



December 2019 Quarterly Report Presentation and Webcast

29 January 2020

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Competent Person's Statements

DeGrussa and Monty Mineral Resource

The information in this presentation that relates to the DeGrussa and Monty Mineral Resource 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 Resources 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 Resource and Ore Reserve. Mr Browne consents to the inclusion in the presentation 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 presentation that relates to the DeGrussa and Monty Ore Reserve 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 Resources 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 Hastings consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

Exploration Results

The information in this presentation that relates to Exploration Results 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 Resources 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 Hanna consents to the inclusion in the presentation 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 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.



Highlights

Production

- December 2019 Quarter: 18,258t of contained copper and 10,723oz of contained gold produced; C1 US\$0.83/lb
- 1HFY2020: 34,988t of contained copper and 19,370oz of contained gold produced; C1 costs US\$0.84/lb
- FY2020 Guidance: 70-72kt of contained copper and 38-40koz of contained gold; C1 costs ~US\$0.90/lb

Development

- Optimisation of T3 Copper-Silver Project Feasibility Study, Botswana
- Black Butte permitting: EIS/ROD due with Feasibility Study to follow

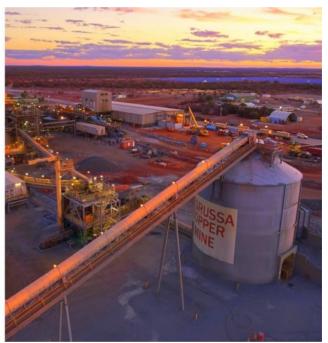
Exploration

- Multi-pronged exploration programs continuing across Sandfire's Greater Doolgunna Project
- Kalahari Copper Belt exploration push commenced with encouraging results at A4

Corporate and Financial

 Cash and deposits \$199.0M (Sandfire); \$201.7M (Group) – subject to auditor review



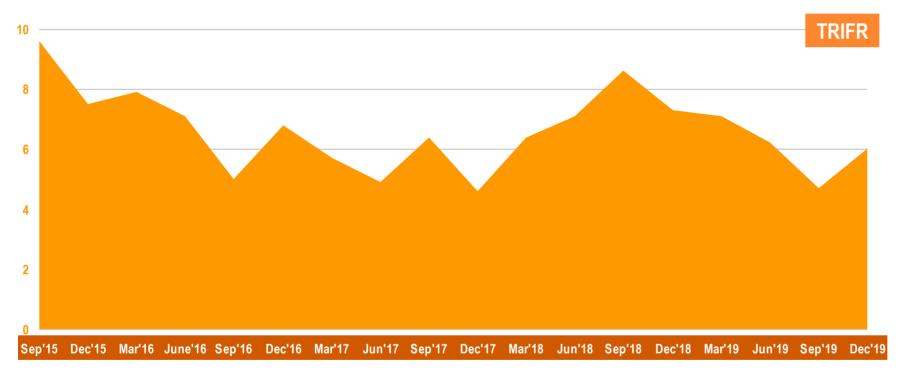




Safety



- Total Recordable Injury Frequency Rate (TRIFR) of 6.0 at Quarter-end (4.7 at September 2019 Quarter-end)
- Principal hazard management driving continuous improvement in safety leadership, culture and assurance of critical controls







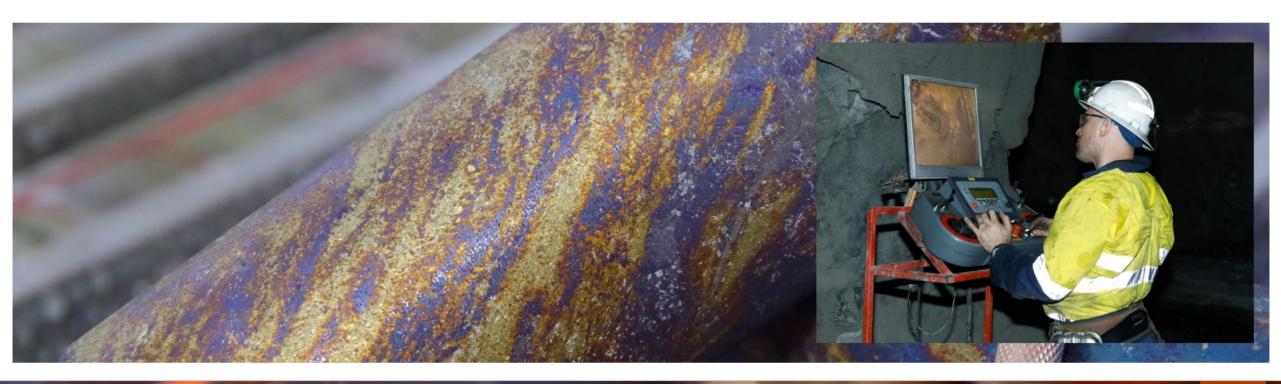


DeGrussa Operations – Mining



Underground production

- DeGrussa ore production for the Quarter of 316,431t grading 4.7% Cu (Q1FY2020 3.9% Cu)
- Monty ore production for the Quarter of 91,473t grading 5.9% Cu, lifting in line with guidance (Q1FY2020 3.7% Cu)
- Total ore production for the Quarter of 407,904t grading 4.9% Cu (Q1FY2020 3.9%)



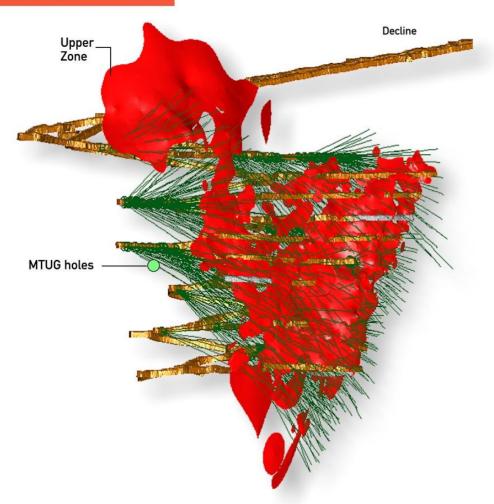


DeGrussa Operations – Mining



Monty grade control drilling completed, defining ore body geometry and stope design

Monty Underground Mine











DeGrussa Operations – Processing



Mill throughput

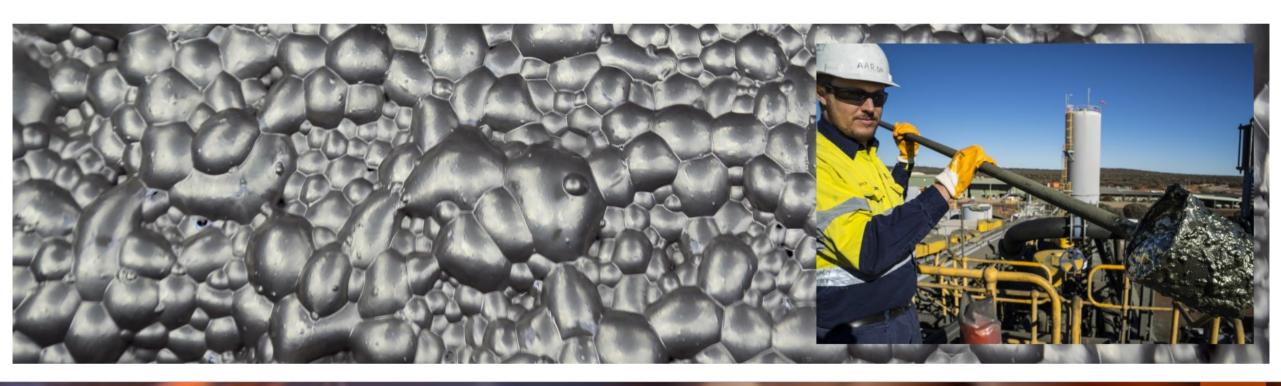
• Quarter: 402,626t milled at average feed grade of 4.9% Cu

Recovery

- Quarter: Copper recovery of 92.9%; Gold recovery 44.5%
- DeGrussa crown pillar campaign blending strategy set and operating well

Concentrate & metal production

- 77,087t of concentrate produced
- 18,258t of contained copper produced
- 10,723oz of contained gold produced

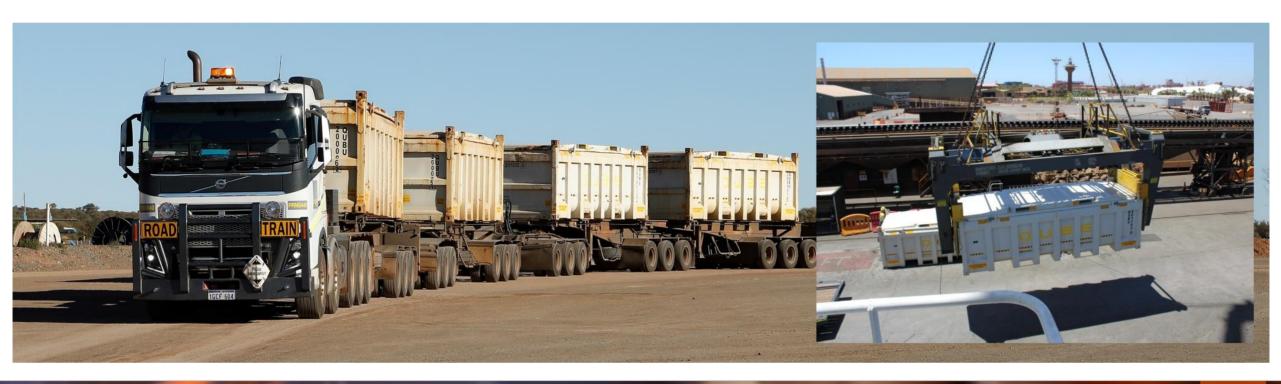




DeGrussa Operations – Sales



- Quarter: Sales of 73,519t of concentrate (dry) containing 17,420t of copper (16,668t payable) and 9,776oz of gold (9,121oz payable)
- 7 shipments completed for the Quarter
- Half-year revenue A\$313M subject to auditor review





DeGrussa Operations – Unit Operating Costs



Unit operating costs	Q2 FY2020 (US\$/lb)	1H FY2020 (US\$/lb)	Commentary
Mining (net of development)	0.43	0.44	 Strong quarterly production driven by increased grades and associated recovery High by-product credits from increased gold production
Processing	0.26	0.26	
Business services	0.13	0.12	
Transport, treatment and refining	0.42	0.41	 C1 costs slightly offset by increased USD:AUD FX back in line with guidance set at 0.70
C1 cost (pre by-product credit)	1.23	1.24	 Q2 FY2020 DeGrussa Mine development \$8M - FY2020 Guidance: \$41M Q2 FY2020 Monty Mine development \$11M - FY2020 Guidance: \$40M Q2 FY2020 Sustaining and strategic capital \$1M - FY2020 Guidance: \$13M
By-product credit (gold and silver)	(0.40)	(0.39)	
C1 cost	0.83	0.84	
Royalties	0.16	0.15	
Production cost	0.99	0.99	
Depreciation and amortisation	0.87	0.84	 Exploration and evaluation expenditure 1H FY2020 \$27M - subject to auditor review
Total production cost	1.86	1.83	



Doolgunna Exploration Overview



Exploration continuing as a priority along highly prospective VMS corridor that hosts the DeGrussa and Monty deposits:

- Continuation of major regional AC drilling programs to aid geological interpretation and provide quality geochemical coverage
- RC and DD at Morck Well targeting MLEM geophysical anomaly and to investigate anomalous geochemical results from AC drilling
- Extensive evaluation of the Peak Hill Project (Alchemy Resources Ltd Earn in JV) including:
 - Moving Loop Ground EM surveys of the prospective corridor
 - Major initial AC program
 - Follow up RC and DD drilling

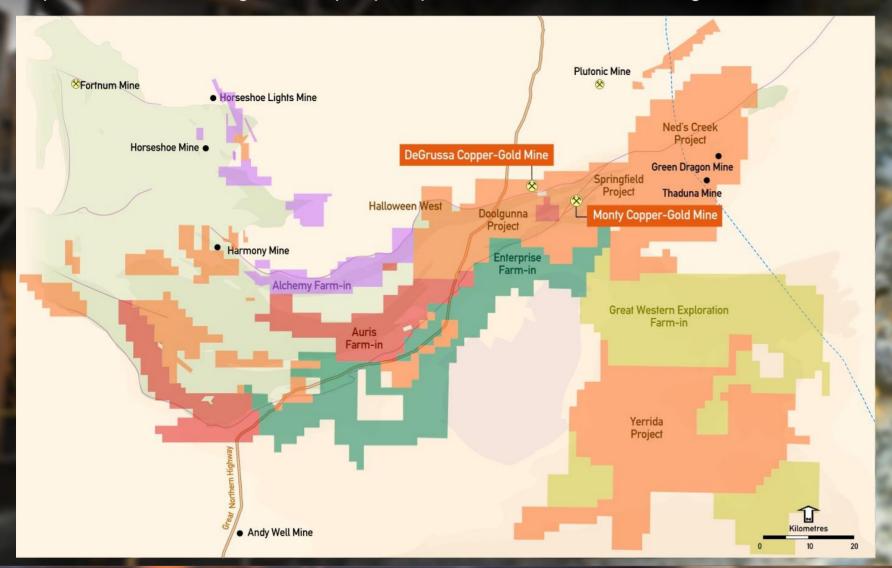




Doolgunna Exploration Overview



Exploration advancing at multiple prospects within Greater Doolgunna area.



- ► 64,848m AC/RAB drilling
- ▶ 5,319m RC drilling
- ► 4,440m underground DD drilling
- ▶ 310m surface DD drilling
- Sandfire Tenements (3,559 km²)
- Enterprise Farm-in Tenements (917 km²)
- Great Western Exploration
- Farm-in Tenements (1,525 km²)
- Auris Farm-in Tenements (618 km²)
 - Alchemy Farm-in Tenements (324 km²)

$TOTAL = 6,940 \text{ km}^2$

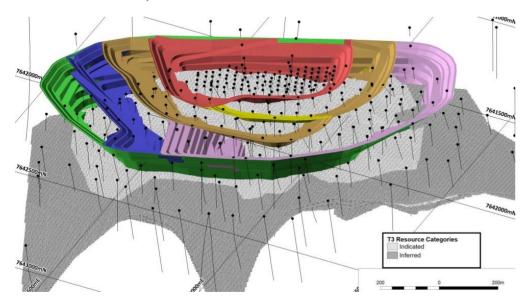
- Bryah Basin Formation
- Prospective Narracoota Volcanics
- Killara + Maralou Formations
- Thaduna + Doolgunna Formations
- Windplain Sub-Group
- Monzogranite
- Historical Mine

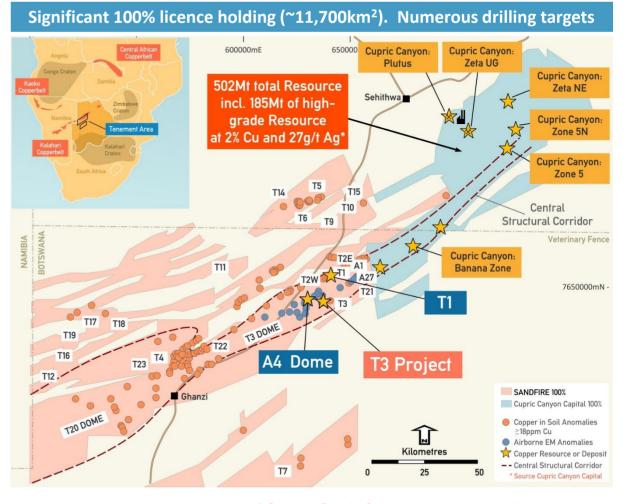


Tshukudu, Botswana – T3 Feasibility Study



- Optimisation of T3 Copper-Silver Project Feasibility Study underway, concentrating on open pit optimisation, plant scale and operating costs
- ESIA approval expected soon with Mining Licence Application to follow
- Updated Feasibility Study and Ore Reserve scheduled for June 2020 Quarter with Decision to Mine to follow





* Source: Cupric Canyon's website www.khoemacau.com

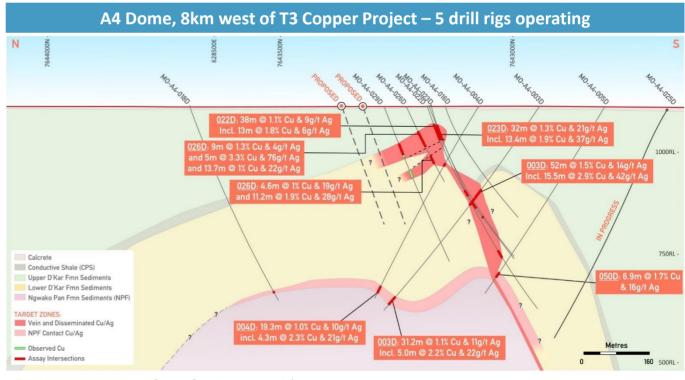


Tshukudu, Botswana – Exploration momentum increasing



Exploration re-commenced post acquisition of MOD Resources Ltd, with strategy weighted toward:

- target high-grade satellite discoveries with potential to expand the scale of T3
- delineate additional resources with potential to extend the mine life at T3
- target major regional discoveries to unlock the potential of this under-explored copper belt
- A4 drilling returned immediate promising results with new shallow copper zone intersected at A4 (refer ASX announcement dated 24 January 2020)
- Expanding drilling campaign to test the large T4/T23 and T20 regional exploration targets
- \$10-12M FY2020 budget, including extension of Airborne EM survey to follow up early success



Preliminary interpreted Cross-Section across A4
Dome showing current and planned drill-holes, and approximate locations of significant intersections from previously announced and recent drilling.

Massive bornite-covellite-chalcocite copper sulphides in hole MO-A4-029D within a 1m vein interval from 130.14m down-hole depth. Assays awaited to confirm copper grades.





Black Butte Copper, USA



- 85% stake in the Black Butte Copper Project, central Montana (via interest in Sandfire Resources America Inc.)
- Advanced, high quality copper project in stable jurisdiction.
- Updated NI 43-101 Mineral Resource estimate completed for the Johnny Lee Deposit, following 48 additional diamond drill-holes¹:
 - Measured and Indicated Resource: 10.9Mt at 2.9% Cu for 311,000t of contained copper (at a 1.0% Cu cut-off grade); and
 - Inferred Resource of 2.7Mt at 3.0% Cu for 80,000t of contained copper (at a 1.0% Cu cut-off grade).
- Environmental Impact Statement (EIS) and Record of Decision (ROD) expected to be issued in the near term
- Feasibility Study completing across key areas with release following EIS/ROD



1 Refer Sandfire ASX Announcement, dated 30 October 2019. Excludes the Lowry Resource.



Summary & Outlook

- Production and cost performance:
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 - FY2020 Guidance: 70-72kt of contained copper and 38-40koz of contained gold; C1 costs ~US\$0.90/lb
- Optimisation of T3 Copper-Silver Project Feasibility Study continuing
- EIS/ROD imminent for 85%-owned Black Butte Copper Project, USA; Feasibility Study progressing
- Active exploration underway targeting the next VMS discovery across the emerging Bryah Basin VMS district
- Major new exploration push underway in Kalahari Copper Belt, Botswana and delivering pleasing results with initial A4 drill program









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