



Mining

## At a capex of just \$25m, IRR of 231pc, and the green energy shift calling, Hillgrove's copper revival play could be a stunner

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Near term copper miner Hillgrove Resources will be able to restart its Kanmantoo mine in South Australia within just seven months of a final investment decision, with an updated economic assessment showing the junior is in the box seat to capitalise on a bullish outlook for the red metal.

The new study shows **Hillgrove (ASX:HGO)** will be able to restart Kanmantoo for just \$25m at a capital intensity of US\$1290/t on an annual production basis. That's around one-fifteenth of other development projects around the globe, which average more than US\$16,000/t, for a mine that will deliver \$205 million in post-tax cash flow and has a \$165m NPV at a ridiculous internal rate of return of 231%.

For reference, majors typically approve projects with an IRR of between 15-20%.

Kanmantoo will deliver 4.5Mt of ore over 45 months with payback in just nine months after the end of pre-production works, producing 43,500t of copper metal and 11,500oz of gold on the back of a mineral resource estimate of 6.4Mt at 1.09% copper and 0.12g/t gold.

That resource has been expanded based on 143 mineralised intersections from 122 holes, growing more than six-fold from less than 1Mt in 2019.

Another 6000t in the Nugent orebody has not been included in the economic assessment, with competitive all in sustaining costs of \$8051/t (US\$2.56/lb) providing strong margins at both current and projected copper prices.

## Leveraging existing infrastructure

Copper is one of the most sought after metals and investment thematics across the global resources industry.

The largest metals market outside iron ore and aluminium, copper is expected to see a tidal wave of demand as the energy transition expands the electric vehicle, electricity grid and renewables infrastructure needed to underpin the generational shift.

Most new copper projects are large, low grade and remote, carrying high capital estimates that make their development major financial and logistical challenges with years if not over a decade of lead time to bring into production.

Kanmantoo stands out for its low capital intensity and existing infrastructure.

Its 3.6Mtpa plant has been maintained in a way that makes its restart simple and quick, with few refurbishment costs.

With a 21% increase in mineral resources following a 2022 drilling program and lift in measured and indicated resources from 67% to 76% of the total, the mining inventory in Hillgrove's plan has been lifted from 3.3-4.5Mt.

Even so, just 40% of that capacity will be utilised, with 3Mt of additional tailings storage capacity over the current mine plan, providing ample room for growth without further permitting.

Electricity and water contracts have been maintained in care and maintenance, with water pumped through its system daily, with the mill, crushing and conveying system currently operated each week, with critical spares on hand.

“The updated study reaffirms the excellent project potential. The Kanmantoo Underground Stage 1 presents a unique opportunity to produce copper in a Tier 1 jurisdiction, generating post-tax cash flows in excess of \$200m in the initial stage,” Hillgrove CEO and MD Lachlan Wallace said.

“With all infrastructure and permitting in place, the project is well positioned for a fast, low capital restart, with first copper production only seven months from commencement.

“The resource potential is exciting, with 143 mineralised intersections from 122 holes, resulting in the increase in Mineral Resources from less than 1Mt in 2019, to almost 7Mt in 2022.

“Such high exploration strike rate and resource conversion provides confidence that further drilling may result in increased resources and an expansion in the mine plan.”

LME copper prices have been strong so far this year amid China’s reopening and demand from new technology, rising off last year’s Covid-impacted ebbs to US\$8904/t yesterday, well above Kanmantoo’s production costs.

Analysts including major investment banks like Goldman Sachs and ratings agencies Fitch expect to see long-term copper prices above all time highs of US\$11,000/t and above.

“The project is highly leveraged to rising copper prices,” HGO said.

“The underground stopes are designed to cut-off grades based on the current copper price. Many of these stopes terminate whilst still within a lower grade copper halo around the higher grade core.

“At higher prices, there is potential to grow the existing plan by simply widening stopes for relatively low incremental cost.

“With mill capacity at only 40%, and excess tailings storage capacity, additional mineralised material can be processed without displacing any high grade.

“And finally, it is a testament to the robustness of the project, that in an inflationary environment, the project has increased in both mine life and projected value, whilst also reducing further what was already one of the world’s lowest capital intensity copper development opportunities.”

## **More copper on hand**

Even with the 21% expansion in mineral resources and 1.2Mt lift in copper ore tonnes in the Kanmantoo mine plan, mineral lodes extend well below the Stage 1 development plan.

“The drilling indicates that the mineralisation extends 500m below the base of the main pit above Kavanagh, and over 200m below the Nugent pit, however the Stage 1 mine plan only extends ~250m below the main pit and ~150m below the Nugent pit due primarily to lack of drilling density at depth,” HGO said.

“Both of these areas remain open at depth and exploration drilling will continue in parallel with the Kanmantoo Stage 1 development, with a view to replace resource depletion from underground mining and to extend the mine life beyond Stage 1.”

Just two of the nine known lodes within HGO’s permitted mining lease have been included, with drilling in two areas late last year taking place in two areas with a view to demonstrate the depth continuity of the lodes beyond historic drilling and mining levels.

“Pending drill results, there is potential to bring these zones into the mine plan as separate work areas in order to increase annual copper production,” HGO said.

“Again, the underutilised mill, and spare capacity in the permitted tailings storage facility enables this to be done without additional processing capital.”

It’s worthwhile to note that as a brownfields mine, the operation carries lower levels of risk compared to greenfields start ups, with two portals already developed in 21-22, enabling the intersection of high grade ore and establishment of an underground drilling program, along with installation of key underground infrastructure like vent fans, electrical and water supply lines.”

## **More good news from drilling**

The potential to add even more copper tonnes has been demonstrated in recent drilling from the Emily Star and North Kavanagh systems proximal to underground developed at Kanmantoo, not previously tested at underground depths.

They include results at Emily Star of 11m at 0.57% copper including 5m at 1.03% Cu and 0.15g/t gold from 140m downhole and 28.75m at 0.73% Cu including 5.85m at 1.13% Cu and 0.1g/t from 159.25m and 5.75m at 1.96% Cu and 0.19g/t from 181.6m.

Best results at North Kavanagh came in at 12m at 0.86% Cu including 4m at 2.01% Cu, 0.4g/t Au from 183m.

Emily Star is around 600m west of the Nugent zone, and was previously mined in a shallow open pit by Hillgrove from 2013-2015, with the new drill results justifying the examination of deep copper breccia zones down dip from the previously mined deposit.

North Kavanagh, intersected in five drill holes 190m west of the Kavanagh development, sits outside the West, Central and East Kavanagh zones reported in a May 2022 resource estimate and results indicate it remains open to the north and down plunge beyond an already 100m strike length.

“The latent capacity in the processing plant and tailings storage facility offers an opportunity to expand the annual production rate by incorporating additional work areas for relatively low incremental cost,” Wallace said.

“The recent drilling program at Emily Star and North Kavanagh demonstrates the mineralisation envelopes in both areas extend at depth.

“Further drilling will be undertaken with a view to establishing maiden underground resource estimates for both lodes, and pending results, adding into a future mine plan.”

Hillgrove has entered a trading halt to complete a proposed capital raising, with results expected to be announced to the market later this week.

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