
1 August 2022

Presentation to 2022 Diggers & Dealers Mining Forum

Mr Lucas Welsh, Chief Financial Officer, will present on St Barbara's Leonora Province Plan on Tuesday 2 August 2022 during the Diggers & Dealers Mining Forum.

Authorised by

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Leonora is central to regional consolidation

Lucas Welsh
Chief Financial Officer
2 August 2022

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Non-IFRS financial information: We supplement our financial information reporting determined under International Financial Reporting Standards (“IFRS”) with certain non-IFRS financial measures, including cash operating costs. Details of these are set out in the Supplement.

Financial figures are in Australian dollars unless otherwise noted. Financial year is 1 July to 30 June. This presentation is not audited.

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American Depositary Receipts (ADR OTC code “STBMY”) through BNY Mellon,
www.adrbnymellon.com/dr_profile.jsp?cusip=852278100

Published 2 August 2022



Acknowledgement of Country

We at St Barbara acknowledge the First Nations people of the ancestral lands on which we operate in Australia, Canada and Papua New Guinea. We pay our respects to all First Nations people, and to Elders past, present, and emerging.

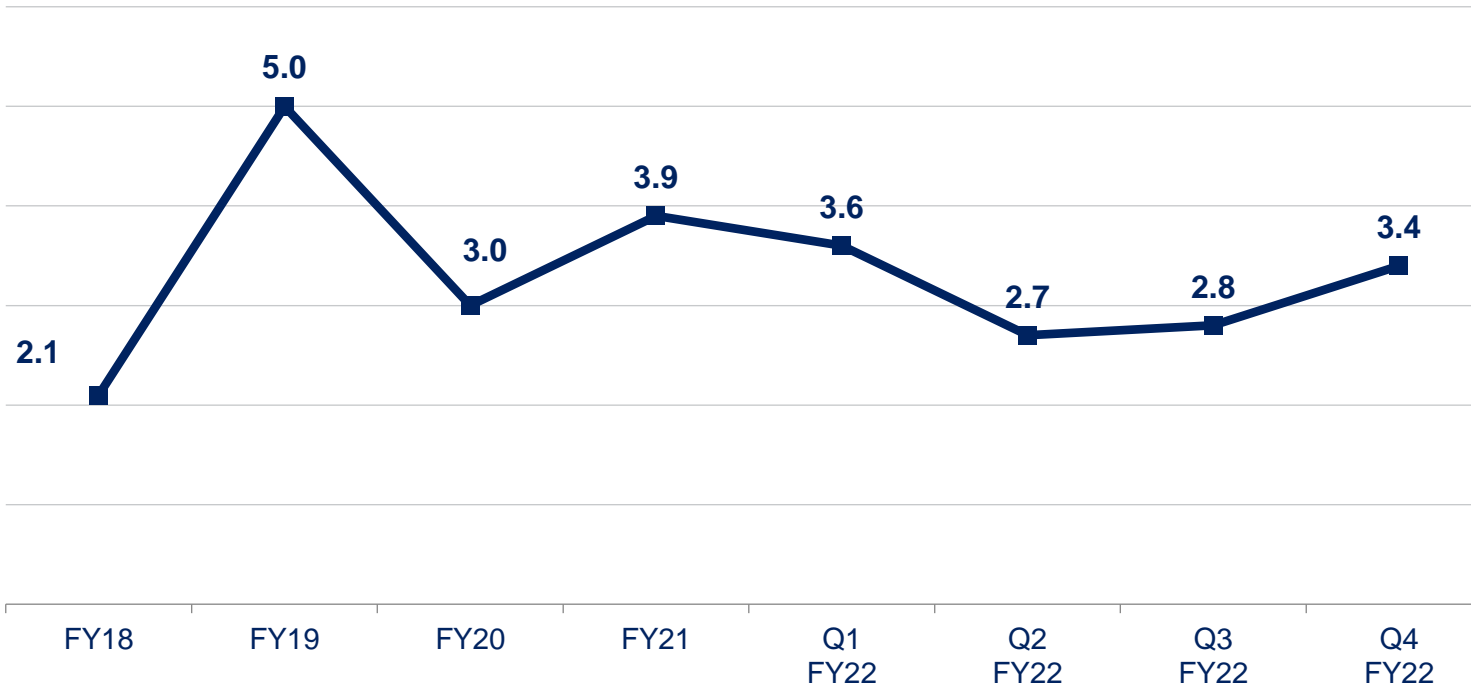
We recognise the unique cultural heritage, beliefs and connection to these lands, waters and communities held by First Nations people. We also recognise the importance of the continued protection and preservation of cultural, spiritual and educational practices.

Because we value treating all people with respect, we are committed to building successful and mutually beneficial relationships with the First Nations peoples throughout our areas of operation.



Safety always

TOTAL RECORDABLE INJURY FREQUENCY RATE (TRIFR)¹



Safety Always

Zero harm is always our target. Zero harm to all people as we responsibly operate our assets to their full potential. This focus on safety guides everything we do.

¹. Total Recordable Injury Frequency Rate (12 month avg.), total recordable injuries per million hours worked



Leonora is central to regional consolidation

- Largest Mineral Resource of 10.5 million ounces and Ore Reserve of 2.5 million ounces¹ of gold
- Near term Mineral Resource and Ore Reserve growth
- New Zoroastrian mine on track to commence production in Q1 FY24
- Significant exploration potential with a land holding that increased by ~70% with the Bardoc acquisition
- Leonora Processing Plant to be expanded from 1.4mtpa to 2.1mtpa

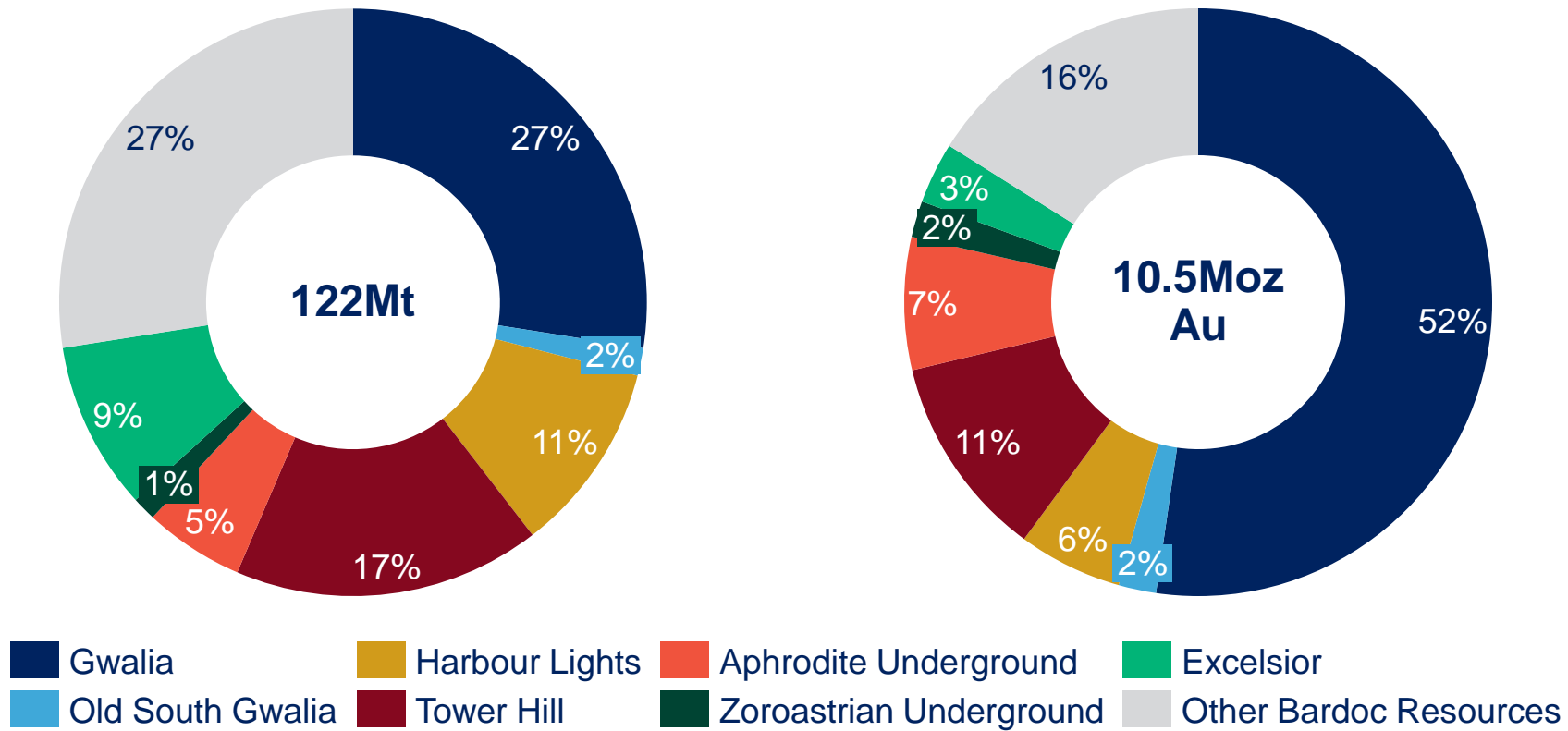


¹ – Refer to report titled 'Quarterly Report Q3 March FY22' released to the Australian Securities Exchange (ASX) on 28 April 2022 for updated Ore Resources and Mineral Reserves. The Leonora region includes deposits within 100km radius of Leonora processing plant and Zoroastrian and Aphrodite which are planned to be transported by rail.

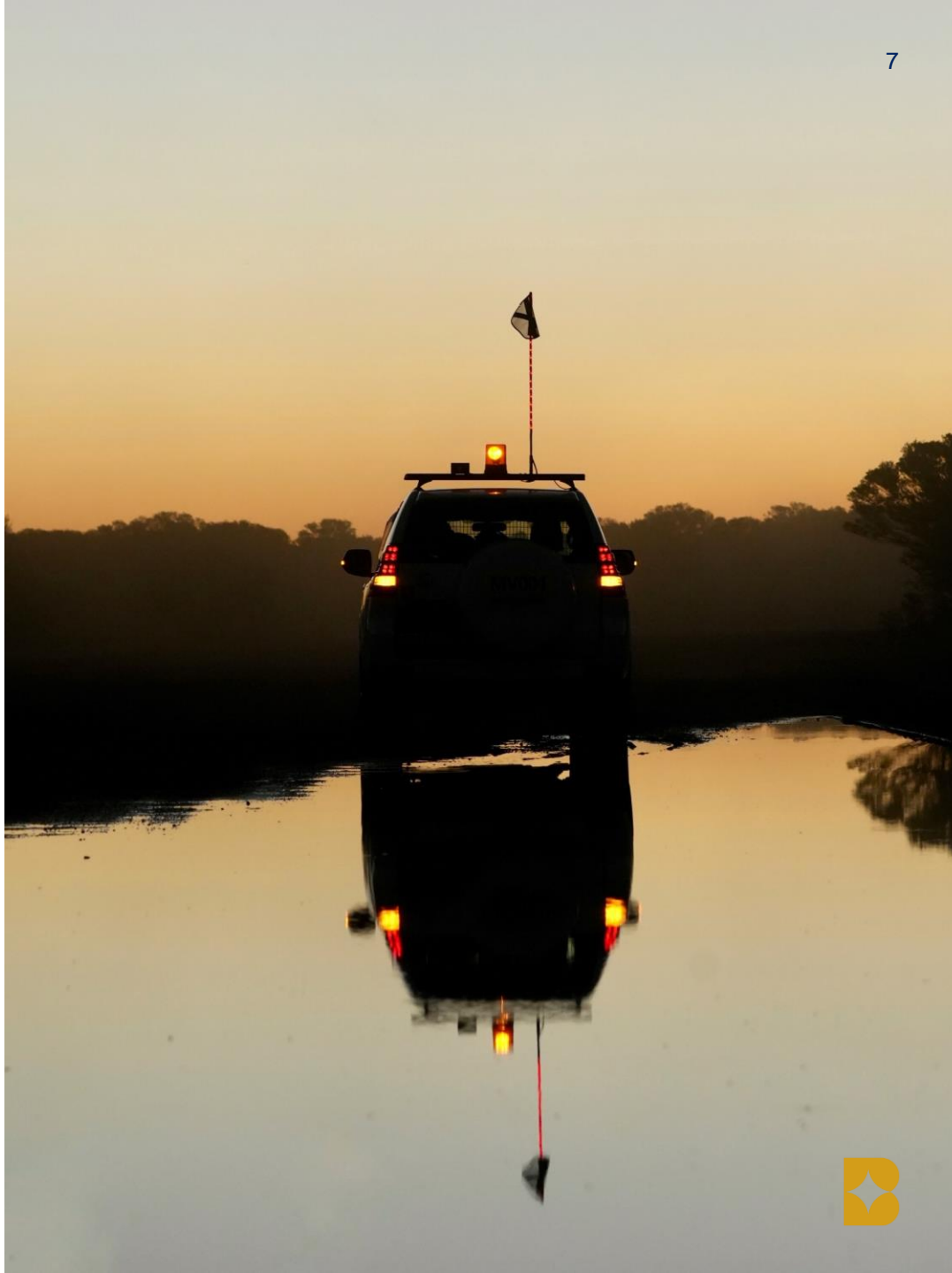
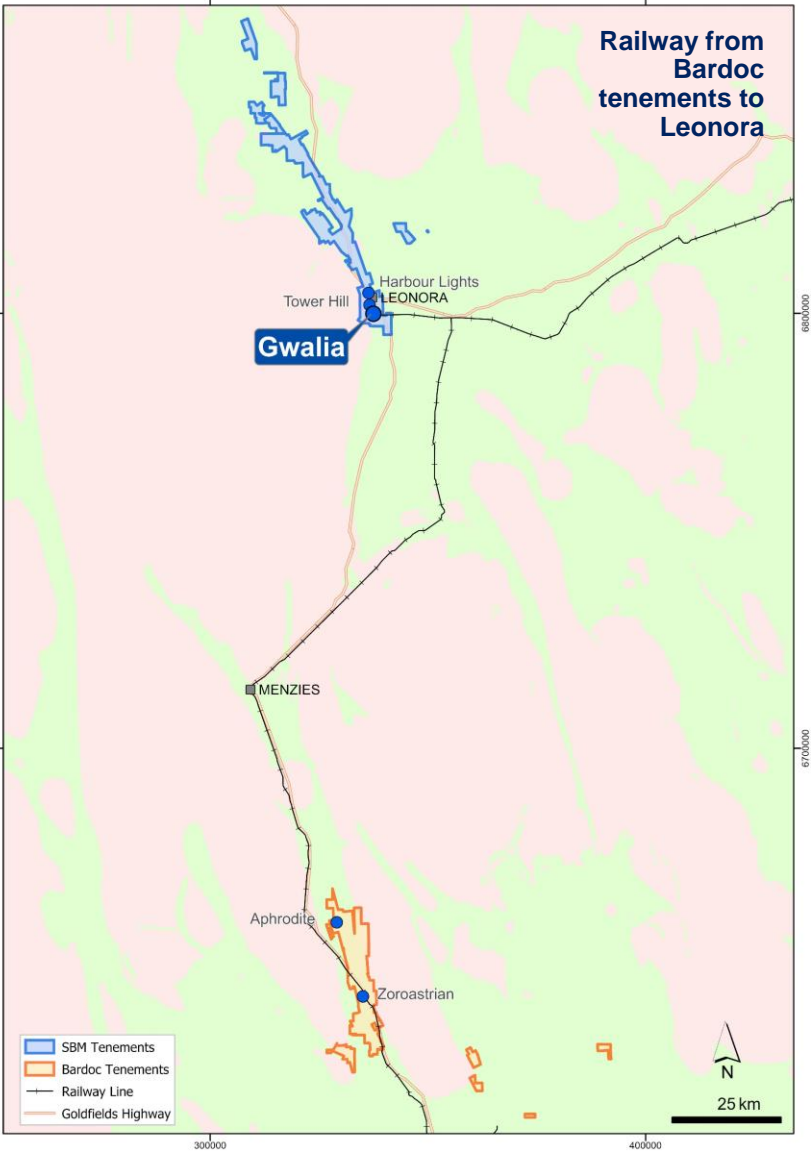


St Barbara's Leonora Province has a productive mill, region leading resource base and a long mine life

Mineral Resources in the Leonora Province

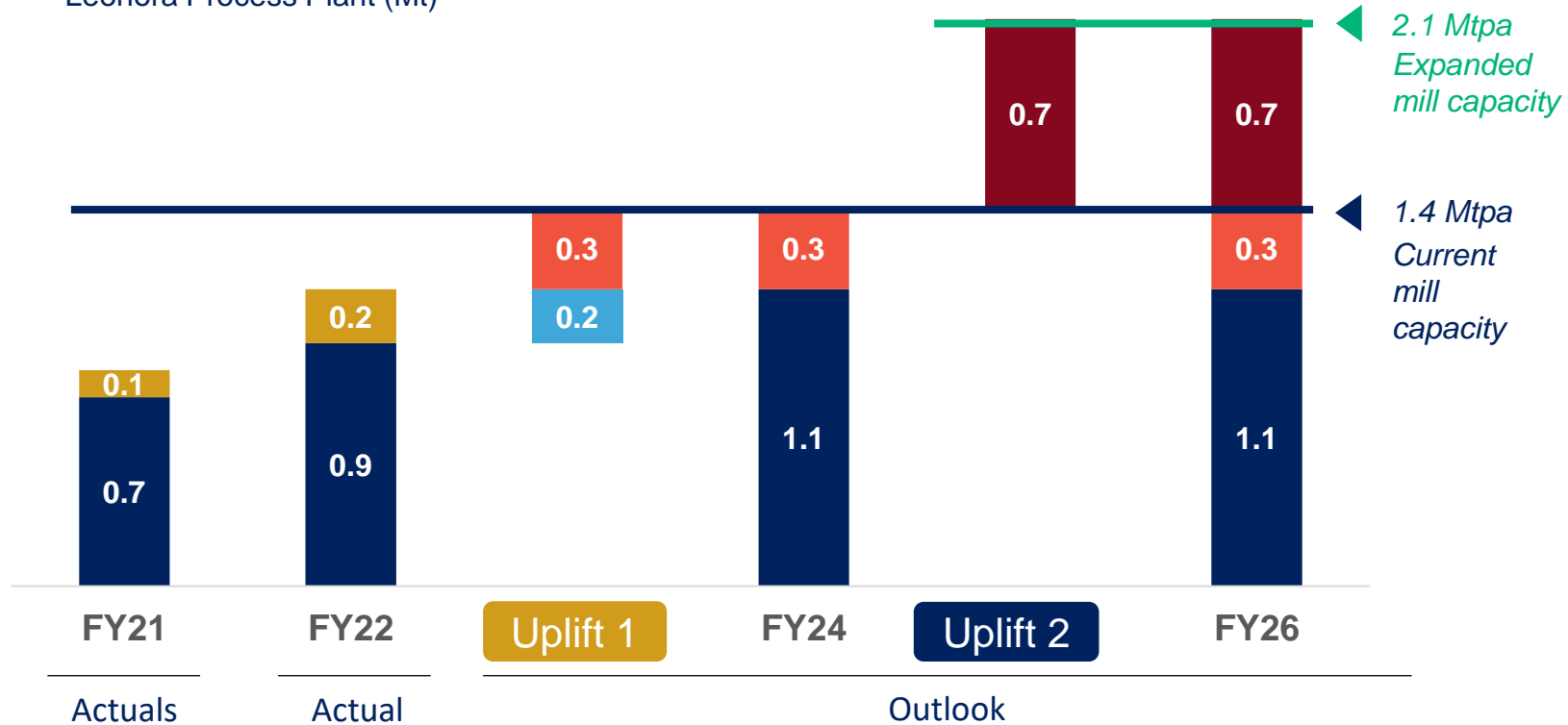


Province Plan thinking unlocks value with Bardoc acquisition



Zoroastrian and Aphrodite to fill the mill

Tonnes processed by
Leonora Process Plant (Mt)



The rapid integration of the Bardoc assets into the Leonora portfolio is on track to be delivered earlier than first planned and will assist in closing the feed gap in filling the Leonora mill.

- Gwalia underground
- Toll milling / Ore purchase
- Improvements and new mining fronts
- Zoroastrian
- Aphrodite



Zoroastrian first production six months ahead of original guidance

Zoroastrian Underground Mineral Resource

1.6mt @ 4.0g/t Au

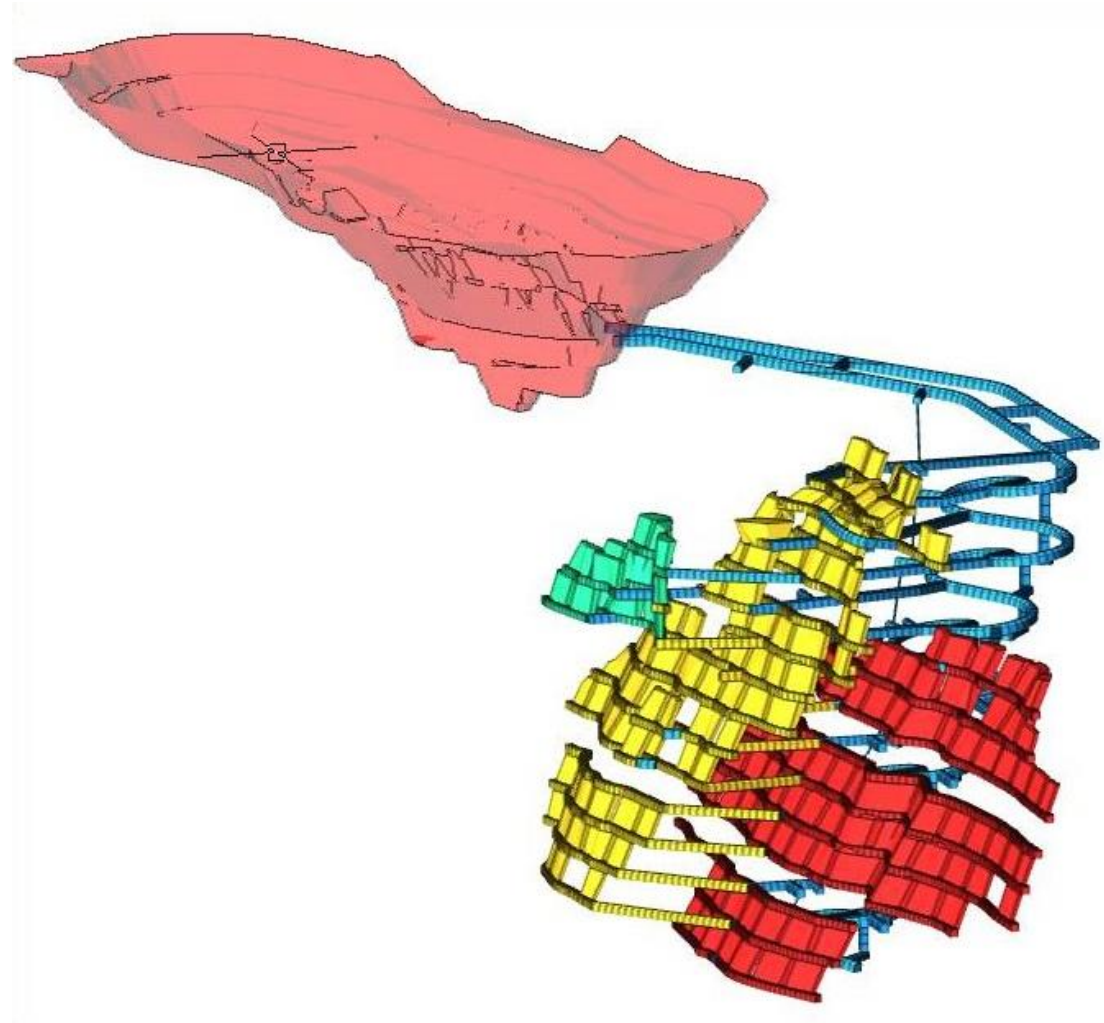
On track for first production in Q1 FY24

- The first full year of production to contribute 30koz of gold from ~300kt at 3g/t Au

Mineral Resources to supply at least three years of ore to Leonora Process Plant

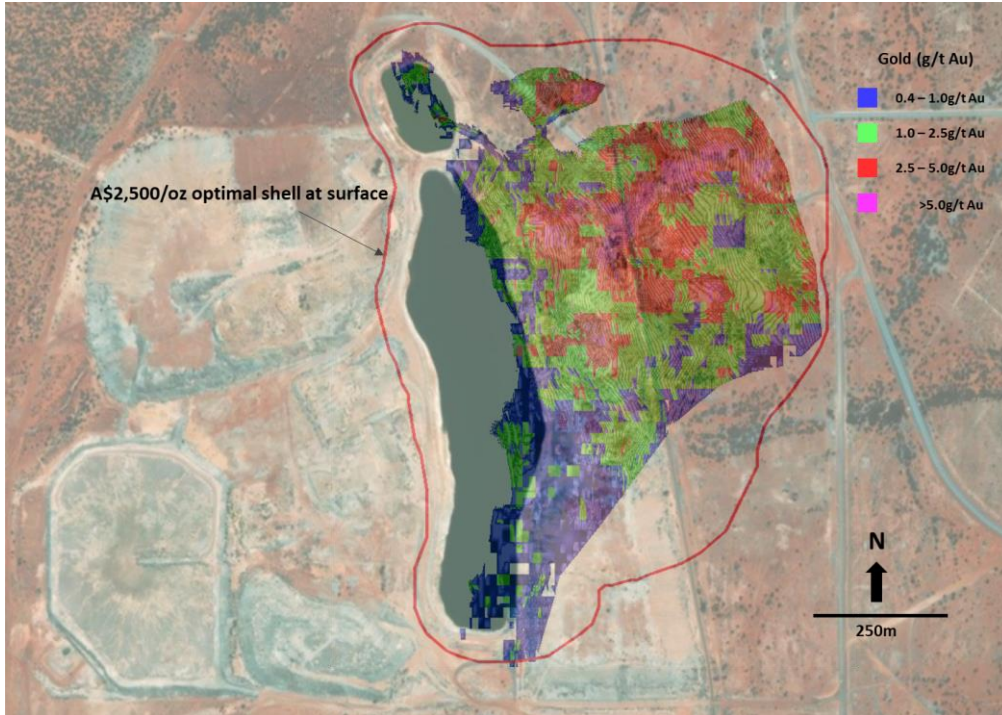
- Orebody open to the south along strike
- Resource extension drilling to commence following drill location establishment off the decline
- Investigating potential commence exploration drilling from surface to help deliver additional resources earlier

Proposed decline

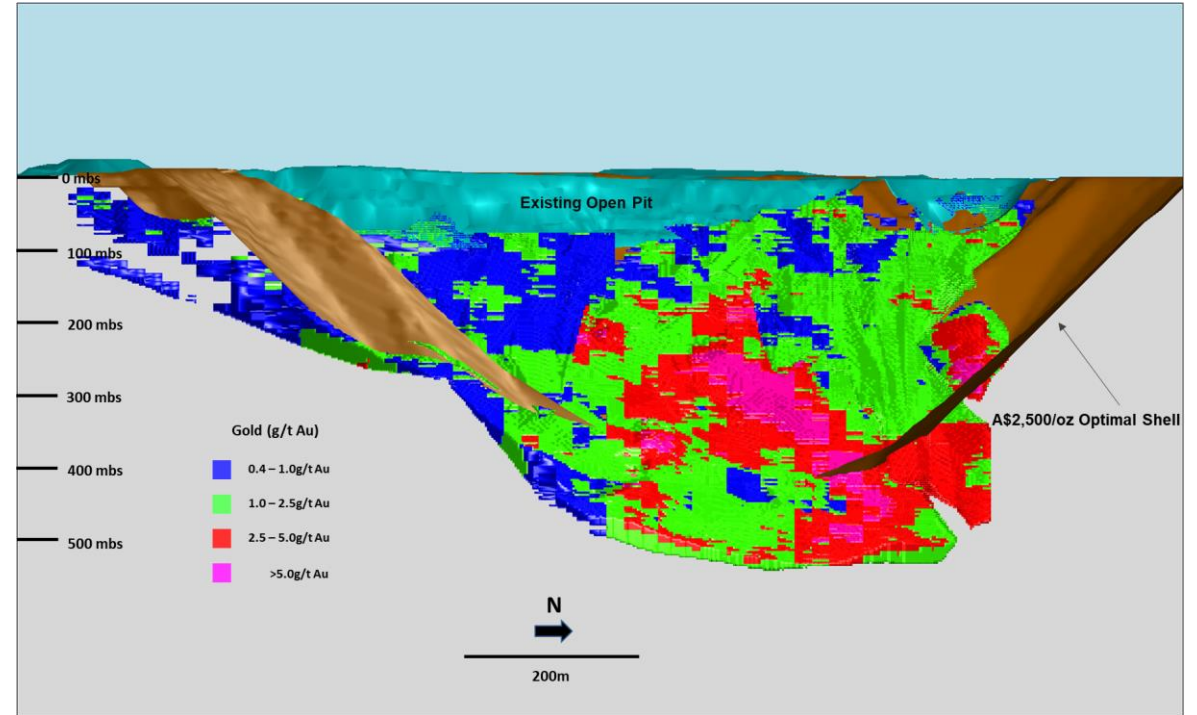


Tower Hill grows Mineral Resource by 600koz Au

Plan view of Tower Hill deposit



Long section view of Tower Hill deposit



Change in Indicated and Inferred Mineral Resource	Million Tonnes	Grade (g/t)	Million Ounces
Previous Tower Hill Underground (as at 30 June 2021)	5.1	3.8	0.6
Current Tower Hill Open Pit	20.7	1.8	1.2
Variance	15.6	1.2	0.6



Old South Gwalia adds 218koz of gold resource

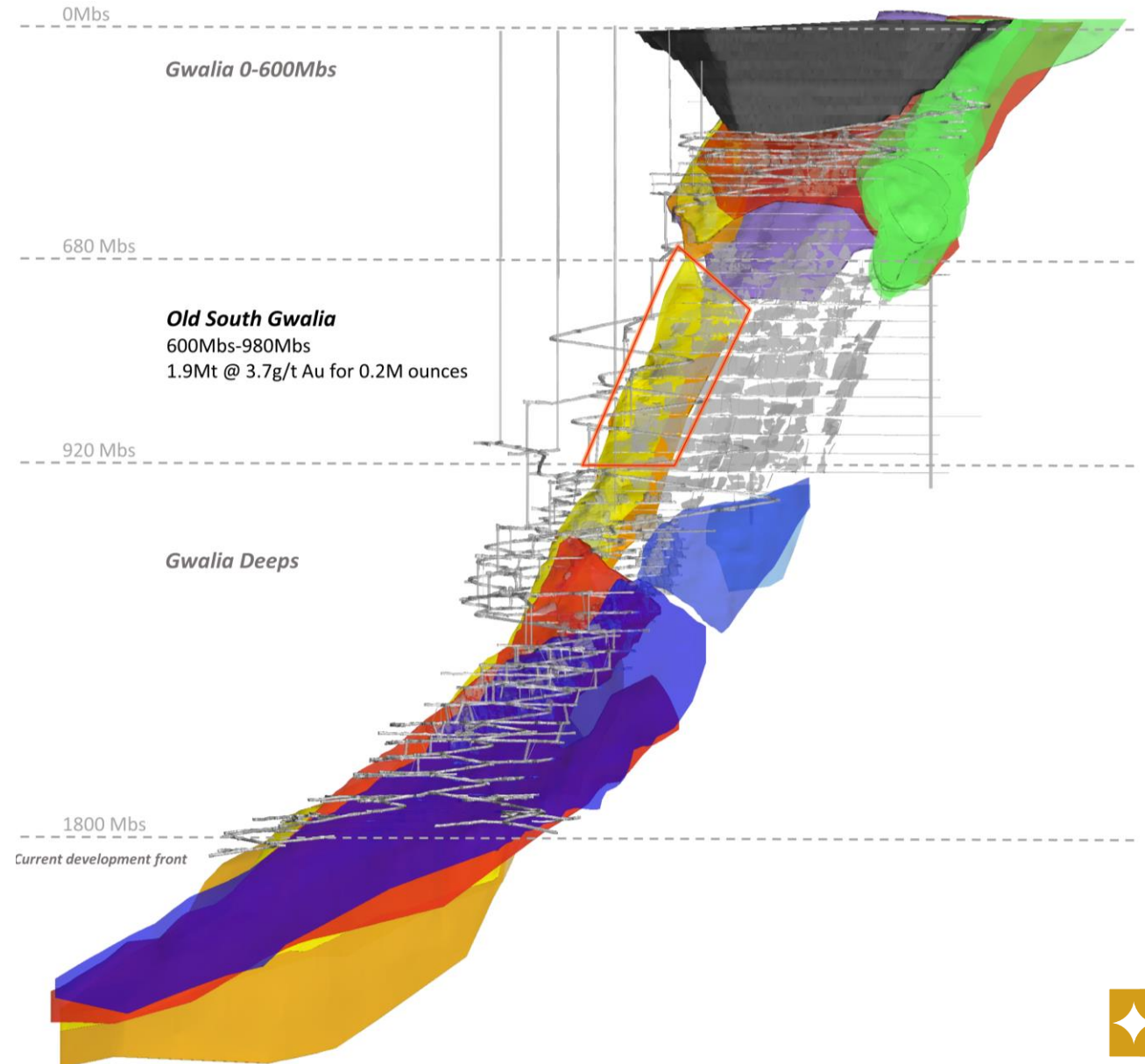
Old South Gwalia Mineral Resource

1.9mt @ 3.7g/t Au

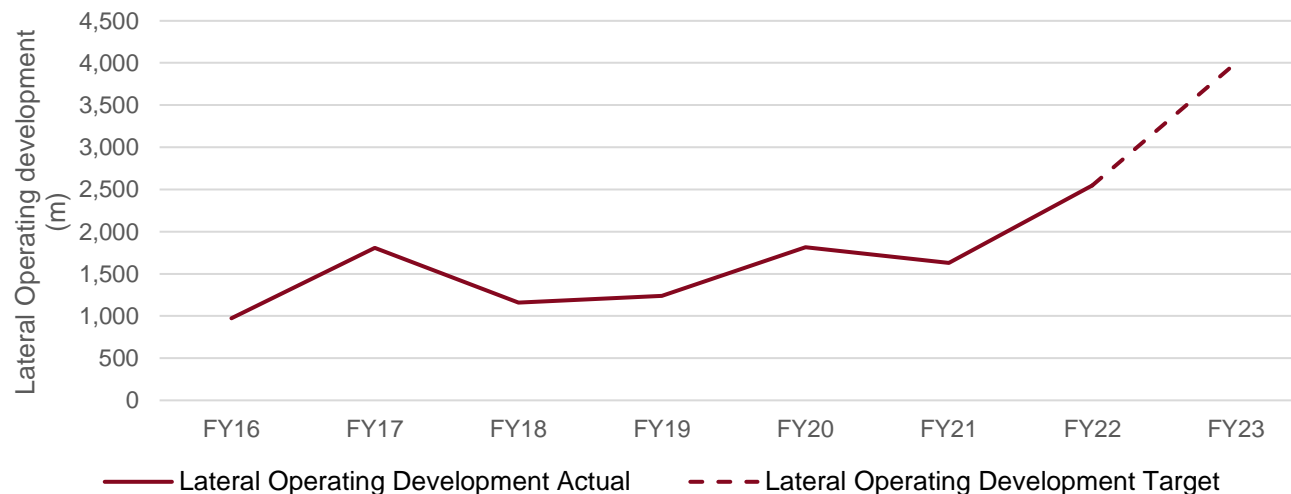
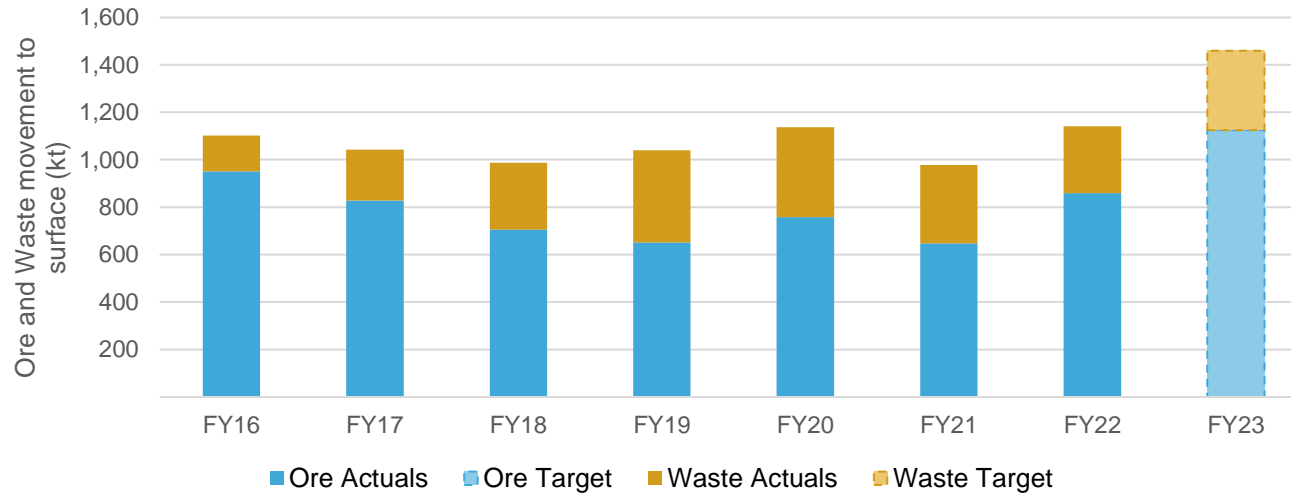
Old South Gwalia has the potential to become a new, shallower mining front at Gwalia

Further near term Ore Reserve and Mineral Resource growth to come

- Updated resource estimate in progress for area above Old South Gwalia (between 600mbs and surface)
- Inaugural Tower Hill Open Pit Ore Reserve targeted for September quarter FY23
- Inaugural Harbour Lights Open Pit Ore Reserve targeted for March quarter FY23



Turning around operational performance at Gwalia

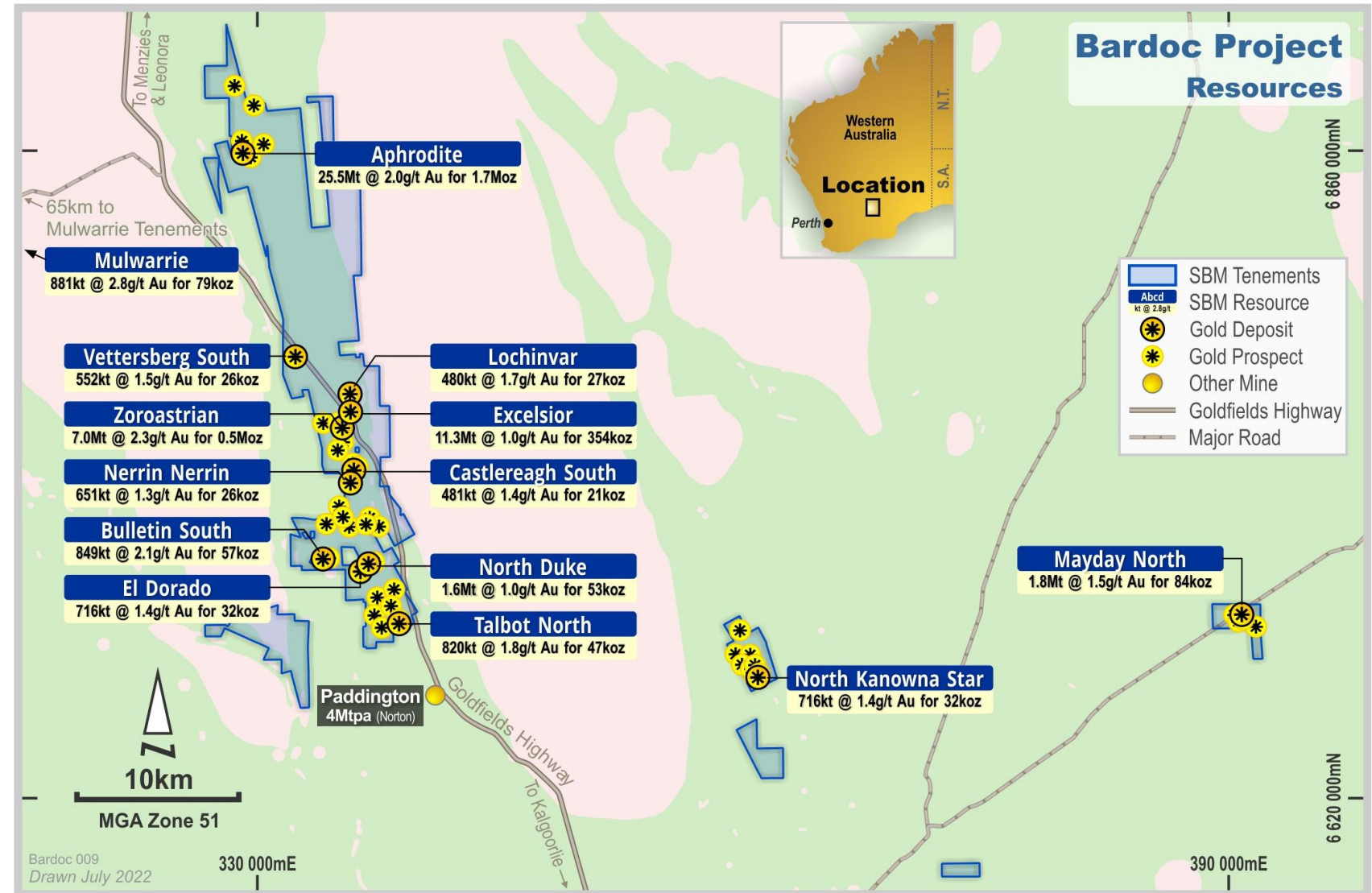


- FY16 to FY20 – Declining performance
 - Fewer tonnes moved to surface
 - Limited development metres
 - Waste material stored underground
- FY21 to FY22 – Turnaround
 - Moving historical waste material to surface
 - Increase in development metres
- FY21 – Impacted by Fall of Ground Event
 - Cleared remaining waste stored underground
- FY22 – Increased ore delivery to surface to 859kt
 - Haul fleet focused on ore delivery
 - Additional jumbos added to fleet to further increase development metres
- FY23 – Increase ore delivery to surface to 1.1Mt



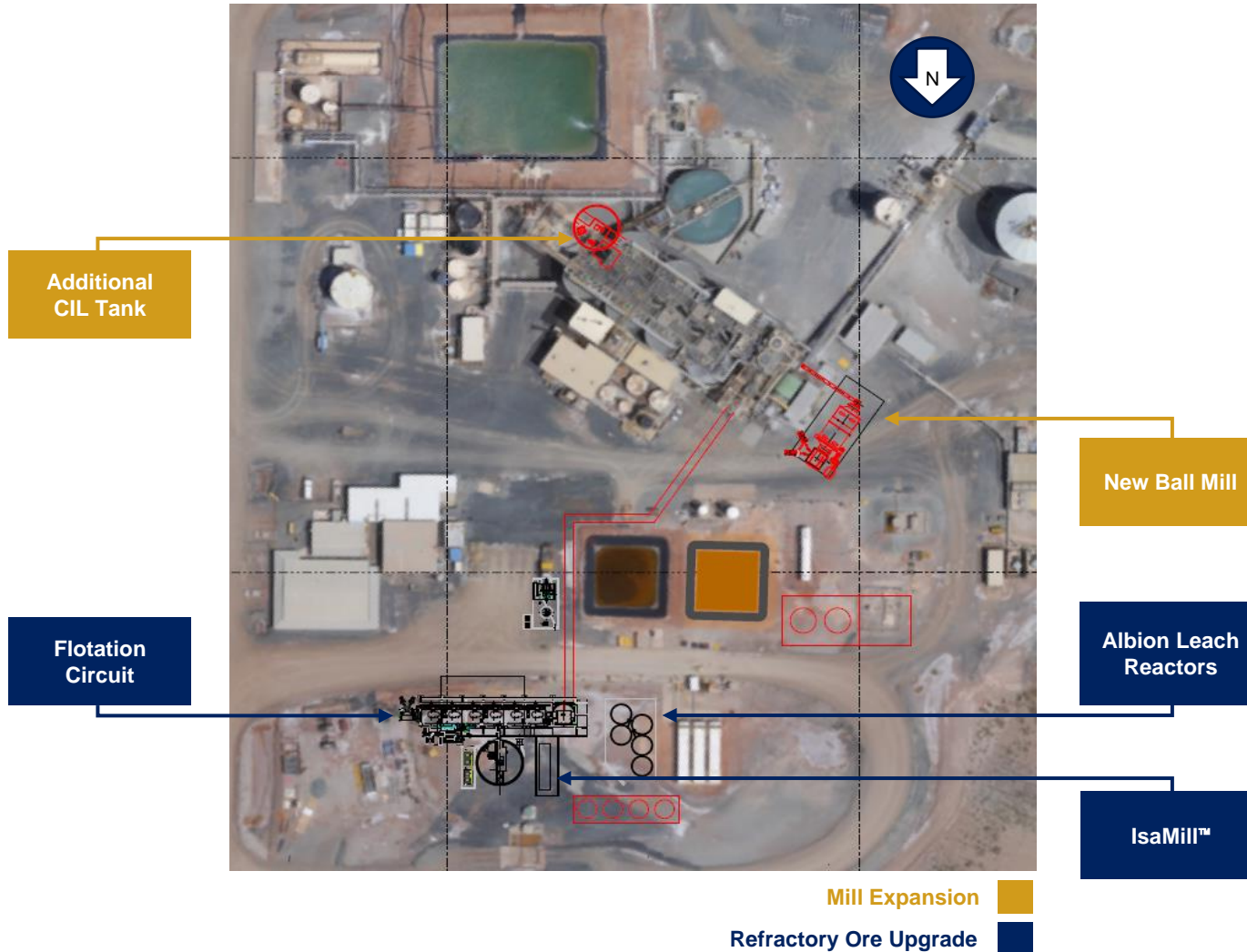
Exploring for high grade deposits in the Leonora Province

- 475km² of prospective ground in the Leonora Province
- Landholding increased by ~70% since the acquisition of Bardoc
- ~\$12M of exploration expenditure to be deployed to Leonora and Bardoc regions
- Up to 22,000m of drilling planned for FY23
- Bardoc drilling will focus on Zoroastrian & Aphrodite deposits
- 25 priority targets identified, with top ranked targets to be drill tested



Low cost plant expansion from 1.4mtpa to 2.1mtpa

Proposed expansion layout



Low capital cost debottlenecking opportunity

- 50% capacity expansion for modest investment
- Additional ball mill and CIL tank to debottleneck
- Feasibility study completion expected in Q3 FY23
- Expansion to be completed in Q4 FY24

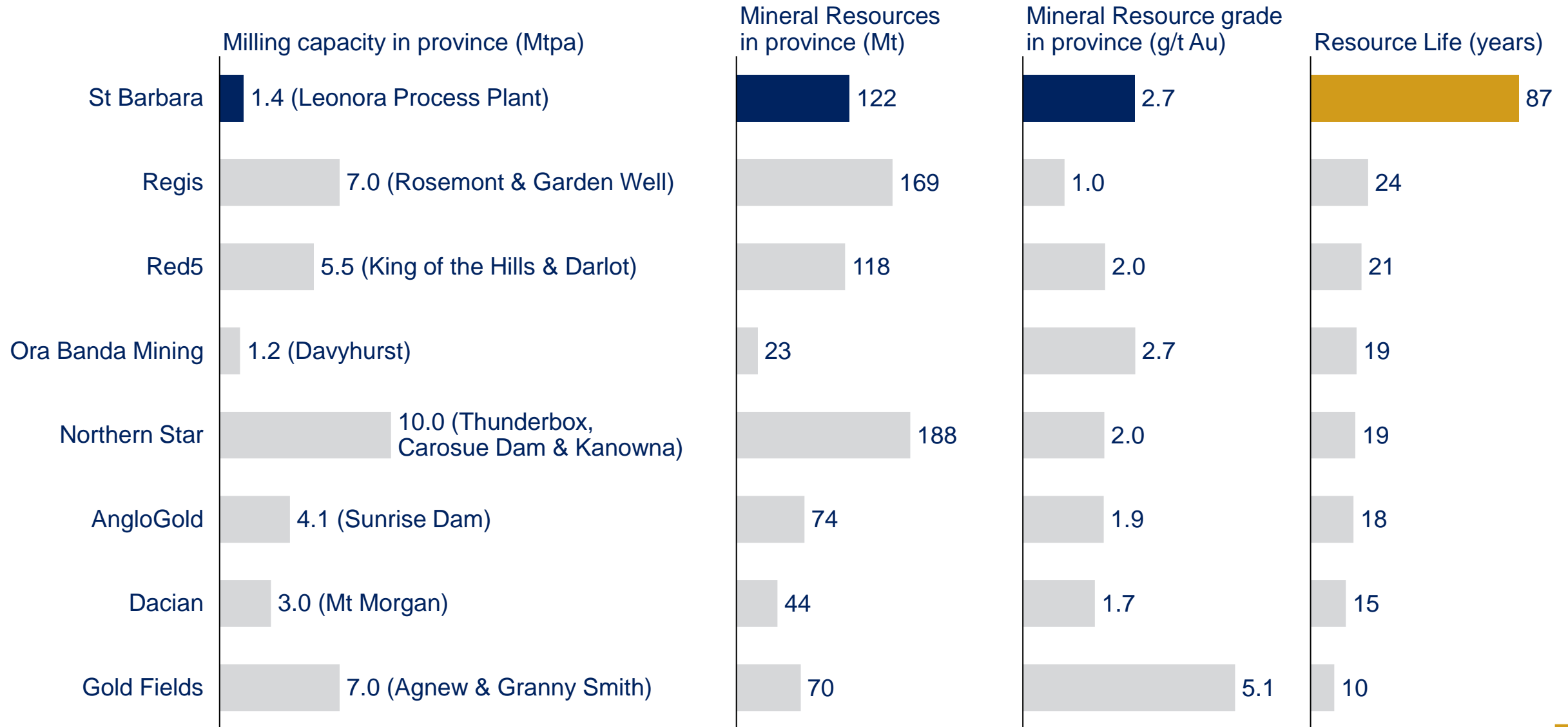
Integrated refractory treatment capability

- Capital cost: ~A\$110 - 120M¹
- Treat Aphrodite and Harbour Lights refractory ore
- Flotation circuit and fine grind via IsaMill™ installation enables use of Albion Process™
- Feasibility study to be completed by Q3 FY23

1. Preliminary estimate only, to be the subject of detailed analysis as part of the Feasibility study



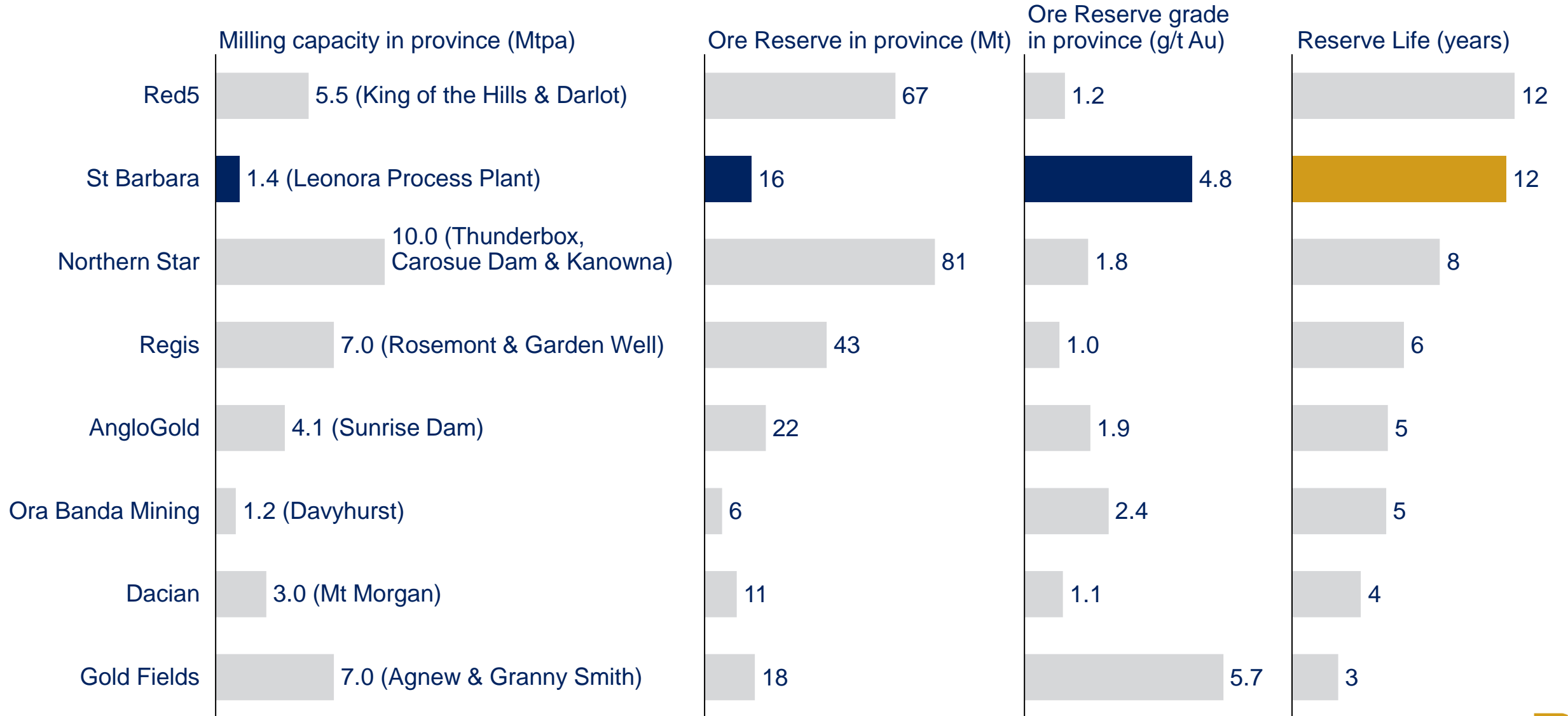
Significant Mineral Resource life underpins organic growth options



Gold Mineral Resources retrieved from the latest company filings
 Resource life calculated by dividing Mineral Resources in province by milling capacity
 Considers operating mills only



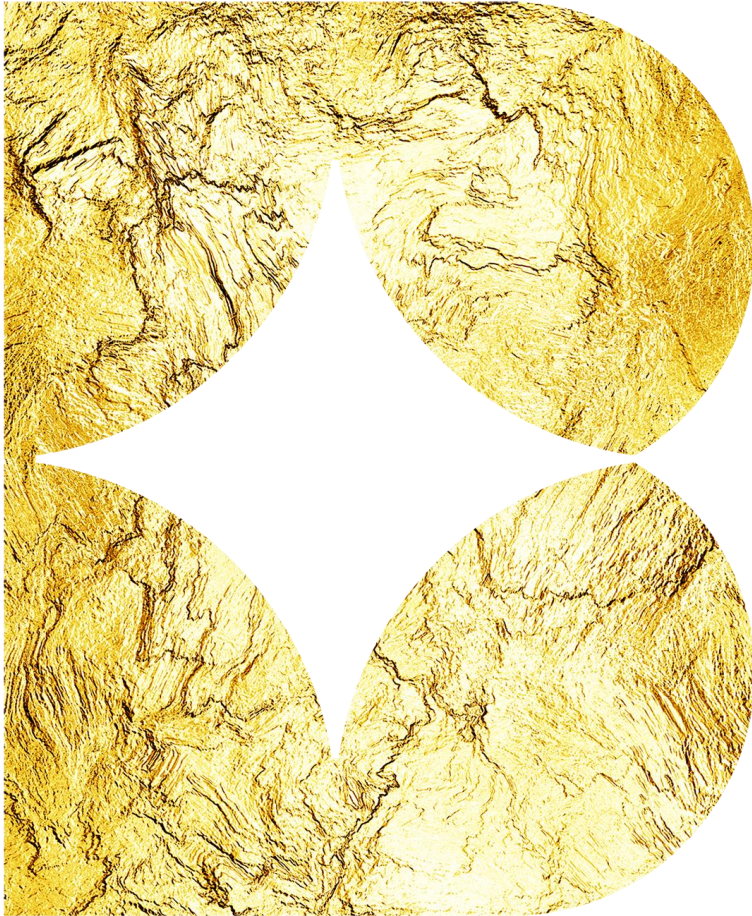
High grade Ore Reserves with long life



Gold Ore Reserves retrieved from the latest company filings
Reserve life calculated by dividing Ore Reserves in province by milling capacity



Leonora is central to regional consolidation



Largest Mineral Resource and Ore Reserve in region¹

Near term Mineral Resource and Ore Reserve growth

Zoroastrian mine to commence production in Q1 FY24

Significant exploration potential in land holding

Leonora Processing Plant expansion

¹ – Refer to report titled 'Quarterly Report Q3 March FY22' released to the Australian Securities Exchange (ASX) on 28 April 2022 for updated Ore Resources and Mineral Reserves. The Leonora region includes deposits within 100km radius of Leonora processing plant and Zoroastrian and Aphrodite which are planned to be transported by rail.





St Barbara

Supplementary slides



Exploration Results

The information in this presentation that relates to Exploration Results is based on information compiled by Dr Roger Mustard, who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Mustard is a full-time employee of St Barbara and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Mustard consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resources and Ore Reserves reporting

The information in this presentation that relates to Mineral Resources for Old South Gwalia is based on information compiled by Ms. Jane Bateman who is a Fellow of the Australasian Institute of Mining and Metallurgy. Jane Bateman is a full-time employee of St Barbara Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Jane Bateman consents to the inclusion in the statement of the matters based on her information in the form and context in which it appears.

Full details of Old South Gwalia Mineral Resource Estimate are in ASX release titled "Q4 June FY22 Quarterly Report" dated 27 July 2022 which is available to view on www.stbarbara.com.au

The information in this presentation that relates to all other Mineral Resources or Ore Reserves is extracted from the report titled 'Quarterly Report Q3 March FY22' released to the Australian Securities Exchange (ASX) on 28 April 2022 (Original Report) and available to view at stbarbara.com.au and for which Competent Persons' consents were obtained. Each Competent Person's consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

St Barbara confirms that it is not aware of any new information or data that materially affects the information included in the announcements referred to above (Original Announcements) and that all material assumptions and technical parameters underpinning the Mineral Resources and Ore Reserves estimates in the Original Announcements continue to apply and have not materially changed. St Barbara confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the Original Announcements.

Full details of recent exploration results in ASX release titled "Q4 June FY22 Quarterly Report" dated 27 July 2022 which is available to view on www.stbarbara.com.au.

Non-IFRS measures

We supplement our financial information reporting determined under International Financial Reporting Standards (IFRS) with certain non-IFRS financial measures, including cash operating costs. We believe that these measures provide meaningful information to assist management, investors and analysts in understanding our financial results and assessing our prospects for future performance.

All-In Sustaining Cost (AISC)

All-In Sustaining Cost is based on Cash Operating Costs, and adds items relevant to sustaining production. It includes some, but not all, of the components identified in World Gold Council's Guidance Note on Non-GAAP Metrics - All-In Sustaining Costs and All-In Costs (June 2013). Refer most recent quarterly report available at stbarbara.com.au for example.

Cash contribution

Cash flow from operations before finance costs, refer reconciliation of cash movement in the most recent quarterly report available at stbarbara.com.au

Cash operating costs

Calculated according to common mining industry practice using The Gold Institute (USA) Production Cost Standard (1999 revision). Refer most recent quarterly report available at stbarbara.com.au for example



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Scheduled ASX Announcements

25 August 2022 FY22 Full Year Financial Report

19 October 2022 Q1 September FY23 Quarterly Report

26 October 2022 Annual General Meeting





St Barbara