long history of production and reconciliation against Mineral Resource models which provides further confidence in the quality of analytical data.

#### 1.1.9 Estimation Methodology

Downhole composites are completed in Datamine within each of the interpreted domains. Samples are composited to a 2 m sample length.

Variograms for Cu, Au, Ag and density were completed in Snowden's Supervisor software and validated in 3D against the sample dataset.

Ordinary kriging (OK) was used to estimate Cu%, Au g/t, Ag g/t and density (t/m³) into 10 mE by 10 mN by 10 mRL parent blocks. The block size was selected based on drillhole spacing, the geometry of the mineralisation and the selective mining method. Results of the Quantitative Kriging Neighbourhood Analysis (QKNA) completed for the June 2022 estimate were used for the December 2022 estimate. Parent blocks were reduced (sub-blocked) as low as 2 mE by 2 mN by 2 mRL along domain boundaries to honour interpreted domain volumes.

#### 1.1.10 Estimation Validation

The grade estimates were validated by comparing mean composited grades to mean estimated grades (estimation search pass 1 only), grade trends in easting, northing and elevation slices (swath plots), visual check of estimated grades against composited grades, and debugging the estimation process. Statistical comparisons between mean estimated grades and mean composited grades for each domain are within  $\pm 5\%$ . Swath plots of mean estimated grades against mean composite grades within 20 m wide easting, northing and elevation slices shows composite grade trends have been closely replicated in the model. Mine to mill reconciliation data gathered over the past 10 years indicates that estimated tonnes and grade fall within a  $\pm 1\%$  tolerance against what is produced in practice.



#### 1.1.11 Resource Classification

The classifications have been made in accordance with the JORC 2012 guidelines and are based upon average distance to nearest samples, kriging output metrics (kriging efficiency and slope of regression), confidence in defined mineralisation boundaries, the number of holes used during interpolation, grade variations between holes and hole orientation. Robust classification wireframes were constructed by the Competent Person to delineate the Mineral Resource Classification codes assigned to the block model. The Ernest Henry Mineral Resource has been classified using the following general criteria:

- Measured: Drill data used for estimation not exceeding 30-40m spacing and including full drill coverage on adjacent sections to the north and south. Estimated with a full complement of composites selected in the kriging process (32).
- Indicated: Drill data used for estimation between 40–60m, estimated with a full complement of composites selected in the kriging process (32).
- Inferred: Drill data used for estimation between 60-100m.

Other general conditions taken into consideration in the classification are as follows:

- Kriging Efficiency (KE).
- Continuity of grades between drill holes.
- Confidence in the geological interpretation of mineralisation boundary.
- Proximity of blocks to the edge of the domain boundaries.

The Mineral Resource estimate and Mineral Resource classification categories appropriately reflect the views of the Competent Person and have been reported in accordance with the JORC Code (2012). Mineral Resource classification solids have been developed into the surrounding 0.1% Cu grade shell to appropriately account for the confidence in the grade and tonnage estimate of this material. A component of this material will be mined as part of the sub-level cave and is included within the reported Ore Reserve.

# Mineral Resource Reporting and assigned Cut-off criteria

Whilst no cut-off grade has been explicitly applied for reporting the 2022 Mineral Resource, only blocks within the interpreted 0.7% Cu grade shell (Domain 7 and Domain 77) were reported. The sub-level caving mining method mines all material including any internal waste material within the designed sub-level cave boundary. This mining method does not allow blocks to be selectively mined. Consequently, all material within the interpreted 0.7% Cu grade shell including any zones of internal waste have been included and reported within the Mineral Resource estimate. This reporting process ensures all material reported within the Mineral Resource meets reasonable prospect of economic extraction and international reporting code standards. Prior to the reporting of the Mineral Resource, account was made for mining depletion and sterilisation as detailed below.

#### **Depletion**

Previously mined areas are omitted from the reported Mineral Resource. Underground development drives are accurately surveyed, with associated tonnes and grade removed from the reported Mineral Resource. In areas where accurate surveys have yet to be taken of underground development, the planned extraction is used to deplete the reported Mineral Resource. Depletion resulting from production activities is estimated using the calibrated cave flow model. The model includes actual cave extraction to the end of September 2022 and forecast production to the end of December 2022.



#### Sterilisation

With respect to Mineral Resource reporting, account is also made for sterilisation (ore loss whereby Mineral Resource material is deemed unrecoverable due to previous mining activities). As sterilisation is not able to be directly calculated, the quantity of 'external' material (originating from outside of Domain 7 – interpreted 0.7% Cu shell) recovered through production activities is used as a proxy for sterilisation. The quantity of external material (waste) reporting to draw points is considered to have displaced (sterilised) a comparable quantity of the Mineral Resource from within Domain 7. This sterilised Domain 7 material is classified into Measured, Indicated and Inferred components by interrogating the blasted production volume and subsequently removing the reported percentages to each resource category. This method is appropriate where the total drawn tonnes are comparable to the total blasted tonnes, as is the case for Ernest Henry to date.

The Mineral Resource has been reported within the 0.7% Cu grade shell after exclusion of depletion and accounting for sterilisation as described above. The 0.7% Cu grade is roughly aligned with a \$50 net smelter return (NSR) value and meets the reasonable prospects for eventual economic extraction requirement for reporting a Mineral Resource in accordance with the JORC Code.

#### 1.1.12 Audits or reviews

Evolution Mining has a standard validation process which includes internal technical peer review and external audits. Internal peer reviews of the reported Mineral Resource and Ore Reserve are undertaken annually by Evolution's Transformation & Effectiveness / Technical Services team. Internal corporate governance systems and processes are in place to ensure all required supporting data and documentation is securely stored for future reference.

In addition to the internal peer review process undertaken by Evolution an external audit of the reported Mineral Resource & Ore Reserve is undertaken on a 3-year rolling basis across all of Evolution's assets. The most recent review of the EHM Mineral Resource estimate was completed by CSA Global in July 2021. This review endorsed the estimate while also recommending minor potential improvements for the next estimate. The 31 December 2022 Mineral Resource is scheduled to be audited in August 2023.



# 1.2 Ernest Henry Underground Ore Reserve Material Information Summary

#### 1.2.1 Material Assumptions for conversion to Ore Reserves

The Ore Reserve estimate is based on the December 2022 Mineral Resource, as detailed in the ASX release titled 'Annual Mineral Resources and Ore Reserves Statement' dated 16 February 2023.

The Ernest Henry (Base) Ore Reserve estimate is comparable to the December 2022 Ore Reserve estimate. The only changes relate to forecast mining depletion and application of the December 2022 Mineral Resource in place of the June 2022 Mineral Resource. All other inputs and assumptions are transferable.

The Ernest Henry (Extension) Ore Reserve estimate is derived from the Mine Extension Pre-feasibility Study (PFS). Though many of the underlying inputs and assumptions are shared between the PFS and Ore Reserve, there are material differences. The most significant differentiator between the mine plans is the draw strategy applied to the production rings on the 1100 - 0750 Levels. The production component of The Ernest Henry (Extension) Ore Reserve estimate is 37.4 Mt at 0.76 % copper and 0.48 g/t gold. The same mining block delivers an inventory of 48.8 Mt at 0.70 % copper and 0.44 g/t gold in the PFS.

#### 1.2.2 Cut-off parameters

The design cut-off used to generate the sub-level cave (SLC) footprint relates to geological Domain 7, which defines the Mineral Resource. The boundary of Domain 7 is 0.70 % copper, typically equating to 0.85-0.95 % copper equivalent (CuEq), dependent upon copper:gold ratio and economic assumptions. Though Domain 7 has a relatively hard contact in most areas, it is less continuous at depth. To maintain a footprint amendable to sub-level caving, the Mine Extension levels (1100-0750) have been designed to a 0.70 % CuEq boundary. Applying a 0.70 % CuEq cut-off in place of 0.70 % Cu will have negligible impact to the footprint in most areas but does generate a more appropriate footprint where lower grade embayments interrupt the continuity of Domain 7.

The economic shut-off grade applied in the flow model software, Power Geotechnical Cellular Automata (PGCA), is determined through an economic evaluation process. This process is considerate of the Net Smelter Return (NSR) and a range of economic objectives. Flow modelling of cut-off grades between 0.50 % and 0.90 % CuEq were assessed, with a values of 0.75 % and 0.50 % CuEq being selected for the Base and Extension areas, respectively.

The copper equivalent equation utilised for the flow model process is:

CuEq = Cu + Au NSR/56.4 where; Au NSR = 38.5 \* Au - 0.04

#### 1.2.3 Mining factors or assumptions

Pre-feasibility (2006) and Feasibility (2008) studies demonstrated that sub-level caving is the most appropriate mining method for the Ernest Henry underground operation. This method is well suited to the orebody geometry, grade and rock mass properties. Recent Concept (2021) and Pre-feasibility (2023) studies for the Mine Extension indicate that continuation of the sub-level cave is the most appropriate option for production below the existing mine.

Geotechnical engineering assessments have shown that the rock mass is amenable to caving where an appropriate footprint, sequence and draw strategy are implemented. Numerical modelling forecasts are reflected by cave propagation to date, with a strong correlation to the observed surface expression and data from the seismic monitoring system. As the mine progresses into the Extension area, geometry of the extraction footprint and draw strategy will require further optimisation to ensure a suitable rate of cave progression continues. This will be a focus of the Feasibility Study (FS).

The mine design incorporates 25 m sub-level spacing, 15 m drive spacing (centre to centre), 6 m wide cross cuts and a standard 8-hole ring pattern with 2.6 m burden. These design parameters are in line with benchmarked operations and have proven to be effective during the previous decade of Ernest Henry underground production. Optimisation of these design parameters will be completed during the FS, with changed mining conditions at depth likely to require minor adjustments and opportunities to improve mining efficiency.

Sub-level caving is a bulk mining method with limited selectivity, where dilution must be accepted in order to recover blasted ore. Dilution from production activities is quantified through cave flow modelling and is included in the reported Ore Reserve along with supporting economic evaluations. No recovery or dilution factors have



been applied to the Ernest Henry (Base) Ore Reserve estimate. For the production component of the Ernest Henry (Extension) Ore Reserve estimate, a 0.98 % grade factor has been applied. This factor reflects the flow modelling for the Mine Extension having been completed for a Pre-feasibility Study rather than operational execution.

Assumptions applied for the Ernest Henry (Base) flow model have been derived through the routine calibration process and include:

Hanging Wall Failure Delay: 50 m undercut

Dilution Flow Rate: 180% of blasted material

Draw Width at 1,000 m<sup>3</sup>: 10 m

The 50 m undercut value has been derived with consideration of the site seismic data system, numerical modelling, real world observation and flow model calibration. While this measure will be variable depending on the rock mass and mining geometry, a value of 50 m provides a reasonable match on a mine scale. Having dilution flow more readily than blasted material has been determined to be appropriate through the flow model calibration process, reflecting fines generation within the cave and the relative mobility of different rock types. A draw width of 10.0 m at 1,000 m³ drawn has been selected based on the findings of marker trials conducted on site and calibration of the flow model against reconciled actuals.

The Ernest Henry (Extension) flow model was derived using a draw width of 6.2 m at 1,000 m<sup>3</sup> drawn in place of the settings described above. This value was derived through a calibration process completed as part of the PFS and yields comparable results to the combination of settings applied to the Ernest Henry (Base) flow model at a mine or level scale. At a ring scale, differences are observed but this is an expected outcome given the divergent applications of the two models. The Competent Person considers the methods used to derive the production component of the Ernest Henry (Extension) Ore Reserve estimate to be appropriate.

Blasted rock from development activities reports to the same materials handling system as production ore from the cave. The development material is included in the mine plan, classified by means of block model interrogation and converted to Ore Reserve in the same manner as production material.

# 1.2.4 Metallurgical factors or assumptions

Processing has been conducted on site for more than 20 years, delivering consistent performance over that period. Comminution is achieved using both SAG and ball mills, with throughput tailored to mine output. Copper and gold are recovered using a floatation process and are contained within the resulting copper concentrate. This concentrate is transported by road to Glencore's smelting facility in Mount Isa.

Bulk sampling is conducted on a routine basis to confirm plant performance.

The Ore Reserve estimate is reported 'as mined' and does not include metallurgical recovery factors. Metallurgical recovery is accounted for by the NSR calculations, which support the selected flow model cut-off grades of 0.75 % and 0.50 % CuEq.

#### 1.2.5 Environmental and social factors or assumptions

Ernest Henry has been in operation for several decades and fulfils relevant statutory and social obligations. This includes but is not limited to:

- Completion of environmental studies regarding flora and fauna, hydrogeological conditions, waste rock characterisation and cultural heritage.
- Deed and access agreements have been established with neighbouring landholders.
- The mine has an Environmental Management Plan, with approvals for mine production, waste rock dumps, tailings storage facilities and site clearing having been granted.
- An Environmental Authority (EA) has been granted by the regulator.
- All other permits for current mining operations have been granted.

The existing EA will require a Major Amendment to facilitate extraction of the stated Ore Reserve. This will require multiple steps including a period of community consultation. Ernest Henry routinely engages with the local and broader community through the support of events and charitable organisations, site visitation days for the general public, a focus on residential employment and working with local businesses. These positive engagement practises contribute to maintaining a social license to operate.



The operation is spread across multiple mining leases, which are listed in Table 5 and illustrated by Figure 6. Multiple leases are due to expire before extraction of the Ore Reserve is complete. Both Ernest Henry and Evolution Group teams are working proactively to ensure the required lease renewals occur in a timely manner and do not impact the production profile.

Table 5. Summar	v of Ernest Henry	Mining Pt	y Ltd mining leases

Lease	Ownership	Expiry Date
ML2671	Ernest Henry Mining Pty Ltd 100%	30/11/2025
ML90041	Ernest Henry Mining Pty Ltd 100%	30/11/2037
ML90072	Ernest Henry Mining Pty Ltd 100%	30/11/2025
ML90085	Ernest Henry Mining Pty Ltd 100%	31/03/2026
ML90100	Ernest Henry Mining Pty Ltd 100%	31/05/2026
ML90107	Ernest Henry Mining Pty Ltd 100%	31/08/2026
ML90116	Ernest Henry Mining Pty Ltd 100%	30/09/2026
ML90075	Ernest Henry Mining Pty Ltd 100%	30/11/2025

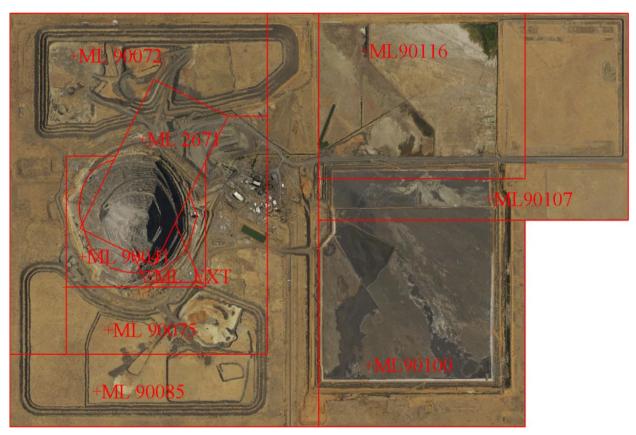


Figure 6. Plan view of the Ernest Henry site an overlay of mining lease boundaries

# 1.2.6 Infrastructure

The surface infrastructure required to support mining of the reported Ore Reserve is in place. This includes items such as sealed roads for site access, utilities, processing plant, tailings storage facility (TSF), offices, workshops and stores. Major underground infrastructure required to extract the Ernest Henry (Base) Ore Reserve is in place, with mine construction having been completed in 2014.

For the Ernest Henry (Extension) Ore Reserve to be extracted, additional major infrastructure will be required. This includes but is not limited to upgrades for the ventilation and dewatering systems, primary access (decline),



emergency egress, workshops, stores, extended materials handling system, electrical and communication systems. Surface works including Tailing Storage Facility (TSF) raises will also be required as part of the mine life extension and have been demonstrated as technically feasible through the PFS. Infrastructure required to facilitate extraction of the Mine Extension has been designed and costed as part of the PFS.

Access to the underground mine is via an in-pit portal and decline, with additional means of egress via a ladderway system and the hoisting shaft.

## 1.2.7 Costs

Estimates for major capital items that facilitate extraction of the Ore Reserve have been informed by supplier quotes where available, industry benchmarks and previous site experience with similar projects. An appropriate contingency for capital requirements associated with the Mine Extension has been utilised in the financial evaluation.

Sustaining capital is forecast annually as part of the Budget and Life of Mine (LOM) planning cycle, reflecting actual performance and the mine schedule. As the basis of the Mine Extension is a continuation of the current mining method, these costs are well understood.

Operating costs are calculated using a first principles approach and reconciled with actual costs on a monthly basis and as part of annual financial reviews. The availability of reliable historic data for the site provides a robust basis for estimating the operating costs. Suitable allowances have been made for additional costs incurred as the production front moves deeper.

Transport, treatment, refining and royalty charges are included in financial models and are based on smelting at Glencore's facilities in Mount Isa. A long-term sales contract is in place between Evolution and Glencore, supporting the applied cost assumptions.

#### 1.2.8 Revenue

Net Smelter Return for the reported Ore Reserve has been derived using the site concentrate sales model. The model accounts for concentrate specification, transport cost, royalty payment, treatment and refining charges. Queensland Government Royalty payments of 4 % for copper (inclusive of 20 % discount for smelting in Queensland) and 5 % for gold and silver are included in revenue calculations.

A range of commodity price assumptions have been used to generate revenue for the Ore Reserve estimate, as detailed by Table 6. Evolution applies these pricing assumptions for Life of Mine (LOM) planning, guided by historical prices and consensus broker forecasts. The prices are assumed to be constant for the duration of mine plan associated with the Ore Reserve estimate.

	Low	High
Copper (A\$/t)	7,000	12,000
Gold (A\$/oz)	1,600	2,400
Silver (A\$/oz)	20.00	27.50
AUD:USD Exchange Rate	0.75	0.75

Table 6. Range of applied commodity price assumptions

#### 1.2.9 Economic

Ernest Henry has produced at consistent rates for several years, allowing cost and revenue to be well understood. The mine plan from which the Ore Reserve is derived, including cut-off grade selection, is tailored to maximise Net Present Value (NPV) using Evolution's LOM pricing assumptions.

The Ore Reserve has been assessed using a financial model, with sensitivity to internal and external factors being included in the evaluation. The assessment process has demonstrated that extraction of the reported Ore Reserve can be reasonably justified.

A discount rate of 7.8 % has been used in the economic evaluation process.



#### 1.2.10 Classification

The Mineral Resource is converted to Ore Reserve using the method depicted in Figure 7. This conversion process requires material within Domain 7 (0.7 % copper grade shell) and Domain 1 (0.1 % copper grade shell) to be classified according to geological confidence and provides a basis for the extracted metal to be appropriately classified and converted to Ore Reserve.

The Ore Reserve estimate includes all planned tonnes, reflecting the limited selectivity of SLC mining and the Ernest Henry materials handling system. The metal included in the Ore Reserve estimate is derived from Measured and Indicated resource classes only.

Consideration of mining factors has also been made. Based on the consistency of mine to mill reconciliation and proven operational performance, there is sufficient confidence to convert Measured Resource to Proved Reserve. Though there are additional mining considerations specific to the Ernest Henry (Extension), these do not materially impact the likelihood of recovering the Measured Resource associated with that portion of the Ore Reserve estimate.

This methodology is deemed by the Competent Person to be an appropriate way of accounting for both geological confidence and the mining method.

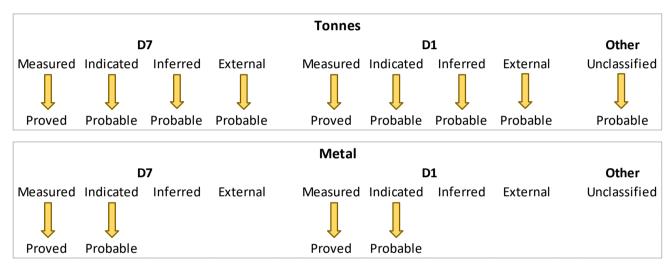


Figure 7. Flow diagram illustrating the conversion of tonnes and contained metal from Mineral Resource to Ore Reserve.

# 1.2.11 Audits or reviews

Internal peer review of the mine planning process that supports the Ore Reserve estimate is conducted each year by personnel within the site technical and leadership teams. The review forms part of the LOM, Budget and Mineral Resource and Ore Reserve (MROR) planning cycles. Typical inclusions are the validation of key productivity assumptions, mine design, flow model, mine schedule, financial inputs and outcomes. In addition to the site-based review process, the Ore Reserve estimate has been reviewed internally by the Evolution Transformation and Effectiveness (T&E) team. T&E are an oversight group within Evolution that is independent of both the site and study teams.

The PFS has been conducted by a multidisciplinary team of external parties with appropriate experience in the relevant areas. In conjunction with a staged review of the study by Evolution personnel, the Ernest Henry (Extension) Ore Reserve estimate has received input from a broad and appropriate audience.

External reviews are completed periodically to validate mine planning processes and ensure technical risks are managed appropriately. As the mine planning process has remained largely stable over time, reviews of this nature are typically conducted only when a notable change occurs. Most recently, SRK Consultants completed a site visit and high-level review of the MROR processes in February 2020. An in-depth external audit of the



Mineral Resource and Ore Reserve will be conducted by an independent consulting firm in the third quarter of 2023.

#### 1.2.12 Discussion of relative accuracy / confidence

Both mine and mill processes are well proven, having greater than ten and twenty years of experience respectively. With continued use of the same methods there is high confidence in being able to extract and process the stated Ore Reserve.

The accuracy of the Ore Reserve estimate is largely dependent on the accuracy of key inputs, the Mineral Resource and cave flow model. These inputs are reviewed independently and then validated together through the flow model calibration process. Flow model calibration is conducted by site at six-month intervals and also as part of the PFS. The calibration is based upon more than ten years of reconciled mine and mill data. To date, forecast metal outputs for the mine have been within 5 % of the reconciled metal output on an annual basis.



# APPENDIX A: JORC CODE 2012 ASSESMENT AND REPORTING CRITERIA

The following information is provided in accordance with Table 1 of Appendix 5A of the JORC Code 2012 - Section 1 (Sampling Techniques and Data), Section 2 (Reporting of Exploration Results), Section 3 (Estimation and Reporting of Mineral Resources) and Section 4 (Estimation and Reporting of Ore Reserves).

# Ernest Henry Mineral Resource and Ore Reserve Estimate JORC Code 2012 Edition – Table 1

# Section 1: Ernest Henry Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

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	<ul> <li>Diamond core drill holes are the primary source of geological and grade information for the resource at Ernest Henry Mine. Drilling has been completed between 1980 and 2022. A total of 1,169 holes were extracted from the acQuire database of which 836 drill holes containing Cu assays and 835 holes containing Au assays were used in the Mineral Resource estimate.</li> <li>Reverse circulation (RC) drilling was completed to base of oxidation with some holes hosting diamond tails.</li> <li>The diamond core is routinely sampled to geological contacts and predominantly 2m intervals from ½ core over the entire length of the drill hole, producing approximately 5kg samples. Holes drilled from the surface and underground are oriented perpendicular to orebody mineralisation where possible.</li> <li>UG channel samples taken from chip sampling of development drives at 2m intervals are also used to help define mineralogical domains. Whilst they are not used directly in estimation, chip samples typically yield 4kg – 5kg masses.</li> <li>Samples undergo further preparation and analysis by ALS laboratories (Townsville and Brisbane), involving crushing to 2mm, riffle splitting and pulverising to 85% passing 75 microns. Of this material a 0.4g sample is prepared for analysis via aqua regia digestion and 50g for analysis via fire assay.</li> </ul>	
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).	<ul> <li>Drill types utilised in grade estimation are diamond core including HQ, NQ2 &amp; NQ sizes yielding core diameters of 63.5mm, 50.6mm &amp; 47.6mm respectively. Drill core is collected with a 3m barrel and standard tubing.</li> <li>Only selected drill holes have been oriented using an ezi mark orientation system for structural and geotechnical requirements.</li> </ul>	
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.  Measures taken to maximise sample recovery and ensure	<ul> <li>Current practice ensures all diamond core intervals are measured and recorded for rock quality designation (RQD) and core loss.</li> <li>Core recovery through the ore portion of the deposit is high (&gt;99.5%).</li> </ul>	



Criteria	JORC Code Explanation	Commentary	
	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.	No bias is observed due to core loss.	
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.	<ul> <li>All diamond core has been logged, geologically and geotechnically. The geologic geotechnical records are considered qualitative and quantitative with the followitems being captured</li> <li>Lithology</li> <li>Texture</li> <li>Alteration</li> <li>Mineralisation</li> <li>Structures – including veining &amp; faults</li> <li>Weathering</li> <li>RQD</li> <li>Photography of diamond core has captured approximately 60% of the data</li> </ul>	owing
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 in situ 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	<ul> <li>Drill core is cut in half to produce an approximate 5kg sample using an automatic saw, with one half submitted for assay, and the other half retained on site. Where is oriented, it is cut on the core orientation line.</li> <li>Diamond core and channel samples are predominantly sampled to geold contacts and at 2m intervals. Samples are sent to ALS Townsville for crushing pulverisation. Samples are crushed to 2mm, split via a riffle or rotary splitter and pulverised using an LM5 mill to a nominal 85% passing 75 microns. A 0.4g sample of pulverised material is taken for ICP analysis via aqua regia digestion 50g sub-sample is taken for analysis via fire assay. The remaining pulverised sais returned to site and stored for future reference.</li> <li>Samples submitted to OSLS are crushed to 90% passing 2 mm, rotary split to 6 (if required) and pulverised using an LM5 mill to 90% passing 75 microns. A 0.5g sample is taken for base metal analysis via aqua regia digestion and determine ICP. A 25g sub-sample is taken for analysis via fire assay.</li> <li>Sub-sampling is performed during the sample preparation stage in line with internal protocol.</li> <li>Field duplicates are collected for all diamond core at a rate of one in every 15 sar and for channel sample at a rate of one in every 10 samples.</li> <li>Comparison of field duplicates is performed routinely to ensure a represent sample is being obtained and that the sample size captures an adequate sat volume to represent the grain size and inherent mineralogical variability within sampled material.</li> </ul>	c core c c c core c c c c c c c c c c c c c c c c c c c
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  For geophysical tools, spectrometers, handheld XRF	Samples are assayed at ALS Brisbane for a multi element suite using ME-ICP41 OG46 & MEOG46 methods, which analyses a 0.4g sample in aqua-regia dige with an ICP-AES finish. Gold analysis is completed at ALS Townsville by fire a on a 50g sample with an AA instrument finish. Gold analysis for samples from	estion assay



Criteria	JORC Code Explanation	Commentary
Verification of sampling and assaying	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.  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.	<ul> <li>drillhole was completed at OSLS Bendigo using a 25g sub-sample with an AA instrument finish. Analytical methods are deemed appropriate for this style of mineralisation.</li> <li>Historic quality control procedures include the use of six certified standards (CRMs) which cover the expected grade range of mineralisation encountered within the deposit. In addition field duplicates are inserted at 1:25 ratio for all sample batches sent to the ALS laboratory.</li> <li>The quality assurance program includes repeat and check assays from an independent third-party laboratory as deemed necessary.</li> <li>There have been no blanks used on the diamond core historic data set. The ALS laboratory provides their own quality control data, which includes laboratory standards and duplicates.</li> <li>EHO currently uses eight CRMs, pulverised and coarse blanks, field, crush and pulp duplicates to monitor sample preparation and analytical processes. The rate of insertion was 1:15 for CRMs, 1:15 for blanks within mineralised units and 1:30 in waste zones, Field duplicates were inserted at 1:15 while crush and pulp duplicates were at 1:25 samples.</li> <li>Analysis of quality control sample assays indicate the accuracy and precision is within acceptable limits and suitable for inclusion in the underground resource estimate.</li> <li>All diamond drill holes are logged remotely on a laptop utilising AcQuire software and stored digitally in an AcQuire database on a network server.</li> <li>Drill holes are visually logged for copper content prior to sampling and assay. This visual assessment is used to verify assay data.</li> <li>The strong correlation between copper and gold enables additional quality control checks to be enacted on returned assays.</li> <li>Procedures have been developed to ensure a repeatable process is in place for transferring, maintaining &amp; storing all drilling, logging and sampling data on the network server, which has a live upload to a local device and daily back up to an offsite device.</li> <li>Follo</li></ul>
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.  Specification of the grid system used.  Quality and adequacy of topographic control.	<ul> <li>assay data. All files are reported digitally from ALS laboratories in CSV format, which are then imported directly into the Acquire database. Checks of the assay results in AcQuire and results returned from the laboratory are performed at the completion of each drilling &amp; sampling campaign. Laboratory certificates for returned assays are stored for future reference and checks against values contained within the AcQuire database.</li> <li>Collar coordinates are picked up by EHO site surveyors using a Leica total station survey instrument. All underground excavations are monitored using the same instrument.</li> <li>The topography was generated from a LIDAR survey completed over EHM mining leases in 2018 with outputs in GDA94 coordinate system.</li> </ul>



Criteria	JORC Code Explanation	Commentary
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.	<ul> <li>A variety of downhole survey methods have been utilised in the underground resource, however 93% of the diamond drill holes have been surveyed using a gyroscopic instrument recording down hole survey data in 3m intervals.</li> <li>All data points are reported in MGA94 zone 54.</li> <li>Drill holes are variably spaced with the following broad resource classifications applied:         <ul> <li>Between 30m x 30m and 40m x 40m for Measured</li> <li>60m x 60m for Indicated</li> <li>100m x 100m Inferred.</li> </ul> </li> <li>This drill hole spacing is considered sufficient given the deposit grade and geological continuity and Mineral Resource classification definitions as outlined in the 2012 JORC Code, which is also supported by historic reconciliation data from the mill.</li> <li>Samples are weighted by length and density when composited to 2m in length for use in the estimation.</li> </ul>
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.	<ul> <li>Holes drilled from the surface and underground are oriented perpendicular to orebody mineralisation and orebody bounding shear zones wherever possible. UG channel samples are oriented along the strike of orebody mineralisation and are conducted on a lateral 25m spacing, in line with sub-level mine excavations.</li> <li>There has been no orientation bias recognised within the data used for the underground Resource estimate.</li> </ul>
Sample security	The measures taken to ensure sample security	<ul> <li>Diamond core samples are securely stored onsite prior to being despatched to the ALS laboratory in Townsville.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	An external audit was conducted in 2014 on the data management & QAQC procedures including drilling & sampling. These were found to be in line with industry standards. CSA Global completed a fatal flaw analysis of the Ernest Henry Mineral Resource estimate in July 2021 and only minor areas of improvement were identified.

# **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 EHO is located 38km north-east of Cloncurry, 150km east of Mount Isa and 750km west of Townsville, in north-west Queensland, Australia. The EHM operations extend across 8 current mining leases all owned by Ernest Henry Mining Pty Ltd, the details of these leases are summarized in the following table:



Criteria	JORC Code Explanation		Commentary	
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate	Lease	Ownership	Expiry
	in the area.	ML2671	Ernest Henry Mining Pty Ltd 100%	30/11/25
		ML90041	Ernest Henry Mining Pty Ltd 100%	30/11/2037
		ML90072	Ernest Henry Mining Pty Ltd 100%	30/11/2025
		ML90085	Ernest Henry Mining Pty Ltd 100%	31/03/26
		ML90100	Ernest Henry Mining Pty Ltd 100%	31/5/2026
		ML90107	Ernest Henry Mining Pty Ltd 100%	31/08/2026
		ML90116	Ernest Henry Mining Pty Ltd 100%	30/09/2026
		ML90075	Ernest Henry Mining Pty Ltd 100%	30/11/2025
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The size all following so and mill. Ir extension undergroun Data used completed:	prebody was discovered by Western Mining Connected and potential of the discovery became obvious to a fiter, leading to a Feasibility Study and subsern 2006 a deep drilling campaign was initiated of the deposit ultimately leading to the devoted mining project.  In the current estimate is a compilation of sever since the early 1990s. This data has been asses 1' and deemed suitable for use as the basis	with further drill definition equently the open pit mine to explore the down dip elopment of the current eral phases of exploration sed for quality as outlined
Geology	Deposit type, geological setting and style of mineralisation.	sequence intermediat occurs as of 300 m pipe South and it orebody state level into the waste zone	t Henry Deposit is an Iron Oxide Copper Gold of moderately SSE-dipping, intensely a see metavolcanic and metasedimentary rocks of chalcopyrite within the magnetite-biotite-calcite-plike breccia body. The breccia pipe dips approx s bounded on both the footwall and hanging wall earts to split from the 1575 level into a South-East south-West lens. Both lenses are separated fes, termed the Inter-lens and South-West Sheatopen at depth.	oltered Paleoproterozoic the Mt Isa group. Copper by the matrix of a 250 m x imately 40 degrees to the by shear zones. The main at lens, and from the 1275 from the main orebody by



Criteria	JORC Code Explanation		Commentary
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	•	No exploration has been reported in this release, therefore no drill hole information to report. This section is not relevant to this report on Mineral Resources and Ore Reserves
Data aggregation methods	detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 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.		No exploration has been reported in this release, therefore no drill hole information to report. This section is not relevant to this report on Mineral Resources and Ore Reserves
Relationship between mineralisation widths and intercept lengths	The assumptions used for any reporting of metal equivalent values should be clearly stated.  These relationships are particularly important in the reporting of Exploration Results.  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		No exploration has been reported in this release, therefore no drill hole information to report. This section is not relevant to this report on Mineral Resources and Ore Reserves
Diagrams	length, true width not known').  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		No exploration has been reported in this release, therefore no drill hole information to report. This section is not relevant to this report on Mineral Resources and Ore Reserves
Balanced reporting  Other substantive exploration data	No exploration has been reported in this release, therefore no drill hole information to report. This section is not relevant to this report on Mineral Resources and Ore Reserves No exploration has been reported in this release, therefore no drill hole information to report. This section is not relevant to this report on Mineral Resources and Ore Reserves		No exploration has been reported in this release, therefore no drill hole information to report. This section is not relevant to this report on Mineral Resources and Ore Reserves  No exploration has been reported in this release, therefore no drill hole information to report. This section is not relevant to this report on Mineral Resources and Ore Reserves



Criteria	JORC Code Explanation		Commentary
Further work	Ernest Henry has significant potential to extend the resource at depth. An underground drilling program is in progress to assist in defining this potential.	•	The Ernest Henry deposit has significant potential to extend the resource at depth. An underground drilling program is planned to assist in defining this potential.



# **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.		All drill hole data is securely stored and backed up daily in an AcQuire database on a single server located on site at EHO. Assay data is quality controlled upon receipt and imported directly into the database via import templates. User access to the database is controlled by a hierarchy of permissions as defined by the database administrator.
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.		The Competent Person has reviewed and observed data collection, sampling and geological modelling practices and associated procedures on site which could impact the Mineral Resource estimation process. It is the Competent Persons opinion that the collection, quality and interpretation of data on site is completed to an appropriate standard for use in Mineral Resource estimation and reporting.
Geological interpretation	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 distribution of copper and gold at Ernest Henry is directly proportional to the degree of brecciation occurring, with chalcopyrite, magnetite and associated gold occupying the matrix within the breccia. Deformation porosity is therefore considered the primary control on the mineralisation. The domains used to constrain mineralisation for estimation are largely grade driven, constructed using Seequent's Leapfrog implicit modelling software. Statistically there are two grade populations existing within the deposit; a high-grade core domain above 0.9% Cu and a surrounding lower grade halo (>0.1% Cu) domain sharply in places and gradual in other areas. Where the grade transition is gradual, a 0.7% Cu domain has been developed. Contact analyses of each element between mineralised and unmineralised domains has been completed with results indicating a hard boundary estimation approach is most appropriate between the interpreted domains. Six high grade gold domains were developed internal to the 0.7% Cu domain. These gold domains were developed taking into account geological logging and using a nominal lower grade threshold of 1.0 g/t Au. The lower grade threshold was selected based on observations of Au assays downhole and the inflection point on the log-probability plot of Au, which indicates the grade at which a higher-grade population exists within the total Au distribution.
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.		Looking east to west, the Ernest Henry deposit extends 1800m along strike (north-south) and 1700m below the surface. The width of mineralisation varies as the deposit becomes elongated below 1300mRL. Above 1300mRL, mineralisation is approximately 340m wide (east to west) and approximately 250m wide below 1300mRL. The deposit dips at 40 degrees to the south, extending from 60m under a sedimentary blanket to beyond 1700m in depth. Below 1575mRL a secondary lens is partitioned to the southeast appearing to be strongly influenced by the shearing. The current EHO resource estimate reports blocks below 1705mRL that form a contiguous mineable entity within the 0.7 % Cu grade shell.



Criteria JORC Code Explanation Commenta

# 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 data if available

- Grade estimations for copper (Cu), gold (Au), silver (Ag), arsenic (As), cobalt (Co), iron (Fe), molybdenum (Mo), nickel (Ni), sulphur (S), uranium (U) and density were completed using ordinary kriging in Datamine Studio RM software. Block dimensions (XYZ =10x10x10) used are reflective of the selective mining unit and the geometry of the mineralisation. Sub-cells of 2mE by 2mN by 2mRL were used to accurately reflect domain volumes. Samples were composited to 2m in length within five Cu domains and six Au domains. No top cuts were applied to density or any of the other elements within the mineralised domains. Top cuts to Au and Cu were applied to the lower grade (Domain 1) and surrounding waste domain (Domain 0) to minimise grade smearing during estimation.
- A multi-pass search strategy using dynamic anisotropy was utilised to adjust the search ellipse when estimating grades. True dip and dip direction was estimated into each block using the structural trend surfaces developed during domain generation. A high confidence, 1st search pass used a minimum of 12 samples and maximum of 32 samples with a minimum number of 3 octants required. The range of the search ellipse was set at approximately one quarter of the range of the modelled Cu variogram. The search neighbourhood criteria were selected based on test estimates using differing versions of search criteria and supported by kriging neighbourhood analysis.
- Most blocks have been estimated in the first estimation pass (~86% of blocks), which used a 210m search. A second, lower confidence estimation pass, which used a 420m search (approximately half the variogram range of Cu and Au) was used to incorporate samples further from the block being estimated.
- Copper and gold mineralisation are intimately associated throughout the deposit with a Cu to Au ratio of 2:1 common throughout the deposit. This ratio changes notably in the Au domains where an increase in gold mineralisation is present and the Au to Cu ratio is ≥ 1.
- Deleterious elements occurring in the deposit include arsenic and uranium. Both are in low abundance and do not present an issue at the mill or in the concentrate. Sulfur is estimated into the model and can be used to characterise waste rock. All production from underground however is considered acid forming and is treated as such. All other deleterious elements fall well below penalty thresholds.
- Validation tools employed to scrutinize the model include:
  - Statistical summary of block values to check outlying values and confirm all blocks were estimated.
  - Statistical comparisons between mean estimated grades and mean composited grades for each domain are within ±5%.
  - Swath plots of mean estimated grades against mean composite grades within 20 m wide easting, northing and elevation slices shows composite grade trends have been closely replicated in the model.
  - Visual comparison in section between block grades and composite grades indicate
    the estimated grades closely reflect the surrounding composite grades and grade
    smearing has been controlled.



Criteria	JORC Code Explanation	Commentary
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture	<ul> <li>Visual comparison of estimated Cu and Au between the June 2022 and December 2022 models shows trends are consistently replicated.</li> <li>Mine to mill reconciliation data gathered over the past 10 years indicates the estimate to be accurate +/- 5%.</li> <li>Tonnage estimates for the purpose of estimating in-situ ore resources are determined based on dry bulk density.</li> </ul>
Cut-off parameters	content. The basis of the adopted cut-off grade(s) or quality parameters applied.	The resource cut-off at EHO since 2018 has used a \$50 Net Smelter Return (NSR), which roughly aligned with the 0.7% Cu wireframe. The sub-level caving mining method precludes the ability to selectively mine blocks below a given cut-off grade. Consequently, the Mineral Resource has been reported within the interpreted 0.7% Cu grade shell without using a cut-off grade. Approximately 0.1% of reported tonnes are below 0.7% Cu. This material is considered by the Competent Person (CP) to meet reasonable prospects for eventual economic extraction, considering the proposed mining technique and historical metallurgical recoveries.
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 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.	The Ernest Henry deposit lends itself to a low-cost high production mass mining technique such as sub level caving. It is anticipated the successful extraction of the deposit as demonstrated through the underground mine since 2012 using the sub level caving technique will continue.  Depletion and sterilization due to mining is estimated using a Power Geotechnical Cellular Automata (PGCA) flow model. The flow model estimates the relative proportions of resource category reporting to draw points for extraction with production actual tonnes and grade to September 2022 used for calibration of the model
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.	The ore at Ernest Henry has been successfully milled since the open cut started in 1997. Historical mill recoveries for copper and gold in the primary sulfide ore are approximately 95% and 83% respectively.  Metallurgical test work has been completed as part of the current PFS. Whilst the results indicate minimal change in metallurgical assumptions, the metallurgical tests have highlighted a minor increase in ore hardness for material within the PFS area.
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	All the relevant environmental licenses are in place for the current mining operation, including tails storage facility capacity for all reserves. A number of the mining leases will require renewal to extract all of the Ore Reserve.



Criteria	JORC Code Explanation	Commentary
Bulk density	should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.  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 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.	<ul> <li>An extensive database of Dry Bulk Density measurements has been collected since deposit discovery using the Archimedes water displacement principal on core samples every 20m downhole. These measurements are used in conjunction with an elemental assay analysis to generate a stoichiometric regression formula that is applied to every sample. Dry bulk density is then estimated into the block model using ordinary kriging.</li> <li>Samples are dried in an oven prior to density measurements.</li> <li>There are very few open voids in the EHO orebody and the crystal structure of the rock exhibits minimal porosity. These factors are considered to have little influence on the estimated global density.</li> <li>The variability of density across the width of mineralisation is low.</li> </ul>
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	<ul> <li>The EHO Mineral Resource (including material in the 0.1% Cu grade shell) has been classified using the following general criteria:</li> <li>Measured: Drill data used for estimation not exceeding 30m-40m spacing and including full drill coverage on adjacent sections to the north and south. Estimated with a full compliment of composites selected in the kriging process (32).</li> <li>Indicated: Drill data used for estimation between 40m-60m, estimated with a full complement of composites selected in the kriging process (32).</li> <li>Inferred: Drill data used for estimation between 60m-100m</li> <li>Other general conditions taken into consideration in the classification are as follows;</li> <li>Kriging Efficiency (KE);</li> <li>Continuity of grades between drill holes;</li> <li>Confidence in the geological interpretation of structures and interpretation of mineralisation boundary;</li> <li>The mining cut-off at EHO since 2018 has used a \$50 Net Smelter Return (NSR), which roughly aligned with the 0.7% Cu wireframe. Blocks outside this wireframe are considered "External" for the purposes of the flow model. The Mineral Resource is depleted through the flow modelling process, utilising PGCA software.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>Resource estimates have been reviewed several times since the 2011 underground feasibility study by external geostatistical consultants. The most recent review of the Mineral resource estimate was completed by CSA Global in July 2021.</li> <li>Each review has endorsed the estimate while also recommending minor potential improvements for the next estimate.</li> <li>The 31 December 2022 Mineral Resource has been internally peer reviewed by Evolution's Transformation &amp; Effectiveness (T&amp;E) team who undertake technical reviews and manage corporate governance activities.</li> </ul>
Discussion of relative	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	The Mineral Resource accuracy is communicated through the classification assigned to this Mineral Resource.



Criteria	JORC Code Explanation	Commentary
accuracy/ confidence	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 Mineral Resource estimate has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table. Reconciliation data from Mine to Mill since the beginning of the underground operation has ultimately validated the global accuracy of the resource estimate with total received metal within +/-5%.  The nature of a caving operation means there is a lag between reserves and ore delivered to the mill over short time frames reflecting the challenges of accurately predicting flow within a cave.  Mine production for the life of mine is estimated using Power Geotechnical Cellular automata (PGCA) flow modelling software. The 2022 resource model appears to enable a satisfactory correlation with historical reconciled production data when calibrations are applied to the flow model.



# **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)

Criteria	JORC Code Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to .</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.an Ore Reserve.</li> </ul>	<ul> <li>A detailed description of the Mineral Resource estimate is provided in Sections 1 - 3 of this Table.</li> <li>Mineral Resources at Ernest Henry are reported within Domain 7 (0.7% copper).</li> <li>Recovered production ore, including dilution, is forecast using Power Geotechnical Cellular Automata (PGCA) software. This software simulates cave flow and ore recovery based on the current block model, mine design, Life of Mine (LOM) schedule and model input parameters. The model is calibrated using mine to mill reconciliation data and recovery of markers installed in the cave.</li> <li>The block model is discretised into 1.25 m³ particles within the PGCA model. Each block retains the attributes of the respective parent block, including density, grade and resource classification. These blocks flow within the cave model based on stochastic rules developed from large scale recovery studies conducted in similar SLC operations. The model calculates ore recovery based on the simulated mine schedule and planned production draw strategy. The recovered tonnes, grade and resource classification is calculated by the proportion (of tonnes and metal) of each resource category reporting to the individual rings. This method enables Ore Reserves to be estimated using the Mineral Resource classification, accounting for ore recovery and dilution.</li> <li>Reported Mineral Resources are inclusive of the Ore Reserve</li> </ul>
Site Visits	<ul> <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>	The Competent Person is a full-time employee of Evolution and conducts regular site visits to the Ernest Henry Operation.
Study Status  Cut-off parameters	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> <li>The basis of the cut-off grade(s) or quality parameters applied</li> </ul>	<ul> <li>The Ernest Henry (Base) Ore Reserve estimate is supported by Pre-feasibility (2006) and Feasibility (2008) studies. The mine also has a decade of proven production performance upon which the Ore Reserve estimate assumptions are based.</li> <li>The Ernest Henry (Extension) Ore Reserve estimate is supported by a Pre-feasibility Study (2023).</li> <li>A detailed mine design and schedule exists for the planned Life of Mine (LOM), which includes both the Base and Extension components of the mine. This plan has been assessed and is economically viable.</li> <li>A 0.98 % grade factor has been applied to the production component of the Ernest Henry (Extension) Ore Reserve estimate.</li> <li>The design cut-off used to generate the sub-level cave (SLC) footprint relates to geological Domain 7, which defines the Mineral Resource. This 0.7 % Cu boundary typically equates to 0.85 – 0.95 % CuEq, dependent upon copper:gold ratio and economic assumptions.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul> <li>Where Domain 7 is less continuous, the footprint must deviate slightly from the 0.70 % Cu boundary to ensure a footprint amenable to caving is maintained. This requirement becomes more apparent at depth, leading to use of a 0.70 % CuEq for definition of the Extension level footprints (1100 – 0750).</li> <li>The economic shut-off grade applied in the cave flow model is 0.75 % CuEq for the Base component and 0.50 % CuEq for the Extension component. These values have been selected following assessment of multiple scenarios and validated through an economic evaluation process.</li> <li>The Mineral Resource has been converted to Ore Reserve through detailed design (Base) and preliminary design (Extension).</li> <li>Pre-feasibility (2006) and Feasibility (2008) studies demonstrated that sub-level caving is the most appropriate mining method for the Ernest Henry underground operation. This method is well suited to the orebody geometry, grade and rock mass properties. Recent Concept (2021) and Pre-feasibility (2023) studies for the Mine Extension indicate that continuation of the sub-level cave is the most appropriate option for production below the existing mine.</li> <li>Geotechnical engineering assessments have shown that the rock mass is amenable to caving where an appropriate footprint, sequence and draw strategy are implemented. Numerical modelling forecasts are reflected by cave propagation to date, with a strong correlation to the observed surface expression and data from the seismic monitoring system. As the mine progresses into the Extension area, geometry of the extraction footprint and draw strategy will require further optimisation to ensure a suitable rate of cave progression continues. This will be a focus of the Feasibility Study (FS).</li> <li>The mine design incorporates 25 m sub-level spacing, 15 m drive spacing (centre to centre), 6 m wide cross cuts and a standard 8-hole ring pattern with 2.6 m burden. These design parameters are in line with benchmarked operations and have proven to be ef</li></ul>



Criteria	JORC Code Explanation	Commentary
Metallurgical factors o	mineralisation.	<ul> <li>of markers installed inside the cave and calibration of the flow model against reconciled actuals.</li> <li>Sub-level caving is a bulk mining method with limited selectivity, where dilution must be accepted in order to recover blasted ore. Dilution from production activities is quantified through cave flow modelling and is included in the reported Ore Reserve along with supporting economic evaluations.</li> <li>Due to the non-selective nature of sub-level caving, Inferred and Unclassified tonnes are included in the Ore Reserve estimate. Metal associated with the Inferred, External and Unclassified tonnes is excluded from the Ore Reserve estimate.</li> <li>All major infrastructure supporting the Ernest Henry (Base) Ore Reserve estimate has been constructed, including the underground crushing and conveying system, hoisting shaft, pumping and ventilation systems. These systems will need to be expanded to facilitate extraction of the Ernest Henry (Extension) Ore Reserve.</li> <li>Access to the underground mine is via an in-pit portal and decline, with additional means of egress via a ladderway system and the hoisting shaft.</li> </ul>
	<ul> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has</li> </ul>	<ul> <li>Comminution is achieved using an underground gyratory crusher followed by SAG and Ball mills in the processing plant. Copper and gold are recovered using a proven floatation circuit. Recovered gold is contained within the copper concentrate.</li> <li>The metallurgical process utilises well tested technology and has been conducted onsite for approximately 20 years with consistent results.</li> <li>Uranium and fluorine contained within the concentrate is below deleterious limits. No other impurities have been experienced in deleterious quantities. This is expected to be the case for the stated Ore Reserve based on the drilling and sampling conducted to date, including a campaign targeting the Extension area.</li> <li>Bulk sampling is conducted on a routine basis to confirm plant performance.</li> <li>Not applicable as minerals are not defined by a specification.</li> </ul>
Environmental factors o assumptions	the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?  The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	<ul> <li>Environmental studies regarding flora and fauna, hydrogeological conditions, waste rock characterisation and cultural heritage have been carried out for the mine.</li> <li>An Environmental Authority (EA) has been granted by the regulator.</li> <li>In order to the extract the Ernest Henry (Extension) Ore Reserve, a Major Amendment to the existing Environmental Authority will be required. The necessary steps are being taken by Evolution Mining to ensure the amendment is granted in a time frame that does not impact the planned production profile.</li> </ul>



Criteria	JORC Code Explanation	Commentary
		<ul> <li>A key element of the Major Amendment to the EA relates to an increase in total height of the Tailings Storage Facility (TSF). The technical work to support the increase has been completed as part of the PFS, and this is the preferred option over changing the footprint or constructing a new TSF.</li> <li>The mine has an Environmental Management Plan to appropriately manage mine production, waste rock dump, tailings storage facilities and site clearing.</li> <li>Acid forming material is contained in approved storage facilities and controlled using a waste rock management plan.</li> </ul>
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	<ul> <li>All of the major infrastructure required to extract the Ernest Henry (Base) Ore Reserve is in place.</li> <li>For the Ernest Henry (Extension) Ore Reserve to be extracted, additional infrastructure will be required. This includes but is not limited to upgrades for the ventilation and dewatering systems, primary access, emergency egress, workshops, stores, extended materials handling system, electrical and communication systems. Surface works including Tailings Storage Facility (TSF) raises will also be required as part of the mine life extension and have been demonstrated as technically feasible through the PFS. Infrastructure required to facilitate extraction of the Mine Extension has been designed and costed as part of the PFS.</li> <li>Access to the utilities that support mining activities has been secured.</li> <li>Ernest Henry owns and operates a mining camp to house the Fly-in Fly-out (FIFO) contingent of the workforce. This facility will be expanded to accommodate the increased workforce required during the construction phase of the Mine Extension. The local workforce resides in the town of Cloncurry.</li> </ul>
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<ul> <li>Estimates for major capital items that facilitate extraction of the Ore Reserve have been informed by supplier quotes where available, industry benchmarks and previous site experience with similar projects. An appropriate contingency for capital requirements associated with the Mine Extension has been utilised in the financial evaluation.</li> <li>Sustaining capital is forecast annually as part of the Budget and Life of Mine (LOM) planning cycle, reflecting actual performance and the mine schedule. As the basis of the Mine Extension is a continuation of the current mining method, these costs are well understood.</li> <li>Operating costs are calculated using a first principles approach and reconciled with actual costs on a monthly basis and as part of annual financial reviews. The availability of reliable historic data for the site provides a robust basis for estimating the operating costs. Suitable allowances have been made for additional costs incurred as the production front moves deeper.</li> <li>No impurities are expected to occur in deleterious quantities. The concentrate sales model does account for penalties should any be incurred.</li> <li>The exchange rate for long term financial assessment is based on Evolution corporate assumptions (AUD:USD of 0.75).</li> </ul>



Criteria	JORC Code Explanation		C	ommentary		
<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>		is tra Trea of sn Roya copp mode The Rese estin grad comp Tran inclu	<ul> <li>Transport costs are based on the site concentrate sales model and assumis transported by road to Mount Isa.</li> <li>Treatment and refining charges are included in financial models with a base of smelting in Mt Isa and refining in Townsville at Glencore facilities.</li> <li>Royalty payments of 4% (inclusive of 20 % discount for smelting in Q copper and 5% for gold and silver to the Queensland government are inclusioned.</li> <li>The projected head grade is an extract of the mine schedule, reflecting the Reserve inventory. The head grade used to generate revenue for the estimate includes all extracted tonnes but Measured and Indicated metal grade factor has been applied to the flow model output that informs component of the Ernest Henry (Extension) Ore Reserve estimate.</li> <li>Transport and treatment charges are based on the site concentrate satincluded in financial evaluations.</li> <li>The range of commodity price assumptions used in the Ore Reserve estimbelow:</li> </ul>			
				Low	High	
		Copper (A\$/t)	7,000	12,000		
			Gold (A\$/oz)	1,600	2,400	
			Silver (A\$/oz)	20.00	27.50	
			AUD:USD	0.75	0.75	
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	= Copp = Supp Rese = Copp long	per and gold products are sold by and demand of copper and erve at Ernest Henry. Der and gold volumes are fored term price forecasts. Applicable as Ernest Henry do	ralue is insignificant.  I to Glencore through a gold is not a constraint cast over the life of mine	l long-term offtake agree used in the estimate of t and included in the com	ement. the Ore



Criteria	JORC Code Explanation	Commentary		
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	described. outcomes The Ore R and extern	nue and NPV are calculated using reconciled cos With ten years of comparable production the confiden is high.  eserve has been evaluated using a financial model, val factors being included in the evaluation.  rate of 7.8 % has been applied in the financial model	ce for forecast economic vith sensitivity to internal
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	<ul><li>The Major Henry Min community</li></ul>	access agreement are in place with neighboring landh Amendment to the existing EA will require commuring Pty Ltd actively maintains good relations with state. There is currently no indication that ongoing communication that ongoing communications are supplied to the communication of the	nity engagement. Ernest akeholders and the local
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent</li> </ul>	<ul> <li>Cyclones and high rainfall events present a risk to short term production targets and are managed through site risk mitigation processes. These events have not been included in the estimation of the Ore Reserves.</li> <li>Long term sales agreement with Glencore is in place.</li> <li>Mining operations at the site have been conducted for 20 years under existing approvals.</li> <li>In order to the extract the Ernest Henry (Extension) Ore Reserve a Major Amendment to the existing Environmental Authority will be required.</li> <li>The latest geotechnical modelling completed for the PFS indicates that mining of the lowest levels within the Ernest Henry (Base) Ore Reserve may result in a different surface expression than previously forecast. Steps are currently being taken to validate the model results, and a Minor Amendment to the existing EA will be sought, as required.</li> <li>The necessary steps are being taken by Evolution Mining to ensure that any amendments are granted in a time frame that does not impact the planned production profile.</li> <li>A number of the Ernest Henry Mining Pty Ltd leases will require renewal to facilitate extraction of the stated Ore Reserve. The necessary steps required to renew these leases are being undertaken by Evolution Mining.</li> </ul>		
		Lease	Ownership	Expiry
		ML2671	Ernest Henry Mining Pty Ltd 100%	30/11/25
		ML90041	Ernest Henry Mining Pty Ltd 100%	30/11/2037
		ML90072	Ernest Henry Mining Pty Ltd 100%	30/11/2025
		ML90085	Ernest Henry Mining Pty Ltd 100%	31/03/26
		ML90100	Ernest Henry Mining Pty Ltd 100%	31/5/2026
		ML90107	Ernest Henry Mining Pty Ltd 100%	31/08/2026
		ML90116	Ernest Henry Mining Pty Ltd 100%	30/09/2026



Criteria	JORC Code Explanation	Commentary		
		ML90075 Ernest Henry Mining Pty Ltd 100% 30/11/2025		
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul> <li>Measured Resources recovered through development and production activities are converted to Proved Reserve.</li> <li>Indicated Resources recovered through development and production activities are converted to Probable Reserve.</li> <li>Inferred Resource tonnes recovered through development and production activities are converted to Probable Reserve.</li> <li>Inferred Resource metal recovered through development and production activities are excluded from the Ore Reserve.</li> <li>External and Unclassified Resource tonnes recovered through development and production activities are converted to Probable Reserve.</li> <li>External and Unclassified Resource metal recovered through development and production activities are excluded from the Ore Reserve.</li> <li>The conversion process appropriately reflects selectivity of the mining method and confidence in the geological, geotechnical, metallurgical and mine planning processes.</li> <li>Consideration of mining factors has also been made. Based on the consistency of mine to mill reconciliation and proven operational performance, there is sufficient confidence to convert Measured Resource to Proved Reserve. Though there are additional mining considerations specific to the Ernest Henry (Extension), these do not materially impact the likelihood of recovering the Measured Resource associated with that portion of the Ore Reserve estimate</li> <li>The result of the process used to convert the Mineral Resource into the Ore Reserve is deemed appropriate by the Competent Person.</li> </ul>		
		Tonnes  D7  Measured Indicated Inferred External  Proved Probable Probable Probable  Proved Probable Probable Probable  Measured Indicated Inferred External  Proved Probable Probable Probable  Metal  D7  Measured Indicated Inferred External		
		Proved Probable Proved Probable		
Audits or reviews	<ul> <li>The results of any audits or reviews of Ore Reserve estimates</li> </ul>	• Internal review of the methodology used to produce the Ore Reserve estimate has been conducted routinely by site technical and leadership teams as part of the MROR and LOM planning cycles.		



Criteria	JORC Code Explanation	Commentary
Discussion of relative accuracy/confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>Evolution's Transformation &amp; Effectiveness (T&amp;E) team undertake an internal but independent review of the Mineral Resource and Ore Reserve prior to each release.</li> <li>The PFS has been conducted by a multidisciplinary team of external parties with appropriate experience in the relevant areas. In conjunction with a staged review of the study by Evolution personnel, the Ernest Henry (Extension) Ore Reserve estimate has received input from a broad and appropriate audience.</li> <li>External reviews are completed periodically to review the mine and ensure technical risks are managed appropriately. Feedback from these reviews has been positive to date.</li> <li>An in-depth external audit of the Mineral Resource and Ore Reserve will be conducted by an independent consulting firm in the third quarter of 2023.</li> <li>The December 2022 Mineral Resource model has undergone a detailed internal review to validate the inputs and technical approach. The model is further validated through the End of Month (EOM) reconciliation process, which shows a consistent alignment of forecast and actual metal content.</li> <li>Calibration of the flow model is conducted by site at six-month intervals and now includes more than ten years of reconciliation data. The modelled grade is consistently within 5 % of the reconciled metal output on an annual basis.</li> <li>The Mineral Resource to Ore Reserve conversion method, whereby only Measured and Indicated metal is included, is conservative with respect to the approach taken by some comparable caving operations.</li> <li>The mining and processing practices that have demonstrated reliable performance to date will be applied to the stated Ore Reserve, with comparable performance expected.</li> <li>All assumptions used in financial models are subject to internal review.</li> </ul>