



SANDFIRE RESOURCES NL

A QUALITY COPPER-GOLD COMPANY ASX Code - SFR

14 April 2016

Mr Sebastian Bednarczyk
Adviser, Issuers (Perth)
ASX Limited
Level 8, Exchange Plaza
2 The Esplanade
Perth WA 6000

Dear Sebastian,

**LODGEMENT OF MARCH 2016 QUARTERLY REPORT, QUARTERLY UPDATE PRESENTATION
AND INVESTOR CONFERENCE CALL AND WEBCAST**

I am pleased to attach the following items for immediate release to the market:

1. March 2016 Quarterly Activities Report
2. DeGrussa Mine Plan and Ore Reserve Update
3. March 2016 Quarterly Update Powerpoint Presentation

In addition, a teleconference and live webcast on the March 2016 Quarterly Report will be held for the investment community at 10.00am (AWST) / 12.00pm (AEST) today.

The webcast and synchronised slide presentation is available through the Company's website or through BRR Media.

Live date: Thursday, 14 April 2016

Access this webcast at: <http://webcasting.brrmedia.com/broadcast/57031d12c95e0de72337f098>
<http://www.sandfire.com.au>

Yours sincerely,

Matt Fitzgerald
Chief Financial Officer
and Company Secretary



QUARTERLY REPORT

For the period ended 31 March 2016

Highlights

Production & Operations

Contained metal production	September 2015 Quarter	December 2015 Quarter	March 2016 Quarter	FY2016 Guidance
Copper (t)	16,638	17,642	16,095	65,000 - 68,000
Gold (oz)	7,885	9,420	9,080	35,000 - 40,000
C1 cost (US\$/lb)	0.97	1.02	1.01	0.95 - 1.05

- Strong mine production and milling rates maintained for the Quarter.
- Process plant enhancements continuing to drive copper recoveries.
- FY2016 production guidance: 65,000-68,000t Cu and 35,000-40,000oz gold at C1 US\$0.95-1.05/lb.

Exploration

- Maiden JORC 2012 compliant Mineral Resource estimate completed for the high-grade Monty copper-gold deposit, located on the Springfield Joint Venture with Talisman Mining Limited (ASX: TLM), 10km east of the DeGrussa Copper-Gold Mine in WA:
 - Total Indicated and Inferred Mineral Resource of 1.05Mt grading 9.4% Cu and 1.6g/t Au for 99,000t of contained copper and 55,000oz of contained gold;
 - Includes a high-grade massive sulphide resource of 763,000t grading 12.1% Cu and 2.1g/t Au for 92,000t of contained copper and 52,000oz of contained gold.
- High-level studies underway to investigate the optimal pathway to unlock the value of the Monty deposit including an assessment of utilising the nearby 1.6Mtpa DeGrussa plant and infrastructure.
- Major aircore drilling programs underway to test the interpreted 5km long VMS horizon along strike to the north-east and south of the Monty deposit, which will be followed by systematic RC/diamond drilling and down-hole EM surveys.
- Planning completed for a large-scale aeromagnetic survey over most of the Company's Queensland tenure, which is planned to commence in the June Quarter.
- Strong porphyry copper-style alteration identified at the Wingrunner Project in New South Wales. Ground magnetic and IP surveys will commence in the June Quarter to assist in vectoring towards potential targets.

Corporate

- Payment of interim dividend of 2 cents per share (fully franked).
- DeGrussa Finance Facility balance further reduced to \$70M (\$50M Revolver Facility and \$20M Amortising Facility). Group cash on hand totalled \$45M as at 31 March 2016.

1.0 SAFETY PERFORMANCE

The Total Recordable Injury Frequency Rate (TRIFR) for the Sandfire Group for the March Quarter was 10.3. Recordable injuries include those that result in any days away from work (Lost Time Injuries) and those where an employee or contractor cannot perform all or any part of their normal shift (Restricted Work Day Injuries), as well as any injury that requires services that only a medical practitioner can provide (Medical Treatment Injuries).

This safety performance reflects four injuries during the Quarter, all of which were low risk and low consequence involving hand and musculoskeletal injuries. Safety systems development and critical control management continues to improve with ongoing focus being applied to improved safety leadership and culture and particular emphasis being applied to assuring controls associated with principal hazards are in place and effective.



Figure 1: High-grade massive sulphides in the face of a new ore drive in the C5 orebody (left); Drilling at Monty (centre); and the DeGrussa Solar Power Farm (right).

2.0 OPERATIONS OVERVIEW

Copper production for the March Quarter was 16,095 tonnes (December Quarter: 17,642 tonnes) at an average ore grade of 4.7% Cu (December Quarter: 4.8% Cu). C1 cash operating costs for the Quarter were US\$1.01/lb (December Quarter: US\$1.02/lb).

A total of 374,955 tonnes of ore was milled for the March Quarter, reflecting the influence of the planned 8-day shutdown. Mill throughput operating performance, without the impact of the shutdown, was 1.65Mtpa. Copper recovery averaged 91.7% in the March Quarter, reflecting stable plant operation throughout the Quarter together with the impact of the column cell, which has delivered an improvement in copper recoveries of around 1.5% since its installation in February 2015.

Mine production for the Quarter was 396,211 tonnes grading 4.3% Cu, reflecting an annualised production rate of 1.6Mtpa for the year-to-date. During the Quarter, production rates continued to ramp up in the C4 lens with two stopes being mined. Production from the first stope in the C5 lens remains on schedule for Q4 FY2016.

3.0 MINING & PRODUCTION

3.1 Overview

March 2016 Quarter – Production Statistics		Tonnes	Grade (% Cu)	Grade (g/t Au)	Contained Copper (t)	Contained Gold (oz)
Concentrator	Mined	396,211	4.3	2.1	16,875	27,117
	Milled	374,955	4.7	2.0	17,553	24,148
Production		66,024	24.4	4.3	16,095	9,080

Note: Mining and production statistics are rounded to the nearest 0.1% Cu grade and 0.1 g/t Au grade. Errors may occur due to rounding. Production Statistics are subject to change following reconciliation and finalisation subsequent to the end of the Quarter.

3.2 Underground Mining

A total of 713 metres of ore drive development was completed during the Quarter, resulting in the production of 56,928 tonnes of development ore. In addition, 339,283 tonnes of stope ore was produced, resulting in total ore production for the Quarter of 396,211 tonnes grading 4.3% Cu.

This performance reflects a continued focus on production scheduling, reliable stope design and excavation, as well as improving mining fleet productivity. Opportunities to further enhance mine production will continue to be explored.

During the Quarter, production rates continued to ramp up in the C4 lens with two stopes being mined. Production from the first stope in the C5 lens remains on schedule for Q4 FY2016. The mine remains in balance between production and back-fill. Paste reticulation has been extended in the C4 and C5 production levels during the Quarter. Opportunities to replace paste back-fill in some stopes with mine waste continue to be identified, thereby reducing overall waste haulage to the surface and allowing a focus on ore haulage.

Total underground development had reached 34.9km at Quarter-end. The Conductor 1 decline was not advanced during the Quarter with the focus on development of the Conductor 4 and 5 declines. The development of the Conductor 1 decline will recommence as required for the extraction of the lower Conductor 1 ore. During the Quarter, Conductor 4 decline development advanced 139 metres and Conductor 5 decline development advanced 194 metres, with all development advance occurring in good ground conditions. Ore development within the C5 lens continued during the Quarter together with the installation of underground infrastructure to enable C5 stope production to commence in Q4 FY2016.

A Life-of-Mine update has been released following completion of diamond drilling in C5 and subsequent Mineral Resource and Ore Reserve estimates (see separate ASX Announcement today).

3.3 Processing

Key processing metrics for the March 2016 Quarter included:

- 374,955 tonnes milled at an average head feed grade of 4.7% Cu (December Quarter: 403,806 tonnes at 4.8% Cu);
- Overall copper recovery of 91.7% (December Quarter: 91.2%);
- Concentrate production of 66,024 tonnes (December Quarter: 72,039 tonnes); and
- Metal production of 16,095 tonnes of contained copper and 9,080 ounces of contained gold (December Quarter: 17,642 tonnes of contained copper and 9,420 ounces of contained gold).

Mill throughput was maintained at an annualised rate of 1.65Mtpa notwithstanding the planned 8-day shutdown to re-line the mill, refurbish the thickener tanks and complete maintenance to the concentrate filter. During the Quarter, reliability issues were experienced with the pebble crusher and jaw crusher – both of which impacted throughput rates.

Copper recovery for the period averaged 91.7% which is aligned with the global average recovery based on the resource copper grade and Cu:S ratio. Each mining area undergoes geo-metallurgical laboratory testing prior to processing, including grinding simulation and copper liberation testing to understand the impact of primary grind and the downstream circuit parameters on copper recovery and copper grade. This work is used to predict copper recovery performance compared with what would be expected from global macro indicators such as copper grade and Cu:S ratio and is used to optimise ROM blending and processing tactics.

Following the successful commissioning of the major enhancement projects completed during FY2015, Sandfire is continuing to investigate opportunities for further improvements in copper recovery. These include examining additional flotation capacity, further improvements in grind optimisation and operating tactic optimisation.

3.4 Guidance – FY2016

Targeted copper production for FY2016 is expected to be at the upper end of the range 65,000-68,000 tonnes of contained copper metal and mid-point of gold production in the range 35,000-40,000 ounces. Headline C1 cash operating costs are expected to be at the lower end of the range US\$0.95-1.05/lb.

4.0 SALES AND MARKETING

4.1 Copper Concentrate Shipments

A total of 84,416 dry metric tonnes of plant concentrate containing 20,423 tonnes of copper and 11,352 ounces of gold was sold for the Quarter. Shipments were completed from Port Hedland and Geraldton.

5.0 INFRASTRUCTURE

5.1 Solar Power Project

During the Quarter, construction of the new 10.6MW solar power station at DeGrussa advanced, with construction now nearing completion and commissioning expected to commence in April 2016.

The innovative \$40 million project – which is the largest integrated off-grid solar and battery storage facility in Australia – will consist of 34,080 solar PV panels covering a total area of over 20 hectares at a site located immediately adjacent to the DeGrussa underground mine and processing plant.

The system has been designed with the diesel-fired power station continuing to provide base-load power to the DeGrussa mine with sufficient minimum load to ensure it can respond quickly to meet the power requirements of the process plant and underground mine.

The innovative DeGrussa Solar Power Project is expected to set a new benchmark for the use of renewable energy at remote mine sites in the resource sector, reducing diesel consumption and cutting carbon emissions at DeGrussa by more than 12,000 tonnes of CO₂ annually.

6.0 FEASIBILITY STUDIES & METALLURGY

6.1 Oxide copper

The Sandfire Oxide Copper Project at DeGrussa has been extensively tested and a Scoping Study undertaken on the basis of a traditional sulphuric acid heap leach combined with a solvent extraction circuit with a strong electrolyte fed to an electro-winning circuit to produce 99.99-99.999% copper cathode.

As outlined in the December 2014 Quarterly Report, the preliminary economics from the Scoping Study indicate that the Oxide Project has an Internal Rate of Return (IRR) exceeding 10% and requiring capital expenditure of over \$50 million. The project is sensitive to acid costs, copper recovery and capital costs.

The investigation of Innovat continuous vat leaching technology as an alternative to heap leaching and glycine as a potential alternative to a sulphuric acid environment continued during the Quarter. A second round of benchtop testing, as noted in the June 2015 Quarterly Report, has been completed using new samples collected from site stockpiles to confirm the consistency of the results.

Assay results from this testing have confirmed the potential of this process to provide high recovery of leachable copper. A high level study is underway to understand the economics of this innovative process assuming full commercialisation.

It is expected that the next step in the development of this process flowsheet will be the completion of pilot plant testing to allow confirmation of project economics prior to consideration of a full-scale plant with a decision within the next six months.

7.0 DEGRUSSA EXPLORATION

7.1 Overview

Sandfire continues to progress a tightly focused, multi-disciplinary exploration campaign to test for extensions to the known cluster of VMS deposits at DeGrussa and to unlock the broader potential of the Doolgunna region for additional VMS and structurally-hosted copper deposits. Key components of the Company's exploration activity at DeGrussa during the March Quarter included:

- Completion and close-out of Resource Definition drilling at the Monty deposit;
- Completion of a maiden JORC Mineral Resource estimate for the Monty deposit;
- Completion of geotechnical diamond drilling at the Monty deposit;
- Commencement of metallurgical diamond drilling at the Monty deposit; and
- Commencement of aircore drilling with in-fill near Monty and in the Southern Volcanics.

The aggregate exploration metres drilled on Sandfire's wholly-owned and JV tenements during the March 2016 Quarter are summarised below:

Drilling	AC/RAB Drilling (m)	RC Drilling (m)	UG Diamond Drilling (m)	Surface Diamond Drilling (m)	Total Drilling (m)
Q3FY2016	9,184	7,019	7,496	12,846	36,545

Note: 9,184 metres of AC/RAB, 7,019 metres of RC and 12,662 metres of diamond drilling during the quarter related to the Talisman Joint Venture.

7.2 DeGrussa Regional Exploration

The Greater Doolgunna Project now includes the Talisman Joint Venture and the tenements acquired from Sipa Resources, which have increased the aggregate contiguous exploration area to 1,600km². This includes over 65km of strike extent in VMS lithologies. Much of this stratigraphy is obscured beneath transported cover and requires systematic aircore (AC) drilling to test the bedrock geochemistry and identify prospective areas.

7.2.1 VMS Discovery – Springfield Joint Venture

The Talisman Projects comprise the Springfield, Halloween and Halloween West Projects, which abut Sandfire's DeGrussa-Doolgunna tenements and contain extensions of the lithological sequence which hosts the DeGrussa VMS deposits. The projects are being explored under a Joint Venture agreement with Talisman Mining Limited (ASX: TLM) under which Sandfire has now earned a 70% interest by spending \$15 million on exploration. Exploration expenditure at the Talisman Projects is now being jointly funded by Sandfire and Talisman on a 70:30 basis.

Maiden Mineral Resource Estimate for Monty

The maiden Mineral Resource estimate for the Monty deposit was completed by Sandfire's in-house geological team. The geological model and Mineral Resource estimate was based on the results of 82 diamond drill holes completed by DDH1 Drilling. The drilling was completed on a nominal 30m by 40m spacing to provide sufficient confidence in the model to progress the project towards a maiden Ore Reserve estimate.

The maiden Monty Mineral Resource estimate is set out in Table 1 below:

Monty Mineral Resource – as at 31 March 2016						
Type	Mineral Resource Category	Tonnes	Grade Cu (%)	Contained Cu (t)	Grade Au (g/t)	Contained Gold (oz)
Massive Sulphide	Indicated	754,000	12.0	91,000	2.1	51,000
	Inferred	9,000	20.7	2,000	2.7	1,000
	Total	763,000	12.1	92,000	2.1	52,000
Halo	Indicated	287,000	2.2	6,000	0.3	3,000
	Inferred	-	-	-	-	-
	Total	287,000	2.2	6,000	0.3	3,000
Total	Indicated	1,041,000	9.3	97,000	1.6	54,000
	Inferred	9,000	20.7	2,000	2.7	1,000
	Total	1,050,000	9.4	99,000	1.6	55,000

Note: Numbers are presented at a 1.0% Cu cut-off grade and are rounded.

The geostatistical estimate utilised Ordinary Kriging with specific parameters set for each zone of mineralisation including the discrete high-grade bornite domains. 99 per cent of the tonnes contained in the resource, or 1.04 million tonnes, are classified as Indicated Resources, and are available for conversion to Ore Reserves after completion of the appropriate studies.

An external independent review of the Mineral Resource estimate was completed by Cube Consulting. Full details of the Monty Mineral Resource estimate are provided in the Company's ASX Announcement dated 13 April 2016.

Geology

The mineralisation at Monty is contained within a host sequence of sediments (siltstone, sandstone, and conglomerate) and basalts. Mineralisation occurs in multiple sulphide lenses, at different stratigraphic levels, surrounded by disseminated and/or blebby sulphide (halo mineralisation) in chlorite-altered host sequence litho-types.

Based on similarities with the DeGrussa deposit, the Monty deposit is interpreted to be a Volcanogenic Massive Sulphide (“VMS”) deposit that formed during sub-sea floor replacement of the host sequence stratigraphy by mineralising hydrothermal fluids. The host sequence is bounded both above, and below, by dolerite sills.

As illustrated by Figures 2a and 2b below, two major and five subordinate massive sulphide lenses have been modelled (please refer to the Company’s ASX Announcement dated 13 April 2016 for comments on rounding).

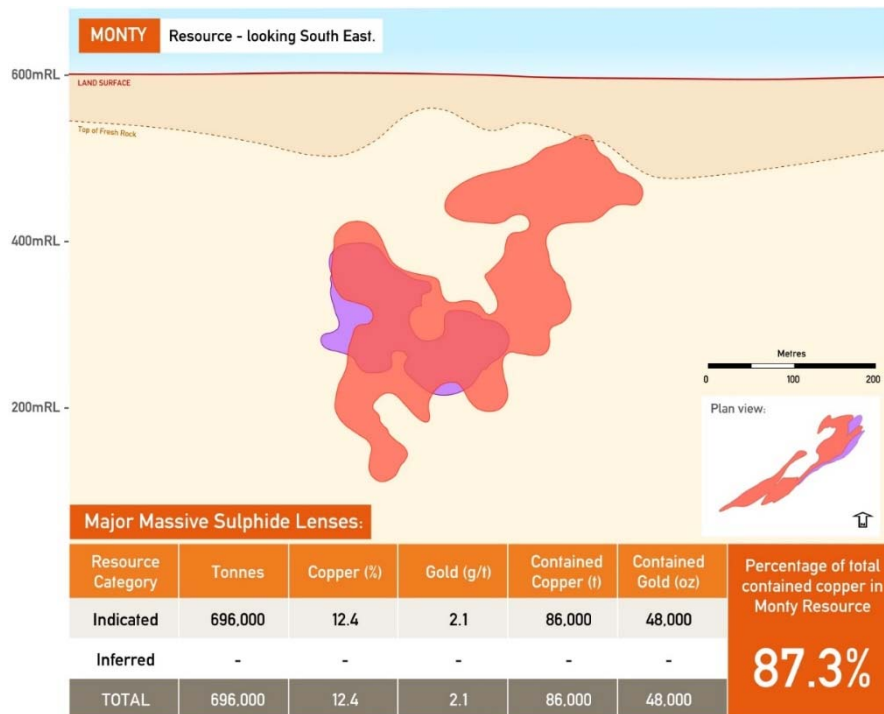


Figure 2a: Monty resource showing major massive sulphide lenses.

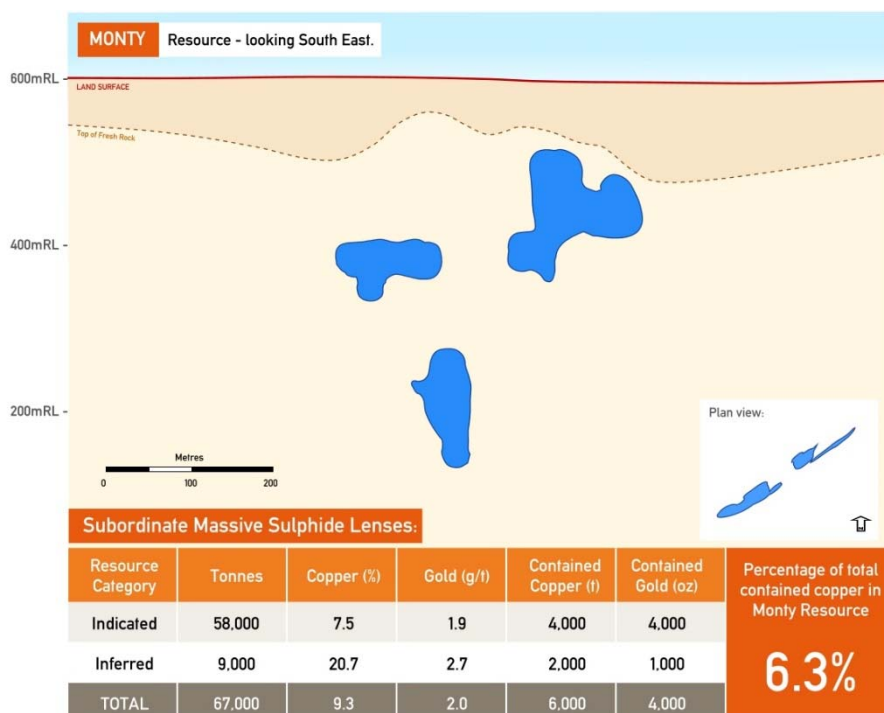


Figure 2b: Monty resource showing subordinate massive sulphide lenses.

The two major massive sulphide lenses contain internal zones of halo mineralisation. External halo mineralisation, surrounding the massive sulphide lenses, is developed in certain locations. Internal and external halo mineralisation has been modelled as seven solids (see Figure 3 below).

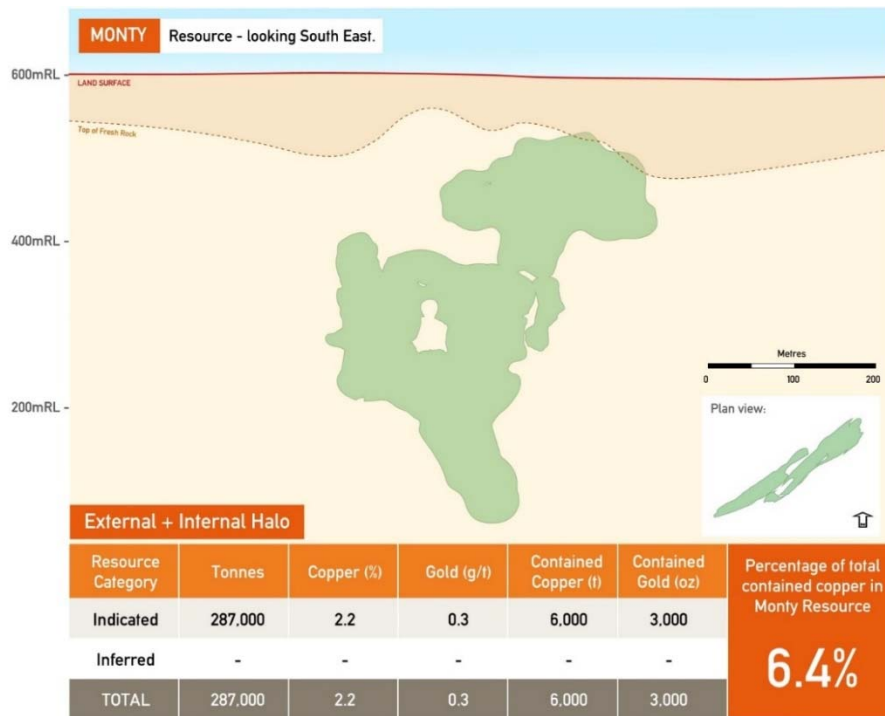


Figure 3: Monty resource showing external and internal halo lenses.

All mineralisation types which make up the resource are shown in Figure 4 below.

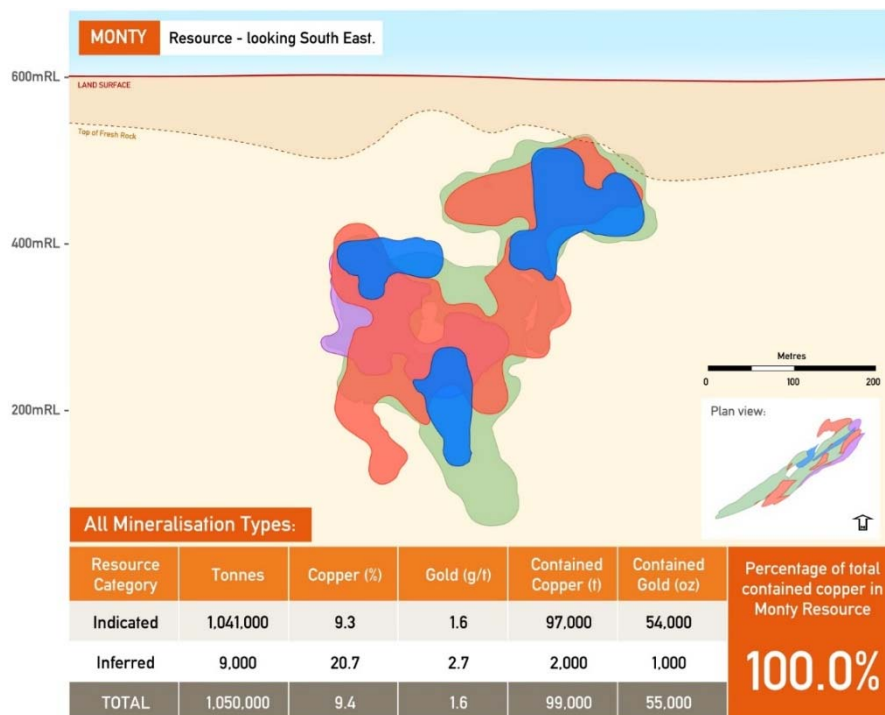


Figure 4: Monty resource showing all mineralisation types.

The mineralogy of the massive sulphide lenses at Monty typically comprises chalcopyrite, pyrite and pyrrhotite with minor sphalerite and galena. Four drill-holes (three in one area and one in another) intersected intervals of massive sulphide (in the lowermost major massive sulphide lens) that contained appreciable quantities of bornite.

Mineralisation in these bornite-containing zones is of significantly higher tenor than that in the normal (i.e. non-bornite containing) massive sulphide zones.

Based on drill-hole geometry and core observations, the bornite zones are interpreted to be approximately orthogonal to lithological layering. The bornite zones have been modelled as two drill delineated domains within the massive sulphide solid.

Further drilling of this bornite zone will be considered as part of future studies to determine if there is a strategic opportunity to mine direct shipping ore (DSO).

A number of geostatistical methodologies have been applied as part of the Mineral Resource estimation to take the local variability of the mineralisation into account and to ensure that the Mineral Resource estimate has been completed to a high standard of accuracy. This local variability in grade and thickness is typical of all the VMS lenses discovered to date at DeGrussa.

Project Development Studies

Sandfire has commenced high-level studies, as Manager of the Joint Venture, to identify the primary value drivers for the Monty deposit and determine the development pathway for the project.

The results of these studies will be used to define the scope of further technical work and the scope of a Feasibility Study. Work programs currently underway include:

- Metallurgical test work to define ore characteristics including assessment of the suitability of processing with ore from the existing DeGrussa deposits through the existing 1.6Mtpa DeGrussa Concentrator;
- Drilling for geotechnical and geo-hydrological purposes;
- Mining studies;
- Regulatory approvals; and
- Infrastructure studies.

Ongoing Exploration

The discovery of the high-grade Monty deposit represents a major breakthrough for the ongoing exploration of the Doolgunna region, providing a focal point for exploration activities and confirming the prospectivity of the host corridor which has excellent potential for additional VMS discoveries.

The discovery and delineation of the Monty deposit has provided invaluable information and insights to Sandfire's geological team which, together with the extensive bank of information accumulated over the past six years at DeGrussa, will help to refine and target ongoing exploration programs.

A number of exploration activities are either already underway or planned to commence in the Monty area over the coming months including:

- Systematic aircore drilling to accurately delineate the interpreted VMS horizon along the prospective host horizon;
- Reverse Circulation drilling (with diamond tails if required) within the interpreted VMS horizon along strike from Monty to inform the interpretation of the host stratigraphy;
- Diamond drilling to test the areas down-dip and down-plunge of the Monty deposit;
- DHEM surveys of all RC and diamond drill-holes as part of this new phase of exploration following completion of the resource definition drill-out; and
- Development of a structural geology model to provide additional context regarding the location and geological setting of Monty.

While the Monty area remains Sandfire's priority exploration focus in the near term, the Company has a number of other highly promising exploration opportunities in the Greater Doolgunna region, both within the Springfield Joint Venture and on Sandfire's 100%-owned ground. These include:

- The **Homer Corridor**, located ~4km east of DeGrussa, where a thick exhalative package has been intersected in previous drilling and follow-up deep RC drilling and DHEM surveying is planned (within the Springfield JV);

- The **Homestead Prospect**, located 12km south-west of DeGrussa, where initial first-pass aircore drilling has identified anomalism within the interpreted host horizon. Additional in-fill aircore drilling will be completed to accurately define the prospective VMS horizon and provide samples to inform geochemical vectoring before targeted RC drilling and DHEM surveys are undertaken (Sandfire 100%); and
- The **Southern Volcanics**, where systematic aircore drilling is planned to accurately define the prospective VMS horizon (within the Springfield JV).

Regional Exploration – Talisman Joint Venture

The discovery of the high-grade Monty deposit represents a major breakthrough for the ongoing exploration of the Doolgunna region, providing a focal point for exploration activities and opening up a highly prospective new corridor with excellent potential for additional VMS discoveries.

The discovery and delineation of the Monty deposit has provided invaluable information and insights to Sandfire’s geological team which, together with the extensive bank of information accumulated over the past five years, will help to refine and target ongoing exploration programs.

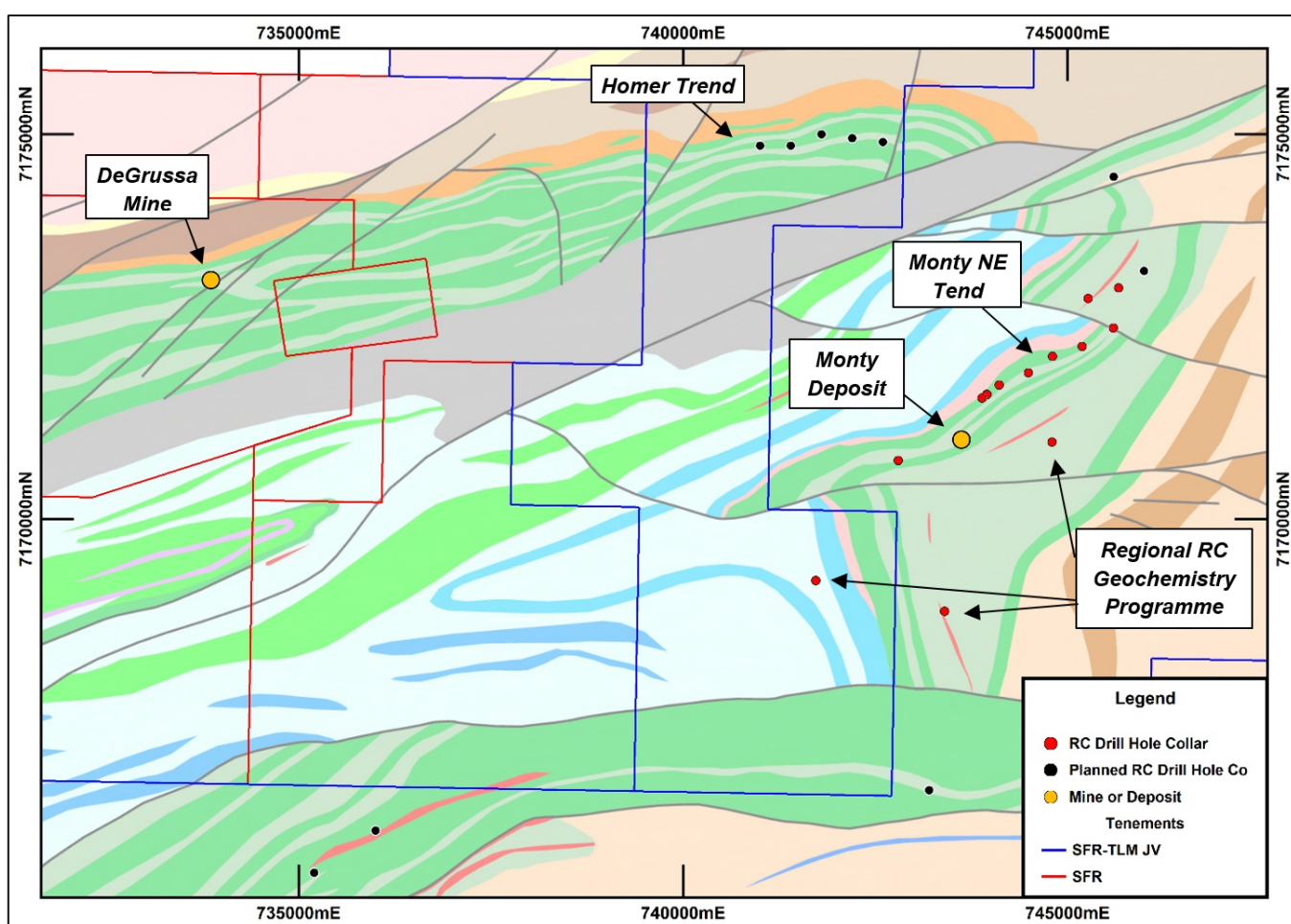


Figure 5: Completed and planned RC drilling across the SFR-TLM Joint Venture tenements in the Quarter.

NE Monty Trend

Sandfire has completed nine Reverse Circulation drill holes along the NE Monty Trend. DHEM surveys will be undertaken on all of these holes. Interpretation of the area will commence on receipt of all of the assays and DHEM surveys. One drill hole remains in this programme.

Regional RC Geochemistry Programme

Reverse Circulation drilling commenced across the Springfield Project area to follow-up favourable geology and anomalous geochemistry intersected in first pass Aircore drilling by the Company. Three drill holes have been completed during the Quarter, with assays pending.

Homer Trend

The Company is planning to drill five Reverse Circulation drill holes along the Homer Trend, located ~4km east of DeGrussa (within the Springfield JV), where a thick exhalative package has been intersected in previous drilling. Follow-up deep RC drilling and DHEM surveying is planned.

7.2.2 Doolgunna Project

The Homestead prospect is located in the south-west of the Company's 100%-owned Doolgunna Project, ~12km from DeGrussa. The project is interpreted to contain the VMS prospective host sequence seen elsewhere in the Company's tenements. Initial first-pass aircore drilling has identified weak anomalism within favourable geology.

Additional in-fill aircore drilling will be completed to accurately define the prospective VMS horizon and provide samples to inform geochemical vectoring. This will allow targeted RC drilling and DHEM surveys to undertaken.

7.2.3 Thaduna Project Joint Venture

The Thaduna Project is located 40km east of DeGrussa and represents the largest copper resource in the Doolgunna-Bryah Basin Region outside of Sandfire's DeGrussa-Doolgunna Project (7.9Mt @ 1.8% Cu for 142,000 tonnes of contained copper). Sandfire currently owns a 35% interest in the project, and has entered into a farm-in agreement to earn up to a further 45% (total of 80%) with Ventnor Resources (ASX: VRX).

During the Quarter, Sandfire completed a review of the distribution of mineralisation at the Thaduna deposit, including the diamond drill holes completed in the last Quarter. Work is continuing to define structural controls for the higher grade mineralisation encountered within the deposit.

7.4.4 Ned's Creek Project

The Ned's Creek Project comprises all of the tenements acquired from Sipa Resources. The package totals over 900km² of prospective geology and surrounds the Thaduna Project Joint Venture in totality.

Results of a detailed airborne magnetic survey were received during the Quarter. The data was merged with existing regional datasets and processed. An initial review of the survey indicated a number of targets for structurally-controlled copper mineralisation. It is anticipated that drilling will commence in Q1FY2017 once all approvals are received and access is established.

8.0 AUSTRALIAN EXPLORATION

Sandfire has a number of exploration joint ventures around Australia. The Company recognises that its activities impact directly and indirectly on the local environments and communities in which we operate. Sandfire is committed to conducting its activities in a sustainable and socially responsible manner to minimise and mitigate these impacts. In order to achieve its sustainability objectives, Sandfire applies the same high standards and commitment to safety in the workplace, environmentally sound practices and transparent social responsibility at its exploration joint ventures as it does at its DeGrussa Copper Mine in Western Australia.

8.1 Borroloola Project

The Borroloola Project is located north of the McArthur River Mine (Xstrata), and is prospective for base metals, sedimentary manganese and iron ore. Sandfire has signed two farm-out agreements to advance the Borroloola Project. The Batten Trough JV covering the eastern portion of the tenements is under an option and joint venture agreement with MMG Exploration Pty Ltd, which can earn up to an 80% interest. The Borroloola West JV covering the western portion is under an agreement with Pacifico Minerals Ltd, which has now earned a 51% interest in the Project.

Work on the Batten Trough projects has commenced with a Falcon gravity survey completed for a total of 5,320 line kilometres. The results of this work will be used to delineate further targets for drilling this year.

8.2 Queensland Projects

A number of projects are held in the eastern succession of the Mount Isa region south and east of Cloncurry in northwest Queensland which are prospective for Broken Hill style lead-zinc-silver deposits such as the Cannington deposit (BHP) and the Ernest Henry Iron Oxide copper-gold deposits (Xstrata).

Planning has been completed for a large-scale aeromagnetic survey over most of the Company's Queensland tenure, which is planned to commence in the June Quarter. This work, along with planned ground electro-magnetic surveys, will allow detailed delineation the targets identified following the integration of last year's data. The Queensland field season will commence in the June Quarter with a targeted exploration plan to systematically test the highest priority areas (see Figure 6).

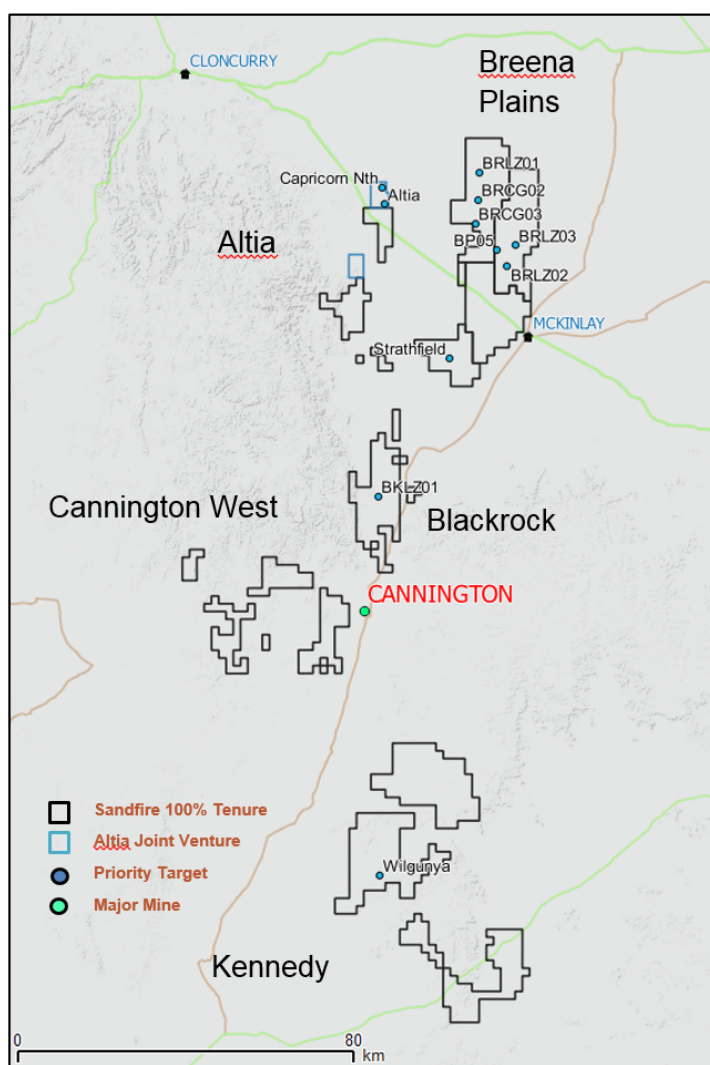


Figure 6: Sandfire's Queensland tenure showing the five main project areas and the 2016 high priority targets.

8.3 New South Wales Projects

A number of project areas are held in the Lachlan Fold Belt of New South Wales near West Wyalong which are prospective for porphyry copper-gold mineralisation as found at Northparkes (China Moly), Cadia (Newcrest) and Cowal (Barrick). A farm-in agreements to earn up to 80% is held with Gold Fields Australasia Pty Ltd on the Marsden South Project. Sandfire completed the purchase of the Temora and Bland Creek Projects from Straits resources during the quarter.

8.3.1 Temora

Following the purchase of the Temora Project, processing of historical airborne magnetic data has been completed. At the same time, an ongoing review of exploration completed by previous explorers has identified several initial targets for porphyry copper mineralisation. These enhanced datasets along with the ongoing re-assaying will be essential in future target generation exercises.

8.3.2 Regional Exploration

Follow-up aircore drilling at Wingrunner during the Quarter identified strong porphyry copper-style alteration in several holes.

Ground magnetic and IP surveys will commence in the June Quarter to assist in vectoring towards potential targets. A further aircore hole was completed at the Wellington North Project during the Quarter. Assay results are awaited.

At Marsden South an IP survey over the Canyon prospect identified a chargeable zone within a magnetic feature interpreted as an intrusive pluton. This anomaly is considered to be a strong porphyry target. A second IP anomaly associated with a magnetic depletion zone was also identified. This is considered to be a structurally controlled epithermal target. Diamond drilling of these targets has commenced (Figure 7).

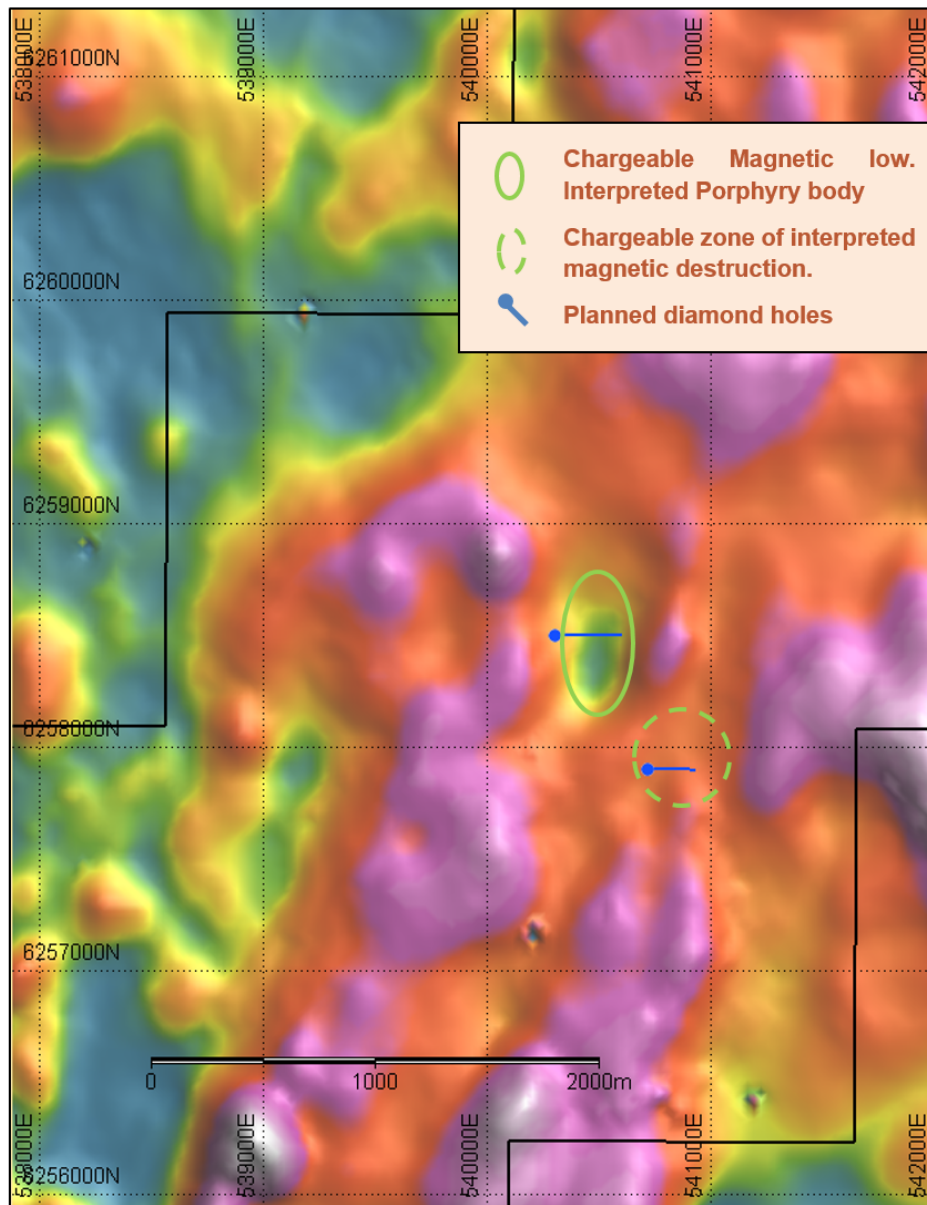


Figure 7: Marsden South in progress diamond drilling on RTP Magnetics.

8.4 Alford Project

The Alford Project on the Yorke Peninsula lies 20km NE of Wallaroo, South Australia in the southern portion of the Gawler Craton. The tenements are prospective for iron oxide copper-gold mineralisation as found at Prominent Hill (OZ Minerals), Olympic Dam (BHP) and Hillside (Rex Minerals). The Project includes an option to Joint Venture into the Alford Project (EL3969, PM268) with Argonaut Resources (ASX: ARE) to earn up to 75% of the project.

Work continues on gaining access to prospective ground on the Yorke Peninsula.

9.0 INTERNATIONAL EXPLORATION

9.1 WCB Resources – Misima Copper Project, PNG

Sandfire holds a 38.38% interest in WCB Resources Ltd (“WCB”; TSX-V: WCB), a Toronto-listed copper-gold explorer, which it acquired by subscribing for shares in a A\$5.9M private share placement. WCB is earning a 70% interest in the Misima Island exploration lease through a joint venture with Pan Pacific Copper (“PPC”), an integrated copper mining and smelting company that is jointly owned by JX Nippon Mining & Metals Corporation and Mitsui Mining & Smelting Company Ltd. The Misima Project is located within a porphyry belt which contains four of the world’s richest primary grade copper and gold porphyries including Grasberg (4.9 billion tonnes @ 0.8% Cu and 0.7g/t Au), Ok Tedi (1.7 billion tonnes @ 0.7% Cu and 0.6g/t Au), Golpu (1 billion tonnes @ 0.9% Cu and 0.6g/t Au) and Panguna (1.4 billion tonnes @ 0.5% Cu and 0.6g/t Au)¹.

Further details can be found in WCB’s News Releases, which are available at the WCB Resources website, www.wcbresources.com.

9.2 Tintina Resources – Black Butte Project, USA

Sandfire holds a 57% interest in Vancouver-based copper development company, Tintina Resources (TSX-V: TAU). Tintina’s key asset is a 100% interest in the premier, high-grade Black Butte Copper Project, located near Helena in the State of Montana in the United States. The project is located close to existing road, power and rail infrastructure, with the ability to access a residential workforce located nearby and competitive sources of materials and power.

Located on private ranch land in central Montana, the Black Butte Project copper resource consists of three flat-lying sedimentary hosted copper deposits which have been extensively drilled by Tintina (over 53,000m of diamond drilling).

An Updated Technical Report and Preliminary Economic Assessment (PEA) completed by Tintina in July 2013 was based on reported NI 43-101 Measured and Indicated Resources totalling 15.7 million tonnes grading 3.4% Cu, 0.1% Co and 14g/t Ag for 533,600 tonnes of contained copper and Inferred Resources totalling 2.3 million tonnes grading 2.8% Cu, 0.09% Co and 14g/t Ag for 63,500 tonnes of contained copper (calculated using a 1.6% copper cut-off grade) for the Johnny Lee Upper Zone and Lowry deposits, and a 1.5% Cu cut-off for the Johnny Lee Lower Zone).

The PEA confirmed that the deposit has the potential to underpin a robust underground mining operation with forecast life-of-mine production of ~30,000tpa of copper-in-concentrate over a mine life of ~11 years, based on total mill throughput of 11.8 million tonnes at an average head grade of 3.1% Cu.

10.0 CORPORATE

10.1 Interim Dividend

Sandfire announced an interim fully franked dividend of 2 cents per share for the 2016 Financial Year. The record date to determine entitlements was 10 March 2016, and dividend payments commenced on 24 March 2016 via electronic funds transfer.

10.2 DeGrussa Finance Facility

During the Quarter the DeGrussa Finance Facility balance was further reduced to \$70 million, comprising a \$50 million Revolver Facility (\$85 million limit) and \$20 million Amortising Facility.

10.3 Cash on hand

Group cash on hand as at 31 March 2016 totalled \$45 million.

¹ Production + Resources, Intierra 2014

10.4 Investor Call and Webcast

A teleconference on the Quarterly results will be held for the investment community on Thursday 14 April 2016 commencing at 10.00am (AWST) / 12.00pm (AEST).

Investors, brokers, analysts and media can join the teleconference by dialling the following numbers:



Within Australia (Toll Free): 1 800 558 698
Alternate Australia Toll Free: 1 800 809 971
International: +61-2 9007 3187

Please refer to attached for a full list of international dial-in numbers.

Conference ID: 873454

The Quarterly Report and an accompanying slide presentation will be available via the ASX Company Announcements Platform (Code: SFR) as well as at Sandfire's website at www.sandfire.com.au.

A live webcast of the teleconference and synchronised slide presentation will also be available via the BRR Media service by clicking on the following link:

<http://webcasting.brrmedia.com/broadcast/57031d12c95e0de72337f098>

A recording of the webcast will be available at the same link shortly following the conclusion of the conference call.

ENDS

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Competent Person's Statement – Exploration Results

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 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 Bamforth 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 Statement – Mineral Resources

The information in this report that relates to Mineral Resources is based on information compiled by Mr. Ekow Taylor who is a Member of The Australasian Institute of Mining and Metallurgy. Mr. Taylor 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 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 Statement – Ore Reserves

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 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.

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.

Forward-Looking Statements

Certain statements made during or in connection with this statement contain or comprise certain forward-looking statements regarding Sandfire's Mineral Resources and Reserves, exploration operations, project development operations, production rates, life of mine, projected cash flow, capital expenditure, operating costs and other economic performance and financial condition as well as general market outlook. Although Sandfire believes that the expectations reflected in such forward-looking statements are reasonable, such expectations are only predictions and are subject to inherent risks and uncertainties which could cause actual values, results, performance or achievements to differ materially from those expressed, implied or projected in any forward looking statements and no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, delays or changes in project development, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in metals prices and exchange rates and business and operational risk management. Except for statutory liability which cannot be excluded, each of Sandfire, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in this statement and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this statement or any error or omission. Sandfire undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events other than required by the Corporations Act and ASX Listing Rules. Accordingly you should not place undue reliance on any forward looking statement.

JORC Compliance Statement

A summary of the information used in this release is as follows.

The DeGrussa VHMS (volcanic-hosted massive sulphide) copper-gold deposit is located 900 kilometres north of Perth and 150 kilometres north of Meekatharra in the Peak Hill Mineral Field. The system is hosted within a sequence of metasediments and mafic intrusions situated in the Bryah Basin that have been metamorphosed and structurally disrupted.

The sulphide mineralisation consists of massive sulphide and semi-massive sulphide mineralisation. Primary sulphide minerals present are pyrite, chalcopyrite, pyrrhotite and sphalerite, together with magnetite. The sulphide mineralisation is interpreted to be derived from volcanic activity. The deposit shares characteristics with numerous VHMS deposits worldwide.

DeGrussa is located wholly within Mining Lease 52/1046. This tenement is subject to the Yugunga-Nya (WC99/046) and Gingirana Claims (WC06/002). A Land Access Agreement was executed with both claimant groups in November 2010. Sandfire is required to make royalty payments to the State and affected Native Title Claimants on a periodical basis.

Drilling of the DeGrussa massive sulphide lens (of which there are four defined lenses of mineralisation) and surrounding area is by diamond drill holes of NQ2 diameter core and, to a lesser extent, by Reverse Circulation (RC) face sampling hammer drilling. The nominal drill-hole spacing is less than 80m x 40m in the inferred areas of the Mineral Resource and increases in density as the classification increases to Measured where nominal 13m x 20m drill hole spacing is achieved. Drilling has been by conventional diamond drilling with a small number holes aided by the use of navigational drilling tools. RC drilling was completed with a nominal 140mm face sampling hammer and split on a cone or riffle splitter. Drill-hole collar locations were surveyed using RTK GPS, and all holes were down-hole surveyed using high speed gyroscopic survey tools.

Sampling of diamond core was based on geological intervals (standard length 0.5 m to 1.3 m). The core was cut into half or quarter (NQ2) to give sample weights up to 3 kg. RC samples were 1.0m samples down-hole, with sample weights between 3.5kg and 7kg depending on material type. Field quality control procedures involved assay standards, along with blanks and duplicates. These QC samples were inserted at an average rate of 1:15.

The sample preparation of diamond core involved oven drying, coarse crushing of the core sample down to ~10 mm followed by pulverisation of the entire sample to a grind size of 90% passing 75 micron. A pulp sub-sample was collected for analysis by either four acid digest with an ICP/OES, ICP/MS (multi element) finish or formed into fused beads for XRF determination on base metals and a fire assay for Au.

All reported assays have been length weighted. No top-cuts have been applied. A nominal 0.3% Cu lower cut-off is applied. High grade intervals internal to broader zones of sulphide mineralisation are reported as included intervals.

The attitude of the ore bodies at DeGrussa is variable but there is a dominant southerly dip from ~40 to 90 degrees flat-lying and is drilled to grid west with drill holes inclined between -60 and -90 degrees. As such the southern hole direction is north and with varying intersection angles all results are clearly defined as either down hole or approximate true width.

Density of the massive sulphide orebody ranges from 2.8g/cm³ to 4.9g/cm³, with an average density reading of 3.7g/cm³. Geotechnical and structural readings recorded from diamond drilling include recovery, RQD, structure type, dip, dip direction, alpha and beta angles, and descriptive information. All data is stored in the tables Oriented Structure, Geotechnical RQD, Core Recovery, Interval Structure as appropriate.

A suite of multi-element assays are completed on each mineralised sample and include all economic and typical deleterious elements in copper concentrates. This suite includes Cu, Au, Ag, Zn, Pb, S, Fe, Sb, Bi, Cd and As.

Regional drilling has been completed using a combination of RC and AC drilling. A majority of the drilling is preliminary in nature and starts with 800m x 100m AC drilling where the geology and geochemistry is reevaluated to determine the requirement for follow 400m x 100m drilling. If significant anomalism is identified in the AC drilling then follow up RC drilling will be conducted to determine the opportunity for delineating potentially economic mineralisation. Whist the main aim of the exploration at Doolgunna is to identify additional VHMS mineralisation in some areas of regional land holding it is currently interpreted that there is shear zones located on the contact between dolerite and sediments hosting auriferous quartz vein stockworks with some coincident copper.

AC and RC regional samples are prepared at Ultra Trace in Perth with the original samples being dried at 80° for up to 24 hours and weighed, and Boyd crushed to -4mm. Samples are then split to less than 2kg through linear splitter and excess retained. Sample splits are weighed at a frequency of 1/20 and entered into the job results file. Pulverising is completed using LM5 mill to 90% passing 75µm. Assaying is completed using a Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g charge methods with ICPOES or ICPMS. The samples are digested and refluxed with a mixture of acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric acids and conducted for multi elements including Cu, Pb, Zn, Ag, As, Fe, S, Sb, Bi, Mo. The MAD Hotbox method is an extended digest method that approaches a total digest for many elements however some refractory minerals are not completely attacked. The elements are then determined by ICPOES or ICPMS finish. Samples are analysed for Au, Pd and Pt by firing a 40g of sample with ICP AES/MS finish.

Figure 8: Sandfire's Greater Doolgunna Project, showing the Springfield Project (Joint Venture) and location of the Monty and Homer prospects.

