

ASX Announcement
 22 June 2023

KCGM MILL EXPANSION APPROVED, WORK UNDERWAY

On strategy; production up, costs down and life of asset extended

- Board approves A\$1.5 billion KCGM Mill Expansion Project to increase and modernise KCGM's processing capacity from 13Mtpa to 27Mtpa
- Three-year construction phase has commenced with long-lead items ordered; ramp-up from FY27 towards steady-state of 27Mtpa by FY29
- Feasibility Study demonstrates Project is financially compelling and delivers:
 - Post-tax IRR of 19% and 4.6 year payback (A\$2,600/oz gold price)
- Project will deliver sustained lower cost base and significant increase in free cash flow
- Development fully funded from cash on hand, forecast cash flow - dividend policy maintained
- Maintains strong balance sheet with gearing (ND/ND+E) and ND/EBITDA below zero through build
- Cost confidence from advancing detailed engineering design post-feasibility phase
- Live investor briefing will be held at 11:00am AEST (9:00am AWST) today, 22 June 2023. The webcast can be accessed at <https://kapara.rdbk.com.au/landers/0e573c.html>

Northern Star Resources Ltd (ASX: NST) ("Northern Star" or "Company") is pleased to announce Board approval for the development of the A\$1.5 billion KCGM Mill Expansion Project ("Project"), which will further strengthen Northern Star's key asset and the Company's overall portfolio.

Commenting on the Board approval, Northern Star Managing Director, Stuart Tonkin, added:

"Today is an exciting day for Northern Star and a historic new chapter for this world-class asset."

"The Board's decision to approve the KCGM mill expansion and optimisation represents the next stage to revitalise our largest asset as well as the surrounding district for decades to come. This Project is financially compelling, and a significant enabling step towards delivering our strategy to generate superior returns for our shareholders."

"Our confidence in the economics of KCGM to remain a long-life, low-cost gold mine has been further reinforced through the feasibility study phase. Expanding the processing capacity of KCGM will strengthen Northern Star's portfolio, materially increase our free cash flow generation and progress our long-term strategy to be within the 2nd quartile of the global cost curve."

"Further, the Project is important in our sustainability journey and will also sustain hundreds of local jobs, economic and social investment, and local procurement opportunities in the Goldfields region."

Overview:

Located in Kalgoorlie, Western Australia, the KCGM Operation ("KCGM") is one of the world's largest and most significant gold mines with a Mineral Resource of 28.3Moz and an Ore Reserve of 12.2Moz. The growth optionality that comes with owning an asset as large as KCGM is significant and arguably unmatched across Australia.

Northern Star acquired 50% of KCGM from 1 January 2020 and assumed 100% control of KCGM as a result of the merger with Saracen Mineral Holdings Ltd, which was implemented on 12 February 2021. Since then, Northern Star has made major progress enhancing the Company's understanding of the underground resource base as well as optimising the mine through new fleet delivery to enable increased material movements.

Today's announcement of Board approval for the KCGM Mill Expansion Project builds on the work carried out by Northern Star since it acquired 100% of this world-class asset. Optimising and expanding the Fimiston Processing Plant at KCGM complements the mine optimisation work that is underway as part of Northern Star's current five-year FY26 profitable growth strategy.

KCGM Mill Expansion - Key Financial and Operational Metrics:

Post-tax Internal Rate of Return A\$2,600/oz gold price	19%
Project Payback A\$2,600/oz gold price	4.6 years
Expansion capital	A\$1.5 billion
KCGM Mineral Resource KCGM Ore Reserve (as at 31 Mar 2023)	28.3Moz at 1.6g/t 12.2Moz at 1.3g/t supports +20 year mine life
Milling capacity	27Mtpa steady state achieved in FY29
Targeted average annual gold production capacity Steady state	900koz
Targeted average annual AISC Steady state	A\$1,425/oz
Construction phase (3 years) Ramp up (2 years)	FY24 to FY26 FY27 to FY28

Operational Overview:

The capacity of KCGM's processing circuit, centred on the Fimiston Processing Plant, will increase from 13Mtpa to 27Mtpa. Leveraging off the known metallurgical performance of the operation significantly lowers the Project's technical risk. Proven processes will be retained (~20% of the existing plant) and the largest process equipment will be sourced from leading tier-1 manufacturers.

Core design principles were to deliver a facility that has maintainability, operability and maximised plant availability. As such, the new plant will have a high level of process automation, control and condition monitoring. Increasing the plant throughput combined with simplifying the existing flow sheet will deliver many benefits including:

- An increase in gold production capacity with improved gold recovery rates (~1%);
- A sustainable reduction in unit rate processing costs (large-scale efficiencies, reduced reagent consumption rates);
- A reduction in fixed operating cost per tonne of ore processed;
- A 50% reduction in potable water use per tonne of ore processed;
- The conversion of stockpiles (Mineral Resource of 120Mt at 0.7g/t gold) to cash with improved margin;
- A reduction in sustaining capex on a \$/oz basis; and

KCGM processes gold-bearing ore mined from the Fimiston Open Pit and Mt Charlotte Underground Mines. The existing Fimiston Processing Plant has a milling capacity of 13Mtpa and is supplemented by the nearby Gidji Processing Plant.



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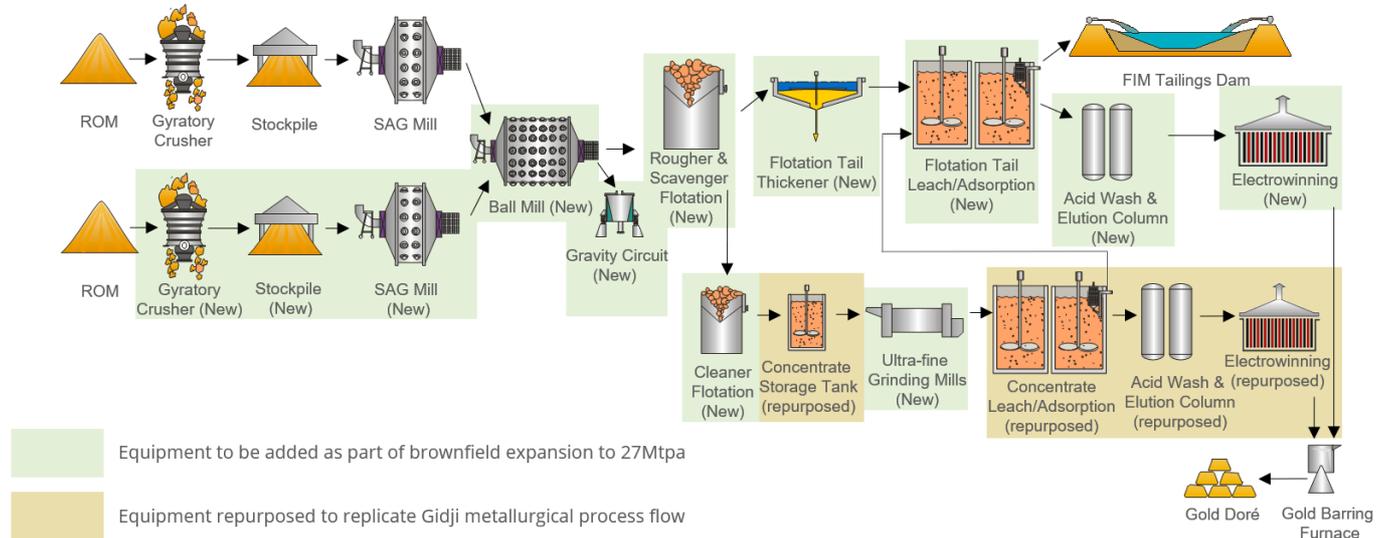
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The KCGM Mill Expansion Project will deliver a simplified Fimiston Processing Plant flowsheet with increased ore processing capacity. Consequently, the Gidji Processing Plant will be decommissioned.

Simplification of Fimiston Processing Plant



Financial Overview:

Aligning to our Company purpose, the KCGM Mill Expansion Project is financially compelling and expected to deliver sustainable superior returns to our shareholders. The total mill expansion capital of A\$1.5 billion is fully funded by cash on hand and forecast cash flow. Northern Star’s balance sheet is forecast to remain strong with all current banking covenants and Company financial targets comfortably met over the three-year build phase. Key financial highlights (based on a A\$2,600/oz gold price assumption):

- Revenue and Free Cash Flow materially increases from FY27 as ramp-up commences enroute to reaching 27Mtpa in FY29;
- Forecast Cash Earnings, EBITDA and Net Profit all increase and Group AISC decreases upon project completion and ramp-up from FY27;
- Gearing ratio (Net Debt/Net Debt plus Equity) is forecast to remain below zero;
- The Group is forecasted to remain in a positive free cash flow position over the build;
- Accelerated capital spend (same scope, timing brought forward vs 13Mtpa base case):
 - Increase in sustaining capital during FY25 and FY26 for an additional tailings facility to allow increased deposition rates, and
 - Open pit and underground mining growth capex during FY25 and FY26.

Risk Management Strategies:

Our core risk management strategy is to ensure free cash flow from the existing operation continues during the three-year build phase with cut-over only occurring once the build is complete (incorporated into the business-as-usual shutdown).

Optimisation and expansion of the Fimiston Processing Plant will progress in two phases. This approach also serves to smooth and lower on-site construction personnel numbers.

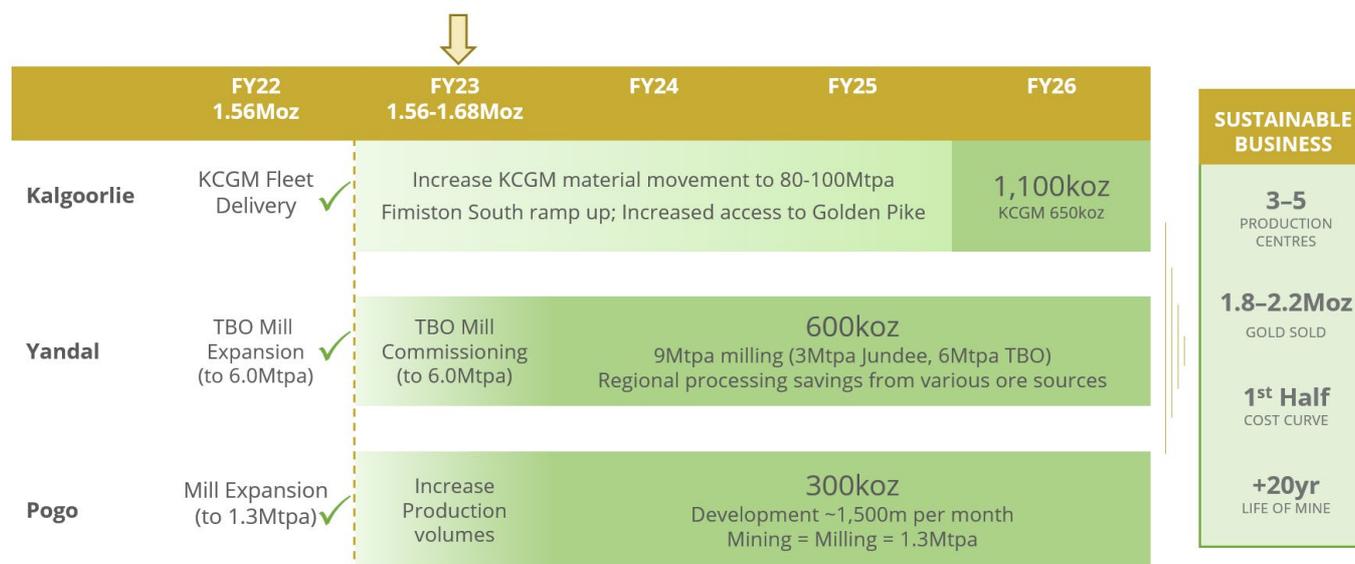
Phase one has commenced with major equipment ordered and early works underway to enable construction and commissioning of the new plant. Concurrently phase two, scheduled to commence FY25, consists of enlarging and replicating the Gidji metallurgical process at the new Fimiston plant.

- **Free cash flow generation continues throughout build phase.** Free cash flow from the existing operation continues until the build is complete.

- **Cost confidence.** Cost confidence achieved from advancing detailed engineering design post-feasibility to increase confidence and confirm project scope.
- **Labour.** Labour has been costed at current market conditions and includes competitive rosters.
- **Housing.** Northern Star owns and operates the Ford Bayley Accommodation Village in the town of Coolgardie. Additional accommodation capacity to cater for Project requirements are planned to be sourced by leasing a village which is to be constructed in the City of Kalgoorlie-Boulder.
- **Water.** To improve security of water supply, the existing borefield and water transfer infrastructure will be refurbished and upgraded to increase the instantaneous water supply rate, along with the construction of additional water storage capacity.
- **Power.** KCGM is connected to Parkeston Power Station (110MW) and the Grid (52MW). Northern Star is initiating a large renewable energy generation project to reduce carbon emissions, improve power supply security and reduce the cost of power.
- **Approvals.** The Project is considered a revitalisation of the existing Fimiston Processing Plant (existing approved footprint and disturbance envelope). The environmental approval requirements required for the Project are well understood and advanced.

No change to FY26 profitable growth strategy

Northern Star continues to advance key components of its low-risk, five-year profitable growth pathway. There is no change to this strategy as a consequence of Board approval for the KCGM Mill Expansion Project, which will complement and enhance work currently underway.



Shareholders – Live Video Stream

Stuart Tonkin (Managing Director), Ryan Gurner (Chief Financial Officer) and Steve McClare (Chief Technical Officer) will host a live investor briefing at **11:00am AEST (9:00am AWST) today, 22 June 2023.**

To listen in live, please click on the following link and register your details. Investors will be able to submit questions via the Q&A Chat function.

<https://kapara.rdbk.com.au/landers/0e573c.html>

Please note it is best to log on at least five minutes before the scheduled commencement time to ensure you are registered in time for the start of the call.

Investors are advised that a recording of the webcast will be available on the same link approximately one hour after the conclusion of the webcast.



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About Us

Northern Star is a global gold mining company. Our purpose is to generate superior returns for our shareholders while providing positive benefits for our stakeholders through operational effectiveness, exploration and active portfolio management.

Authorised for release to ASX by Stuart Tonkin, Managing Director & CEO.

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Financial Notes

All-in sustaining costs (AISC), Cash Earnings, EBITDA and Net Profit are non-GAAP measures.

Forward Looking Statements

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This announcement is not an offer, invitation, solicitation or other recommendation with respect to the subscription for, purchase or sale of any security, and neither this announcement nor anything in it shall form the basis of any contract or commitment whatsoever. This announcement may contain forward looking statements that are subject to risk factors associated with gold exploration, mining and production businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, Resource or Reserve estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

ASX Listing Rules Disclosures

This announcement contains current estimates of Northern Star's KCGM Operations' Ore Reserves and Mineral Resources. The information in this announcement that relates to the current Ore Reserves and Mineral Resources of Northern Star has been extracted from the ASX release by Northern Star entitled "Resources, Reserves and Exploration Update" dated 4 May 2023 available at www.nsrltd.com and www.asx.com ("Northern Star Announcement").

Northern Star confirms that it is not aware of any new information or data that materially affects the information included in the Northern Star Announcement other than changes due to normal mining depletion during the three month period to 21 June 2023, and, in relation to the estimates of Northern Star's KCGM Operations' Ore Reserves and Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the Northern Star Announcement continue to apply and have not materially changed. Northern Star confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from that announcement.

Assumptions made in the table titled 'KCGM Mill Expansion - Key Financial and Operational Metrics' on page 2 of this announcement are based on (in summary):

- Mill feed comprising of ~78% of the KCGM Operations Mineral Resource, of which ~54% are Ore Reserves and the remainder are made up of Measured, Indicated and Inferred Mineral Resources (see Northern Star Announcement);
- Gold grade of ~1.3g/t;
- Processing throughput rate of ~27Mtpa;
- Modelled recovery rate of ~84%;
- A\$1.5B capital for processing plant expansion and immediate service infrastructure requirements. Additional capital associated with accelerating or expanding activities such as mining and tailings facilities are included in the financial analysis;
- Current mining performance, with modelled variable and fixed processing costs and metallurgical performance;
- Power costs estimated at A\$100/MWh;
- All-in sustaining costs (AISC) excludes Corporate allocation, and
- A\$2,600/oz gold price.



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