

2 August 2021

# Darlot Gold Mine Plan and King of the Hills Processing Hub Strategy

Darlot underground mine to transition into an additional medium-term, high-grade feed source for the new King of the Hills ("KOTH") processing plant, enabling a step-change in Darlot's production cost | Implementation of 12-month mine development program to unlock Darlot's extensive 1.3Moz Resource base

- Following an extensive review of the Darlot mine inventory, Red 5 announces its Darlot Mine Plan based on utilising latent capacity in the new KOTH processing plant, an approach that the Company refers to as the KOTH Processing Hub Strategy.
- The commencement of processing operations at KOTH in the June Quarter 2022 will provide a more costeffective processing alternative for Darlot ore, repositioning Darlot as a high-grade satellite ore source for KOTH.
- In advance of production commencing at KOTH, the following Darlot initiatives will occur in FY22:
  - A Plant Capacity Study completed by Mintrex has confirmed that the KOTH processing plant can process up to 4.7Mtpa of ore without additional capital expenditure.
  - Darlot will undertake an initial 12-month phase of underground mine development to establish new mining areas and reduce the reliance on remnant stopes.
  - A workforce transition strategy is being developed for Darlot non-mining and processing personnel to relocate to KOTH, thereby reducing the labour recruitment risk for KOTH.
  - From the June Quarter 2022, Darlot ore will be processed at the KOTH processing plant. The Darlot ore processed will be added to the 4Mtpa of ore proposed to be mined and processed from the KOTH open pit and underground mines.
- FY22 Darlot production guidance is 62,000oz 72,000oz at an AISC of A\$2,300 A\$2,400 per ounce (inclusive of Darlot mine development costs of A\$190 - A\$220 per ounce).
- With the future implementation of Darlot ore processing at KOTH, Red 5 is targeting in FY23 to reduce Darlot's AISC to between A\$1,700 A\$1,900 per ounce.
- In the current gold price environment, Darlot has the potential to add significant value for a number of years as a high-grade satellite ore source for KOTH, with the cash-flow generated from operations facilitating the ongoing exploration of Darlot's world-class mineral system.
- Red 5 continues to evaluate scalability within the KOTH mine plan and processing facility with the support of Mintrex and Orelogy.



## Red 5 Managing Director, Mark Williams, said:

"Following an exhaustive review of the Darlot operation, we are pleased to announce a new streamlined mine production plan for Darlot, based on trucking and processing the ore at our new KOTH processing plant as part of what we are now referring to as our KOTH Processing Hub Strategy. Under this strategy, we are in effect reversing the original operating strategy developed when we undertook the dual acquisition of the Darlot and KOTH projects four years ago.

"Darlot has until now served as a central processing facility under our 'Truck-to-Darlot' strategy but, with the impending completion of the new state-of-the-art KOTH processing plant and its substantial latent capacity, we have a unique opportunity to treat other ore sources over and above those proposed in the KOTH mine plan.

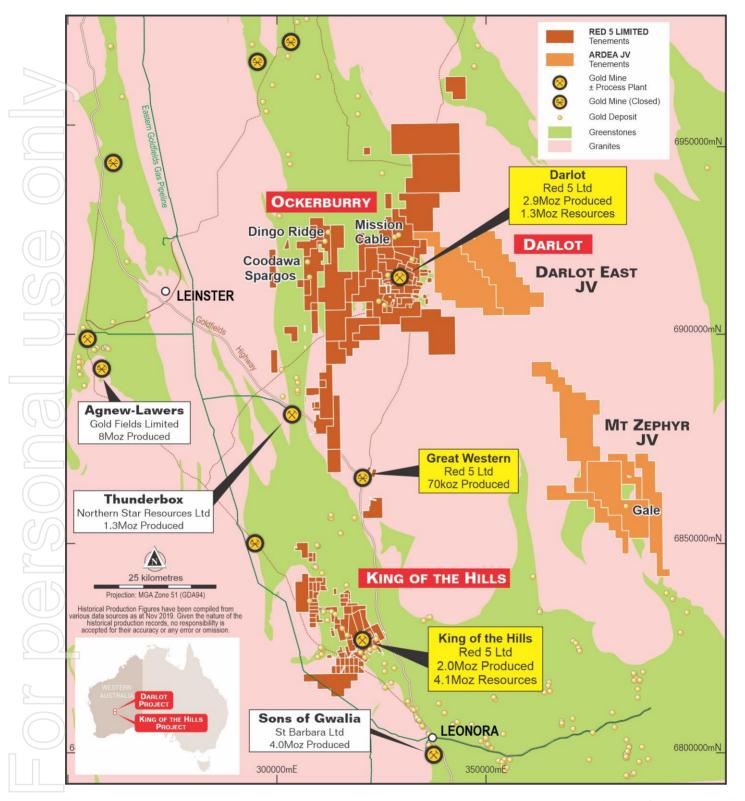
"With forecast processing costs of just \$11.83/tonne, the KOTH processing plant is a low-cost production centre and provides an opportunity to capitalise on this strategic advantage by trucking underground ore from Darlot to KOTH. The impact on our cost base gives us the flexibility to implement a more aggressive mine development plan to unlock the significant Resource base at Darlot to reduce our dependency on remnant stopes.

"The metallurgy of the KOTH-Darlot ore blend is well understood as we have been processing these combined ores at Darlot for some years. This allows for the seamless integration of Darlot underground ore into our future milling and production plans at KOTH, providing an additional high-grade ore feed in the early phases of the production ramp-up.

"Importantly, the plan also provides clarity and certainty for our Darlot employees at Darlot, with non-mining and processing personnel to be transferred to KOTH. This workforce transition strategy also significantly reduces the recruitment and labour risk for KOTH in the current tight labour market.

"We should also remember that Darlot is one of the great gold mines of the Eastern Goldfields with a total endowment of 4.2 million ounces. The history of Archaean gold systems shows us that they can often expand considerably at depth with the application of modern exploration technologies. By continuing operations under a more cost-effective operating regime as part of the KOTH Processing Hub Strategy, we have the opportunity to keep exploring at Darlot to identify extensions, make new discoveries and possibly even find a repeat of this world-class mineral system."



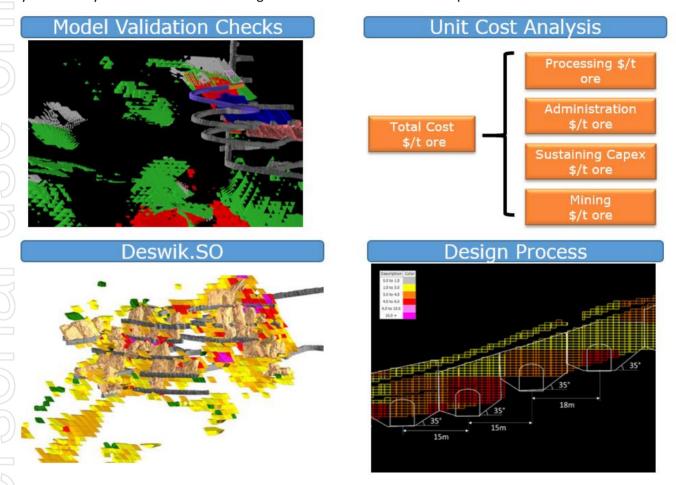


**Figure 1:** The Darlot and KOTH mines are approximately 100km apart, and both are surrounded by Red 5's extensive tenement packages in the highly prospective Yandal Greenstone Belt.



## 1. Darlot Mine Inventory Analysis

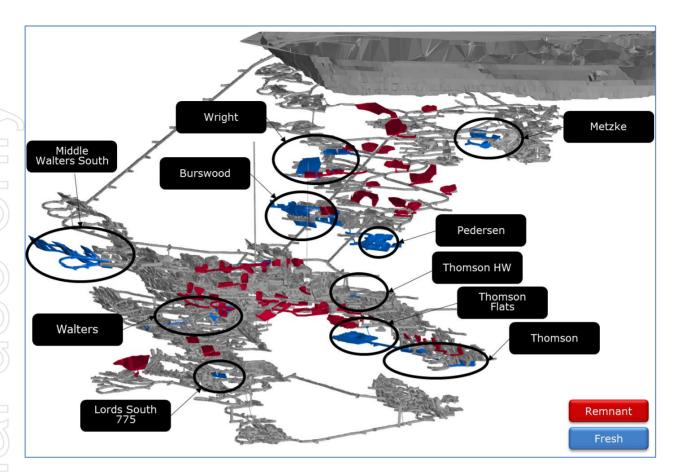
Red 5 has undertaken a comprehensive review of the Darlot underground mine inventory, which has included progressive resource model reviews and validation, historical unit cost analysis, cut-off grade calculations, and stope optimisations. Each area identified through the Stope Optimiser (Deswik.SO) was taken through a rigorous design process to assess each mining area's economic validity. This procedure (Figure 2) was applied systematically to the entire Darlot underground Resource over a 5-month period.



**Figure 2:** The Darlot inventory generation process.

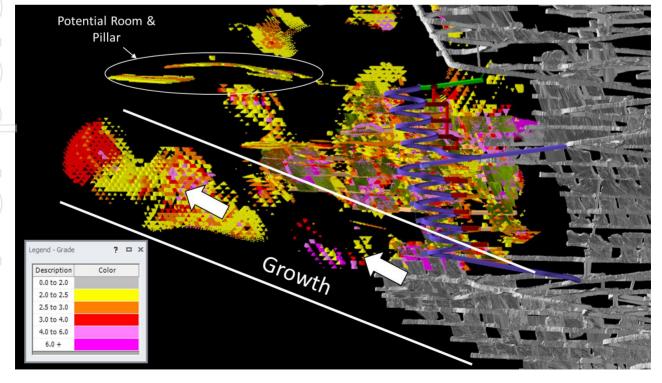
Darlot's remnant mine inventory is estimated to be 40,000oz – 42,000oz. The proposed development program will significantly increase the total inventory in the coming two-year period, as illustrated in Figure 3.





**Figure 3:** The Darlot inventory with the remnant resource shown in red and the targeted new mining areas shown in blue.

The Middle Walters South area has grown considerably with continued resource definition drilling. Further drilling in FY22 is expected to add significant mine life to the current plan. The expected areas of growth can be seen in Figure 4.



**Figure 4:** Potential growth of Middle Walters South, coloured by grade.

Red 5 is confident that further new mining areas remain to be developed beyond those identified to date.



## 2. KOTH Processing Plant Capacity Study

Mintrex has confirmed in an engineering study that the KOTH processing facility currently under construction will have the capacity to process 4.7Mtpa without additional capital expenditure.

The Mintrex Processing Plant Capacity Study focussed on the latent capacity within the current design. The key findings of the Study are:

- 1. Confirmation that capacity is available to process the additional 600,000 700,000tpa planned to be trucked from Darlot commencing in the June Quarter 2022, with no material changes required to the processing circuit.
- 2. No change to environmental impacts beyond those currently approved is anticipated. However, Red 5 will likely need to make some minor amendments to existing DWER and DMIRS approvals to reference the increased processing throughput.
- 3. Confirmation that adequate water will be available for the additional throughput at the KOTH processing plant.
- 4. Confirmation that adequate tailings storage and infrastructure is available for higher production rates.
- 5. Manageable commercial and operational changes to ensure adequate gas supply and gas pipeline capacity.
- 6. Confirmation that power station capacity is available for the higher production rates.

KOTH will continue to provide ore at the planned rate of 4Mtpa consistent with the KOTH Feasibility Study. An additional 600,000 -700,000tpa capacity will be trucked from Darlot.

# 3. KOTH Processing Hub Strategy

Following the completion of the Feasibility Study based on 4Mtpa throughput, Red 5 purchased an 18MW FLSmidth SAG mill in 2020 that is comparable in size to the SAG mills at the Lake Cowal and Gruyere processing plants and is installing a front-end crushing plant capable of a 6Mtpa throughput rate.

KOTH also benefits from extremely favourable metallurgy, which yields recoveries of 92% to 93% from primary ore that is relatively soft by goldfields standards (BWi of 14kWh/t to 16kWh/t) and at a relatively coarse grind size (P80 >  $150\mu m$ ).

Being positioned just 12km east of the Goldfields Gas Pipeline is another significant strategic advantage for Red 5, allowing the KOTH Processing Hub to be powered by a state-of-the-art hybrid gas and solar power station operated by Zenith Energy Ltd. These factors will enable an industry-leading estimated processing unit cost of \$11.80/t.

Red 5 has been processing a blend of Darlot and KOTH ores at the Darlot processing plant for three years. During this time, the blended ore has yielded recoveries of 91% to 93% at a significantly coarser-grind size range of 160µm to 180µm.

Under the KOTH Processing Hub Strategy, Red 5 has identified the opportunity for three mine sources for the start-up of the KOTH processing plant:

- KOTH Open Pit and existing 1.6Mt low-grade stockpiles
- KOTH Underground
- Darlot Underground

Red 5 has informed the Lender Syndicate of its future intention to process Darlot ore at KOTH, which will require an amendment to the KOTH Finance Facility. This is expected in the September Quarter 2021.

Red 5 intends to place the Darlot processing plant on care and maintenance at minimal cost when the KOTH processing plant commences operations. The care and maintenance activities will be undertaken periodically by the KOTH processing team.



## 4. Darlot Mine Capital Development

A key outcome of the mine inventory study at Darlot has been confirmation of the quantum and rate of mine development required to access new mining areas.

The Darlot mine has become increasingly dependent on remnant mining, which carries significant production risks. As a result of the lower cost base brought about by the KOTH Processing Hub Strategy, the return on the capital development required to access new mining areas can now be justified.

Red 5 has tendered a mine development contract resulting in the execution of a Letter of Intent (LOI) with underground mining specialist Redpath, for an initial 12-month contract, with contract execution expected in the September Quarter 2021. It is anticipated that mine development activities would commence in the December Quarter 2021.

Redpath has already secured the mining equipment required to undertake this work and also identified the labour required. The contract value is estimated at \$14 - \$15 million, which will unlock the mine areas planned for 2HFY22 and FY23. The contract will include the option to extend in six-monthly increments.

Engaging Redpath to undertake the mine development contract has several advantages:

- 1. New equipment that is available to mobilise at Darlot quickly.
- 2. Estimated additional development of 240 to 260 metres/month and improved productivity.
- 3. Focused development work areas, operating independently of Red 5's mining activities.
- 4. Access to new mining areas in addition to further enhancing the resource development plan.
- 5. The option to progress into a second phase of mine development to extend mine life.

Red 5's Technical Services Team is also studying a "Darlot Deeps Strategy" with the potential to further increase the mine life. The planned mine development ensures that Red 5 retains this optionality for the mine at current gold price levels.

#### 5. Darlot/KOTH Workforce Strategy

A workforce transition strategy is currently being developed for Darlot's non-mining and processing personnel to join Red 5's KOTH workforce. Subsequent to the planned closure of the Darlot processing plant, the Darlot mine will retain the mining workforce and shared exploration and support services with KOTH. An estimated 145 positions will remain at Darlot.

The majority of personnel at KOTH will be employed by mining contractor Macmahon, who are already recruiting key roles for their KOTH workforce.

Red 5's labour recruitment risk for KOTH is significantly reduced as a result of the Darlot workforce transition strategy, with approximately 40 positions remaining to be recruited before KOTH operations commence.

With a 16-year Life-of-Mine and new modern infrastructure and camp, the KOTH Mine is anticipated to be an attractive workplace for high-calibre workers — offering job security, friendly FIFO logistics (i.e. direct flight to/from Perth) and industry-standard rosters.



#### 6. Darlot Guidance for FY22

FY22 Guidance for the Darlot Gold Mine is 62,000oz - 72,000oz at an AISC of A\$2,300 - A\$2,400 per ounce (including mine development costs of A\$220 per ounce).

The first-half production in FY22 is anticipated to be lower due to the Stage 2 cut-back of the Great Western satellite pit, before Great Western delivers higher tonnes and grade from the December Quarter 2021 onwards. Great Western is expected to produce 500,000t to 525,000t of ore in FY22 at an average grade of 1.90g/t for 30,000oz to 32,000oz.

Darlot's underground mine plan relies on 40% of remnant mining in FY22, falling to 15% in FY23 as a result of the planned mine development to be carried out FY22. The Darlot operating cash flows in FY22 will fund the capital development activities intended to be undertaken by Redpath.

With the introduction of trucking to and processing of Darlot ore at KOTH, Darlot's AISC is targeted to fall to A\$1,700 - \$1,900 per ounce in FY23.

**ENDS** 

Authorised for release by the Board.

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#### JORC 2012 Mineral Resource and Ore Reserves

Red 5 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements.

Red 5 confirms that all the material assumptions underpinning the Final Feasibility Study production targets on the King of the Hills project (see ASX release dated 15 September 2020), or the forecast financial information derived from a production target, in the initial public reports continue to apply and have not materially changed.

#### **Forward-Looking Statements**

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