



December 2020 Quarterly Report Presentation

Karl Simich, Managing Director & CEO

29 January 2021

Access this presentation at:

<http://redback.events/ir-2d11e5> or <http://www.sandfire.com.au>

This presentation has been prepared by Sandfire Resources Ltd (**Sandfire or the Company**) and contains information about Sandfire current at the date of this presentation. The presentation is in summary form, has not been independently verified and does not purport to be all inclusive or complete. The Company is not responsible for providing updated information and assumes no responsibility to do so. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this presentation.

This presentation is for information purposes only. Neither this presentation nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction and may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in such jurisdiction.

This presentation does not constitute investment advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments.

To the fullest extent permitted by law, Sandfire, its related bodies corporate, and each of their officers, employees, agents and advisers expressly disclaim, to the maximum extent permitted by law, all liabilities (however caused, including negligence) in respect of, make no representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of any information, statements, opinions, estimates, forecasts or other representations contained in this presentation. No responsibility for any errors or omissions from this presentation arising out of negligence or otherwise is accepted.

Certain statistical and other information included in this presentation is sourced from publicly available third party sources and has not been independently verified.

All figures are expressed in Australian dollars unless otherwise stated. USD/AUD currency conversion 0.70 unless otherwise stated.

This presentation should be read in conjunction with the Company's December 2020 Quarterly Report released today.

This presentation is authorised for market release by Sandfire's Managing Director and CEO, Mr Karl Simich.

Forward-Looking Statements

This presentation may include forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Sandfire. There is continuing uncertainty as to the full impact of COVID-19 on Sandfire's business, the Australian economy, share markets and the economies in which Sandfire conducts business. Given the high degree of uncertainty surrounding the extent and duration of the COVID-19 pandemic, it is not currently possible to assess the full impact of COVID-19 on Sandfire's business or the price of Sandfire securities. Actual values, results or events may be materially different to those expressed or implied in this presentation. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this presentation speak only at the date of issue of this presentation. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Sandfire does not undertake any obligation to update or revise any information or any of the forward-looking statements in this presentation or any changes in events, conditions or circumstances on which any such forward-looking statement is based.

The Expansion Case to 5.2Mtpa referred to in this presentation, where it relates to A4 and other prospects, is based on preliminary resource drilling, technical and economic assessments. Drilling and associated study work at A4 is currently insufficient to support estimation of Ore Reserves or to provide assurance of an economic Expansion Case for the Motheo Production Hub.

Strategy

Creating value
through
opportunity



Highlights

December 2020
Quarter

- **DeGrussa copper production:** 16,390t of contained copper (YTD: 35,790t) and 9,660oz of contained gold (YTD: 21,343oz) at C1 US\$0.89/lb (YTD US\$0.72/lb); pleasing safety performance:
 - **FY2021 guidance:** positioning for upper end of guidance 67-70kt of contained copper and 36-40koz of contained gold, at C1 US\$0.85-\$0.90/lb
 - **Old Highway Gold Prospect resource drilling well advanced** – studies continue on transition to gold production at DeGrussa leveraging existing infrastructure
- **5.2Mtpa Motheo Copper-Silver Production Hub** concept emerging:
 - Initial **3.2Mtpa operation at T3 approved**, development commenced Q3FY2021 with **12.5-year mine life at ~30ktpa Cu and 1.2Mozpa Ag**
 - Maiden **100kt Cu Inferred Mineral Resource** for A4 deposit with strong growth potential highlighted by post-resource **high-grade intercepts of up to 16% Cu**
 - **Exceptional exploration upside** within dominant 26,650km² ground-holding in Botswana and Namibia
- **Black Butte Copper Project, USA** – Feasibility Study issued, enhancements underway; maiden Ore Reserve for the Johnny Lee Deposit; updated Inferred Mineral Resource for the Lowry Deposit; new exploration programs underway
- **Strong \$335.8M cash holding and no debt** at Quarter-end (subject to auditor review, excluding lease liabilities); 4 shipments completed in January 2021

Safety, health and well-being

- Total Recordable Injury Frequency Rate (TRIFR) of 3.1 at Quarter-end (5.5 at September 2020 Quarter-end)
- Continued focus on employee and contractor health and well-being during the COVID-19 global pandemic
- Christmas Family Day at DeGrussa providing an opportunity for families of staff working over Christmas to celebrate on site

HSEC

The health and well-being of our people is of paramount importance to us



DeGrussa

Strong
foundations in
Western Australia



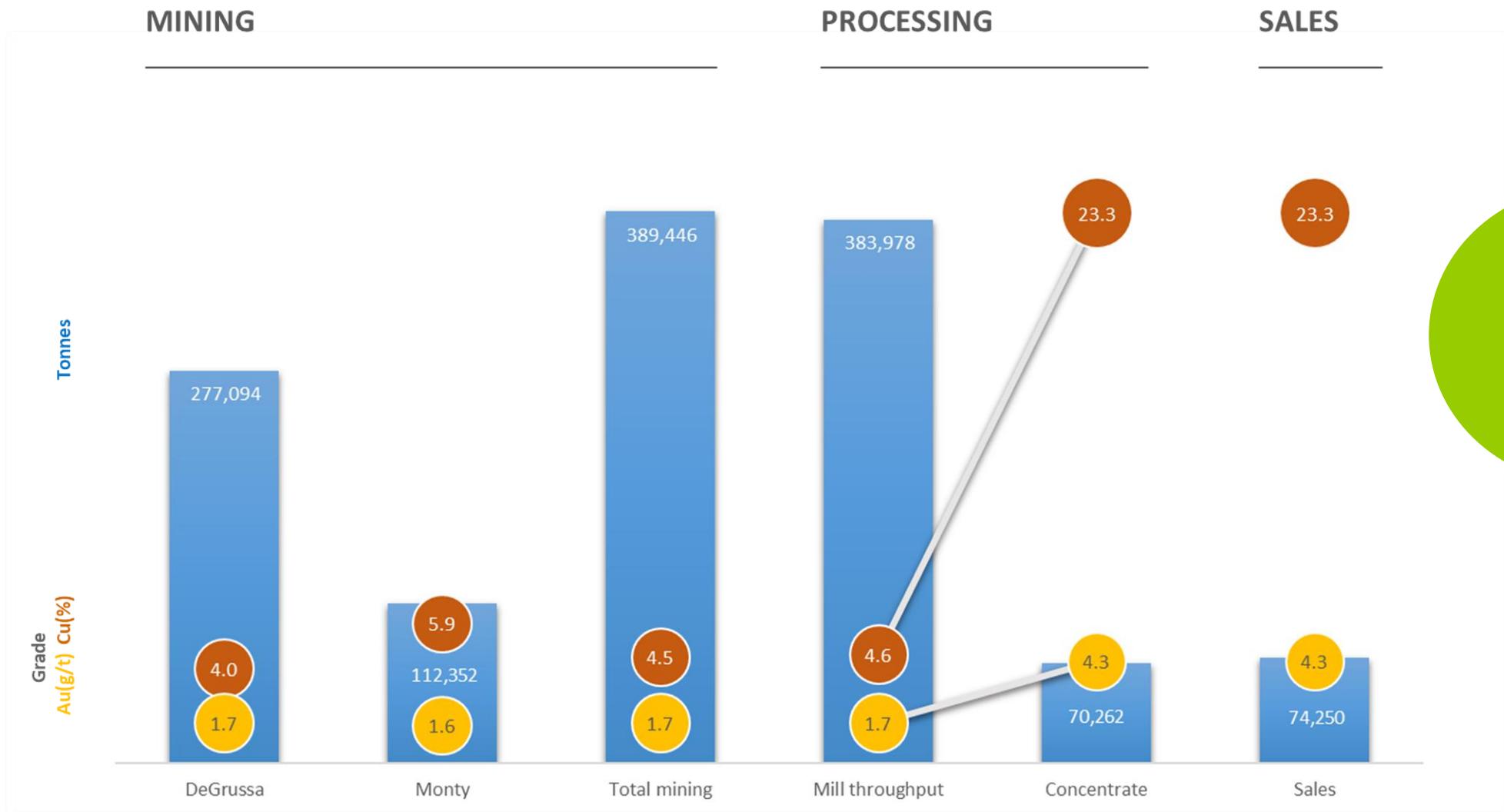
DeGrussa Operations, WA

- DeGrussa Copper-Gold Mine
- Monty Copper-Gold Mine

Exploration

- Greater Doolgunna Province, WA
- East Coast Portfolio (NSW, Qld)

DeGrussa Operations | December 2020 Quarter Production

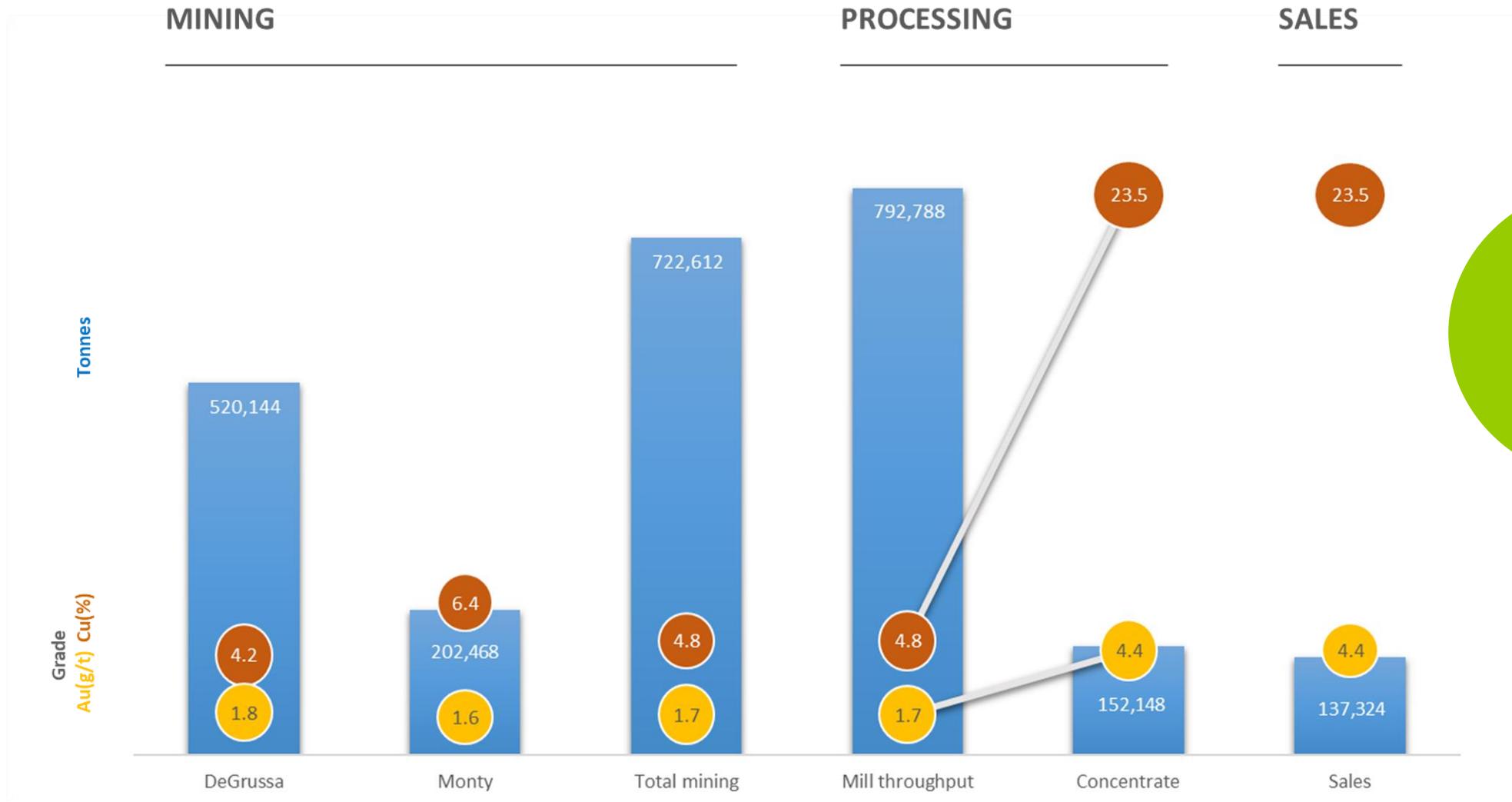


Copper production: **16,390t Cu**
9,660oz Au contained

93.1% Cu recovery

46.4% Au recovery

DeGrussa Operations | FY2021 YTD Production

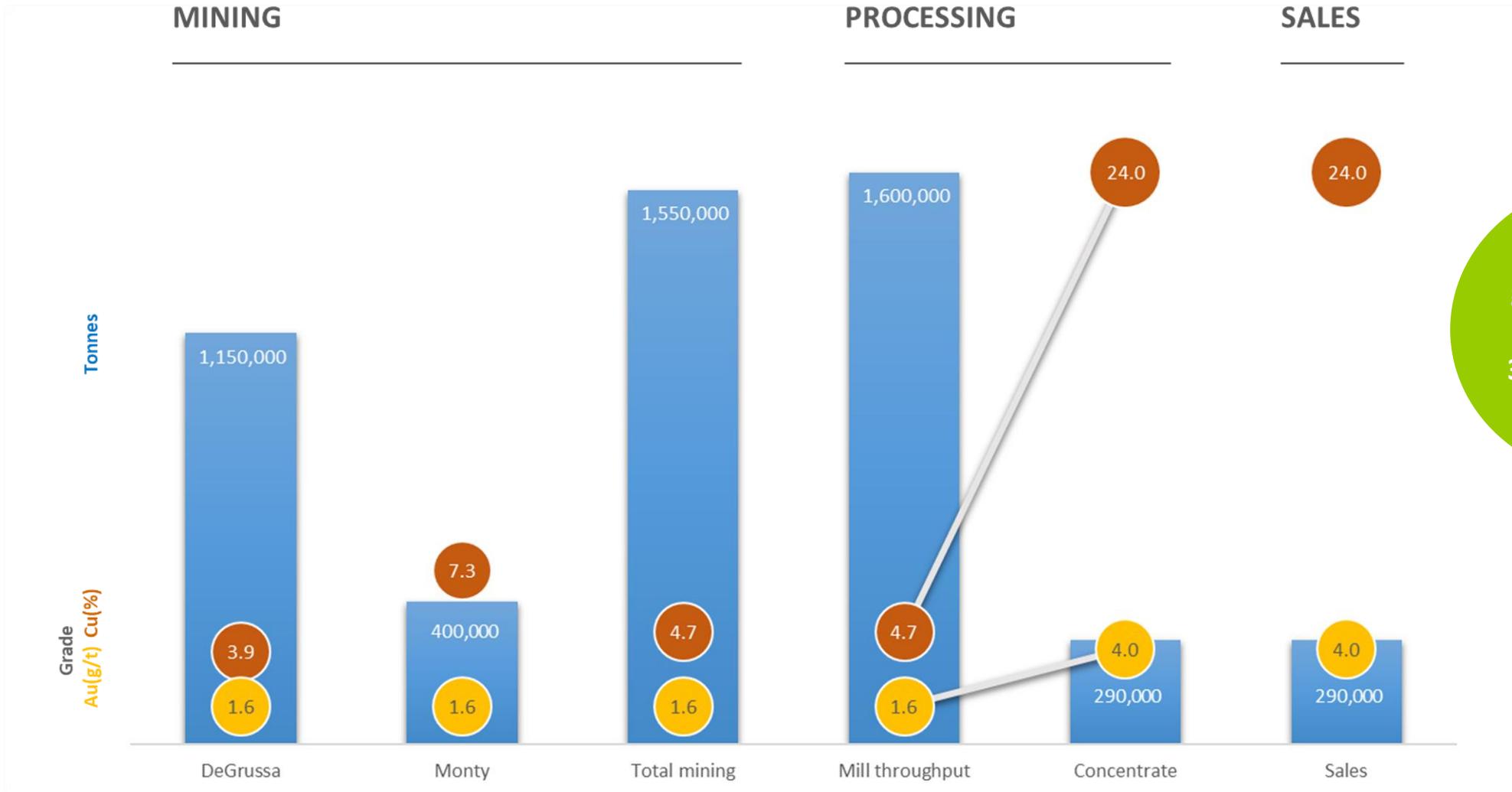


93.4% Cu recovery

Copper production: **35,790t Cu**
21,343oz Au contained

48.4% Au recovery

DeGrussa Operations | FY2021 Production Guidance



Upper end of guidance band:
67-70,000t Cu
36-40,000oz Au
 contained

49% Au recovery

93% Cu recovery



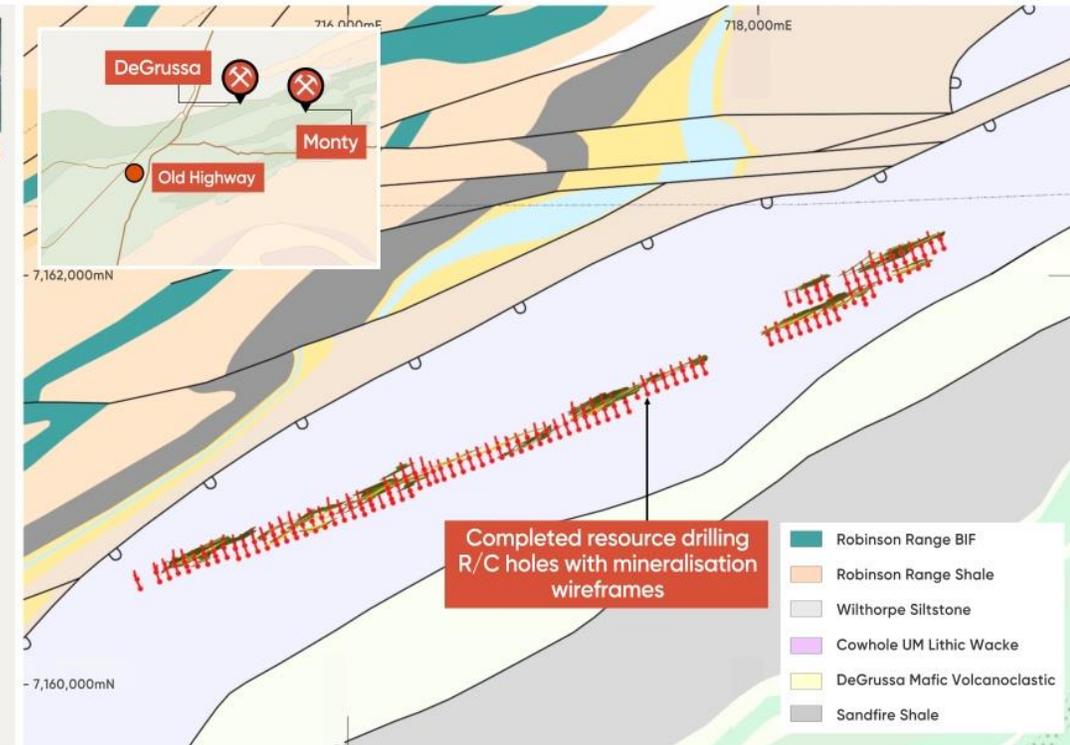
Unit operating costs	Q2 FY2021 (US\$/lb)	YTD FY2021 (US\$/lb)	Commentary
Mining	0.53	0.53	<ul style="list-style-type: none"> • Upper end of copper and gold production guidance driving expected FY2021 C1 costs to US\$0.85-\$0.90/lb
Processing	0.35	0.30	
Business services	0.11	0.12	
Transport	0.26	0.24	<ul style="list-style-type: none"> • Q2 FY2021 DeGrussa mine development \$7M; FY2021 Guidance \$35M
Treatment and refining	0.15	0.15	
C1 cost (pre by-product credit)	1.39	1.33	<ul style="list-style-type: none"> • Q2 FY2021 Monty mine development \$2M; FY2021 Guidance \$7M
By-product credit	(0.51)	(0.60)	
C1 cost	0.89	0.72	
Royalties	0.19	0.19	<ul style="list-style-type: none"> • 13 Shipments for the half-year, representing A\$355.6m of revenue (subject to auditor review) • 32,000t of copper concentrate holding at quarter end; 4 shipments in January 2021
Production cost	1.08	0.92	
Depreciation and amortisation	0.93	0.79	
Total production cost	2.01	1.70	

Potential transition to gold production at DeGrussa

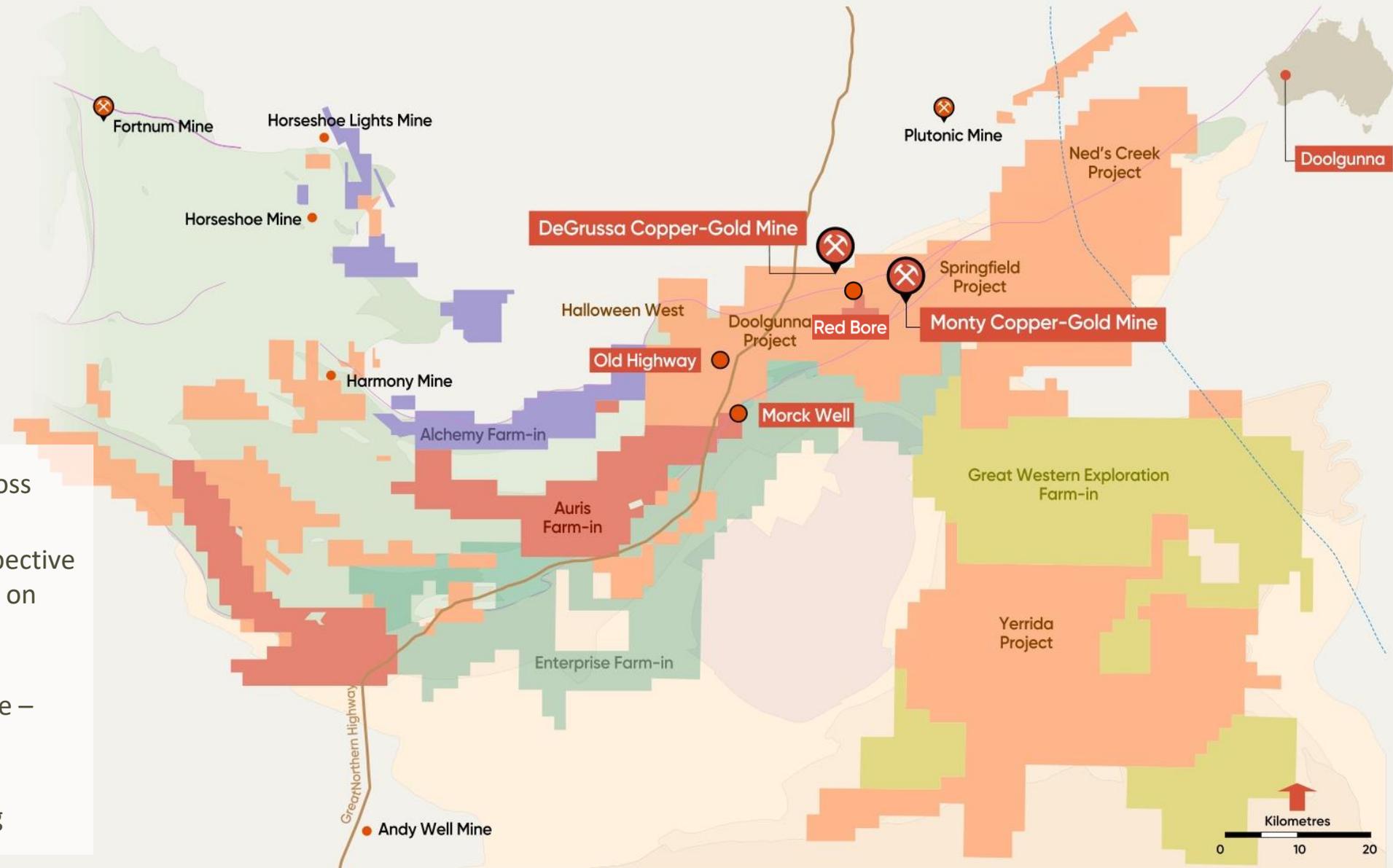
- Resource drilling continues at Old Highway Gold Prospect, 22km from DeGrussa
- Synergies with the DeGrussa Tailings Gold Retreatment Project studies
- Mineralisation hosted in quartz veining associated with shearing in sediments
- Scoping studies is progress
- Potential to open up other gold exploration opportunities in the Doolgunna region

DeGrussa

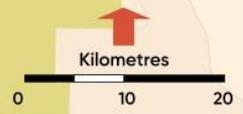
Gold Transition Strategy



Doolgunna | World-Class VMS Exploration Project



- Strategic 7,189km² footprint across the Bryah Basin
- Over 90km strike length of prospective VMS lithologies – strategic focus on southern limb of Bryah Basin
- Three centres of sulphide mineralisation discovered to date – DeGrussa, Monty, Morck Well
- Extensive and multi-pronged exploration programs continuing



Sandfire now manages exploration on the strategically located Red Bore tenement (85% interest)

- Commenced Moving Loop EM over the tenements and a review of historical data
- Drilling of massive sulphide mineralization targets adjacent to DeGrussa to commence in the next quarter

DeGrussa

Red Bore Exploration



Tshukudu

Expanding
horizons in
Botswana

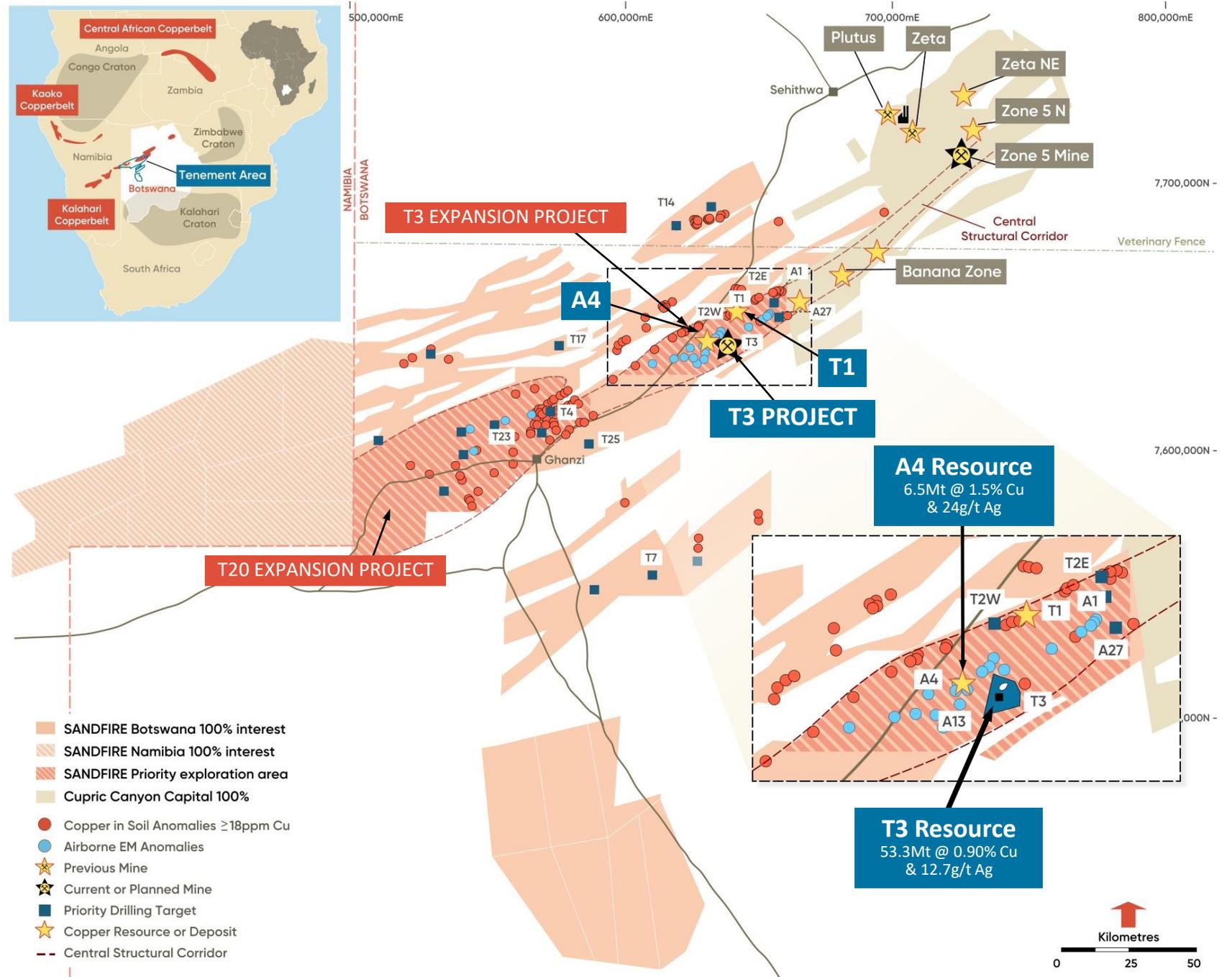


Tshukudu, Botswana

- T3 Copper-Silver Project
- A4, T1 Expansion Projects
- 26,650km² exploration portfolio (Botswana and Namibia)

Tshukudu

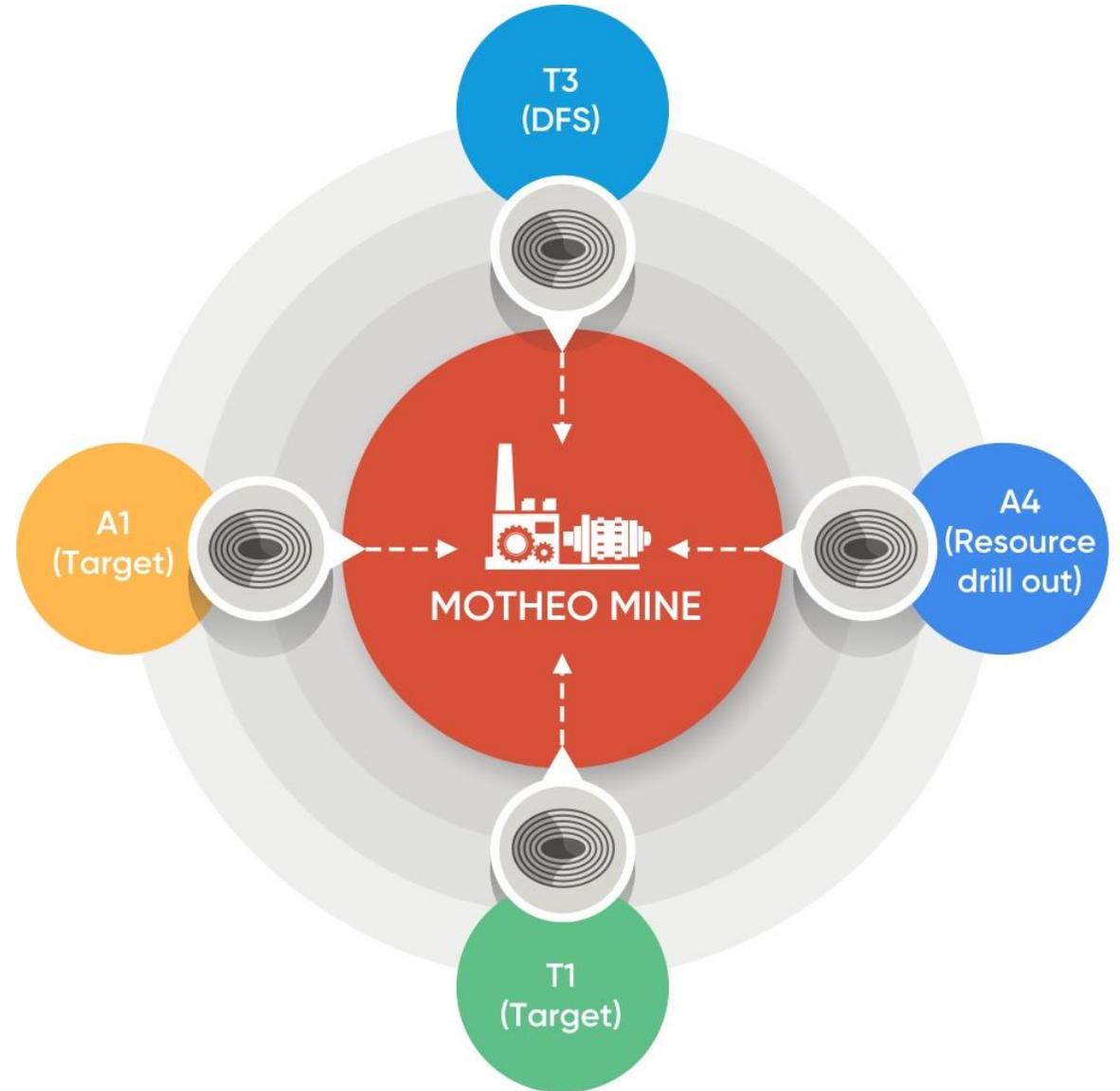
Dominant position in the Kalahari Copper Belt – 26,650km²



Motheo Production Hub

5.2Mtpa
expansion case

- Definitive Feasibility Study (DFS) for T3 3.2Mtpa Project completed
- Clear visibility to rapidly expand production to 5.2Mtpa through the addition of the A4 deposit
- T3 Motheo construction includes US\$20M upfront investment to facilitate cost effective expansion to 5.2Mtpa
- Significant potential to extend mine life through drilling at further targets including A1, T1, T2W & T2E, A27 and A13 – all located within ~30km radius of processing plant



T3 Definitive Feasibility Study

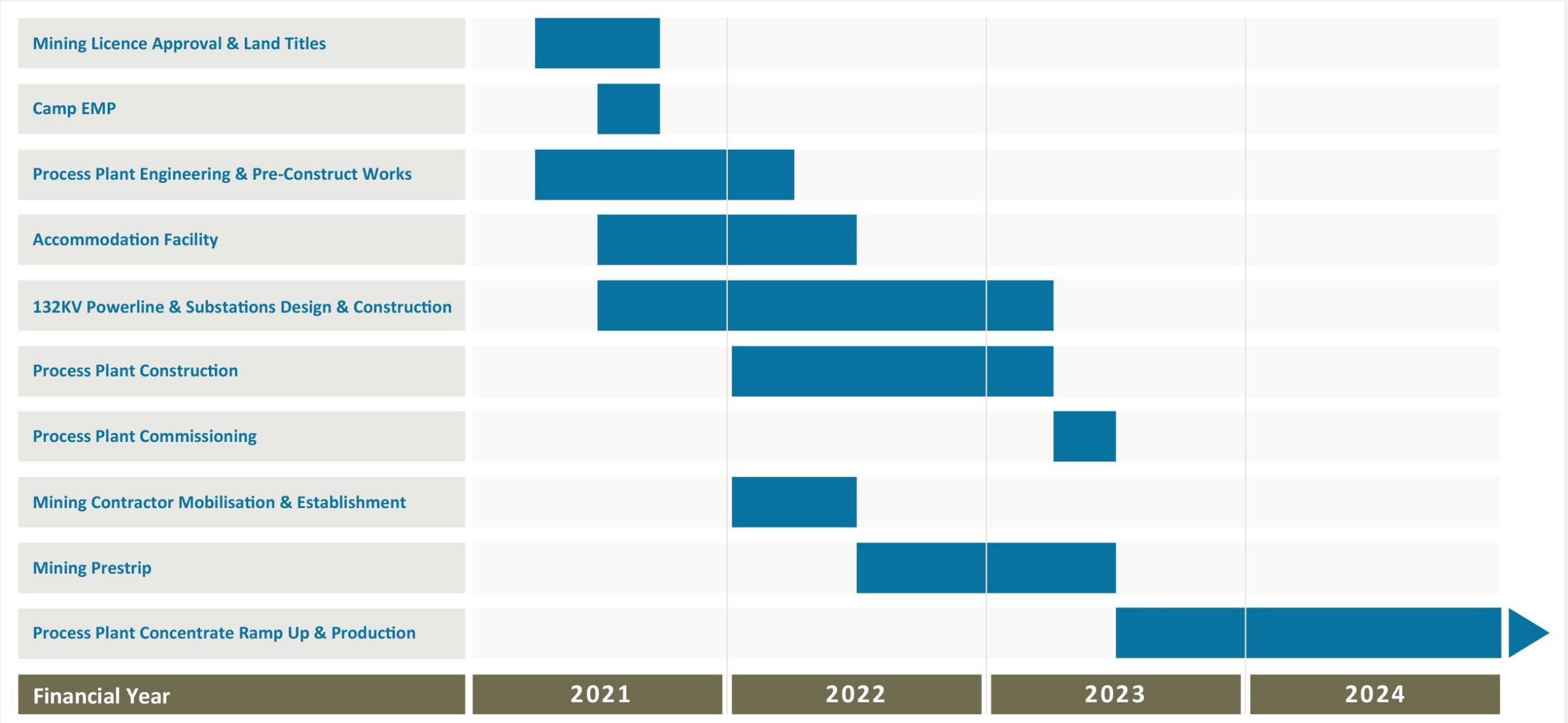
3.2Mtpa
base case

- Updated Mineral Resource: **53.3Mt at 0.90% Cu and 12.7g/t Ag (1.0% Cu equivalent) for 480kt of contained copper and 21.8Moz of contained silver**
- Updated Ore Reserve: **39.9Mt at 0.90% Cu and 12.2g/t Ag for 360kt of contained copper and 15.6Moz of contained silver**
- **12.5-year mine life** at 3.2Mtpa base case
- **Open pit mine**, with total material movement of ~34Mtpa (ore and waste) over the first 7 years
- Forecast LOM production totaling ~**100,000 dry metric tonnes of copper concentrate per annum**, containing:
 - ~**30,000t of copper** and **1.2Moz ounces of silver**
- Development capital of **US\$259 million (A\$371 million)**

Life-of-Mine Financial Economics

Copper Price (US\$/lb)	3.16
Revenue (US\$M)	2,448
C1 Cash Costs (US\$/lb)	1.65
All-in Sustaining Costs (US\$/lb)	1.84
EBITDA (US\$M)	987
Net Cash Flow (pre-tax) (US\$M)	664
Undiscounted Cash Breakeven Copper Price (US\$/lb)	2.19
Pre-tax NPV (7% real) (US\$M)	316
IRR (pre-tax)	25%
Capital Payback Period – from first production (years)	3.8

T3 Development Timeline

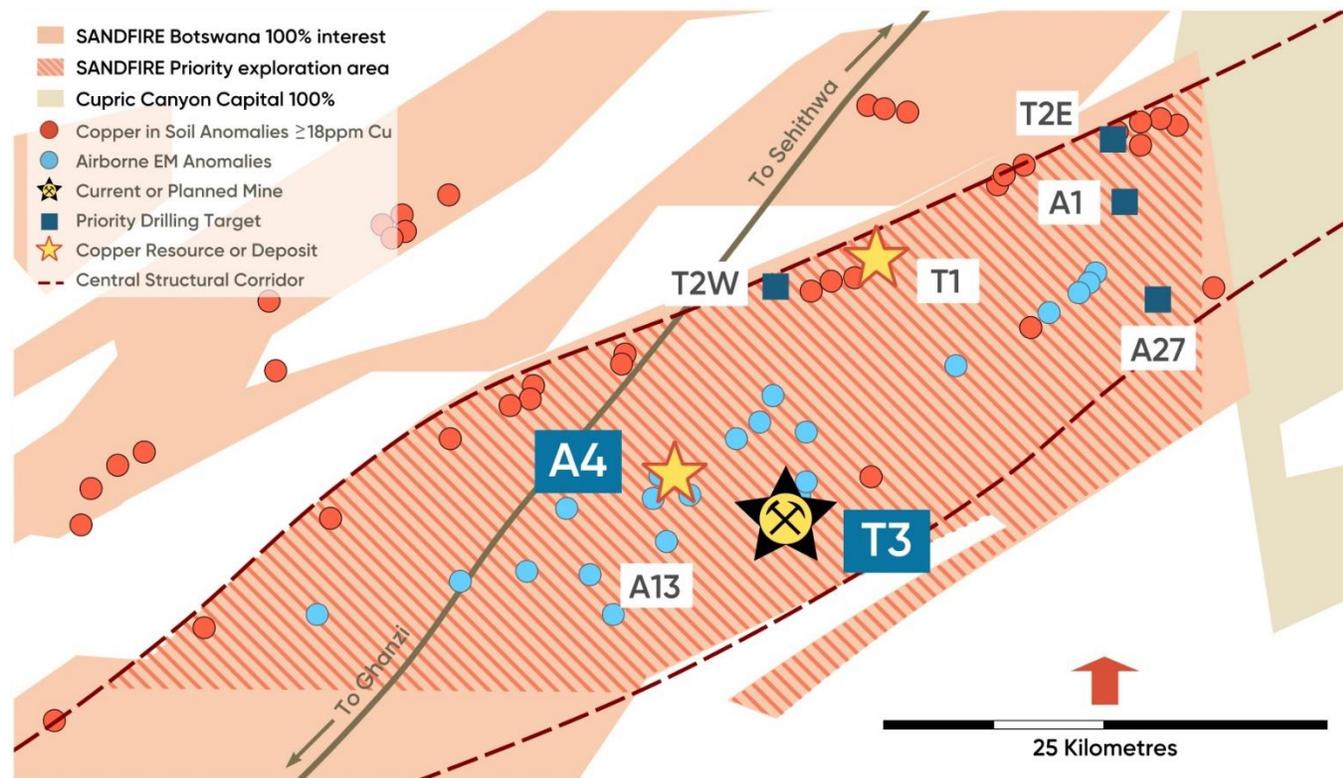


Motheo Production Hub

T3 Expansion Area

- Expanded exploration underway to:
 - Target high-grade satellite discoveries with potential to support the emerging Motheo Production Hub
 - Delineate additional resources with the potential to extend mine life
 - Target major new regional discoveries to unlock the belt's broader potential
- Initial focus within the ~1,000km² T3 Expansion Area

**Tshukudu Exploration:
T3 Expansion Project –
Priority Targets**



Motheo Production Hub

A4 Maiden Mineral Resource

- Maiden A4 Inferred Mineral Resource based on 79 holes
- Approximately 70% higher Cu grade than T3, and 1.75% Cu equivalent grade
- Valuable additional feed potential, forming the initial basis of the proposed expansion to 5.2Mtpa processing rate
- An additional 47 in-fill and extensional diamond drill holes have been completed and are not included in the maiden Mineral Resource estimate
- A further 27 in-fill and extensional holes planned to underpin upgrade to Indicated Mineral Resource

Maiden Inferred Mineral Resource – A4 Copper-Silver Deposit						
Mineral Resource Category	Cu % cut-off	Tonnes (Mt)	Copper (%)	Contained Copper (kt)	Silver (g/t)	Contained Silver (Moz)
Inferred	0.5%	6.5	1.5	100	24	4.9
Total	0.5%	6.5	1.5	100	24	4.9

Notes:

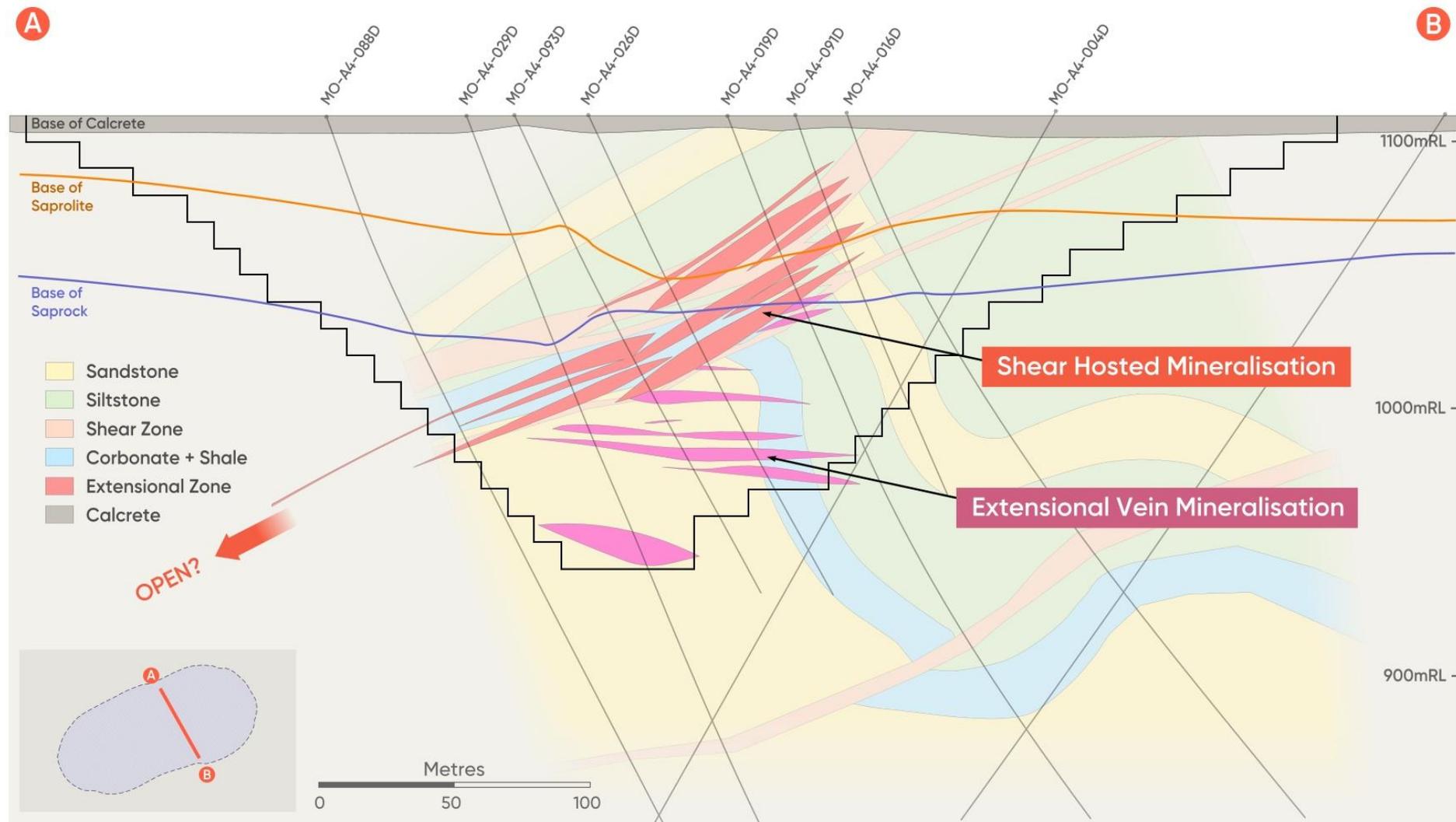
Calculations have been rounded to the nearest: 100kt; 0.1% Cu grade; 1kt Cu metal; 1g/t Ag grade; and 100koz Ag metal.

Differences may occur due to rounding.

Equivalent grades are calculated using DFS copper and silver consensus pricing

Motheo Production Hub

A4 cross-section



A4 schematic cross-section – showing interpreted geology and mineralisation styles across the A4 Deposit. US\$4.50/lb Cu price optimised pit shell used to constrain the MRE shown in black outline.

Motheo Production Hub

High-grade A4 intersections post Maiden Mineral Resource

MO-A4-122D

Upper Zone (within optimised pit shell):

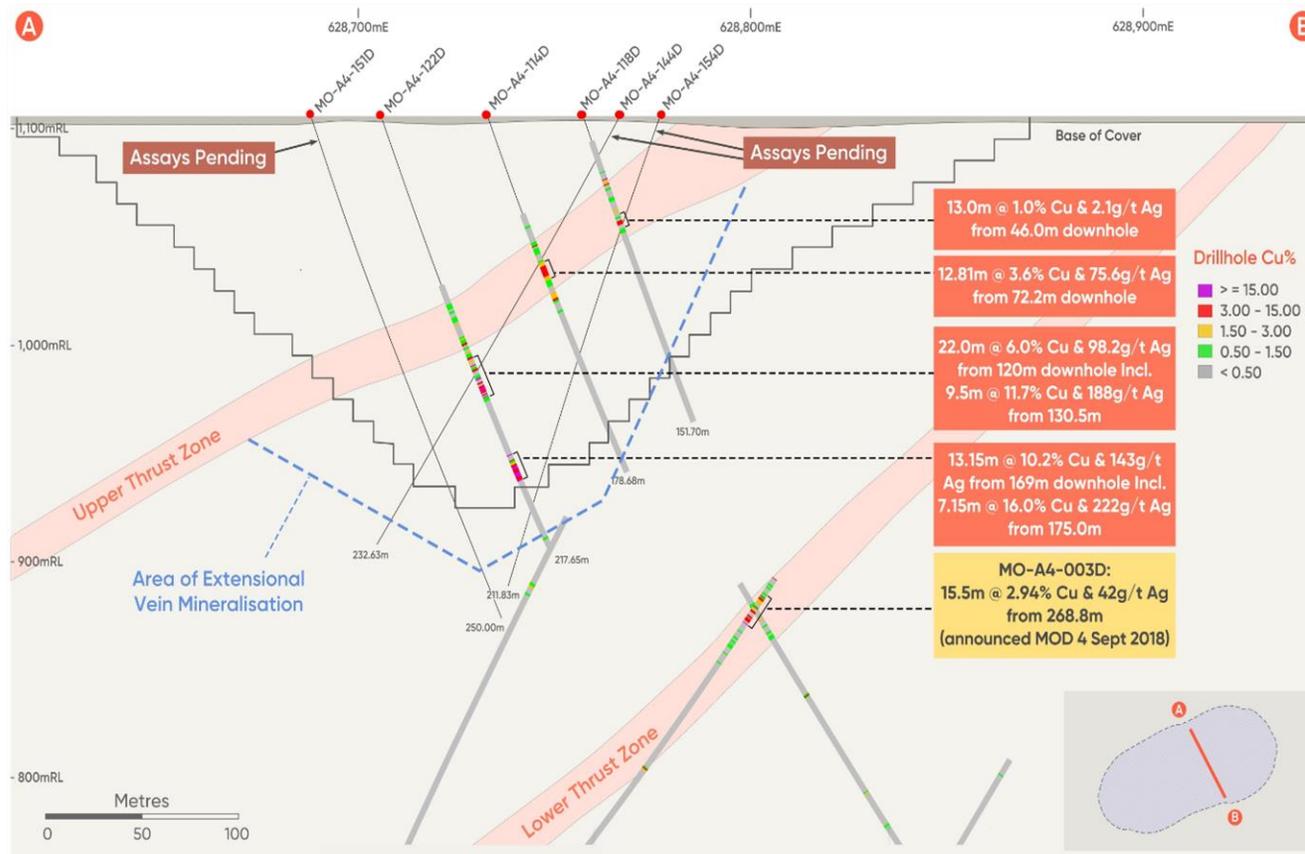
- **22.0m @ 6.0% Cu and 98.2g/t Ag** from 120m down-hole (incl. **9.5m @ 11.7% Cu & 188g/t Ag** from 130.5m)

Lower Zone (within optimised pit shell):

- **13.15m @ 10.2% Cu & 143g/t Ag** from 169m down-hole (incl. **7.15m @ 16.0% Cu & 222g/t Ag** from 175m)

MO-A4-138D

- **35.70m @ 7.1% Cu and 116g/t Ag** from 128.5m down-hole (incl. **12.40m @ 13.3% Cu & 232.8g/t Ag** from 131.6m) – within optimised pit shell



Motheo Production Hub

Next steps

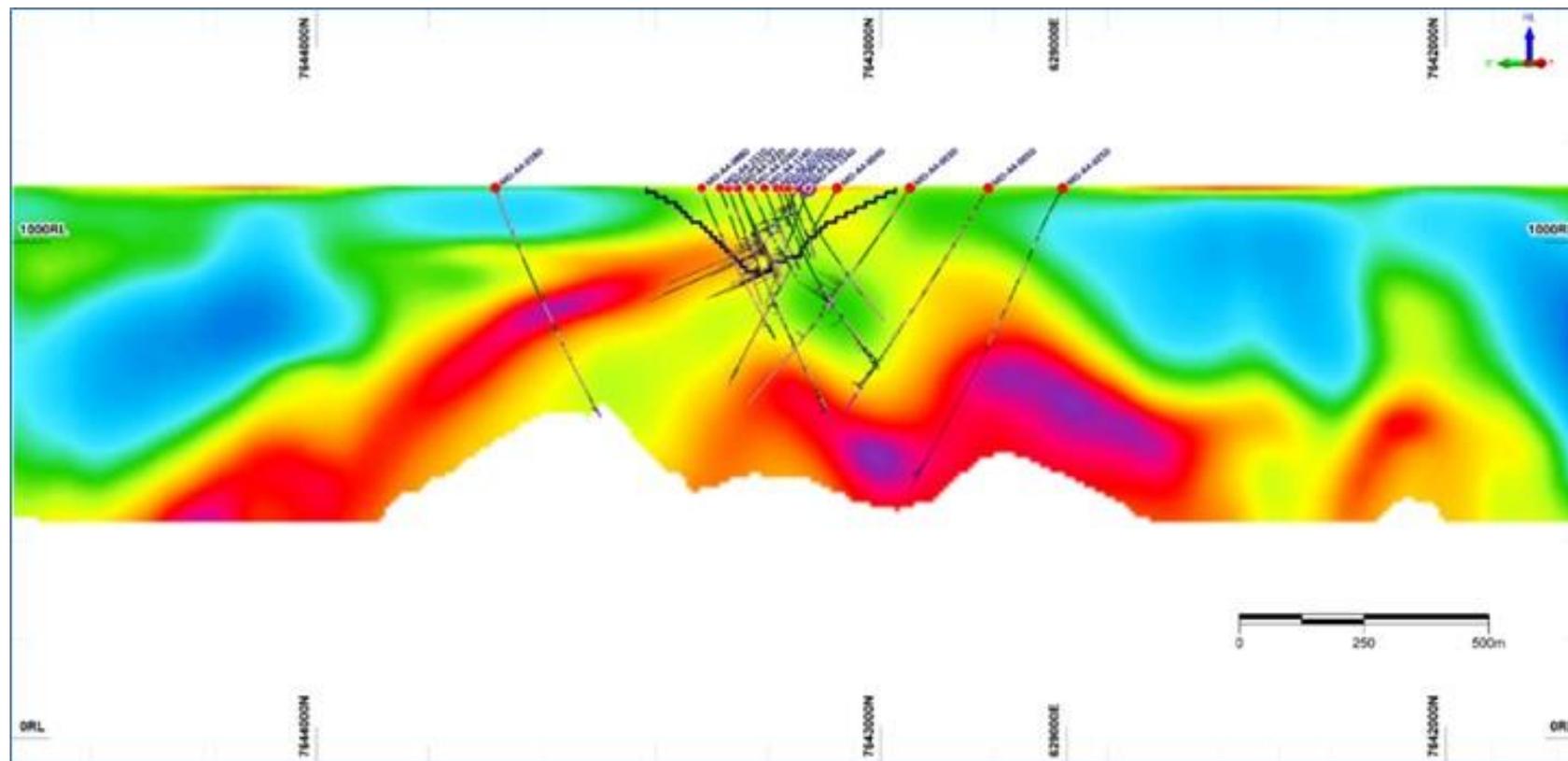
- Submit the T3 Definitive Feasibility Study to the Government of Botswana – right to acquire up to a 15% fully contributing interest in T3, with that decision to be made on or before the date a Mining Licence is granted
- Complete final permitting and secure grant of the Mining Licence for the T3 Project
- Recruit in-country team
- Finalise land access
- Progress project debt funding
- Complete in-fill drilling at the A4 deposit as the basis for Pre-Feasibility and Engineering Studies
- Advance exploration within the T3 Expansion Project targeting potential new deposits
- Ordering long lead items and contracts



Regional Exploration

Major regional Airborne-EM Survey Commenced

- A major regional AEM survey covering approximately 13,450km² and extending from the Namibian border to the eastern limit of Sandfire's licence holdings has commenced and is expected to continue into early 2021. First data from the survey have been received and initial processing is expected to commence soon.
- A previous AEM survey led to the discovery of A4 in 2018 and identified numerous other targets that still require drilling.



AEM data presented as a cross-section across the A4 Dome to approximately 600m depth showing the optimised pit shell used for the A4 Maiden Mineral Resource estimate and significant drill-hole intersections with copper represented as histograms.

Black Butte

Montana, USA



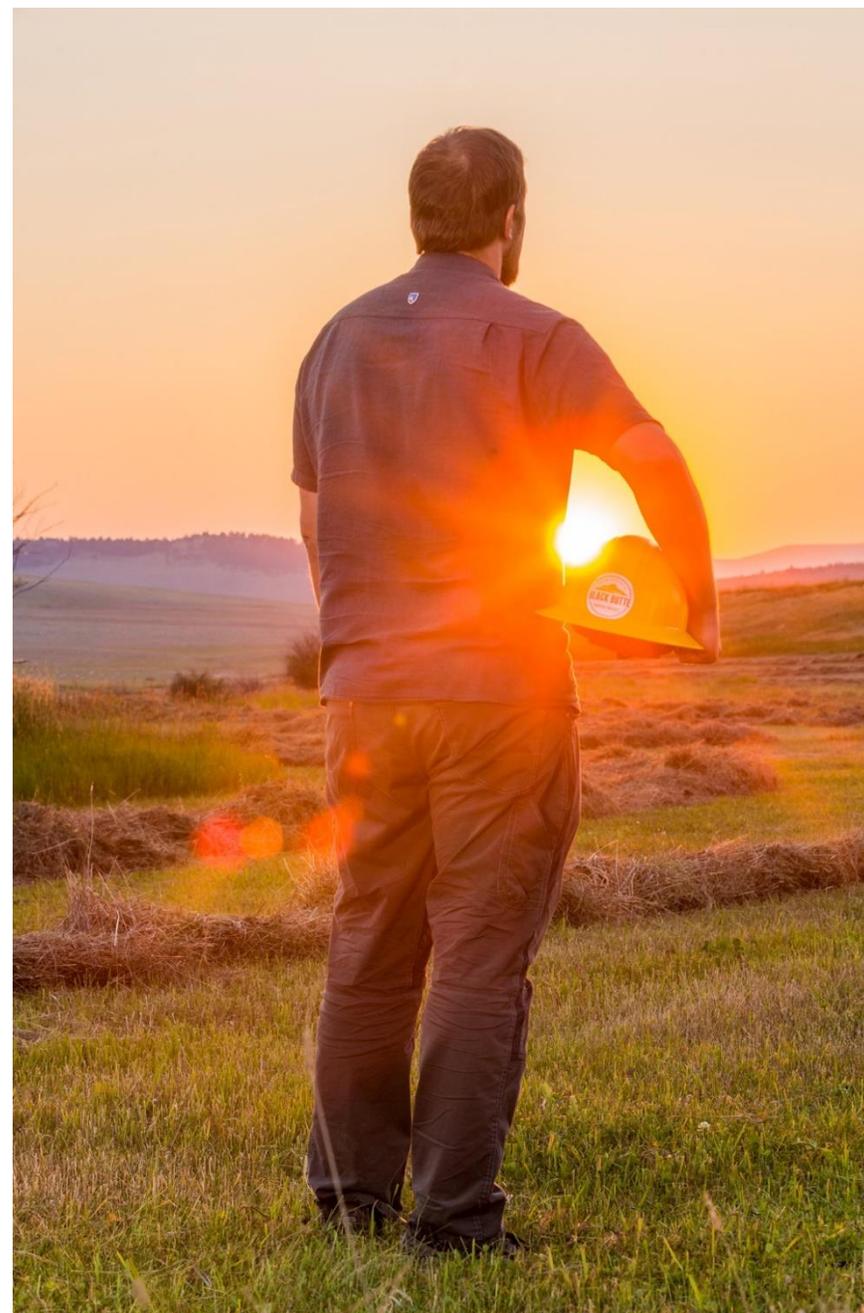
Black Butte Copper Project, Montana, USA (85%)



Black Butte Copper Project

Current activities
and outlook

- Early project works
- Enhancement of Feasibility Study being progressed
- Exploration underway within the Mining Lease targeting potential extensions and other near-mine opportunities
- Continuing to respond to and deal with legal challenges
- Further key decisions to be taken during CY2021



Black Butte Copper Project

Johnny Lee Feasibility Study – key results

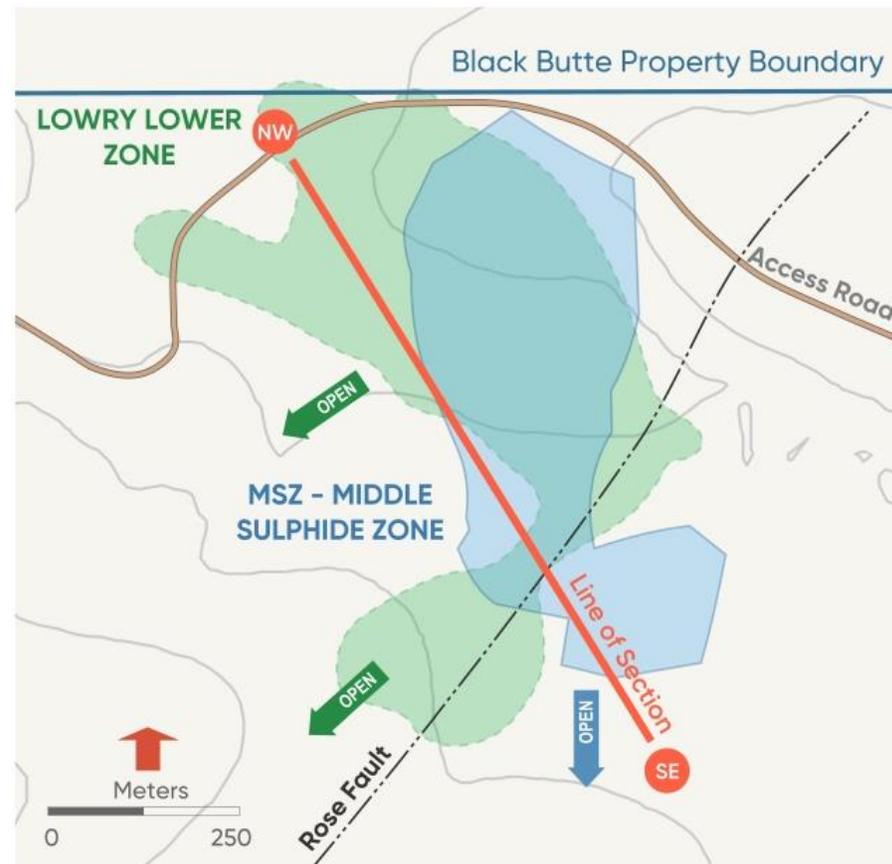
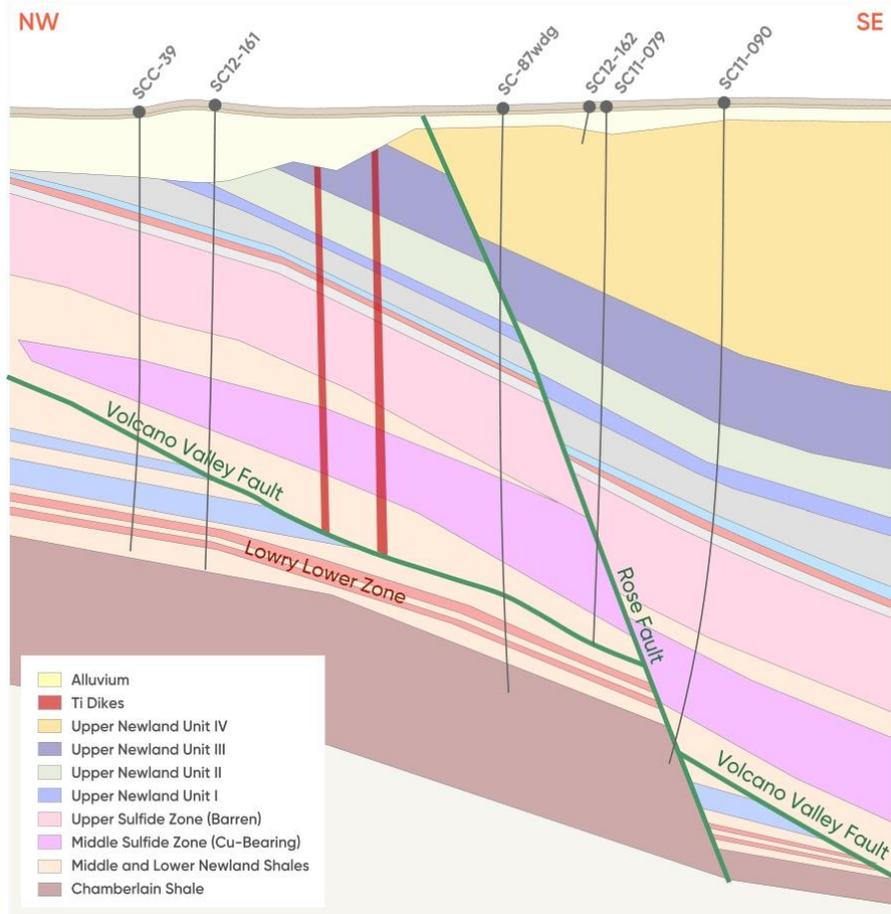
- Maiden Ore Reserve of 8.8Mt at 2.6% Cu for 226,100t of contained copper
- Underpins an 8-year mine life at 1.2 million tonnes per annum
- Forecast LOM production totaling 805,000 dry metric tonnes of copper concentrate containing 189,500t of copper metal
- Average annual production of ~23,000t of copper metal at a C1 unit cost of US\$1.51/lb
- Generates \$1.9 billion (US\$1.3 billion) in gross sales and \$740 million (US\$518 million) in pre-tax net cashflow during operations
- Pre-tax NPV 5% of \$178 million (US\$124.9 million) (IRR=17%) and a post-tax NPV 5% of \$111 million (US\$77.6 million) (IRR=13%)
- Construction capital cost of US\$274.7 million

Refer to Sandfire's ASX Announcement, dated 28 October 2020, titled 'USA and Botswana Development Projects Update' for further details.



Black Butte Copper Project

Lowry Mineral Resource



At Lowry, copper is found in the Middle Sulphide Zone. Lower Zone copper mineralisation is present at both Johnny Lee and Lowry.

Sub-economic Upper Zone Sulphide is also present at Lowry. The Middle Sulphide Zone potentially extends to the south and south-east, the Lowry Lower Zone is open to the south-west and west.

Mineral Resource – Lowry (100%)	Tonnes (mt)	Copper (%)	Contained Copper (kt)
Inferred Resource	8.3	2.4	199
Total	8.3	2.4	199

Key highlights

December 2020
Quarter

- ✔ **Strong foundations** – high-margin production and cash-flow, strong debt-free balance sheet
- ✔ **New long-life production hub** being developed in Botswana with development of T3 commenced in Q3 FY2021
- ✔ **Highly prospective global exploration portfolio** to drive organic growth
- ✔ **A capable and focused** international exploration, development and mining operations team
- ✔ **A strong platform** for long-term value-creation in a rising copper market

Sandfire has begun its transformation from a single-mine company operating in Australia into a diversified and sustainable mining company



T3 Ore Reserve

The information in this report that relates to Open Pit Ore Reserves, is based on information compiled by Mr Jake Fitzsimons who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Fitzsimons is employed by Orelogy Consulting Pty Ltd and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Fitzsimons consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

DeGrussa and Monty Ore Reserve

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

Johnny Lee Ore Reserve

The information in this announcement that relates to the Johnny Lee Ore Reserve is based on information compiled by Mr Brad Evans (MAusIMM, CP(Mining)). Mr Evans has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserve. Mr Evans consents to the inclusion of the matters based on his information in the form and context in which it appears.

DeGrussa, Monty, T3 and A4 Mineral Resource

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

Johnny Lee and Lowry Mineral Resource

The information in this announcement that relates to the Johnny Lee and Lowry Mineral Resources is based on information compiled by Mr Erik Ronald (M. Eng., P.Geo, RM-SME, Principal Resource Geology Consultant, SRK). Mr Ronald has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserve. Mr Ronald consents to the inclusion of the matters based on his information in the form and context in which it appears.

Exploration Results – Tshukudu

The information in this report that relates to Exploration Results at the Tshukudu Exploration Project, Botswana is based on information compiled by Mr Julian Hanna who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hanna is a permanent employee of Sandfire and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Hanna consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Exploration Results – Doolgunna

The information in this report that relates to Exploration Results at Doolgunna is based on information compiled by Mr Shannan Bamforth who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Bamforth is a permanent employee of Sandfire and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bamforth consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Exploration and Resource Targets

Any discussion in relation to the potential quantity and grade of Exploration and Resource Targets is only conceptual in nature. While Sandfire is continuing exploration programs aimed at reporting additional JORC compliant Mineral Resources, there has been insufficient exploration to define mineral resources in addition to the current JORC compliant Mineral Resource inventory and it is uncertain if further exploration will result in the determination of additional JORC compliant Mineral Resources.



December 2020 Quarterly Report Presentation

Karl Simich, Managing Director & CEO

29 January 2021

Contact Details

-  Level 2, 10 Kings Park Road, West Perth WA 6005 Australia
-  PO BOX 1495, WEST PERTH WA 6872 AUSTRALIA
-  +61 8 6430 3800
-  +61 8 6430 3849
-  www.sandfire.com.au