Sandfire Resources NL ABN 55 105 154 185
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28 January 2015

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

Dear Sebastian,

LODGEMENT OF DECEMBER 2014 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. December 2014 Quarterly Activities Report
2. December 2014 Quarterly Update Powerpoint Presentation

In addition, Sandfire's Managing Director and CEO, Karl Simich, is hosting an investor teleconference and live webcast on the December 2014 Quarterly Report at 10.00am (AWST) / 1.00pm (AEST) today.

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

Love date:	Wednesday, 28 January 2015
Access this webcast at:	http://webcasting.brrmedia.com/broadcast/133416 http://www.sandfire.com.au

Yours sincerely,

Matt Fitzgerald
Chief Financial Officer
and Company Secretary

For further information contact:

Sandfire Resources NL
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The DeGrussa Processing Plant

ASX Code:

SFR

Issued Capital:

Ordinary Shares	156.0M
Options	6.3M

Major Shareholders:

OZ Minerals	19.2%
POSCO	15.2%

Directors:

Derek La Ferla
Non-Executive Chairman

Karl M. Simich
Managing Director and
Chief Executive Officer

Paul Hallam
Non-Executive Director

W. John Evans
Non-Executive Director

Soocheol Shin
Non-Executive Director

Robert Scott
Non-Executive Director

Management:

Michael Spreadborough
Chief Operating Officer

Matthew Fitzgerald
Chief Financial Officer and
Joint Company Secretary

Robert Klug
Chief Commercial Officer and
Joint Company Secretary

Date:
28 January 2015

SANDFIRE RESOURCES NL

QUARTERLY REPORT

For the period ended 31 December 2014

HIGHLIGHTS

Production & Operations

Contained metal production	Sep 2014 Quarter	Dec 2014 Quarter	FY2015 To Date
Copper (t)	16,064	15,350	31,414
Gold (oz)	8,678	9,058	17,736

- 15,350t copper and 9,058oz gold produced; C1 US$1.18/lb.
- Milling rates below 1.5Mtpa for the Quarter.
- Installation of key process plant enhancements at the DeGrussa Concentrator completed, with commissioning of the new Pebble Crusher and the SAG Mill Classification Screen completed and Column Flotation Cell underway.
- The implementation of these enhancement projects, reflecting a total capital spend of $13M, is expected to further improve plant efficiency and increase copper recoveries by over 1% to the targeted level of +90% in 2H FY2015.
- Production guidance for 2H FY2015 of 34-37,000t of copper at C1 cash operating costs in the range of US$1.05-1.15/lb.

Exploration

- Extension of the DeGrussa mine life to mid-2021 with the delivery of an updated Mine Plan, Mineral Resource and Ore Reserve.
- Underground exploration focused on the delineation of feeder zones in the footwall of the C1 deposit, representing potentially significant new targets, and initial in-fill drilling of the C5 deposit.
- Extensive exploration campaign continuing at Doolgunna with RC and diamond drilling underway to test a 7km long geochemical anomaly at the North Robinson Range; as well as extensive programs continuing on the Talisman JV ground.
- Significant results reported from the second deep diamond hole at the Misima Porphyry Copper Prospect, PNG (WCB Resources – Sandfire: 37% interest), which intersected:
  - *48m @ 4.09g/t Au, 15.82g/t Ag and 0.22% Cu from 38m, including*
  - *4m @ 47.6g/t Au, 90.55g/t Ag and 0.57% Cu from 60m.*
- Sandfire's Chief Operating Officer Bruce Hooper has commenced his new role as President and Chief Executive Officer of Tintina Resources (TSX-V: TAU; Sandfire: 36%), to lead the evaluation and development of the high-grade Black Butte copper project, USA.

Corporate

- Agreement executed with Sipa Resources Limited to acquire 100% of Sipa's Thaduna Copper Project, located 25km east of DeGrussa. The acquisition further consolidates Sandfire's control over the highly prospective Doolgunna District.
- $130M remaining facility balance at 31 December 2014 following $20M repayment during the Quarter; $45.8M cash and deposits.

December 2014 Quarterly Report Presentation to be webcast at 10.00am (WST) / 1.00pm (AEDT) today, 28 January 2015, with a simultaneous investor conference call (details inside).

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1.0 SAFETY PERFORMANCE

The Total Recordable Injury Frequency Rate (TRIFR) for the Sandfire Group for the December Quarter was 9.3, compared to a TRIFR for the September Quarter of 11.8. 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).

Work continues on initiatives to further improve safety performance including development of safety systems, improved safety leadership, improvement of safety culture and risk and assurance management.

Figure 1: The DeGrussa camp (left), and safety noticeboard (right) which provides the DeGrussa team with ready access to all safety procedures, protocols and reports

2.0 OPERATIONS OVERVIEW

Copper production for the December Quarter was 15,350 tonnes (September Quarter: 16,064 tonnes) at an average ore grade of 5.08% Cu for the Quarter (September Quarter: 4.9% Cu). C1 cash operating costs for the Quarter were US$1.18/lb (September Quarter: US$1.24/lb).

Operations were impacted by a temporary suspension of mining activities as a result of increased water flows into the Conductor 4/5 Decline. These inflows occurred at the location of underground drill holes completed as part of a long-term water management program for the underground mine. The cost of rectification works amounted to $7.7M during November and December 2014 (excluded from C1 production costs reported above), including holding costs for affected mining operations.

As a precautionary measure, mining activities in the Conductor 1 and DeGrussa orebodies were suspended for a period of 28 days while dewatering and remedial activities were completed, during which time the DeGrussa Concentrator continued to process run-of-mine (ROM) stockpiles.

As a result of the temporary suspension of underground mining, mill throughput was below the annualised rate of 1.5Mtpa for the December Quarter, with a total of 337,797 tonnes of ore milled. As previously noted, two planned shut-downs of the processing plant were also undertaken to enable tie-ins and other project work associated with the processing enhancement projects to be completed.

Average copper recovery was at 89.5% in the December Quarter – with October and November being 90.6% and 91.3% respectively and December being impacted primarily as a result of the lower ore feed grade and processing of some lower recovery ore along with ROM stocks.

The new SAG mill classification screen was commissioned in December with immediate impact on grind size and improved SAG milling efficiency. The installation of a pebble crusher has been completed and the column flotation cell is on target for commissioning in late January 2015. As previously foreshadowed, this is expected to further improve the efficiency of the recycling SAG mill scats, reduce plant instability and further lift copper recovery by over 1 per cent.

In light of the water inflow issues outlined above, the underground mine delivered 290,390 tonnes of underground sulphide ore for the Quarter. The mine remains in balance between production and back-fill with good performance from the paste plant. All paste filling during the Quarter was completed by gravity flow.

The mine recommenced production in late December 2014, and by period-end, had returned to production rates exceeding 1.5Mtpa. The mined grade was 5.08% Cu for the Quarter, which was in-line with expectations given the mine sequence and current mining area, which was predominantly focused on the lower portions of the Conductor 1 lens. Construction of the Conductor 4 and Conductor 5 declines was temporarily suspended during the reporting

period to enable dewatering and remedial works to occur, with total underground development reaching over 24km at Quarter-end.

The water inflows encountered during the Quarter have now been controlled and reduced to levels below those typically experienced prior to this event.

Sub-level development within the upper portion of the Conductor 4 orebody has re-commenced to provide access to stopes which form part of the FY2016 mine plan. Other development within the lower levels of the Conductor 4 Decline is scheduled to resume in coming weeks.

Underground diamond drilling from the Conductor 5 Decline has also resumed ahead of the planned longer term C5 Decline development.

3.0 MINING & PRODUCTION

3.1 Overview

December 2014 Quarter – Production Statistics		Tonnes	Grade (% Cu)	Grade (g/t Au)	Contained Copper (t)	Contained Gold (oz)
Concentrator	Mined	290,390	5.1	1.7	14,755	15,840
	Milled	337,797	5.1	1.7	17,155	18,315
	Production	**64,001**	**23.9**	**4.4**	**15,350**	**9,058**

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

Underground mining during the reporting period was impacted by increased water flows into the Conductor 4/5 Decline. These inflows occurred at the location of underground drill holes completed as part of a long-term water management program for the underground mine.

All development and production activities were temporarily suspended to enable resources to be directed to dewatering, during which time the DeGrussa Concentrator continued to process run-of-mine (ROM) stockpiles. The water inflows encountered during the Quarter have now been controlled and reduced to levels below those typically experienced prior to this event.

A total of 290,390 tonnes of underground sulphide ore was mined over the reporting period. The mine is in balance between production and back-fill with steady performance from the paste plant. During the Quarter the deficit between production and back-fill was caught up, with all stopes filled by the end of November. All paste filling for the remainder of FY2015 will continue by gravity flow.

The mining of a secondary stope in the Quarter has allowed for filling of this stope with development waste, thus reducing the need for waste to be hauled to the surface. As secondary stope mining continues, further opportunities will be sought for depositing waste underground.

The mined grade was 5.08% Cu for the Quarter, which reflected mainly mining C1 and C1E stopes for the Quarter with only one higher-grade DeGrussa stope being mined. The mine recommenced production in late December, and by year-end had returned to production rates exceeding 1.5Mtpa.

The Conductor 1 Decline advanced 39 metres during the Quarter. The development of this decline will enable the Conductor 1 deposit to be fully developed and extracted. Conductor 4 decline development advanced 100 metres and Conductor 5 decline development advanced 62 metres, with all development advance occurring in good ground conditions.

3.3 Processing

Key processing metrics for the December Quarter included:

- 337,797 tonnes milled at an average head feed grade of 5.1% Cu (September Quarter: 364,360 tonnes at 4.9% Cu);
- Overall copper recovery of 89.5% (September Quarter: 89.4%);
- Concentrate production of 64,001 tonnes (September Quarter: 66,146 tonnes); and
- Metal production of 15,350 tonnes of contained copper and 9,058 ounces of contained gold (September Quarter: 16,064 tonnes of contained copper and 8,679 ounces of contained gold).

Average copper recovery increased to 89.5% in the December Quarter largely as a result of the treatment of higher grade ore against forecast, with flotation tail in line with forecast. October and November recoveries were 90.6% and 91.2% respectively and December recoveries were impacted primarily as a result of the lower ore feed grade and processing of lower recovery ore from ROM stocks. A slightly lower concentrate grade was also targeted to increase copper recovery.

The installation of three key enhancement projects at the DeGrussa Concentrator continued during the Quarter. These plant improvements, which have been installed at a total capital cost of $14 million, are designed to increase copper recoveries to the targeted level of +90% and enhance the overall performance and stability of the DeGrussa Concentrator.

The improvement projects include:

- Installation of a Pebble Crusher to facilitate the removal of critical sized material allowing the SAG mill's throughput and grind size performance to be optimised. The Pebble Crusher will efficiently re-handle and crush the critical-sized material prior to re-feeding into the SAG mill. The operation of the SAG mill in 'scatting out' mode since March 2014 has confirmed the benefits of removing this material. The pebble crusher commissioning has been completed following a processing plant shutdown in mid-January;

- Installation of a Column Flotation Cell. Pilot test work conducted in the first half of 2014 confirmed that the tails contain entrained copper as a consequence of insufficient residence time in the flotation cells. Additional cell capacity has therefore been installed via a column flotation cell with forecast copper recovery improvement of over 1% from past performance. The column flotation cell will be commissioned in late-January; and

- In association with the column flotation cell, a screen arrangement has been installed as part of the SAG mill system in lieu of the existing cyclones. Test work confirmed that the cyclones were causing over-grinding of a portion of the ore feed resulting in low recovery of this finer copper fraction in the flotation plant. The SAG classification screen will allow better control of the feed size returned into the SAG mill, thereby preventing the formation of fine particles. The new SAG mill classification screen was commissioned in December with immediate impact on grind size and improved SAG milling efficiency.

3.4 Guidance – FY2015

Production for 1H FY2015 was 31,413 tonnes of copper and 17,736 ounces of gold, at a C1 cash operating cost of US$1.22/lb.

Production guidance for the second half of FY2015 is expected to be within the range of 33-36,000 tonnes of contained copper metal. Headline C1 cash operating costs for FY2015 are expected to be within the range of US$1.10-1.20/lb, with costs in the second half expected to be at the lower end of the guidance range, assisted by the decline in the Australian Dollar and the lower oil price.

4.0 SALES AND MARKETING

4.1 Copper Concentrate Shipments

A total of 65,978 tonnes of plant concentrate containing 16,057 tonnes of copper was sold for the Quarter. Gold sales totalled 8,838 ounces for the Quarter. Shipments were completed from Port Hedland and Geraldton.

5.0 FEASIBILITY STUDIES & METALLURGY

5.1 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 electrowinning circuit to produce 99.99-99.999% copper cathode.

The completion of this Scoping Study was suspended while the potential for additional oxide ore from the Thaduna Project was evaluated. As outlined in Section 6.4.2 below, the Thaduna evaluation has not identified any significant additional oxide ore which could be included in the DeGrussa Oxide Project. Accordingly, the findings from the Scoping Study have now been finalised.

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.

Sandfire now plans to undertake further reviews and optimisation of the flow sheet and capital costs to enhance the project returns. The ongoing review will include consideration of innovative processing options given the metallurgical complexity of the oxide material. This work will be undertaken during 2015.

6.0 DEGRUSSA EXPLORATION

6.1 Overview

Sandfire continues to progress a tightly focused, multi-disciplined 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 (volcanogenic massive sulphide) deposits. Key components of the Company's exploration activity at DeGrussa during the December Quarter included:

- Continued underground drilling focusing on C4 and C5 resource definition and updating the geological model of the DeGrussa deposits;
- Continued first-pass regional exploration over a number of projects within the broader Doolgunna tenement holding;
- The completion of a deep diamond drill hole targeting a conductive anomaly at Talisman's Springfield Project;
- Continuation of EM surveying over the prospective sequence at Talisman's Springfield Project; and
- The continuation of core re-logging and structural interpretation of the Thaduna and Green Dragon copper deposits.

The aggregate metres drilled on Sandfire's tenements during the December Quarter was:

Drilling	AC/RAB Drilling (m)	RC Drilling (m)	UG Diamond Drilling (m)	Surface Diamond Drilling (m)	Total Drilling (m)
Q1FY2015	**26,368**	**-**	**3,646**	**-**	**30,014**
Q2FY2015	**18,055**	**3,307**	**4,172**	**1,548**	**27,083**
Including SFR	*1,275*	*3,307*	*4,172*	*1,548*	*10,303*
and TLM JV	*16,780*				*16,780*
TOTAL	**44,423**	**3,307**	**7,818**	**1,548**	**57,097**

6.2 Mine Life Extension

As announced to the ASX separately today, Sandfire has delivered an updated Mine Plan, Mineral Resource and Ore Reserve as at 31 December 2014. The Mine Plan is Sandfire's internal plan which schedules forecasted production parameters, operating and capital works programs. It is developed with the assistance of both internal Sandfire employees and external consultants and includes both Mineral Resources and Ore Reserves.
Table 1 below compares the DeGrussa Mine Plan to the stated Mineral Resource and Ore Reserve by key output and mining tonnes (refer to the Company's ASX Announcement dated 28 January 2015 for full details of the Mineral Resource and Ore Reserve).

Table 1 – December 2014 Comparison of the Underground Mine Plan, Mineral Resource and Ore Reserve

DeGrussa Underground Mine	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (t)	Contained Gold (oz)
Mine Plan	9.6	4.4	1.6	424,000	484,000
Mineral Resource	9.5	5.7	2.0	546,000	616,000
Ore Reserve	7.8	4.4	1.5	343,000	368,000

DeGrussa Underground Mine by orebody	Tonnes (Mt)	DG (Mt)	C1 (Mt)	C4 (Mt)	C5 (Mt)
Mine Plan	9.6	1.1	4.7	2.2	1.5
Mineral Resource	9.5	1.0	4.7	2.4	1.4
Ore Reserve	7.8	1.1	4.6	2.0	-

(Mine Plan and Ore Reserve includes mining dilution).

The Company continues to incorporate Inferred Mineral Resources from Conductor 5 and from the upper portion of Conductor 4 into its Mine Plan process due to the geological continuity and high copper grade tenor of these deposits.

Development of Conductor 4 including decline and sub-level development, ventilation raises and other infrastructure is proceeding on schedule for production from Conductor 4 to commence in early FY2016. Development and diamond drilling of Conductor 5 is continuing with an updated Conductor 5 Mineral Resource and an inaugural Ore Reserve scheduled to be reported in the first half of FY2016. First production from Conductor 5 is expected in FY2017.

The Mine Plan confirms underground mine production continuing at the current rate of 1.5Mtpa. Mine development continues at around 7000m of development per year until early FY2017, then reduces to less than 1000m per year for the remainder of the Mine Plan.

Guidance for FY2016 will be provided with the June 2015 quarterly results in July 2015.

6.2.1 Ore Reserve Update

Diamond drilling and mine planning work has progressed sufficiently for the inaugural Conductor 4 Ore Reserve to be reported as part of the DeGrussa Ore Reserve. The C4 Ore Reserve is 2.0Mt grading 4.5% Cu and 1.5g/t Au for 88,000t contained copper and 94,000oz contained gold. Ore Reserves have been updated based on the December 2014 Mineral Resource model and depletions up to 31 December 2014, as set out in Table 2 below:

Table 2 – December 2014 Ore Reserve

DeGrussa Mine Ore Reserve, net of depletion	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (t)	Contained Gold (oz)
Underground Mine	7.8	4.4	1.5	343,000	368,000
Stockpiles (Total)	2.8	1.2	1.0	33,000	88,000
December 2014 – Total	**10.6**	**3.5**	**1.3**	**376,000**	**456,000**

Refer to the Company's ASX Announcement dated 28 January 2015 for full details of the Mineral Resource and Ore Reserve.

6.3 DeGrussa Near-Mine Extensional Exploration

Underground exploration at DeGrussa during the Quarter was focused on the delineation of feeder zones in the footwall of the C1 deposit (comprising 1,065m of drilling), focusing on scale, shape and alteration zonation. This information will be used in evaluating the prospectivity of feeder zones and the most efficient method of exploration for these potential targets.

Drilling of the C5 resource continued in the Quarter with 3,107m drilled into and around the C5 deposit. The aim of the drilling was to in-fill the existing inferred mineral resource and to increase the drill density at the perimeter of the orebody to allow more defined geological modelling. Drilling will continue in Q3 FY2015.

6.4 DeGrussa Regional Exploration

The Greater Doolgunna Project now includes the Talisman Joint Venture and the tenements acquired from Sipa Resources at the end of the Quarter (see Corporate Section below), which have increased the aggregate contiguous exploration area to 1,700km^2. This includes over 65km of strike extent in VMS lithologies. Much of this stratigraphy is obscured beneath transported alluvium and requires systematic aircore (AC) drilling to test the bedrock geochemistry and identify prospective areas.

A new phase of drilling is scheduled to commence in the coming weeks to test a 7km long geochemical anomaly at the North Robinson Range prospect, identified by AC drilling (see Figure 2). This extensive geochemical target is located along the prospective mine corridor to the south-west of the DeGrussa Copper Mine and the DeGrussa Aerodrome (see below).

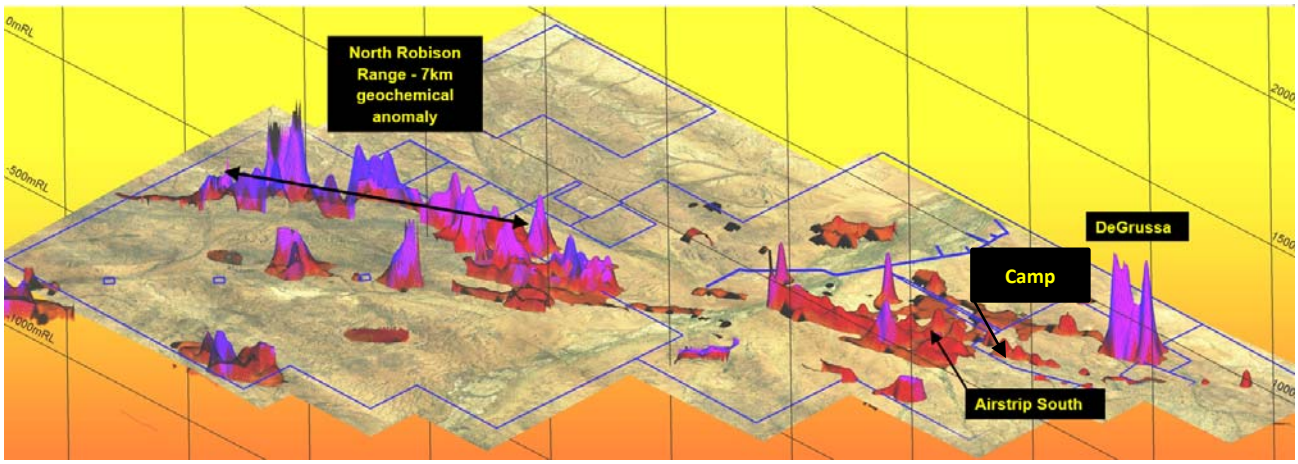

Figure 2: North Robinson Range Geochemical Anomaly

The program will comprise eight holes of first-pass Reverse Circulation (RC) drilling to approximately 250m depth, and four diamond drill holes to approximately 400m depth (see Figure 3). All holes will be surveyed using Down Hole Electromagnetics (DHEM) once completed.

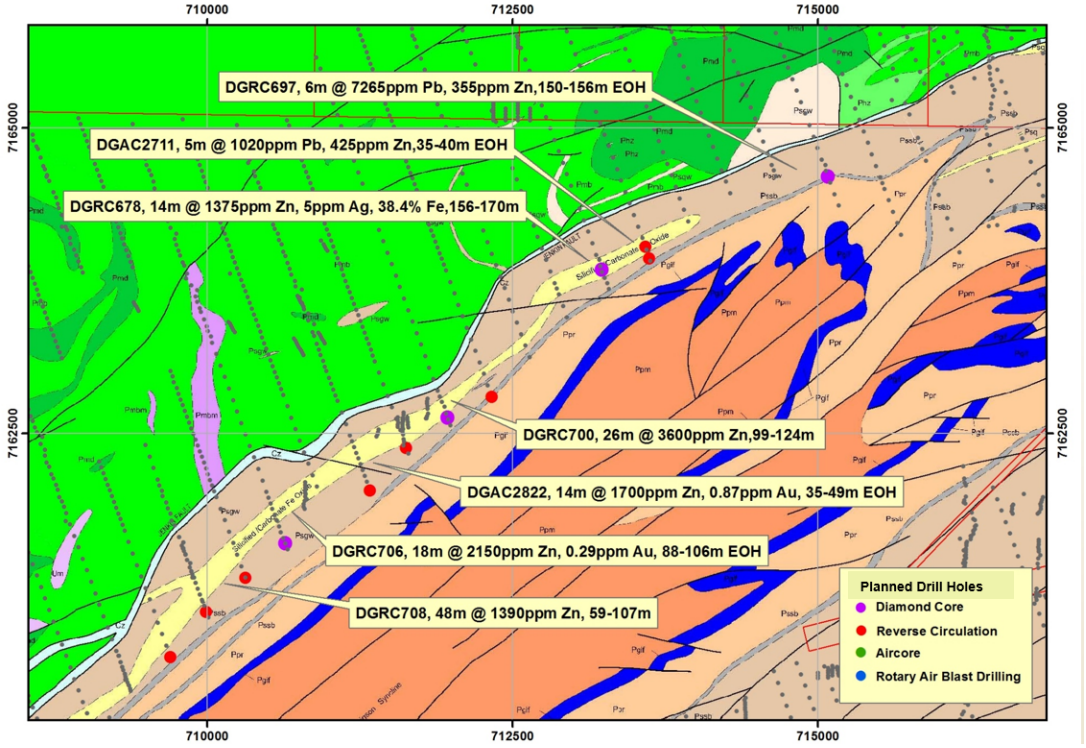

Figure 3: North Robinson Range In-fill RC & Diamond Drilling

11 holes for 3,307m of RC drilling was also completed at the Airstrip South prospect (also shown in Figure 2), with results to be integrated into the geological model and subsequently subjected to geochemical review. DHEM is also planned for these holes.

The first of two diamond drill holes targeting anomalous geochemistry beneath and along strike of the DeGrussa camp was completed. The second hole was in progress at the end of the reporting period with a combined total of 1,548m drilled. These holes will have DHEM completed on them, followed by detailed geological logging and structural analysis.

6.4.1 Talisman 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 volcanic rock package which hosts the DeGrussa VMS deposits. The projects are being explored under a Joint Venture Farm-in Agreement with Talisman Mining Limited (ASX: TLM) under which Sandfire has the right to earn up to a 70% interest by spending $15 million on exploration over five-and-a-half years.

Within the Talisman Joint Venture area, a total of 278 AC holes were drilled for a total of 16,780m during the Quarter. The drilling was focused on the southern corridor of the interpreted prospective sequence (Figure 4), with results to be integrated into the geological model and subsequently subjected to a detailed geochemical review.

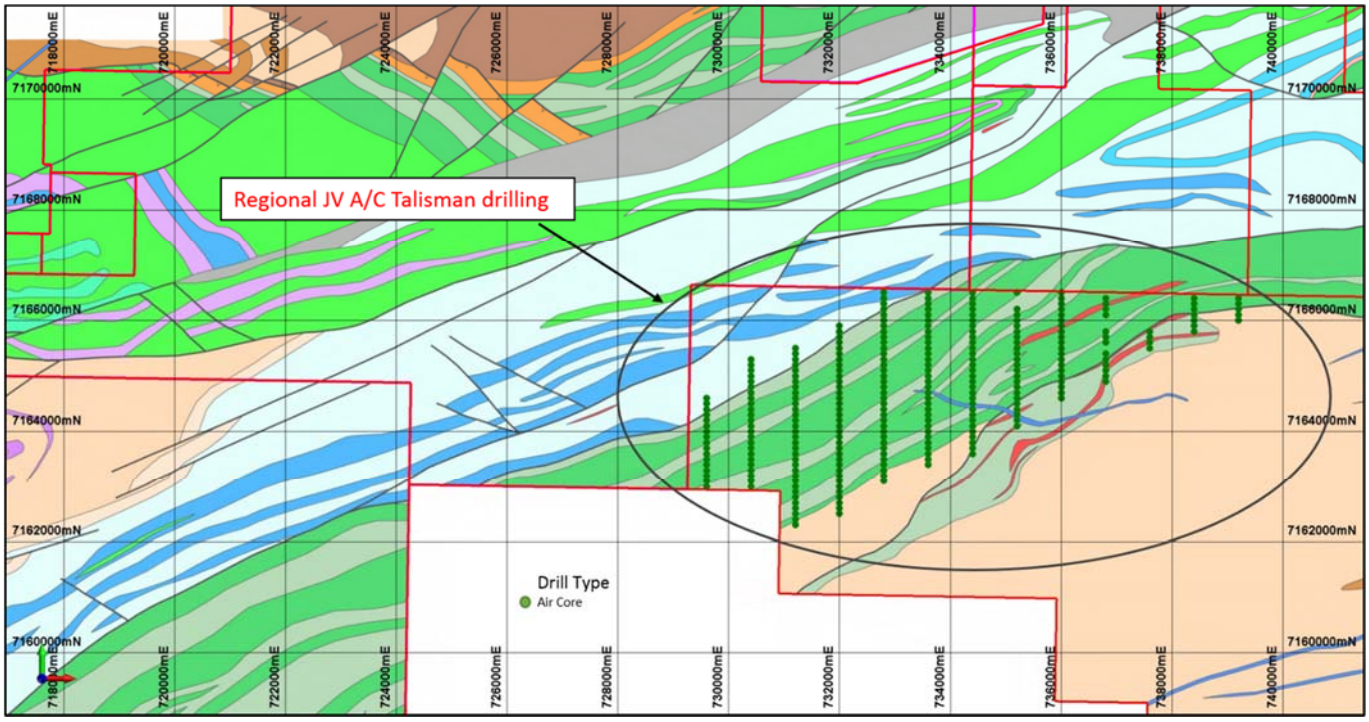

Figure 4: Talisman JV Southern Corridor AC Drilling

A Fixed Loop Electromagnetic (FLEM) survey continued during the Quarter over the main prospective sequences of Talisman's tenements.

Data acquisition and interpretation will be ongoing in Q3FY2015 and Sandfire will continue to evaluate the main prospective sequence with detailed high powered EM.

A comprehensive data review will commence in the coming Quarter utilising the comprehensive datasets being generated covering geophysics, geology and lithogeochemistry. This is a key element in the target generation process to continue progressing exploration over the JV tenements.

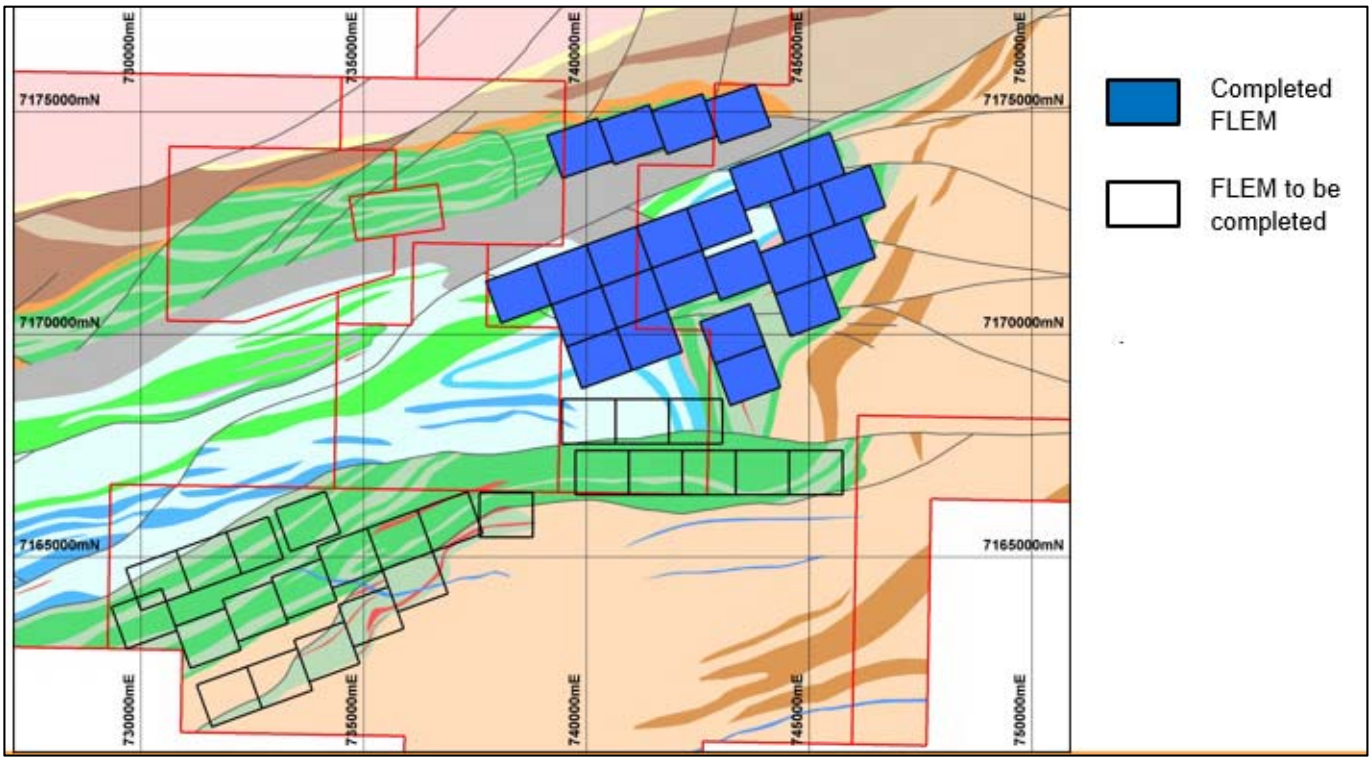

Figure 5: Talisman JV FLEM progress

6.4.2 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 Limited (ASX: VRX).

A review of the Ventnor Mineral Resource with updated down-hole survey data was used as the basis for assessing the potential development opportunities at Thaduna. These opportunities included processing sulphide ore through the DeGrussa Flotation Processing Plant and oxide ore through the proposed DeGrussa Copper Oxide Heap Leach and SX-EW Plant.

Thaduna is a narrow and steeply-dipping deposit with potential for a small open pit followed by a small-scale underground mine. A production rate of 350,000 tonnes per annum was supported by the resource and used for the basis of a Scoping Study.

The resource did not identify sufficient quantities of oxide ore to warrant transport and treatment at the proposed DeGrussa plant nor justify a standalone oxide facility at Thaduna. Metallurgical testwork completed on the sulphide ore indicated good rougher flotation response and recoveries through the DeGrussa processing plant.

Due to the size of the deposit and its proximity to DeGrussa, Thaduna was evaluated as a satellite operation to DeGrussa to minimise costs. This eliminated the need for the establishment of significant surface infrastructure, with the major capital cost being an upgrade to a section of the Wiluna North Road to allow transport of the sulphide ore to the DeGrussa processing plant.

Current revenue factors, costs and operating parameters from DeGrussa were used as the basis of the study, with the DeGrussa mining contractor providing mining costs for the study on the basis of sharing mining resources where appropriate.

The Scoping Study evaluation determined that, whilst NPV positive under current market conditions, further exploration drilling is required to increase the resource potential with the objective of enhancing the project financial returns. This work will be undertaken in line with the Ventnor JV agreement, with the aim of reviewing the resource and Scoping Study at the completion of drilling.

7.0 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 absolute 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.

7.1 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 Joint Venture 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 in alliance with Cliffs Natural Resources, which has the right to earn up to an 80% interest.

MMG Exploration has completed a program of eight diamond holes on the joint venture areas, three of which were completed during the Quarter. Drilling intersected prospective lithologies for base metal mineralisation. Pacifico Minerals is reviewing the data from an EM survey over a portion of the Joint Venture area, with the intention of planning further drilling in 2015.

7.2 Queensland Projects

A number of projects are held in the eastern succession of the Mount Isa region south and east of Cloncurry in north-west 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)

The Altia Project includes an option to Joint Venture into two areas encompassing 43.7km^2 with Minotaur Exploration Limited (ASX: MEP) to earn up to 80% of the project and includes the Altia Deposit, where previous exploration has defined a shallow lead-silver resource.

During the Quarter, a regional aircore drilling program was completed over the 100%-owned Landsborough Project, focused on in-filling the existing drill coverage over the target gravity anomaly. The drilling confirmed the existing mineralisation.

Reconnaissance surface sampling at both the Black Rock and Altia Projects identified anomalous mineralisation and confirmed pre-existing drilling and soils respectively. Metallurgical testwork completed during the Quarter indicates favourable recoveries for the Altia mineralisation.

7.3 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).

Farm-in agreements to earn up to 80% are held with Straits Resources Ltd (ASX: SRQ) on the Bland Creek Project and with Gold Fields Australasia Pty Ltd on the Marsden South Project.

Aircore drilling has commenced at the Marsden South Project with 14 holes completed in the period. Alteration associated with porphyry copper-gold mineralisation has been intersected in drilling and results are awaited.

In addition, regional and in-fill aircore programs are planned at the 100%-owned Wingrunner Project and on the Bland Creek Joint Venture.

7.4 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.

Results from the recent drilling campaigns have been compiled with recommendations for limited further work to test new prospective gold anomalism in the granites defined which will be soil sampled.

8.0 INTERNATIONAL EXPLORATION

8.1 Misima Project

Sandfire has invested in WCB Resources Ltd ("WCB"; TSX-V: WCB), a Toronto-listed copper-gold explorer, by subscribing for shares in a A$5.9M private share placement and now holds a 37% interest in the company.

*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 at 0.9% Cu and 0.6g/t Au) and Panguna (1.4 billion tonnes @ 0.5% Cu and 0.6g/t Au)**

The primary target is a potential Tier-1 copper-gold porphyry target at Mt Sisa located adjacent to an historical gold mine formerly owned by Placer Dome Asia Pacific which produced 4.0Moz of gold and 20Moz of silver. At Mt Sisa a very large 1km^2 copper soil anomaly coincides with extensive rock chips, shallow drilling and a deep strong magnetic anomaly with skarn mineralisation and halo veining at surface.

WCB Resources (TSX-V: WCB; Sandfire: 37%) has reported significant assay results from the second scout diamond drill hole completed at the Misima Porphyry Copper Prospect in PNG, where it is testing a potential Tier-1 copper-gold porphyry target

WCB, which is earning a 70% interest in this project through a joint venture with Pan Pacific Copper ("PPC"), commenced a 4,000m scout diamond drilling program at the Mt Sisa prospect in November. The main exploration target is the Misima Porphyry at Mt Sisa, where a very large 1km^2 copper soil anomaly coincides with extensive rock chips, shallow drilling and a deep strong magnetic anomaly with skarn mineralisation and halo veining at surface.

Two deep diamond holes have been completed to date, with a third currently in progress. The first hole, GDD001, returned a broad zone of anomalous copper over 188m, indicating that the hole was drilled into the shoulder or periphery of a large porphyry system.

Hole GDD002 intersected **48m @ 4.09g/t Au, 15.82g/t Ag and 0.22% Cu** from 38m, including **4m @ 47.6g/t Au, 90.55g/t Ag and 0.57% Cu** from 60m. The mineralisation is predominantly hosted in skarn and can be correlated on section to previously reported high-value surface channel samples located ~250m to the south-west.

The significant intersection in GDD002 in combination with the first hole provides further evidence of a large, strongly mineralised porphyry system at Misima. The new results have helped define a structural corridor within which upper level propylitic or halo alteration and associated porphyry mineralisation occurs, suggesting that this is the priority target area for further deep diamond drilling.

These excellent results are highly encouraging as they are located in the interpreted halo to the central region of the porphyry. The identification of the structural corridor and the recognition of the erosive level will now enable the WCB Resources team to focus on testing the deeper regions of the system for the potential high grade zone.

8.2 Black Butte Project

Sandfire holds an initial 36% interest in Vancouver-based copper development company, Tintina Resources (TSX-V: TAU), after subscribing for C$16 million of shares in a private share placement. 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.

During the Quarter, Bruce Hooper, Sandfire's Chief Exploration & Business Development Officer, officially commenced as President and Chief Executive Officer and a director of Tintina Resources on a secondment basis.

Planning has commenced for a drilling program to underpin the completion of a Feasibility Study for the Black Butte Project, as well as to undertake further exploration in the district. Sandfire views the Tintina investment as the first step in its strategy of building a pipeline of high-grade copper projects worldwide which complement its DeGrussa asset.

9.0 CORPORATE

9.1 Acquisition of Thaduna Project from Sipa Resources

During the Quarter Sandfire reached agreement with Sipa Resources Limited ('Sipa') to acquire Sipa's Thaduna Project, located 25km east of DeGrussa.

Under the terms of the Agreement, Sandfire will acquire all of Sipa's legal and beneficial interest in E52/1673, E52/1674, E52/1858, E52/2356, E52/2357, and E52/2405 including the rights and benefits which Sipa is entitled to under heritage agreements and native title contracts, and all mining information which is relevant to the Tenements.

The acquisition provides Sandfire with a further key landholding in the greater Doolgunna region, further consolidating the Company's control over this highly prospective area.

The Agreement is subject to certain conditions precedent, including counterparty consents to native title contracts, any shareholder approval required pursuant to the Corporations Act or the ASX Listing Rules, any required approvals from Sandfire's financier and other common conditions for a transaction of this type.

The Agreement will see Sandfire:

- issue Sipa the number of Sandfire shares equal to $2M divided by the VWAP, where the VWAP is the volume weighted average price on the ASX of Sandfire shares over the 30 trading days immediately preceding the settlement date; and
- pay Sipa a 1% net smelter return ('NSR') royalty on all minerals produced and sold from the Tenements.

Settlement is expected to occur in late January 2015.

9.2 Federal Court proceedings commenced against CAER

On 13 November 2014, Sandfire filed proceedings in the Federal Court of Australia against the Centre for Australian Ethical Research ("CAER") over media releases issued by CAER and the Ethical Investment Research Service ("EIRIS") which were published on the CAER website on 19 and 20 October 2014.

Sandfire has engaged with CAER and formally sought a retraction of the media releases, without success. CAER has removed the media releases from its website. The media releases relate to corporate profiles prepared by CAER which purported to analyse the environmental, social and governance practices of certain companies including Sandfire. CAER provided the corporate profiles to its clients, including to the Australian National University under a research agreement.

In the proceedings, Sandfire alleges that the media releases contain representations which were misleading or deceptive concerning the research methodology and process followed by CAER in preparing the profiles as well as the accuracy and fairness of the profile it provided in relation to Sandfire.

9.3 Finance Facility

Sandfire completed a scheduled repayment of $20 million against the DeGrussa Project Finance Facility during the December Quarter, reducing the outstanding balance of the facility to $130 million as at 31 December 2014. A total of $250 million has now been repaid against the original $380 million DeGrussa Project Finance Facility.

Cash on hand at 31 December 2014 totalled $45.8 million.

9.4 Investor Call and Webcast

An investor conference call on Sandfire's December 2014 Quarterly Report will be held today (Wednesday, 28 January 2015) for investors and analysts, commencing at 10.00am (WST) / 1.00pm (AEDT). Analysts, brokers, investors and media can join the conference call by dialling the following numbers:

Australia Toll Free:	**1 800 558 698**
Alternate Australia Toll Free:	**1 800 809 971**
International:	**+61 2 9007 3187**
Audio Access Code:	**953939**

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

In addition, a live webcast of the investor call and the slide presentation will be available via the Boardroom Radio (BRR Media) service by clicking on the following link: http://webcasting.brrmedia.com/broadcast/133416.

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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Mobile: +61 419 929 046 (Nicholas Read)

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.

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.

Figure 6: DeGrussa Copper Gold Project

Figure 7: Strategic location in an emerging VMS belt: Talisman and Ventnor Joint Ventures and Sipa tenement acquisition

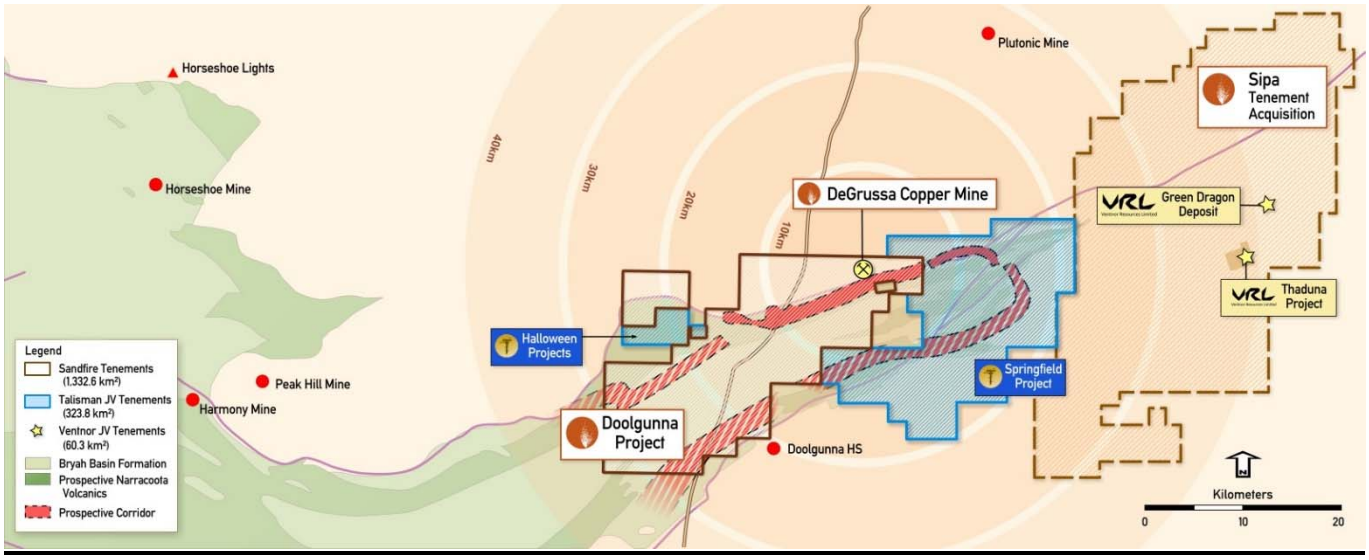
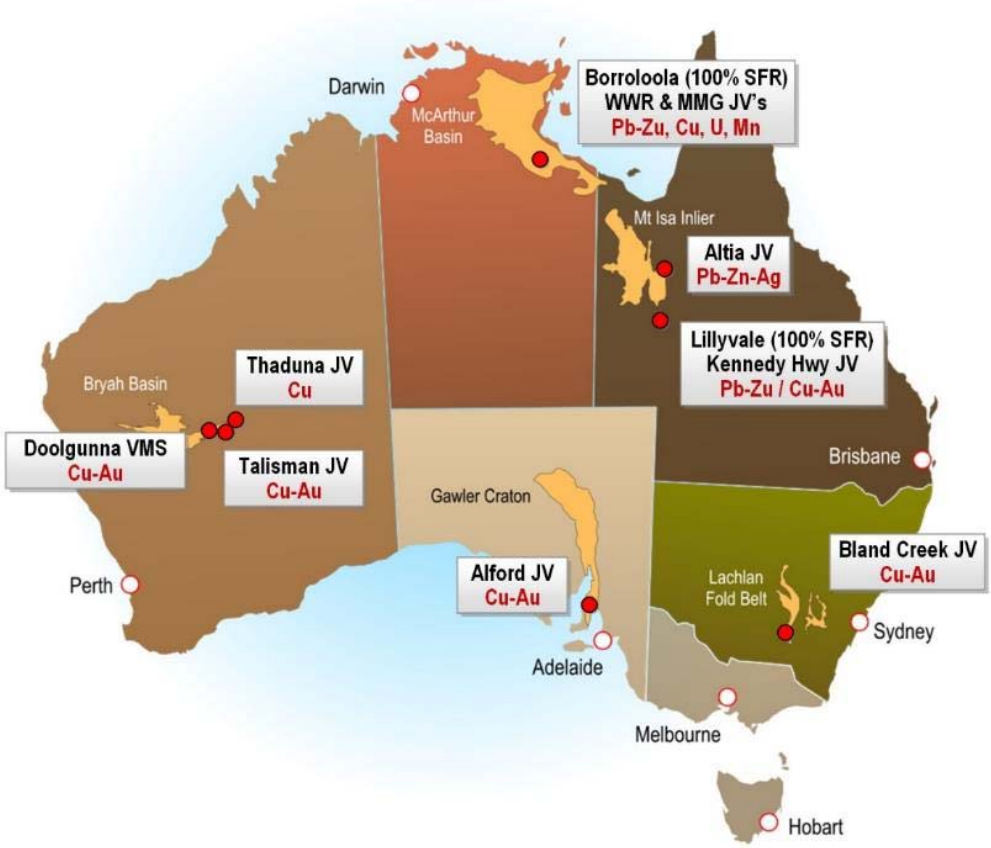


Figure 8: Australian Joint Venture and Exploration Project Locations



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 dominant 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 diamod drilling include recovery, RQD, structure type, dip, dip direction, alph 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 8oom x 100m AC drilling where the geology and geochemistry is revaluated 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 Dooolgunna is to identify additional VHMS mineralisation in some areas of regional land holding it is currently the interpreted that there is shear zones located on the contact between dolerite and sediments hosting auriferous quartz vein stockworks with some coincident copper.

AC anmd 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 75%µm. 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.

Appendix 1 – Exploration Drilling Results

Regional Exploration Surface Drilling (AC/RC) - Collars

Hole ID	EOH Depth (m)	Easting	Northing	Date Completed
DGRC678	174	713208.7	7163918.1	5/08/2012
DGRC697	156	715056.6	7164696.5	13/09/2012
DGRC700	138	711941.0	7162716.3	16/09/2012
DGRC706	106	710602.7	7161691.5	28/09/2012
DGRC708	114	709960.3	7161123.4	1/10/2012
DGAC2711	40	713560.0	7164097.9	23/07/2012
DGAC2822	49	711305.1	7162106.5	17/08/2012

Regional Exploration Surface Drilling (AC/RC) - Assays

Hole ID	From (m)	To (m)	Down hole Thickness (m)	Intersection				
				Zn [ppm]	Pb [ppm]	Au [g/t]	Ag [g/t]	Fe [%]
DGRC678	156	170	14	1,375.00	-	-	5.00	38.40
DGRC697	150	156	6	355.00	7,265.00	-	-	-
DGRC700	99	124	26	3,600.00	-	-	-	-
DGRC706	88	106	18	2,150.00	-	0.29	-	-
DGRC708	59	107	48	1,390.00	-	-	-	-
DGAC2711	35	40	5	425.00	1,020.00	-	-	-
DGAC2822	35	49	14	1,700	-	0.87	-	-

TABLE 1: EXPLORATION RESULTS - JORC 2012
DEGRUSSA COPPER MINE

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down-hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	• Sampling methods include half-core sampling of NQ2 core from underground diamond drilling (DD) , Reverse Circulation drilling (RC) samples are collected by a cone splitter for single metre samples or by a sampling spear for first pass composite samples using a face sampling hammer with a nominal 140mm hole, aircore drilling. Air Core (AC) samples are collected from spear samples for both composite and single metre samples. • Sampling is guided by Sandfire DeGrussa protocols and QAQC procedures as per industry standard. • Underground DD sample size reduction is completed through a Jaques jaw crusher to -10mm and all samples Boyd crushed to -4mm and pulverised via LM2 to nominal 90% passing -75µm. RC and AC sample size reduction is completed through a Boyd crusher to -10mm and pulverised via LM5 to nominal -75µm. Pulp size checks are completed. • Pulp samples are fused into a glass bead by the combination of 0.4g of assay sample plus 9.0g flux XRF analysis. A 40g and 0.15g assays charges are used for FA and mixed acid digest respectively. • Core samples are routinely sampled for SG determination.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Underground drilling is completed by DD rig with a core size of NQ2. • Surface drilling is by RC with sampling hammer of nominal 140mm hole and AC drilling with a blade bit. • All surface drill collars are surveyed using RTK GPS. All underground drill collars are surveyed using Trimble S6 electronic theodolite with downhole survey completed by gyroscopically. • Holes are inclined at varying angles for optimal ore zone intersection from the drilling position. • All core where possible is oriented using a Reflex ACT II RD orientation tool with stated accuracy of +/-1% in the range 0 to 88°.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Core is meter marked and orientated to check against the driller's blocks, ensuring that all core loss is taken into account. • Diamond core recovery is logged and captured into the database with weighted average core recoveries of approximately 99%. Surface RC sampling is good with almost no wet sampling in the project area. AC drilling recovery is good with sample quality captured in the database. • Samples are routinely weighed and captured into the central secured database. • No sample recovery issues have impacted on potential sample bias.

Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Geological logging is completed for all holes and representative across the ore body. The lithology, alteration, and structural characteristics of core are logged directly to a digital format following standard procedures and using Sandfire DeGrussa geological codes. Data is imported into the central database after validation in LogChief™. • Logging is both qualitative and quantitative depending on field being logged. • All cores are digitally photographed and stored.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• DD Core orientation is completed where possible and all are marked prior to sampling. Half core samples are produced using Almonte Core Saw. Samples are weighed and recorded. • RC samples are split using a cone or riffle splitter. A majority of RC samples are dry. On occasions that wet samples are encountered they are dried prior to splitting with a riffle splitter. • AC samples consist of 5m composite spear samples produced from 1m drilling with weights averaging approximately 3kg. In certain locations after composite samples are received additional 1m sampling may be completed. • At the on-site laboratory, the original sample is dried at 80° for up to 24 hours and weighed on submission to laboratory. Sample is then crushed through Jaques crusher to nominal -10mm (DD samples only). Second stage crushing Boyd crusher to nominal -4mm. Where required samples are split to less than 2kg through linear splitter. Sample splits are weighed at a frequency of 1/20 and entered into the job results file. Pulverising is completed using LM2 mill to 90% passing 75%µm. Two lots of pulp packets are retained for on-site laboratory services whilst the pulverised residue is shipped to Ultra Trace in Perth for further analysis. • Sample preparation at Ultra Trace in Perth involves the original samples being dried at 80° for up to 24 hours and weighed. DD Samples are then crushed through Jaques crusher to nominal -10mm. Second stage crushing uses Boyd crusher to nominal -4mm. All RC and AC samples are 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 75%µm. • Sandfire has protocols that cover auditing of sample preparation at the laboratories and the collection and assessment of data to ensure accurate steps in producing representative samples for the analytical process. Key performance indices include contamination index of 90% (that is 90% blanks pass); Crush Size index of P95-10mm; Grind Size index of P90-75µm and Check Samples returning at worse 20% precision at 95% confidence interval and bias of 5% or better. • Duplicate analysis has been completed and identified no issues with sampling representatively. • The sample size is appropriate for the VHMS and Gold mineralisation styles.

Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Samples submitted to Ultra Trace in Perth are assayed using 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, Re, Mn, Co, Cd, Cr, Ni, Se, Te, Ti, Zr, V, Sn, W and Ba. 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 S, Cu, Zn, Co, Fe, Ca, Mg, Mn, Ni, Cr, Ti, K, Na, V are determined by ICPOES, and Ag, Pb, As, Sb, Bi, Cd, Se, Te, Mo, Re, Zr, Ba, Sn, W are determined by ICPMS. Samples are analysed for Au, Pd and Pt by firing a 40g of sample with ICP AES/MS finish. Lower sample weights are employed where samples have very high S contents. This is a classical FA process and results in total separation of Au, Pt and Pd in the samples. • Samples submitted to the on-site laboratory have 0.4g of sample plus 9.0g flux combined and fused into a glass bead. XRF is used to analyse for a suite of elements (including Cu, Fe, SiO2, Al, Ca, MgO, P, Ti, Mn, Co, Ni, Zn, As, and Pb). Pulps are dispatched to Ultra Trace in Perth for ICPOES or ICPMS for extended elements (including Cu, Fe, As, Pb, S, Zn, Fe, Ag, Sb, Bi, Cd, Cl, F, and Hg). Au, Pt, and Pd analysed by FA/ICP AES/MS on a 40g assay charge (assay charge is variable depending on Sulphur content). • Sandfire DeGrussa QAQC protocol is considered industry standard with standard reference material (SRM) submitted on regular basis with routine samples. • SRMs and blanks are inserted at a minimum of 5% frequency rate. A minimum of 2% of assays are routinely re-submitted as Check Assays and Check Samples through blind submittals to external and primary laboratories respectively. Adhoc umpire checks are completed annually.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Significant intersections have been verified by alternative company personnel. • There are no twinned holes drilled for the DeGrussa deposit. • Primary data are captured on field tough book laptops using Logchief™ Software. The software has validation routines and data is then imported into a secure central database. • The primary data is always kept and is never replaced by adjusted or interpreted data.

Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Sandfire DeGrussa Survey team undertakes survey works under the guidelines of best industry practice. • Underground drilling collar surveys are carried out using Trimble S6 electronic theodolite and wall station survey control. Re-traverse is carried out every 100 vertical meters within main decline. Downhole surveys are completed by gyroscopic downhole methods at regular intervals. • Downhole survey completed by gyroscopic downhole methods at regular intervals in the mine area or by electronic multishot systems in regional exploration. • MGA94 Zone 50 grid coordinate system is used. • A 1m ground resolution DTM with an accuracy of 0.1m was collected by Digital Mapping Australia using LiDAR and a vertical medium format digital camera (Hasselblad). The LiDAR DTM and aerial imagery were used to produce a 0.1m resolution orthophoto that has been used for subsequent planning purposes.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• UG DD drilling was at a nominal 40m x 30m grid with additional holes in areas of potential complexity to remove bias. • DD Data spacing and distribution are sufficient to establish geological and grade continuity. This latest drilling has not been included in the Mineral Resources. • No sample compositing have been applied to the Exploration Results. • RC drilling is at a nominal 100m line spacing at Cow Hole Bore. • AC drill spacing is initially at 800m x 100m line spacing with infill to 400m x 100m in areas of geological or geochemical interest.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The majority of the DD drillholes are orientated to achieve intersection angles as close to perpendicular to the mineralisation as practicable. • No significant sampling bias occurs in the data due to the orientation of drilling with regards to mineralised bodies. • In regional exploration holes are oriented to achieve high angles of intersection. DD drilling is used as required to determine structural orientations in regional programs.
Sample security	• *The measures taken to ensure sample security.*	• All samples are prepared onsite under the supervision of Sandfire Geological staff. • Samples are transported to the Perth Ultra Trace laboratory by Toll IPEC or Nexus transport companies in sealed bulka bags, or to the onsite laboratory by company personnel. • The laboratories receipt received samples against the sample dispatch documents and issues a reconciliation report for every sample batch.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The sampling techniques and data collection processes are of industry standard and have been subjected to multiple internal and external reviews.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• M52/1046, E52/1698, E52/1699, E52/1715, E52/2208, E52/2209, E52/2358 and E52/2401 are wholly owned by Sandfire Resources NL, with no known third party ownership encumbrances. • All tenements are current and in good standing. • The mentioned tenements are currently subject to 3 Native Title Claims by the Gingirana People (WC06/002), the Yungunga-Nya People (WC99/046) and the Nharnuwangga Wajarri Ngarlawangga People (WC99/013). Sandfire currently has Land Access Agreements in place with the Gingirana and Yugunga-Nya Native Title Claimants which overlay the DeGrussa Copper deposit and has allowed mining and exploration activities to commence on their traditional land.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• There has been no significant previous historical drilling by parties other than Sandfire Resources N.L. within the leases.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Degrussa Copper Mine is a Volcanogenic Massive Sulphide deposit located with the Proterozoic Bryah Basin of Western Australia. • In some area zones of regional land holding it is currently interpreted that there is shear zones located on the contact between dolerite and sediments hosting an auriferous quartz vein stockworks with some coincident copper mineralisation.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Refer to Appendix 1 of this accompanying document. • All DD drillholes are downhole gyroscopically surveyed at completion with Total Station survey pickup of drill collars. • Electronic multishot downhole surveys are completed for RC drilling and with a subset of holes gyroscopically surveyed for internal checks. • AC drill holes ore not down hole surveyed

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Significant Resource intersections are calculated using a 0.5% Cu cut-off grade and may include up to a maximum of 3.0m of internal dilution, with a minimum composite grade of 1.0% Cu. • Cu grades used for calculating significant intersections are uncut. • Reported intersections are based on a regular sample interval of 1m or 5m composites in regional drilling subject to the location of geological boundaries. • Minimum and maximum sample intervals used for intersection calculations are 0.3m and 1.3m respectively. • No metal equivalents are used in the intersection calculation. • Where core loss occurs; the average length-weighted grade of the two adjacent samples are attributed to the interval for the purposes of calculating the intersection. The maximum interval of missing core which can be incorporated with the reported intersection is 1.0m.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• Estimated true width is presented in the Table in Appendix 1 where possible • Underground drilling is based on the DeGrussa local mine grid. • Where the geometry of the mineralisation is known; estimated true widths of mineralisation will be estimated and reported. Where the geometry is uncertain; no true width of mineralisation will be estimated or reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Appropriate maps and cross-sections with scale are included within the body of the accompanying document.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• The accompanying document is considered to represent a balanced report.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Other exploration data collected is not considered as material to this document at this stage. Further data collection will be reviewed and reported when considered material.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Exploration drilling will continue to target projected lateral and depth extensions of known mineralisation. Additionally regional anomalism will be investigated as required to determine the opportunity to identify economic mineralisation.