

When every metre has to earn its keep

Southern Cross Gold Consolidated delivered one of the standout drilling stories at Diggers & Dealers 2026. With 11 rigs heading towards 24 and a 200 km campaign underway at Sunday Creek, the headline numbers were hard to ignore. But for Australasian Drilling, the more interesting story was what sits behind them: a project beginning to redesign its underground development, drilling methods and contractor relationships around a simple question. How much geological value can be extracted from every metre drilled? **Jamie Wade** writes.

The Sunday Creek exploration decline, being developed to create underground drill platforms and accelerate resource-definition drilling. Photo: Southern Cross Gold Consolidated.

There were plenty of big drilling numbers presented at Diggers & Dealers this year.

Sunday Creek was different.

Three and a half years after the drill hole that transformed the Victorian prospect into a major gold-antimony discovery, Southern Cross Gold Consolidated had completed about 130.6 km of diamond drilling across 273 holes. Eleven rigs were turning, with plans to increase the fleet to 24 by the end of 2026 as part of a 200 km drilling program. Southern Cross Gold Consolidated President, CEO and Managing Director Michael Hudson went further on stage, describing the planned campaign as

potentially the largest drill-out on a pre-development project globally.

That scale was enough to get our attention.

It was not, however, why *Australasian Drilling* wanted to dig deeper.

What stood out was that drilling was no longer simply sitting behind the Sunday Creek investment story as the mechanism for adding ounces. The way the deposit is being drilled has become part of the development strategy itself.

While surface drilling continues aggressively, Southern Cross Gold is simultaneously developing a 1.2 km exploration decline intended to accelerate drill-





MBI Global and Star West Drilling developed this low-footprint drill rig specifically for Sunday Creek. Southern Cross Gold says the Australian-first asset reduces drill-pad footprint and noise while retaining the capacity for deeper, precision drilling. Photo: Southern Cross Gold Consolidated.



“We’re tracking the resource per metre, essentially, and how it grows.”

Michael Hudson,
CEO and Managing
Director, Southern Cross
Gold Consolidated

out and mineralisation access. Underground positions will bring rigs closer to the target, change hole geometry, remove unnecessary metres and potentially allow drilling around the clock.

That raised a much more interesting question for drilling contractors than how many rigs can be squeezed onto a project.

At what point does drilling more metres stop being the best way to learn more about a deposit?

Following Diggers & Dealers, Michael, Head of Exploration Kenny Bush and Drill Optimisation Lead Dane Holt spoke with *Australasian Drilling* about the thinking behind one of the industry’s most ambitious drilling campaigns.

Their message was remarkably consistent.

At Sunday Creek, metres still matter. But increasingly, every metre has to earn its keep.

Discovery by drill bit

For Michael, drilling has been fundamental from the beginning.

“It’s certainly discovery by drill bit that has led to the success of this project,” he told the Diggers & Dealers audience.

Speaking with *Australasian Drilling* after the conference, he explained that the strategy has been driven by speed but not simply speed for its own sake.

The discovery hole came in late 2022. Once the company had confidence in the scale of the geological system and access to the capital required to pursue it properly, the approach changed quickly.

“Once you have a discovery like this, you don’t sit on it drilling it slowly once you’ve got that right cost of capital,” Michael said.

Surface rigs have delivered the geological foundation, but the current operating model has limitations.

The surface fleet is drilling on 12-hour shifts. Underground access creates the opportunity to establish additional rigs closer to the mineralised system and operate them around the clock.

“We needed to up the productivity, and time is our biggest enemy here,” Michael said. “So we need to get rigs underground.”

Crucially, the argument for underground drilling is not that the surface rigs have stopped performing. Far from it.

When a technically possible hole stops being the right hole

Speaking with *Australasian Drilling*, Kenny said Sunday Creek is still achieving consistent drill rates on surface holes down to around 1,200 to 1,300 metres.

The issue is increasingly what happens before the bit reaches the part of the hole that matters.

Underground collars avoid the oxide and transition zones encountered from surface, generally reducing deviation while also removing metres through ground that may already be well understood.

The planned underground workings reach only about 130 metres below surface at their deepest point, but across a large drilling campaign those apparently modest savings compound quickly.

“If you drill 100 or 200 holes and you’re saving yourself 100 to 130 metres per hole, you also don’t have to log that because it’s not in the target area,” Kenny said.

That is where the economics become broader than the drilling invoice.

The Aziwell HQ directional barrel at Sunday Creek. The system can steer from an established borehole while continuing to provide NQ core samples for the geology team. Photo: Southern Cross Gold Consolidated.



“The unlocking of this deposit has been how it’s been drilled.”

Kenny Bush,
Head of Exploration



Every metre that does not need to be drilled also does not need to be retrieved, handled, logged, cut, sampled or processed.

The geological system also lends itself to obtaining multiple intersections from individual holes, placing greater emphasis on targeting and borehole utilisation.

“We’ve optimised the angles a lot better,” Kenny said.

That increasingly brings directional techniques, wedges and daughter holes into play.

If the upper section of a geological corridor has already been drilled and logged, there is little value in repeatedly drilling hundreds of metres of essentially known ground merely to establish another path to a deeper target.

Tools including Aziwell, navigational drilling and wedges allow the team to begin with an established primary hole and create additional target opportunities farther down.

“It might have a higher cost to do a navigational cut, but if you don’t have to drill 500 or 600 metres, you also don’t have to log 500 or 600 metres and actually process that in the shed,” Kenny said. “So we’re saving time in the back end as well.”

For contractors accustomed to being judged largely on metre rates, that changes the conversation.

Value per metre

Dane’s job title provides perhaps the clearest indication that Southern Cross Gold views drilling productivity differently.

Drill Optimisation Lead is not a role encountered on every exploration project.

Speaking with *Australasian Drilling*, Dane reduced the job to four words.

“I define optimisation as getting value per metre,” he said.

Cost per metre remains important, but it cannot be considered alone.

Dane looks at production efficiency, contractor performance, quality and safety, and targets around 85 percent rig utilisation.

That pushes optimisation into areas including preventative maintenance, equipment availability, hole planning and the relationship between the client and contractor.

“We’ve got a multi-contractor site,” Dane said. “It’s collaborating with them on getting the best stretching.”

That word, collaboration, came up repeatedly.

At its simplest, the traditional commercial model can reward the contractor for producing metres. But some of the easiest metres to produce are also the metres Southern Cross Gold may already understand.

Dane wants to extract more value from the primary borehole before another one is started.

“If we can do a directional cut, we’ll get two or three multi-deviational holes to targets,” he said.

The objective becomes putting the bit onto meaningful geology as efficiently as possible.

That is a subtle but important distinction. The cheapest metre may not be the most productive metre. And the contractor producing the most metres may not necessarily be producing the most value.

Building a decline around the drill rig

Perhaps the most interesting element of the Sunday Creek story for drilling contractors is that optimisation is not confined to what happens inside the borehole.

It has influenced the underground development itself.

The company’s 1.2 km decline is underway, with completion targeted for December 2026.

Kenny said future drilling requirements have been embedded deeply into its design.

“The entire exploration decline was designed with where the drills will be optimised for and their location in mind,” he said.

That influence extends into details that might otherwise seem relatively minor.

Stockpile locations have been considered for future use as drilling positions. Emergency egress infrastructure has been shifted where a small design change could improve subsequent drill access.

Excavation dimensions have also been reconsidered around the equipment expected to work underground.

When Dane reviewed the design, one question was whether backs planned at about 6.5 metres could be increased to around 6.8 metres.

That meant mining and removing additional rock. It also meant six-metre drill gear could be operated more efficiently underground.

"The drilling efficiency that we get out of that hugely outweighs that additional volume that we need to move," Kenny said.

The same thinking is being applied to the environment in which crews will work.

Where a rig could occupy a drill position for six months or longer, the company is considering permanent lighting and a thin concrete floor.

The benefits are simple: fewer slips and trips, better housekeeping and a workspace in which drilling crews can operate more efficiently.

"You actually have a safer working environment," Kenny said. "The drillers can actually operate quicker."

For contractors, there is an important lesson in that. Rig productivity does not begin at the chuck. It begins with access, services, ground conditions, workplace design and whether the infrastructure surrounding the rig allows a crew to do its job properly.

When 24 rigs are not the whole answer

Adding rigs also creates another challenge. Eventually, the bottleneck stops being the drilling machine.

"When you have this many rigs and this many metres being drilled, there are a number of potential bottlenecks," Kenny said.

The first is fundamental. Are they the right metres?

"You can easily hit a metre target, but it's whether you're actually adding valuable ounces," he said.

Then comes everything downstream.

Sunday Creek has to process enormous quantities of diamond core. It needs enough geologists to log it, facilities to cut it, laboratories capable of assaying it and teams able to interpret the information quickly enough for that knowledge to influence subsequent holes.

The company had about 23 geologists preparing for underground drilling at the time of the interview, with Kenny expecting that number to increase substantially as the program grows.

Southern Cross Gold has also been forecasting its requirements to its laboratory provider, which Kenny said had increased staffing and capacity in response.

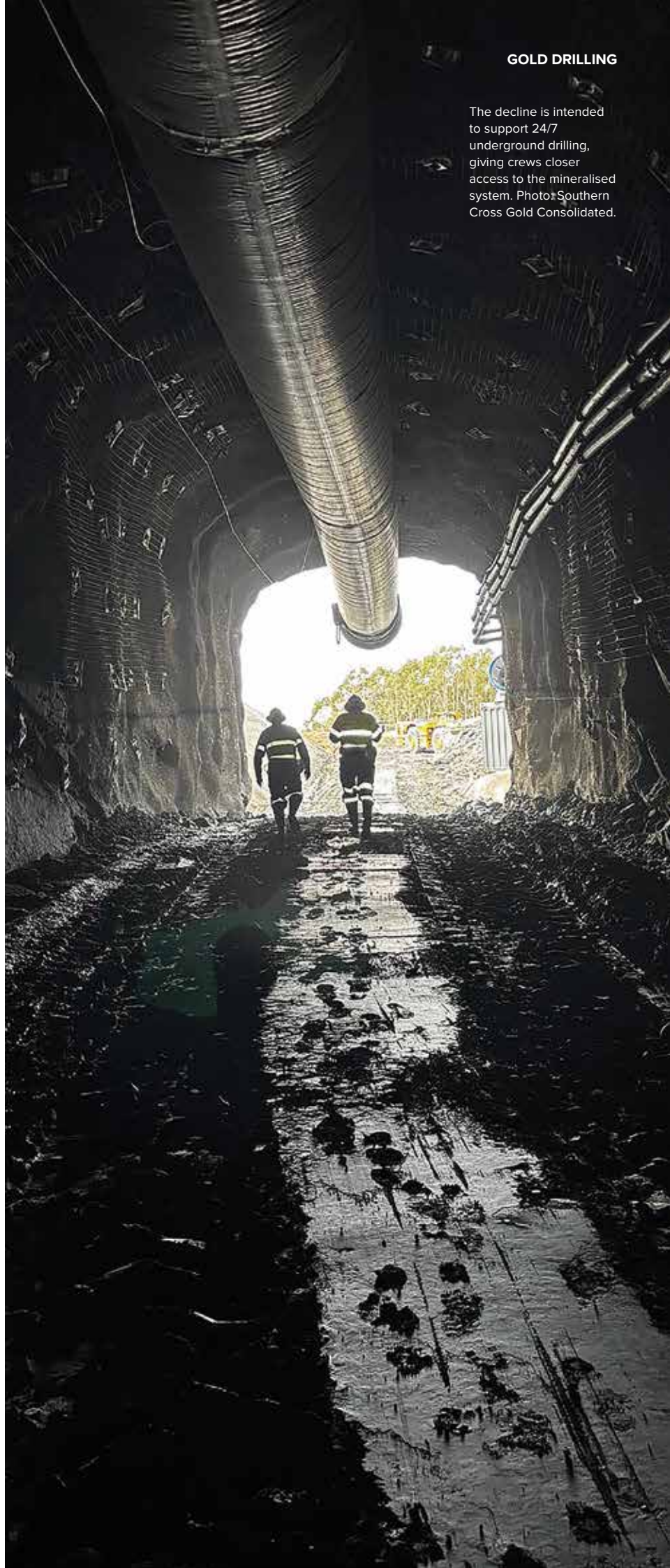
There is little point doubling drilling output if the result is simply twice as much core waiting to be processed.

Kenny has seen large drill-outs before and is wary of another potential consequence of scale: administration.

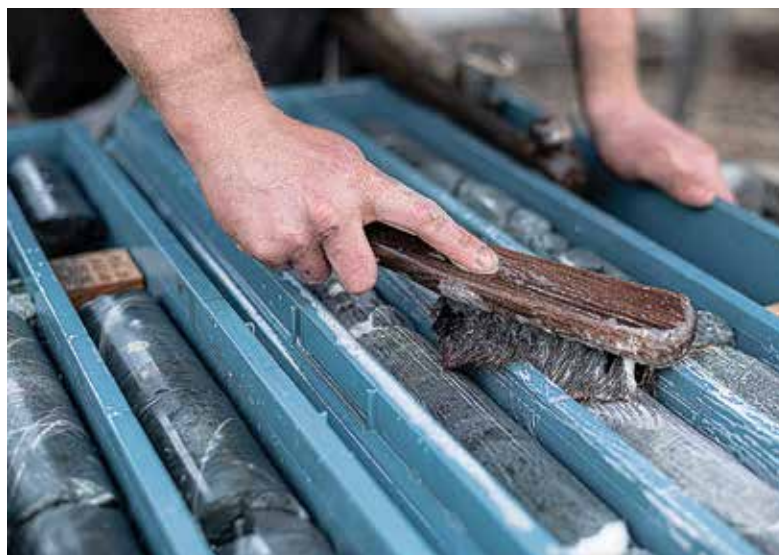
"It's making sure that you don't just end up with admin for the sake of admin or people pushing paper around," he said.

The process has to make drilling safer or more productive. Otherwise it is simply another bottleneck. Michael takes the measurement one step further.

The decline is intended to support 24/7 underground drilling, giving crews closer access to the mineralised system. Photo: Southern Cross Gold Consolidated.



Diamond core handling is part of the wider productivity equation as drilling volumes increase at Sunday Creek. Photo: Southern Cross Gold Consolidated.



At corporate level, the company is effectively tracking resource growth against drilling input.

"We're tracking the resource per metre, essentially, and how it grows," he said. "We know per metre how many ounces we're adding."

For drilling contractors, that is a useful indication of where sophisticated clients may increasingly be heading.

Metres remain important. But metres are an input. The output is knowledge.

Contractors inside the technical conversation

Sunday Creek is already a substantial multi-contractor project.

The company's Diggers & Dealers presentation identified PYBAR Mining Services, Star West Drilling, Deepcore Drilling, MC Drilling and Lincolns Earthmoving among the on-site delivery group.

Dane believes the contractor relationship becomes increasingly valuable when contractors are brought into the technical problem rather than simply handed a hole plan.

The drilling teams have accumulated detailed knowledge of Sunday Creek's ground conditions, while contractors and suppliers have contributed tooling, equipment and drilling-fluid solutions.

Fault zones provide a particularly good example.

Dane said challenging faulted ground at depth can rapidly increase drilling costs and, in extreme cases, make or break a contract if the contractor cannot consolidate the ground and continue advancing.

Southern Cross Gold has been working with contractors and suppliers on mud programs, tooling and new equipment to manage those conditions.

Contractors have also introduced equipment and concepts that Dane described as new to the Australian market.

The common thread again is collaboration.

The contractor that understands the geological objective and can contribute to solving the hole becomes more than a supplier of metres. It becomes part of the technical team.

One fleet grows, the other converts

For all the attention being paid to underground drilling,

Sunday Creek is not abandoning surface rigs.

The two fleets will increasingly have different jobs.

Kenny expects surface drilling to step farther away and continue testing the wider system, while underground drilling concentrates more closely on definition and conversion.

He summed up the distinction neatly.

"The surface grows beyond the exploration target, whilst the underground converts the exploration target."

Southern Cross Gold says only about 10 percent of the broader 11 km mineralised corridor has been tested, meaning surface drilling

retains an important discovery role.

At the same time, denser drilling within the known system continues to identify additional vein sets that could not previously be modelled confidently.

The result is not a transition from one form of drilling to another. It is a two-speed program.

Surface rigs continue asking how big Sunday Creek might become. Underground rigs increasingly answer exactly what is there.

Michael sees that balance continuing beyond the first resource.

"We're not going to stop drilling this," he said.

The maiden resource will be a milestone rather than the finish line.

More time with the bit on bottom

From the contractor's perspective, Dane believes the underground environment changes the operating proposition significantly.

Surface drilling at Sunday Creek is currently limited to day shift. Underground, crews can double shift and hot-seat rigs.

There is less travel time, greater opportunity to recirculate drilling fluids and more potential to keep the bit on bottom.

Combine that with shorter distances to target and directional techniques that allow multiple holes to branch from established boreholes, and the economics begin to look very different.

Dane believes that will make Sunday Creek particularly attractive when future drilling contracts are put to market.

There is also a workforce dimension.

Its proximity to Melbourne and the local Victorian drilling industry allows contractors to develop local crews rather than relying entirely on a conventional fly-in, fly-out workforce.

Dane sees an opportunity for new offshoots to enter the industry and develop on a long-duration, technically demanding project alongside experienced crews.

For an industry continually talking about skills shortages, that may prove almost as useful as another rig.



"I define optimisation as getting value per metre."

Dane Holt,
Drill Optimisation Lead

Every metre has to answer a question

Perhaps the clearest lesson from Sunday Creek is that none of this is fixed.

A hole deviates. Another vein appears. A target moves. A planned end-of-hole becomes worth extending.

The drilling plan changes with the geological knowledge being generated by the drilling itself.

"It isn't a fixed model," Kenny said. "You don't just say we are going to drill this exact hole plan and away you go."

Every hole is assessed against what additional value it can provide.

"We're not drilling just for the sake of being geologically interested," he said. "It has to have a value derivation from it."

Then came perhaps the most telling observation of the interview.

"The unlocking of this deposit has been how it's been drilled."

That is why Sunday Creek stood out to *Australasian Drilling* at Diggers & Dealers.

The 200 km campaign attracts attention. Twenty-four rigs attract attention. A 1.2 km exploration decline attracts attention.

But the bigger drilling-industry story is what Southern Cross Gold is doing with all three.

The company is beginning to design the underground

development around its rigs, challenge conventional measures of contractor productivity, use existing boreholes more aggressively and look beyond cost per metre towards geological value per metre.

Michael described Sunday Creek at Diggers & Dealers as a discovery made by the drill bit.

The next phase may demonstrate something equally important.

Once a discovery reaches Sunday Creek's scale, the challenge is no longer simply keeping the drill bit turning.

It is making sure that every metre answers a question worth asking. ▲

Visible gold in Sunday Creek drill core. Southern Cross Gold says drilling strategy has been fundamental to unlocking the deposit. Photo: Southern Cross Gold.





CHINA'S NO.1 EXPORTER OF ROCK DRILLING TOOLS



ONE-STOP DRILLING SUPPLIER

GUZHOU SINODRILLS EQUIPMENT CO.,LTD
 Tel: 0086 0851 8682 1628 / 8682 1268 / 8680 0738
 Mail: sales@sinodrills.com


www.sinodrills.com