



SANDFIRE
RESOURCES NL

A QUALITY COPPER-GOLD COMPANY
ASX Code: SFR

September 2017 Quarterly Report Presentation and Webcast

19 October 2017

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First cut into the new underground portal at the Monty Copper-Gold Mine

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Competent person's statements



DeGrussa and Monty Mineral Resource and Ore Reserve

The information in this report that relates to the DeGrussa and Monty Mineral Resource is based on information compiled by Mr Ekow Taylor who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Taylor was a permanent employee of Sandfire Resources NL at the time of Mineral Resource compilation 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 Taylor consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report 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 NL 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.

Black Butte Mineral Resource

The information in this report that relates to Black Butte Mineral Resource is based on information compiled by Mr. Michael J. Lechner who is a Registered Member of SME, a CPG with AIPG, a RPG in Arizona, and a P. Geo. In British Columbia. Mr. Lechner is an independent consultant 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 Lechner consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Thaduna and Green Dragon Mineral Resource

The information in this report that relates to the Thaduna and Green Dragon Mineral Resource is based on information compiled by Mr Ekow Taylor who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Taylor was a permanent employee of Sandfire Resources NL at the time of Mineral Resource compilation 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 Taylor consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Competent person's statements



Temora Project Mineral Resource

The information in this report that relates to the Dam, Cullingerai, Estoril, Mandamah, Yiddah and Gidginbung Mineral Resources is based on information compiled by Mr Ross Corben who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Corben is an Independent Consultant 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 Corben 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 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 Resources 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 Results Temora

The information in this report that relates to Exploration Results at Temora is based on information compiled by Mr Bruce Hooper who is a Registered Professional Geoscientist (RPGeo) of The Australian Institute of Geoscientists. Mr Hooper is a permanent employee of Sandfire Resources and has sufficient experience that is relevant to the style of mineralization 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 Hooper 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 Targets is only conceptual in nature. While Sandfire is confident that it will report additional JORC compliant resources for the DeGrussa Project, 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.

Agenda



- ▶ Highlights
- ▶ Safety
- ▶ Operations and costs
- ▶ Group Mineral Resource
- ▶ Development
- ▶ Exploration
- ▶ Summary





Production and Operations

- ▶ September 2017 Quarter: 15,258t copper and 10,669oz gold produced; C1 US\$0.95/lb
- ▶ FY2018 guidance maintained: 63-66kt of contained copper, 35-38koz of contained gold; C1 costs US\$1.00-1.05/lb
- ▶ Group Ore Reserve and Mineral Resource released

Development

- ▶ Monty Copper-Gold Project (Springfield JV) progressing well – decline works commenced for underground access
- ▶ Permitting final stage (EIS) for the Black Butte development (Tintina Resources – SFR holding increased to 78%)

Exploration

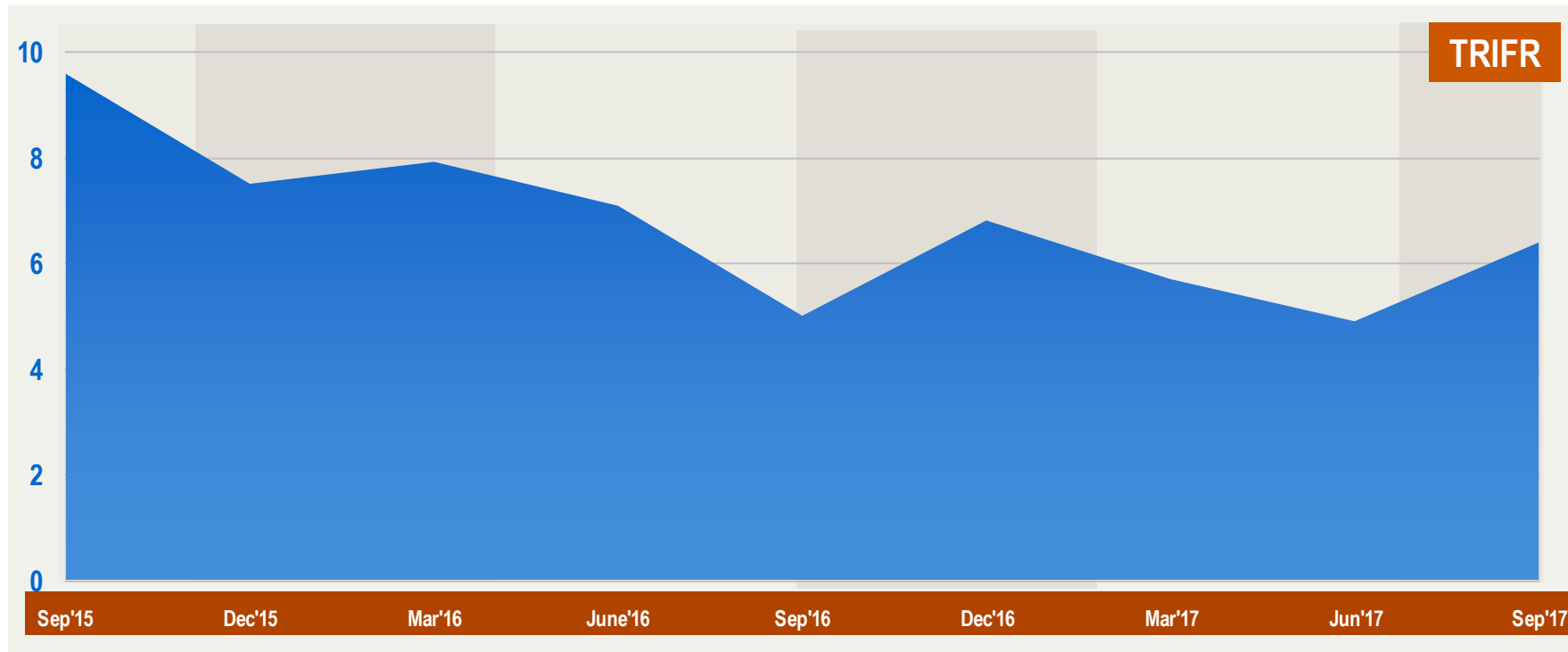
- ▶ Multi-pronged exploration programs continuing at both Sandfire's Greater Doolgunna Project and the Springfield Joint Venture which, including JV and Farm-in Agreements, covers a total area of 5,846km²
- ▶ Enterprise farm in exploration program progressed

Corporate and Financial

- ▶ Final fully-franked dividend of 13cps paid on Tuesday, 26 September 2017
- ▶ Cash and deposits \$108M (Sandfire); \$117M Group



- ▶ Total Recordable Injury Frequency Rate (TRIFR) of 6.4 at Quarter-end (vs. 4.9 at June 2017 Quarter-end)
- ▶ Principal hazard management – ongoing
- ▶ Focus continues to be applied to improving safety leadership, culture and assurance of critical controls





Underground production

- ▶ Total ore production for the Quarter of 437,136 tonnes grading 3.8% Cu
- ▶ Mine remains in balance between production and back-fill
- ▶ Stopes mined during the quarter from C1 included high talc levels, expected to continue into the December 2017 Quarter and return to average levels over the full financial year





Mill throughput

- ▶ 413,834 tonnes milled at average feed grade of 4.1% Cu

Recovery

- ▶ Quarterly copper recovery of 91.1%; Gold recovery 46.0% (FY2018 guidance: copper ~92%, gold ~44%)
- ▶ Improvements to overall recovery capacity with additional rougher flotation capacity
- ▶ However, offset by the effects of elevated talc in C1 ore

Concentrate & metal production

- ▶ 62,743 tonnes of concentrate produced
- ▶ 15,258 tonnes of contained copper produced
- ▶ 10,669 ounces of contained gold produced



Operations – Capital programs



Underground pumping station

- ▶ Commenced commissioning
- ▶ Planning for C4 and C5 drilling

Rougher column cell

- ▶ Commenced commissioning early July 2017
- ▶ Initial positive signs in copper recovery and concentrate grade – expecting ~1.4% improvement (based on comparable Cu:S ratio ore and averaging talc levels)

Additional concentrate thickener & filter

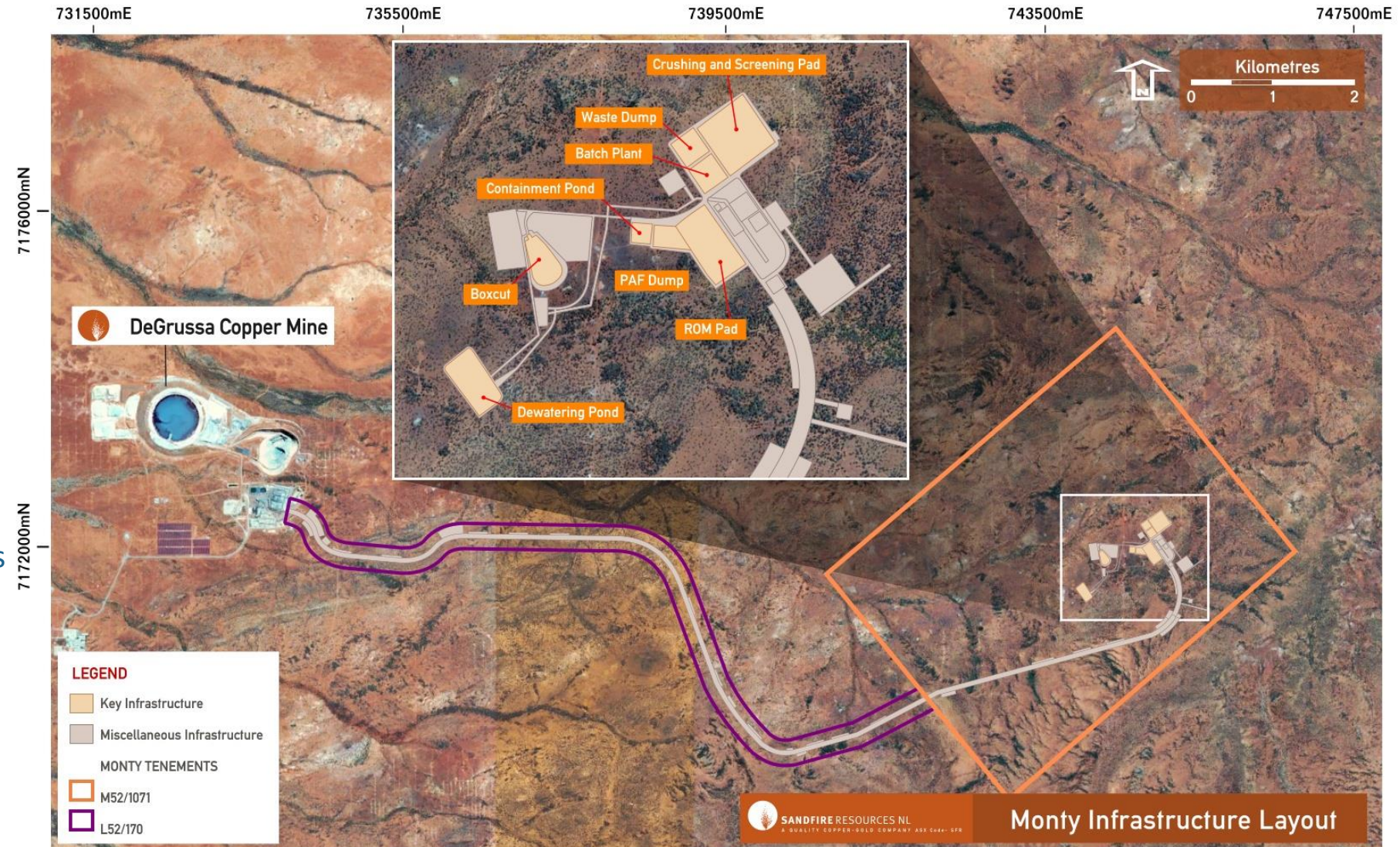
- ▶ Expected to commence commissioning Q4 FY2018 (\$12M); increases peak concentrate capacity to 400,000tpa ahead of Monty ore blending from Q2 FY2019



Development – Monty Copper-Gold Project



- ▶ Sandfire is Manager of the Springfield JV – interests Sandfire 70%/Talisman 30%
- ▶ Works progressing on schedule
 - Haul and access roads
 - Excavation of box cut for underground access
 - Decline works commenced
 - Stockpile and laydown area pads
 - Infrastructure works and drainage





- ▶ September 2017 Quarter: Sales of 52,487 tonnes of concentrate (dry) containing 12,664 tonnes of copper (12,134 tonnes payable) and 8,245 ounces of gold (7,650 ounces payable)
- ▶ 5 shipments completed for the quarter, additional shipment and revenue received in early October 2017
- ▶ Port operations continue from Port Hedland and Geraldton

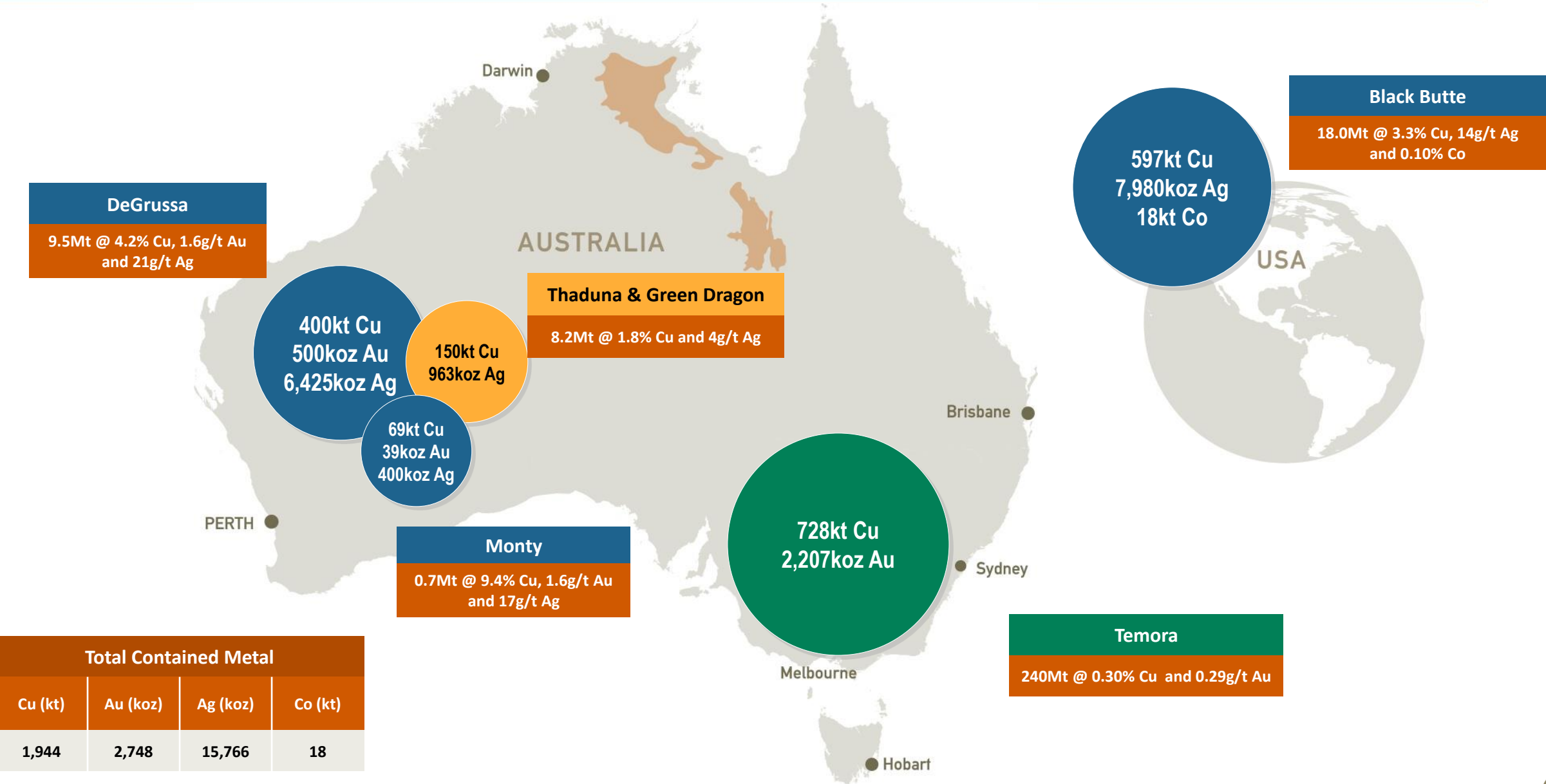


Operations – Q1FY2018 Unit Operating Costs



Unit costs – DeGrussa Mine	Q1FY2018 (US\$/lb)	Commentary
Mining (net of development)	0.49	Higher mining unit costs as previously guided due to increased depth, increased number of stopes and reducing capital development over FY2018.
Processing	0.31	
Business services	0.10	
Transport, treatment and refining	0.45	
C1 cost (pre by product credit)	1.35	Overall C1 assisted by high quarterly gold production and price, increasing by-product credits.
By-product credit (gold and silver)	(0.39)	FY2018 C1 unit cost guidance maintained at ~USD1.00-1.05/lb, with higher C1 costs expected in Q2 FY2018 and into 2H FY2018.
C1 cost	0.95	
Royalties	0.16	DeGrussa Mine development \$9M for the quarter (FY2018 full year guidance \$37M).
Production cost	1.11	
Depreciation and amortisation	0.82	
Total production cost	1.93	

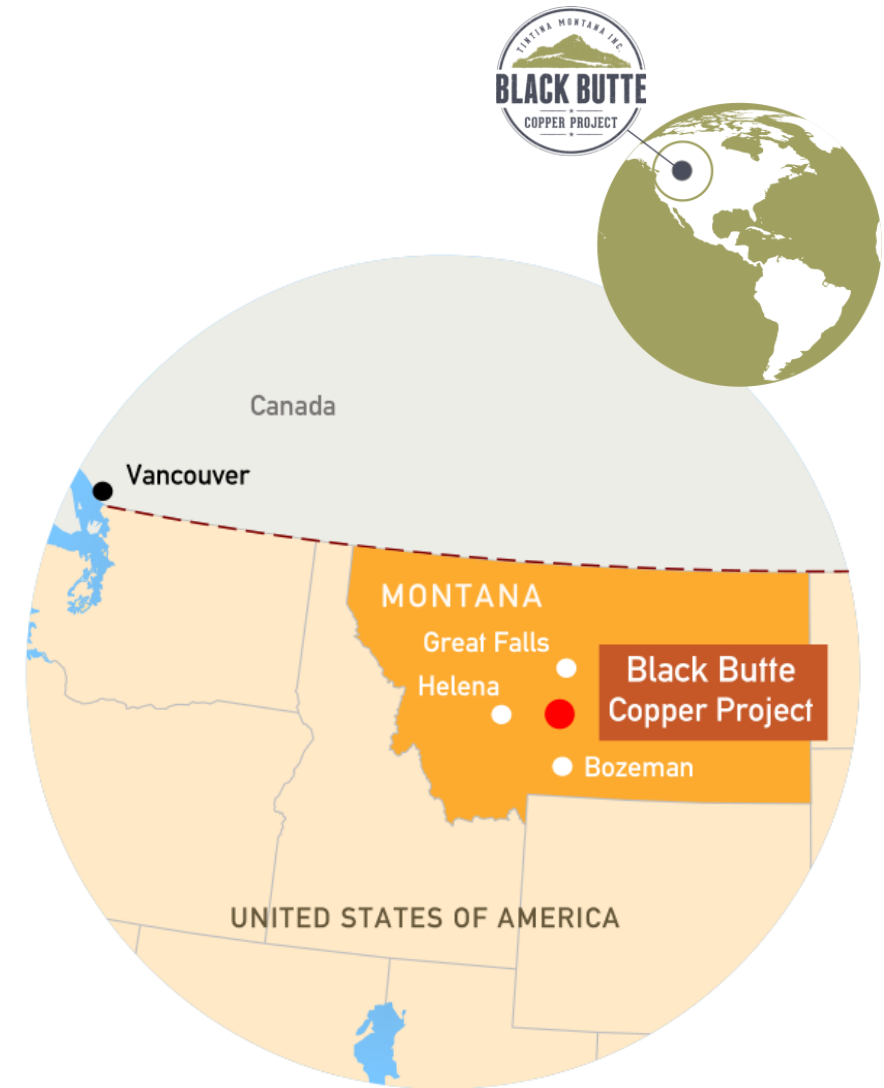
Group Mineral Resource



Development and Growth – Black Butte Copper Project, USA



- ▶ 78% stake in Black Butte Copper Project, central Montana (via stake in Tintina Resources Inc)
- ▶ Advanced, high quality copper project in stable jurisdiction:
 - Mineral Resource: 18Mt at 3.3% Cu, 14g/t Ag, 0.10% Co for 597,000t of copper, 7,980,000oz of silver and 18,000t of cobalt (JORC)*
- ▶ One of the top-10 undeveloped copper projects worldwide by grade
- ▶ Outstanding near-mine and district-wide exploration potential
- ▶ Mine Operating Permit (MOP) received for Johnny Lee copper deposit
- ▶ Environmental Impact Study (EIS) commenced as final stage of state permitting process

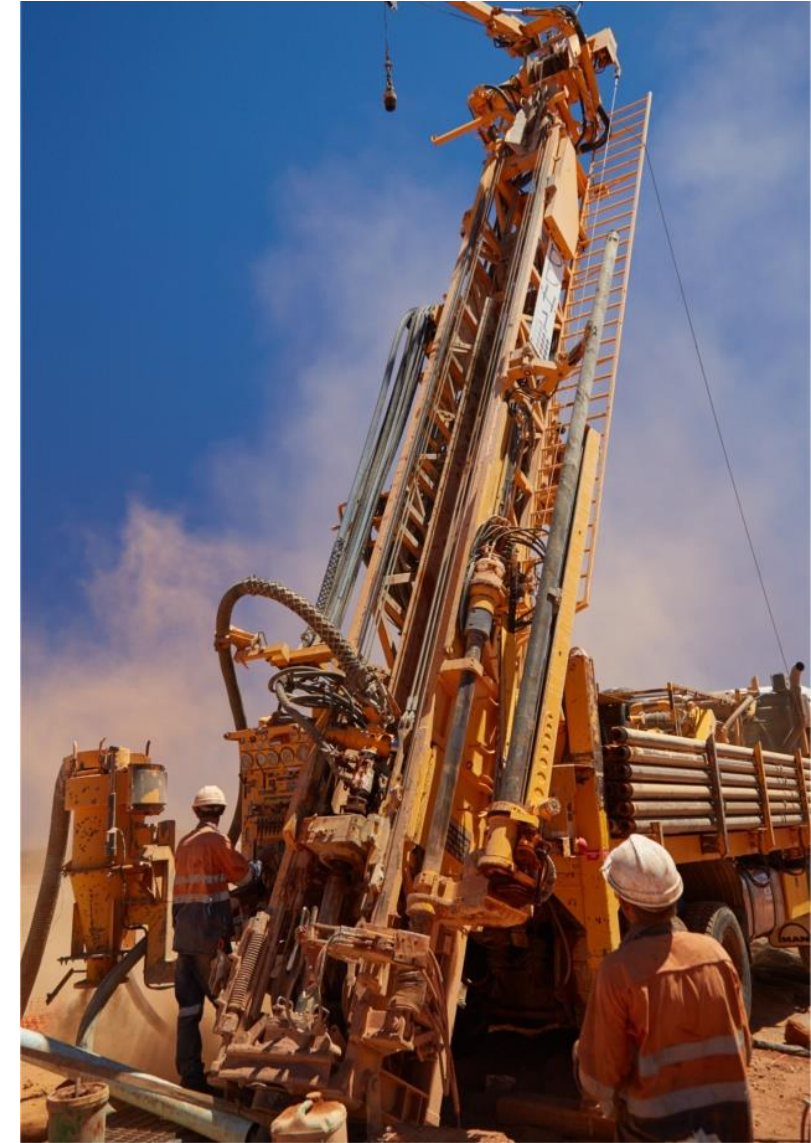


* Refer today's release "Sandfire Group JORC Mineral Resource and Ore Reserve Statement" and associated disclosures.

Doolgunna Exploration Overview



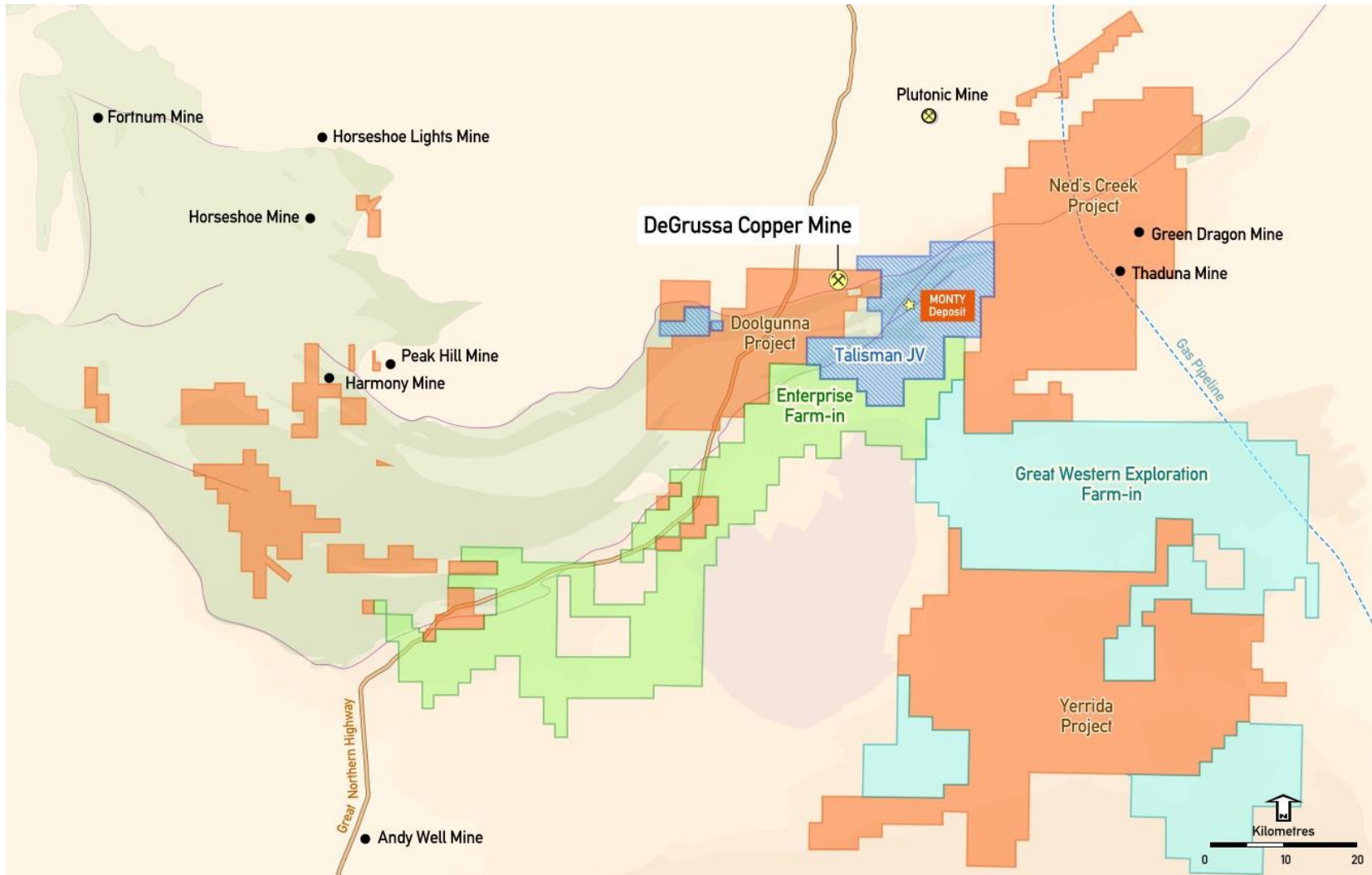
- ▶ Exploration continuing as a priority along highly prospective VMS corridor that hosts the DeGrussa and Monty deposits:
 - RC drilling along-strike from the Monty deposit to confirm the current interpretation of the Monty host horizon and infill the DHEM pattern in the area
 - RC drilling within the Vulcan and Vulcan West Prospect areas to test areas of geochemical anomalism identified in AC drilling
 - Continuation of a major 600-hole AC drilling program at the Enterprise Metals farm-in project to test 50 strike kilometres of the interpreted favourable volcano-sedimentary sequence which hosts the DeGrussa and Monty copper-gold deposits
 - Infill AC drilling at the Homestead prospect over lithogeochemical anomalies identified in first pass drilling.



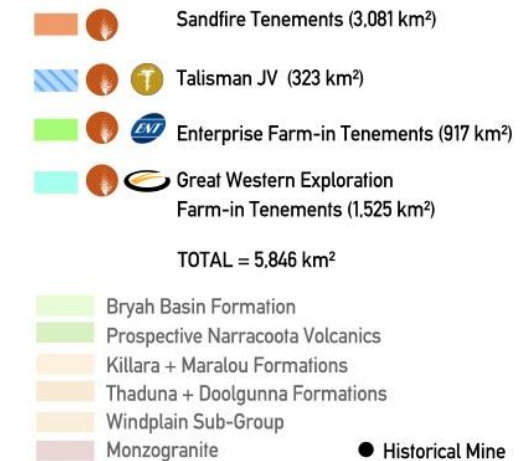
Doolgunna Exploration Overview



- Exploration advancing at multiple prospects within Greater Doolgunna area:

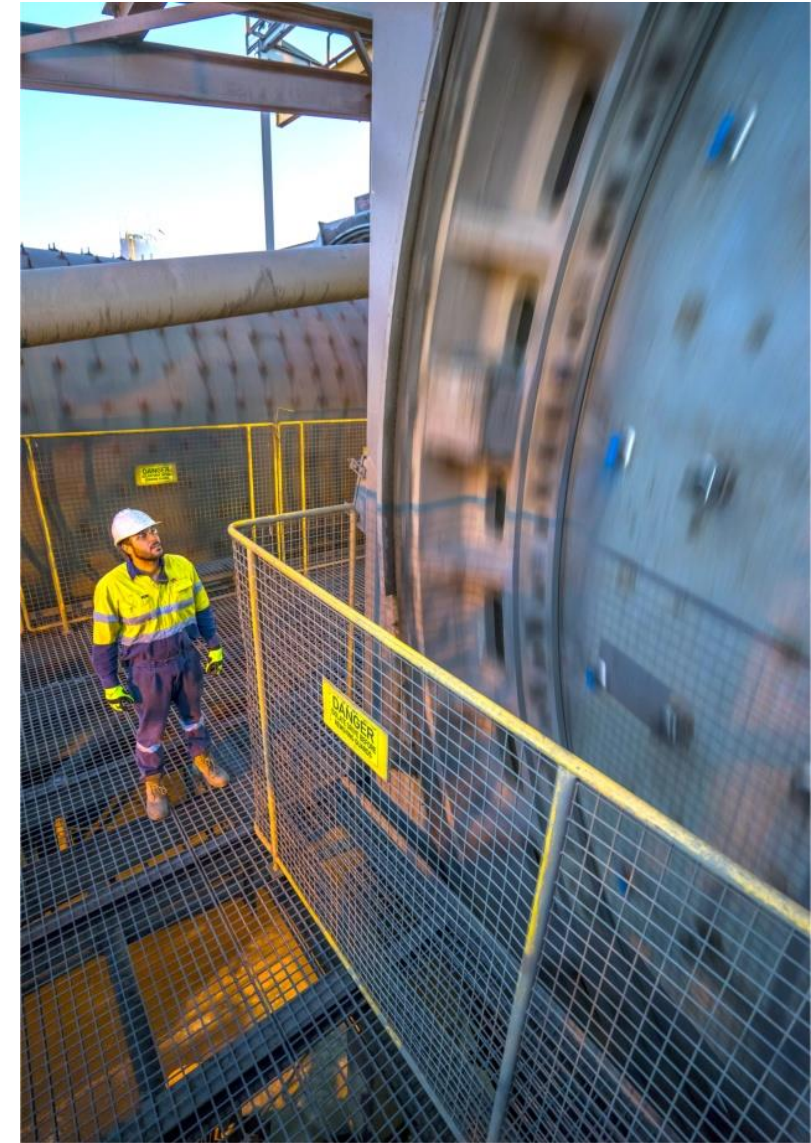


- 69,169m of AC/RAB and RC drilling during the quarter
- Total Tenure – 5,846km²





- ▶ Production and cost performance
 - Q1FY2018: 15,258t contained copper, 10,669oz contained gold, C1 costs \$0.95/lb
 - FY2018 Guidance maintained: 63-66kt contained copper, 35-38koz contained gold, C1 costs \$1.00-1.05/lb
 - Monty under development; first ore scheduled Q2 FY2019
- ▶ Progressing permitting for 78%-owned Black Butte Copper Project, USA with the commencement of the EIS process
- ▶ Active exploration underway targeting the next VMS discovery
- ▶ Emerging Bryah Basin VMS district – aggregate contiguous exploration area of 5,846km²



Appendix: Group Ore Reserve and Mineral Resource



- **Group Mineral Resource: DeGrussa, Monty, Black Butte, Thaduna, Green Dragon and Temora Projects** are estimated to contain 1.9Mt of copper, 2.7Moz of gold and 15.8Moz of silver.
- **Group Ore Reserve: DeGrussa Copper-Gold Mine (100%-owned) and Monty Copper-Gold Project (70%-owned; under development):**
 - 6.8Mt at 5.0% Cu, 1.6g/t Au, 13g/t Ag for 337,000t of contained copper, 355,000oz of contained gold and 2,766,000oz of contained silver;
 - 2.8Mt at 1.2% Cu, 1.0g/t Au, 36g/t Ag for 35,000t of contained copper, 84,000oz of contained gold and 3,175,000oz of contained silver (oxide copper stockpile); and
 - Total 9.5Mt at 3.9% Cu, 1.4g/t Au, 19g/t Ag for 372,000t of contained copper, 439,000oz of contained gold and 5,941,000oz of contained silver.
- **Mineral Resource for Sandfire's 78.1%-owned Black Butte Copper Project in central Montana, USA (JORC reported):**
 - 18.0Mt at 3.3% Cu, 14g/t Ag, 0.10% Co for 597,000t of copper, 7,980,000oz of silver and 18,000t of cobalt.
- **Mineral Resource for the Thaduna and Green Dragon Copper Projects, located within the wider Doolgunna Project north-east of DeGrussa (Updated):**
 - 8.2Mt at 1.8% Cu, 3.7g/t Ag for 150,000t of copper and 963,000oz of silver.
- **Mineral Resource for the Temora Copper-Gold Project in the Lachlan Fold Belt, NSW (Updated):**
 - 240Mt at 0.30% Cu, 0.29g/t Au for 728,000t of copper and 2,207,000oz of gold.

Note: DeGrussa and other projects stated as at 31 December 2016; Monty stated as at 31 March 2017.

Refer today's release "Sandfire Group JORC Mineral Resource and Ore Reserve Statement" and associated disclosures.





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