



DEGRUSSA PROJECT: APPROVED FOR DEVELOPMENT

MAIDEN ORE RESERVE STATEMENT FOR UNDERGROUND COPPER-GOLD MINE

HIGHLIGHTS

Pre-Feasibility Study

- Sandfire Board conditionally **approves development of the DeGrussa VMS Copper-Gold Project** on the strength of a **robust Pre-Feasibility Study**, the key outcomes of which include:
 - Life-of-mine extraction of a total of 10.68Mt of material grading 5.0% Cu, 1.7g/t Au (531,000t contained copper, 579,000oz contained gold) via open pit and underground operations
 - 1.5Mtpa on-site concentrator
 - Production of 60-70,000tpa of payable copper metal and 40-45,000oz pa of gold
 - Initial scheduled mine life of 7+ years
 - C1 cash operating costs of US\$0.90-\$1.00/lb including gold credits
 - Pre-tax operating cash flow of A\$330-350M per annum (from FY 2012/2013)
 - Plant and infrastructure capital estimate of A\$270M
 - Pre-production mine development of A\$130M

Ore Reserves

- Maiden underground Probable Ore Reserve of **8.02Mt @ 5.2% Cu, 1.8g/t Au (415,000t contained copper, 456,000oz contained gold)** – **93% conversion** of Indicated Resources of Primary Massive Sulphide.

Mineral Resources

- Further work underway to determine Ore Reserves in **open pit Indicated Resources of high-grade supergene chalcocite of 0.25Mt grading 17.6% Cu (including 0.15Mt at 25.6%Cu of direct shipping material)** currently included in the life-of-mine production plan.
- Optimisation of the metallurgical process route continuing on **open pit oxide copper Resources of 3.58Mt @ 1.23% Cu and 0.5g/t Au** (44,000t contained copper, 56,000oz contained gold) and zinc known to be present – potential revenue from which is not currently included in the life-of-mine production plan – with a view to determining Ore Reserves.
- **2.32Mt of Inferred Resources in Conductor 1, 4 and 5 at 4.3% Cu and 2.0g/t Au** (100,000t contained copper and 149,000t contained gold) planned to be upgraded to Indicated status, available for determination of Ore Reserves, by future underground drilling.

Definitive Feasibility Study

- **Definitive Feasibility Study** on track to be finalised **in conjunction with an appropriate funding package** in Q2 of 2011, enabling pre-strip of the open pit, underground development and on-site construction to commence during the same quarter.



Sandfire Resources NL (ASX: **SFR**; "Sandfire") is pleased to announce that its Board has approved the development of its 100%-owned **DeGrussa Copper-Gold Project** in Western Australia, subject to completion of a Definitive Feasibility Study and project funding package – both of which are on track to be finalised in Q2 of 2011 (all references in calendar quarters unless otherwise noted).

The conditional investment decision, which follows successful completion of a Pre-Feasibility Study ("PFS"), will enable key mining and construction contracts to be let and lead items ordered by the end of this Quarter, paving the way for development of a new low-cost, high-margin copper-gold mine to commence by mid-2011.

DeGrussa is set to become a premier high-grade copper mine, with initial open pit production expected by Q1 2012 and initial underground production by Q3 2012. On this timeline, first cash flow from the open pit operation will be achieved within less than three years from the discovery drill hole in April 2009.

The PFS – which was compiled by WA-based engineering company Mintrex with input from a number of other key contributors and industry experts as well as in-house Sandfire personnel – has been undertaken to a high level of detail and quality, including quotations from key open pit and underground mining contractors and engineering companies.

The PFS has confirmed the financial and technical strength of an open pit and underground mining operation at DeGrussa with forecast annual metal production of **60-70,000 tonnes of payable copper** in concentrate and **40-45,000 ounces of gold** at competitive life-of-mine **C1 cash operating costs of US\$0.90-\$1.00/lb** (see key PFS assumptions below).

The Project is anticipated to generate average **annual pre-tax operating cash flows of A\$330-\$350 million** from the 2012/2013 financial year onwards (life of mine plan of approximately 7+ years includes probable reserves and both indicated and inferred resources) based on open pit and 1.5Mtpa of underground production. These cash flow forecasts include the high-value direct shipping material (chalcocite) and sulphide mineralisation contained within the open pit but exclude, at this stage, the oxide copper and laterite gold resources in the open pit.

Pre-production capital including contingencies is estimated at A\$270 million for plant and infrastructure and A\$130 million for open pit and underground development.

Based on the economic and technical strengths of the DeGrussa Project, Sandfire has transitioned seamlessly into a Definitive Feasibility Study ("DFS") which is on track for completion next Quarter, including ongoing work to convert the oxide copper, chalcocite and near-surface gold mineralisation, currently in Indicated Resources, into Ore Reserves.

Sandfire's Managing Director, Mr Karl Simich, said the conditional development approval reflected the Company's confidence in the outcomes and quality of the PFS and its commitment to progress development of the DeGrussa Project.

"This will enable us to award the open pit and underground mining contracts and place orders for key long-lead items this Quarter ahead of the final DFS – which we expect to complete during the June 2011 Quarter," he said.

"The PFS shows that DeGrussa will be a high-grade, high-margin operation capable of generating substantial pre-tax cash flows in the order of A\$330-350 million a year and rapidly repaying its capital. Given the Project's technical and economic strengths, A\$114 million cash holding and the strong outlook for the copper market, we are well advanced in discussions with potential financiers regarding funding options, and we are confident that a suitable funding package will be completed in parallel with delivery of the DFS".

“We have already recruited most of the key operational, technical and corporate support staff required to build a high-quality mining company and are on track to start mining in the June 2011 quarter. That should put us on course to achieve first copper production early next year from the open pit and deliver first underground ore to the concentrator in Q3 2012, followed by ramp-up to full production.”

Mr Simich said DeGrussa was expected to become one of the largest copper producers in Western Australia, generating substantial export revenue over its initial estimated life and total royalties to the State of Western Australia and indigenous communities of more than A\$240 million.

“The construction phase will employ over 600 personnel at peak construction with long-term employment of around 400,” Mr Simich said. “In addition to the benefits to the community, DeGrussa will also be a great project for our shareholders and for our staff and contractors, creating exciting business and career opportunities for many people from different walks of life.

“We also believe that the execution of our project development plan will set a new benchmark for the efficient and rapid development of resources in Western Australia, and I would like to take this opportunity to thank the many people whose hard work has resulted in the delivery of this PFS. They include our Technical Director John Evans, Project Manager Martin Reed and our hard-working team at Sandfire, supported by our expert consultants,” Mr Simich added.

“I would also like to thank our corporate advisers for their strong support of Sandfire over the past year, and all our other shareholders for their ongoing support,” he continued. “We are all looking forward to a very fruitful and rewarding period of growth and development for Sandfire over the next 12 months as we make the transition from explorer to profitable mid-tier mining house.”

Maiden Ore Reserves and Updated JORC Resources

Sandfire has completed a maiden Probable Ore Reserve estimate for the DeGrussa underground mining operation comprising **8.02Mt grading 5.2% Cu and 1.8g/t Au for an estimated 415,000 tonnes of contained copper and 456,000 ounces of contained gold**, as set out in Table 1 below:

Table 1: DeGrussa Copper-Gold Project – March 2011 PFS Ore Reserve Statement*

Deposit	Reserve Category	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (tonnes)	Contained Gold (ounces)
DeGrussa	<i>Probable</i>	1.50	6.6	1.9	99,000	90,000
Conductor 1	<i>Probable</i>	5.76	4.9	1.8	283,000	337,000
Conductor 4	<i>Probable</i>	0.76	4.4	1.2	33,000	30,000
TOTAL	<i>Probable</i>	8.02	5.2	1.8	415,000	456,000

* Mining recovery factor of 95% applied to diluted stoping blocks, with cut-off grade of 1.5% Cu and minimum stope size of 2,000t. Calculations rounded to the nearest 1,000t, 0.1%, 0.1g/t and 1,000 ounces; assumes commodity prices of US\$7,673/t for copper and US\$1,300/oz for gold with a USD/AUD exchange rate of \$0.86; assumes 91% metallurgical recovery rate. Note: Refer to the Competent Person's Statement – Ore Reserves at the end of this release.

The maiden Ore Reserves were derived from the updated JORC compliant Measured, Indicated and Inferred Resource inventory for the DeGrussa Project of **14.33Mt grading 4.6% Cu and 1.6g/t Au for 652,000 tonnes of contained copper and 742,000 ounces of contained gold**, which includes additional resource modelling completed since the updated JORC Resource inventory reported in the Company's December 2010 Quarterly Report.

The updated JORC resource statement is set out in Table 2 below, which highlights the Primary Massive Sulphide resources, the Indicated component of which (shown in red) was available for conversion to Ore Reserves. Inferred Resources (shown in yellow), by definition, are not available for conversion to Ore Reserves.

Table 2: DeGrussa Copper-Gold Project – March 2011 JORC Resource Statement

Zone	Resource Category	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (t)	Contained Gold (oz)	Competent Person
Gold Laterite	Measured	0.14	-	1.5	-	7,000	1
Copper Oxides	Measured	2.17	1.1	0.5	24,000	37,000	1
	Indicated	1.41	1.4	0.4	20,000	19,000	1
Supergene Chalcocite	Indicated	0.25	17.6	2.6	43,000	20,000	2
	Inferred	0.19	4.4	1.2	8,000	7,000	1
Primary Massive Sulphides	Indicated	7.80	5.8	2.0	456,000	502,000	1
	Inferred	2.32	4.3	2.0	100,000	149,000	1
TOTAL		14.33	4.6	1.6	652,000	742,000	

Note: Refer to the Competent Person's Statements – Mineral Resources at the end of this release.

- 1 Competent Person for these zones of resource was Diederik Speijers of McDonald Speijers
- 2 Competent Person for these zones of resource was David Slater of Coffey Mining

The 2.32 million tonnes of Inferred Resources of Primary Massive Sulphide have been included within the PFS life-of-mine plan.

Table 3 below reflects an **overall 93% conversion of contained copper metal** from underground Indicated Resources to Ore Reserves:

Table 3: DeGrussa Copper-Gold Project – Ore Reserve Conversion

	Tonnes (Mt)	Copper (%)	Gold (g/t)	Contained Copper (t)	Contained Gold (oz)
Total Indicated Resources of Primary Massive Sulphide	7.80	5.8	2.0	456,000	502,000
Indicated Resources of Primary Massive Sulphides within the open cut shell	(0.14)	7.0	2.5	(11,000)	(12,000)
Indicated Resources of Primary Massive Sulphides within underground mine plan	7.66	5.8	2.0	445,000	490,000
Conversion (%)				93%	93%
Ore Reserve	8.02	5.2	1.8	415,000	456,000

The conversion of Indicated Resources to Ore Reserves resulted in a marginal increase in tonnage and associated reduction in copper and gold grades due to mining dilution and the application of mining recoveries and economic parameters.

In the case of Inferred Resources in the Conductor 4 and 5 deposits, further drilling is planned from underground drilling positions to in-fill these deposits and determine their Indicated Resource status, and make them available for potential determination of Ore Reserves.

Surface drilling does not currently represent a cost effective or technically sound method for drilling out these remaining resources and will therefore be drilled from underground as drilling locations become available.

As noted above, work is also continuing – including as part of the DFS – to determine Ore Reserves of the high-grade chalcocite material in the open pit and the oxide copper Resource.

Project Execution Plan

The DeGrussa Project will be developed as an integrated open pit and underground mining operation with a conventional copper processing facility and supporting infrastructure located on site.

Key elements of the project execution plan include:

- Conventional two-stage open pit mining operation over a period of approximately two years to extract the previously reported high-grade Indicated Resource of Direct Shipping Material (DSO) of 151,000 tonnes grading 25.6% Cu and 2.6g/t Au (39,000t of copper metal and 12,000oz of gold) and oxide copper resource of 3.58Mt grading 1.2% copper and 0.5g/t gold (44,000t of copper metal and 56,000oz of gold);
- 298,000t of chalcocite and massive sulphide material at 6.0% Cu and 2.4g/t Au (18,000t of copper metal and 23,000t of gold) to be mined and stockpiled to allow accelerated plant ramp up;
- A long-term underground mine which will be undertaken using long-hole open stoping (both transverse and longitudinal) with minor areas of jumbo cut and fill or up-hole benching in some of the narrower areas. Open stopes will be up to 50m high by 25m long by the orebody width (up to 40m, but averaging 20m), with the proposed mining sequence aiming for maximum extraction of the resource using pastefill;
- Underground ore to be processed via a conventional 1.5Mtpa processing facility. Based on metallurgical test work undertaken on DeGrussa ore, the processing facility will utilise conventional crushing, milling and classification circuits followed by conventional flotation, de-watering and filtration to produce a high-grade, high-quality copper concentrate; and
- Annual average production of 220-240,000 tonnes of high-quality copper concentrate grading 27% Cu to be transported by road to Port Hedland for export to international customers.

Key Project Fundamentals

The DeGrussa Project PFS has confirmed a technically and financial robust mining operation with the following key project life-of-mine (LOM) parameters:

Item	PFS Fundamentals LOM
Mining method:	Open pit (2 years), underground (7+ years)
Construction time:	13 months (commencing June 2011)
First production:	Open pit – Q1 CY 2012 Underground – Q3 CY 2012
Processing rate:	1.5Mtpa
Metallurgical recovery:	91%
Average annual concentrate production:	220-240,000tpa grading 27% Cu
Average annual payable metal output:	60-70,000tpa payable copper 40-45,000oz gold
Pre-production capital cost estimate:	A\$270M (plant and infrastructure) A\$130M (open pit/underground development) A\$400M total (including contingencies)
C1 cash operating costs:	US\$0.90–\$1.00/lb (including gold credits)
Annual gross sales revenue (average):	A\$550-600M
Annual pre-tax operating net cash flow (average):	A\$330-\$350M

Assumptions used in the PFS, determined in consultation with long term independent consensus views:

- *Life-of-mine copper price of US\$7,673/tonne (US\$3.48/lb)*
- *Life-of-mine gold price of US\$1,300/oz*
- *Long-term exchange rate of A\$1.00:US\$0.86*
- *Cost of extracting open pit copper oxide and gold material incurred as waste with no allowance for revenue benefit (process route design in progress to determine revenue stream)*

Project Implementation Timeline

- Q1 – CY 2011:
 - *Award of open pit and underground mining contracts*
 - *Award of key construction contracts*
- Q2 – CY 2011:
 - *Delivery of DFS*
 - *Completion of project funding package and final development approval*
 - *Commencement of pre-strip of open pit*
- Q3 – CY 2011
 - *Commencement of on-site construction*
 - *Commencement of box-cut excavation and underground mine development*
- Q1 – CY 2012
 - *Commencement of DSO and oxide copper extraction*
- Q2 – CY 2012
 - *First sales of direct shipping material to customers*
 - *Initial access established to underground deposits*
- Q3 – CY 2012
 - *Commissioning of 1.5Mtpa concentrator using stockpiled chalcite and sulphide material from the open pit*

The company is preparing to install, subject to government approvals due imminently, the 200-person construction camp currently stored on site. The company has also prepared documentation to place an order for a further 400-rooms that will satisfy the long term requirements for accommodation.

Exploration Update

In parallel with pre-development activities, Sandfire is continuing an aggressive exploration program at DeGrussa including a recently commenced deep diamond drilling program targeting potential repetitions of the VMS lenses at depth beneath the known cluster of deposits.

Drilling has been hampered by the extreme wet weather conditions in the Northeastern Goldfields caused by the recent cyclonic activity. Drilling of the first deep diamond drill hole recently resumed with the hole targeting a position directly below Conductor 4. A total of 6-8 holes are planned as part of this program.

Several other diamond, RC and RAB drilling rigs are currently active at DeGrussa. Work being carried out includes extensive sterilisation drilling for all site infrastructure and cementing and casing existing diamond drill holes as required prior to commencement of development and mining.

ENDS

For further information contact:

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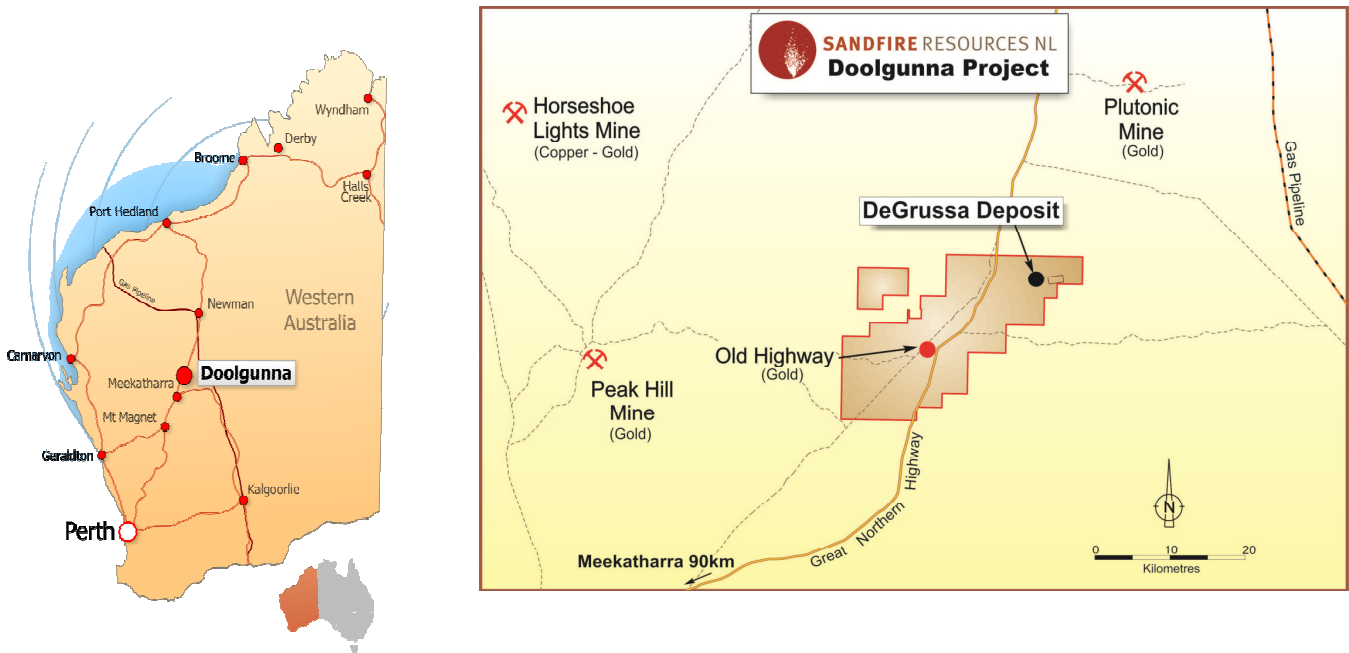
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Figure 1 – DeGrussa Copper-Gold Project location**Competent Person's Statement – Mineral Resources**

The information in this report that relates to Mineral Resources (except the Indicated Resource of Supergene Chalcocite) is based on information compiled by Diederik Speijers who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Speijers is a permanent employee of McDonald Speijers and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Speijers 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 the Indicated Resource of Supergene Chalcocite is based on information compiled by David Slater who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Slater is a permanent employee of Coffey Mining and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Slater 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 Shane McLeay of Entech Pty Ltd, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr McLeay has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr McLeay consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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.

Exploration and Resource Targets

Any discussion in relation to the potential quantity and grade of Exploration Targets for the DeGrussa Project 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 resource inventory and it is uncertain if further exploration will result in the determination of additional JORC compliant Mineral Resources.