

# Ernest Henry operation

A world class asset

[www.evolutionmining.com.au](http://www.evolutionmining.com.au)



**Location:** 38km north-east of Cloncurry, Queensland

**Producing:** Copper, gold and silver

**Management:** 100% Evolution from January 2022

**Site management:** Aaron Harrison - General Manager

**Mine Site contact number:** +61 7 4769 4500

**Located on the traditional lands of the Mitakoodi People**

- Large scale, long-life asset
- Well capitalised asset operated by a highly capable team
- Reliable operational delivery
- Exceptionally high margins and low capital intensity
- Pre-feasibility study underway below current reserves at 1,200mRL
- Targeting a +5 year mine life extension with increased copper exposure

Evolution acquired an economic interest in Ernest Henry in November 2016 for 100% of future gold and 30% of future copper and silver produced within an agreed life of mine area. Outside the life of mine area, Evolution's interest was a 49% interest in future copper, gold and silver production from Ernest Henry.

On 17 November 2021, Evolution announced the acquisition of 100% of Ernest Henry. Evolution's interest in Ernest Henry transitioned to 100% legal ownership of the underlying asset on 6 January 2022. The economic interest in Ernest Henry on a 100% basis transferred to Evolution on 1 January. The Transaction will increase Evolution's copper production, lower its All-in Sustaining Cost per ounce and cements its position as one of the lowest cost gold producers in the world.

## Key facts

- FY23F gold production<sup>2</sup>:  
**82,500oz +/-5%**
- FY23F Copper production<sup>2</sup>:  
**~55,000t**
- FY23F AISC<sup>1</sup>:  
**A\$(2,600)/oz +/-5%**
- **Mineral Resources**  
Gold: 2,071koz  
Copper: 1,129kt
- **Ore Reserves**  
Gold: 459koz  
Copper: 269kt
- **Mine Life:** 5+ years
- **Mining method:** underground, sub-level caving
- **Plant throughput:** 6.8Mtpa
- **Process method:** Conventional single-line processing circuit to produce a bulk copper-gold sulphide flotation concentrate
- **Mineralisation type:** Copper gold deposit – breccia pipe
- **Employees:** ~600. Mixture of residential, fly in fly out, drive in drive out

1. AISC is based on a gold price of A\$2,400/oz (royalties) and copper price of A\$12,500/t (by-product credits).

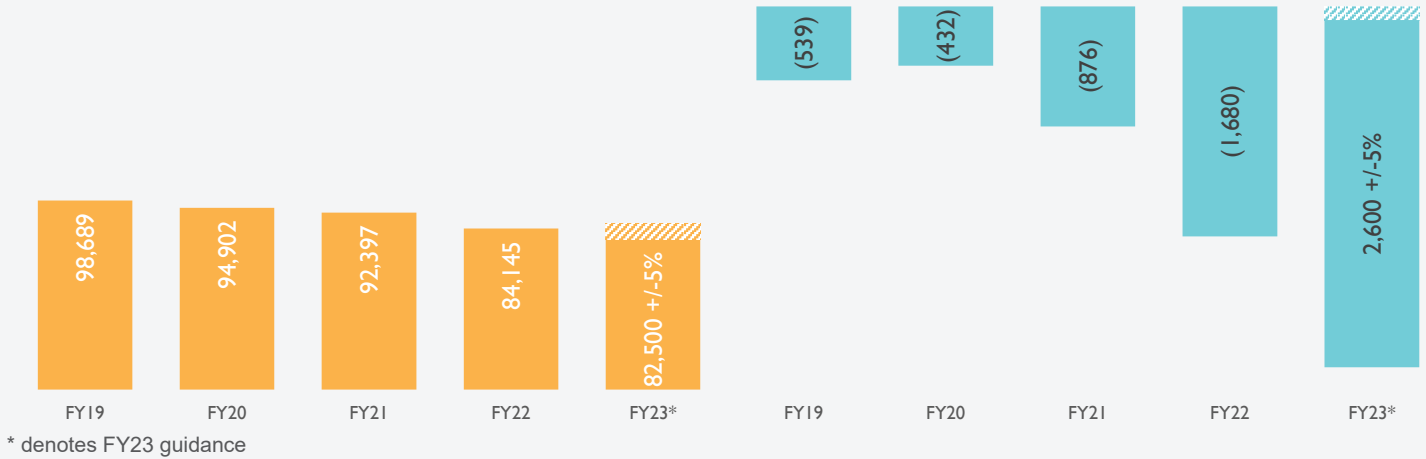
2. FY23 production and AISC forecast as at 27 June 2022

3. This information is extracted from the releases titled 'Annual Mineral Resources and Ore Reserves Statement' dated 16 February 2022 and 'Material Increase in Ernest Henry Resource' dated 1 August 2022 and are available to view at [www.evolutionmining.com.au](http://www.evolutionmining.com.au).

# Snapshot

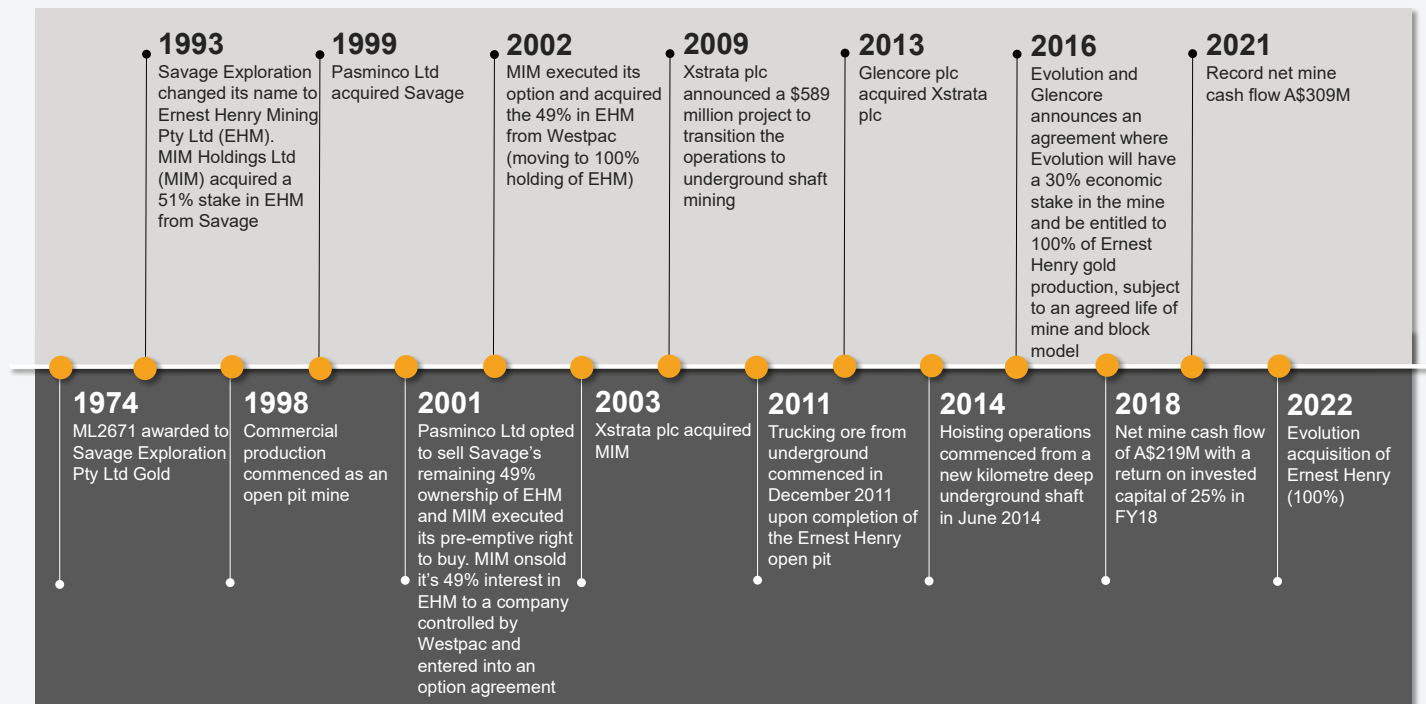
## Gold production (oz)

## AISC (A\$/oz)



Historic performance data can be accessed at our [Interactive Analyst Centre™](#)

## History - Ernest Henry



## Mineral Resources (June 22)

## Ore Reserves (Dec 21)

**2.07Moz<sup>(1)</sup>**  
 88.3Mt @ 0.73g/t gold  
 and 1.28% copper  
 = 1,129kt Cu

**0.46Moz<sup>(1)</sup>**  
 29.0Mt @ 0.49g/t gold  
 and 0.93% copper  
 = 269kt Cu

(1) This information is extracted from the releases titled 'Annual [Mineral Resources and Ore Reserves Statement](#)' dated 16 February 2022 and '[Material Increase in Ernest Henry Resource](#)' dated 1 August 2022 and are available to view at [www.evolutionmining.com.au](http://www.evolutionmining.com.au).

# Geology

The Ernest Henry iron oxide copper-gold deposit is located in the Cloncurry district within the Eastern Succession of the Mount Isa Inlier. The orebody is hosted within the Mount Fort Constantine volcanics, a sequence of intensely altered felsic to intermediate metavolcanics (dacite, andesite and basalt) and metasedimentary rocks that are Paleoproterozoic (1,740Ma) in age. The orebody has no natural surface outcrop and lies beneath 50m of Phanerozoic cover comprising of clays, gravels and sands. The Ernest Henry deposit is a breccia pipe plunging approximately 45 degrees to the south-southeast and is bounded between northeast trending ductile shear zones.

## Mining

Ernest Henry is an underground mining operation employing sub-level caving ore extraction method. There is also an underground primary crusher and ore handling system. Ore is brought to surface via a 1,000m hoisting shaft with a hoisting capacity in excess of 6Mt ore per annum. The operation also has an effective and sophisticated above and below ground water management system.

<b>Mining method/s:</b>	Sub-level caving - a relatively low-cost underground mining method
<b>Access:</b>	Underground crushing station and associated facilities. Ore is transferred to surface via a haulage shaft - 1,000m in depth
<b>Ore mined:</b>	6.4Mt per annum (FY22)
<b>Ore milled:</b>	6.4Mt per annum (FY22)
<b>Mining contractor:</b>	Owner-miner
<b>Integrated tool carriers:</b>	7 x CAT 930, Volvo 120, Normet Sissor Lift, Dieci
<b>Loaders:</b>	14 x CAT R3000, R2900, Sandvik L621
<b>Production drills:</b>	2 x Atlas L6C
<b>Grader:</b>	1 x Cat 14M
<b>Agitator:</b>	2 x Moxi
<b>Spray unit:</b>	1 x Normet
<b>Charge car:</b>	1 x Normet
<b>Water cart:</b>	1 x Moxi





# Sustainability

Sustainability is a strategic pillar for Evolution and we have published nine Sustainability Principles that provide the foundation for how we approach and integrate Sustainability into everything we do. These principles align with the United Nations Sustainable Development Goals and support our drive for improvement as we mature in our sustainability journey. The work we do on sustainability reflects our values driven approach to creating measurable value for our stakeholders through safe, reliable, low-cost gold production in an environmentally and socially responsible way. Our sustainability efforts and higher levels of transparency have been recognised, with Evolution maintaining a rating of 'AA' in the MSCI ESG Ratings assessment for resilience to long term environmental, social and governance (ESG) risks, and ranked among the top five industry leaders globally for 'Health and Safety' and 'Business Ethics and Fraud' (FY20). We have also been recognised as a member of the Dow Jones Sustainability Index (DJSI) Australia, ranking Evolution in the top performing Australian mining companies for corporate sustainability in their annual assessment and are signatories to the United national Global Compact (UNGC). Our [Annual and Sustainability report](#) provided on our website describes our approach and performance in the areas of health and safety, environmental stewardship, helping our communities thrive, cultural heritage, innovation and the development of our people.

## Health and Safety

Integral to the sustainability of our business is the health, safety and wellbeing of our people. We have a strong health, safety and wellbeing culture with the ambition of being an injury free workplace.

## Environment

We believe in striving beyond legislative compliance to achieve best practice and to build trust and meet the expectations of the communities in which we operate. We are focused on enhancing environmental stewardship in line with our Net Zero Commitment and Sustainability Principles through the implementation of our sustainability performance standards and life of mine environmental management plans across all of the operation.

## Community

Securing the support of communities in which we operate is core to our operation. Our focus remains on building trusted partnerships with our First Nation Partners, including with our partners the Mitakoodi People, in protecting their cultural heritage and supporting the delivery of their goals and that of other Community Groups. We are proud to partner with our communities to achieve meaningful outcomes and generate shared value. A local approach is critical to support regional economic benefit by prioritising local procurement, creating local employment and facilitating local training opportunities.



# Processing

Copper and gold are recovered from the ore using traditional grinding and flotation methods in the concentrator.

The plant has a current processing rate of ~6.8Mtpa (8.5Mtpa capacity and scalable to ~11Mtpa). The concentrator incorporates grinding (four mills), conventional flotation and dewatering. A single copper-gold-silver concentrate is produced by a rougher and a three stage cleaning circuit. The Concentrate is treated at Glencore's Mt Isa smelter (~150km trucking distance) and metal is refined at Glencore's Townsville refinery.

<b>Ore treatment/processing method:</b>	Conventional single-line processing circuit to produce a bulk copper-gold sulphide flotation concentrate
<b>Annual average throughput rate:</b>	~6.8Mtpa – aligned to mine production rates
<b>Nameplate capacity of plant:</b>	8.5Mtpa
<b>Crushing:</b>	Metso (Svedala) 0.6MW 60" x 89" Superior Gyratory machinery:
<b>Grinding circuit:</b>	Krupp 11MV (5.5MW Dual Pinion) 10.4m diameter x 5.1m EGL SAG Mill Krupp 5.5MW 6.1m diameter x 8.4m EGL Ball Mill
<b>Regrind:</b>	1 x Metso 1.0MW (Svedala) Vertimill 1 x 3.0MW M10000 IsaMill (Magnetite circuit: in care and maintenance)
<b>Roughers/scavengers:</b>	9 Wemco SmartCell 127m <sup>3</sup> flotation units (Global 4500 series cells) as roughers Stage 1: 8 x Outokumpo OK50 50m <sup>3</sup> flotation cells Stage 2: 8 x Outokumpo OK16 16m <sup>3</sup> flotation cells Stage 3: 5 x Outokumpo OK16 16m <sup>3</sup> flotation cells
<b>Concentrate thickener:</b>	1 x 25m diameter Eimco concentrate thickener
<b>Concentrate filters:</b>	1 x Larox PF144 (144m <sup>2</sup> filter area), 24-plate pressure filter 2 x CS55 Larox (Magnetite circuit: in Care and Maintenance)

## Process flowsheet

