ASX/Media Release 21 May 2018

DOOLGUNNA PROJECT – EXPLORATION UPDATE

Deep RC drilling program commences at Morck's Well Project

Sandfire Resources NL (ASX: **SFR**; "Sandfire") is pleased to advise that the planned Reverse Circulation (RC) drill program has commenced at the Morck's Well Project, part of its Farm-in with Auris Minerals Limited (ASX: AUR; "Auris") and Fe Limited (ASX: FEL; "Fe Limited"). The Morck's Well Project is located approximately 22km south-west of its 100%-owned DeGrussa Copper Mine in Western Australia.

The first deep step-out RC hole, MWRC0001, was drilled 200m to the north-west and approximately 195m down-dip of recently announced Aircore hole MWAC0112, which encountered narrow intersections of visible sulphide and massive sulphide mineralisation (for full details see ASX release 15th May 2018, "Doolgunna Project Exploration Update").

MWRC0001 was completed to a down-hole depth of 448m in basalt and, while it did not intersect any visible mineralisation, the hole provides an optimal stepped-out platform for Down-hole Electromagnetic Surveying (DHEM) to test for conductive responses in the area to assist in defining further mineralisation from that seen in Aircore holes MWAC0109, MWAC0111, and MWAC0112, for which assays are pending (for hole details see **Figures 1 and 2** below and refer to the ASX release of 15th May 2018).

The geology encountered in MWRC0001, including at the anticipated target horizon, is summarised in Table 1 below (full details can be seen in Appendix 1). The hole will be cased and DHEM surveying will be undertaken in the coming days. Samples from MWRC0001 will also be dispatched for assaying.

RC drilling will continue in the area, with a second RC hole collared some 400m to the south-west of MWRC0001, to provide further geological context and another deep platform for DHEM surveying.

Aircore drilling has also continued during the week with an additional 59 holes completed (as at 20th May 2018). This drilling will be used to inform the interpretation of the prospective sequence and provide first-pass geochemical information to aid targeting. Follow-up RC and diamond drilling will continue as a priority once all relevant permitting and approvals have been received.

Aircore drilling will continue on the Morck's Well Project and along strike into the Enterprise Metals Limited (ASX: ENT) Farm In area. The Morck's Well Project is located along-strike from Sandfire's 100%-owned Homestead Prospect to the north and the neighbouring Vulcan Prospect, part of the Enterprise Metals farm-in immediately to the east (see **Figure 1**).

Sandfire's Managing Director and CEO, Karl Simich, said the Company's systematic and multi-pronged approach to exploration in this exciting new area was initially based on a combination of deep RC drilling supported by DHEM surveying and ongoing Aircore drilling.

"It's very early days in terms of the exploration of what is essentially a new and completely untested VMS horizon at Morck's Well," Mr Simich said. "Our goal is to establish the potential for meaningful accumulations of massive sulphide mineralisation as quickly as we can.

"The most effective way to do this is to use down-hole geophysics, which has the potential to identify conductive accumulations of sulphides within a broad radius of the drill hole, which can then be targeted with RC and diamond drilling."

745000mE 715000mE DeGrussa Mine Monty Mine 7160000mN 7160000mN Morcks Well Farm-In Project **LEGEND SFR Tenements Massive Sulphide Intersection SFR-AUR FI Tenements** SFR-ENT FI Tenements **SFR-TLM JV Tenements** SFR-GWE FI Tenements 745000mE 715000mE 720000mE 725000mE 735000mE

Figure 1: Morck's Well Project, Regional Location Plan.



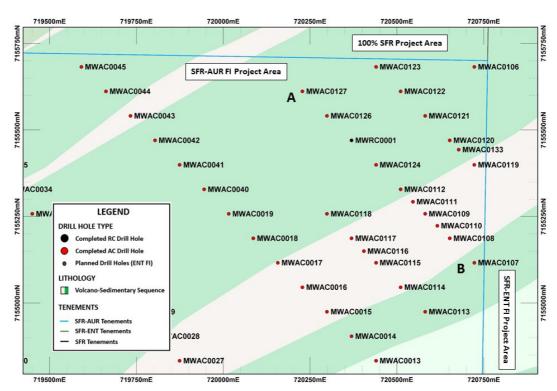


Figure 3: Interpreted Schematic Cross-Section.

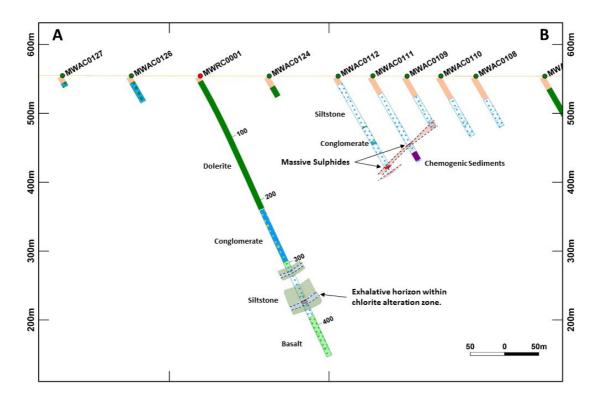


Table 1: Summary Collar and Geological Observations for Recently Completed MWRC0001

			EOH	From	То	Width	Mineralisation
Hole ID	Dip	Azimuth	Depth (m)	(m)	(m)	(m)	
MWRC0001	-60°	135°	448	312	313	1	Chlorite altered siltstone with pyrite layers
				359	360	1	Chlorite altered siltstone with 35% sulphide (pyrite/chalcopyrite)
				363	364	1	Chlorite altered siltstone with hydrothermal magnetite and minor chalcopyrite.

The geological interpretation will be updated to incorporate the data from the initial deep RC hole, which will be used for further targeting in the area. Preliminary drilling has defined an area of geological interest which will be intensively targeted by further RC and diamond drilling, supported by surface and down-hole geophysics, to establish if a significant accumulation of massive sulphide mineralisation may exist in the vicinity.

Sandfire may earn a 70% interest in the Morck's Well Project from the definition of at least 50,000 tonnes of copper contained in a declared JORC Mineral Resource on which it completes a Feasibility Study (for full details of the agreement please see ASX release 27th February 2018, "Sandfire Farm-in to Morck's Well East and Doolgunna").

This Project forms part of Sandfire's Greater Doolgunna Project, comprising of a package of 6,276 square kilometres of contiguous tenements surrounding the DeGrussa Copper Mine.

Details and coordinates of drill holes completed by Sandfire at the project to date are provided below:

Table 2: Drill-hole Information Summary, Morck's Well Project

Hole_ID	EOH Depth (m)	Dip	Azimuth	Grid_ID	East	North	RL	Lease ID	Hole Status
MWAC0033	73	-60°	135°	MGA94_50	719450	7155258	557	15/05/2018	Complete
MWAC0034	57	-60°	135°	MGA94_51	719379	7155328	557	15/05/2018	Complete
MWAC0035	78	-60°	135°	MGA94_52	719309	7155399	557	15/05/2018	Complete
MWAC0036	69	-60°	135°	MGA94_53	719238	7155470	557	15/05/2018	Complete
MWAC0037	60	-60°	135°	MGA94_54	719167	7155541	557	15/05/2018	Complete
MWAC0038	71	-60°	135°	MGA94_55	719097	7155611	558	15/05/2018	Complete
MWAC0039	81	-60°	135°	MGA94_56	719026	7155682	558	16/05/2018	Complete
MWAC0040	21	-60°	135°	MGA94_57	719945	7155328	556	16/05/2018	Complete
MWAC0041	33	-60°	135°	MGA94_58	719874	7155399	556	16/05/2018	Complete
MWAC0042	52	-60°	135°	MGA94_59	719804	7155470	556	16/05/2018	Complete
MWAC0043	57	-60°	135°	MGA94_60	719733	7155541	556	17/05/2018	Complete
MWAC0044	135	-60°	135°	MGA94_61	719662	7155611	556	17/05/2018	Complete
MWAC0045	92	-60°	135°	MGA94_62	719592	7155682	556	17/05/2018	Complete
MWAC0046	41	-60°	135°	MGA94_63	719874	7153702	557	17/05/2018	Complete
MWAC0047	47	-60°	135°	MGA94_64	719804	7153773	557	17/05/2018	Complete
MWAC0048	42	-60°	135°	MGA94_65	719733	7153844	557	17/05/2018	Complete
MWAC0049	91	-60°	135°	MGA94_66	719662	7153914	557	18/05/2018	Complete
MWAC0050	153	-60°	135°	MGA94_67	719592	7153985	558	18/05/2018	Complete
MWAC0051	109	-60°	135°	MGA94_68	719521	7154056	558	18/05/2018	Complete
MWAC0052	67	-60°	135°	MGA94_69	719450	7154126	558	18/05/2018	Complete
MWAC0053	110	-60°	135°	MGA94_70	719379	7154197	558	18/05/2018	Complete
MWAC0054	72	-60°	135°	MGA94_71	719309	7154268	558	19/05/2018	Complete
MWAC0055	120	-60°	135°	MGA94_72	719238	7154338	558	19/05/2018	Complete
MWAC0056	40	-60°	135°	MGA94_73	719167	7154409	558	19/05/2018	Complete
MWAC0057	72	-60°	135°	MGA94_74	719097	7154480	558	19/05/2018	Complete
MWAC0058	76	-60°	135°	MGA94_75	719026	7154551	559	19/05/2018	Complete
MWAC0059	21	-60°	135°	MGA94_76	718955	7154621	559	19/05/2018	Complete
MWAC0131	70	-60°	135°	MGA94_77	719874	7154268	556	15/05/2018	Complete
MWAC0132	68	-60°	135°	MGA94_78	719804	7154338	557	15/05/2018	Complete
MWAC0133	96	-60°	135°	MGA94_79	720678	7155443	554	16/05/2018	Complete
MWAC0134	91	-60°	135°	MGA94_80	719733	7154409	557	16/05/2018	Complete
MWAC0135	29	-60°	135°	MGA94_81	719662	7154480	557	16/05/2018	Complete
MWAC0136	34	-60°	135°	MGA94_82	719592	7154551	557	16/05/2018	Complete
MWAC0137	63	-60°	135°	MGA94_83	719521	7154621	557	16/05/2018	Complete
MWAC0138	112	-60°	135°	MGA94_84	719450	7154692	557	16/05/2018	Complete
MWAC0139	34	-60°	135°	MGA94_85	719379	7154763	557	16/05/2018	Complete
MWAC0140	39	-60°	135°	MGA94_86	719309	7154833	558	17/05/2018	Complete
MWAC0141	38	-60°	135°	MGA94_87	719238	7154904	558	17/05/2018	Complete
MWAC0142	66	-60°	135°	MGA94_88	719167	7154975	558	17/05/2018	Complete
MWAC0143	41	-60°	135°	MGA94_89	719097	7155046	558	17/05/2018	Complete
MWAC0144	39	-60°	135°	MGA94_90	719026	7155116	558	17/05/2018	Complete
MWAC0145	45	-60°	135°	MGA94_91	718955	7155187	558	17/05/2018	Complete

MWAC0146	33	-60°	135°	MGA94_92	718884	7155258	558	17/05/2018	Complete
MWAC0147	22	-60°	135°	MGA94_93	718814	7155328	558	17/05/2018	Complete
MWAC0148	75	-60°	135°	MGA94_94	718743	7155399	558	17/05/2018	Complete
MWAC0149	71	-60°	135°	MGA94_95	718672	7155470	558	17/05/2018	Complete
MWAC0150	71	-60°	135°	MGA94_96	718602	7155541	558	18/05/2018	Complete
MWAC0151	123	-60°	135°	MGA94_97	718531	7155611	558	18/05/2018	Complete
MWAC0152	79	-60°	135°	MGA94_98	718460	7155682	558	18/05/2018	Complete
MWAC0153	102	-60°	135°	MGA94_99	719592	7153419	558	18/05/2018	Complete
MWAC0154	93	-60°	135°	MGA94_100	719521	7153490	558	18/05/2018	Complete
MWAC0155	93	-60°	135°	MGA94_101	719450	7153561	558	19/05/2018	Complete
MWAC0156	116	-60°	135°	MGA94_102	719379	7153631	558	19/05/2018	Complete
MWAC0157	135	-60°	135°	MGA94_103	719309	7153702	558	19/05/2018	Complete
MWAC0158	38	-60°	135°	MGA94_104	719238	7153773	558	19/05/2018	Complete
MWAC0159	46	-60°	135°	MGA94_105	719167	7153844	559	19/05/2018	Complete
MWAC0160	53	-60°	135°	MGA94_106	719097	7153914	559	19/05/2018	Complete
MWAC0161	63	-60°	135°	MGA94_107	719026	7153985	559	19/05/2018	Complete
MWAC0162	95	-60°	135°	MGA94_108	718955	7154056	560	19/05/2018	Complete
MWRC0001	448	-60°	135°	MGA94_109	720369	7155470	555	19/05/2018	Complete

ENDS

For further information contact:

Sandfire Resources NL Read Corporate

Karl Simich – Managing Director/CEOMobile: +61 419 929 046 (Nicholas Read)
Office: +61 8 6430 3800

Mobile: +61 421 619 084 (Paul Armstrong)

Competent Person's Statement - Exploration Results Doolgunna

The information in this report that relates to Exploration Results at Doolgunna 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 plac

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.

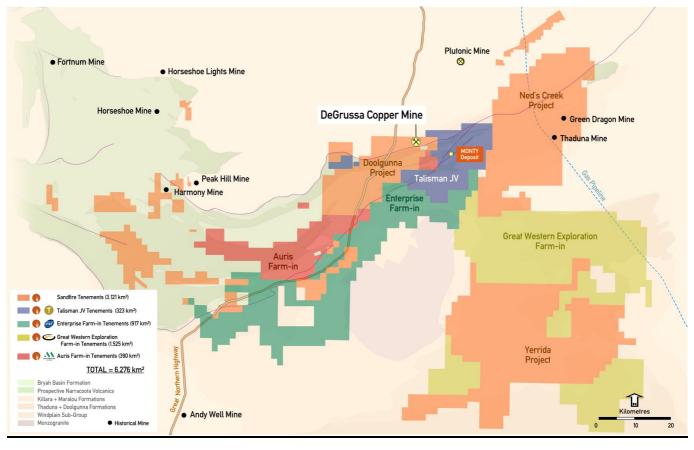
Density of the massive sulphide orebody ranges from 2.8g/cm3 to 4.9g/cm3, with an average density reading of 3.7g/cm3. Geotechnical and structural readings recorded from diamond drilling include recovery, RQD, structure type, dip, dip direction, alpha and beta angles, and descriptive information. All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

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

Regional drilling has been completed using a combination of RC and AC drilling. A majority of the drilling is preliminary in nature and starts with 800m x 100m AC drilling where the geology and geochemistry is evaluated to determine the requirement for follow 400m x 100m drilling. If significant anomalism is identified in the AC drilling then follow up RC drilling will be conducted to determine the opportunity for delineating potentially economic mineralisation. Whist the main aim of the exploration at Doolgunna is to identify additional VHMS mineralisation in some areas of regional land holding it is currently 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 and RC regional samples are prepared at Ultra Trace in Perth with the original samples being dried at 80° for up to 24 hours and weighed, and Boyd crushed to -4mm. Samples are then split to less than 2kg through linear splitter and excess retained. Sample splits are weighed at a frequency of 1/20 and entered into the job results file. Pulverising is completed using LM5 mill to 90% passing 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.

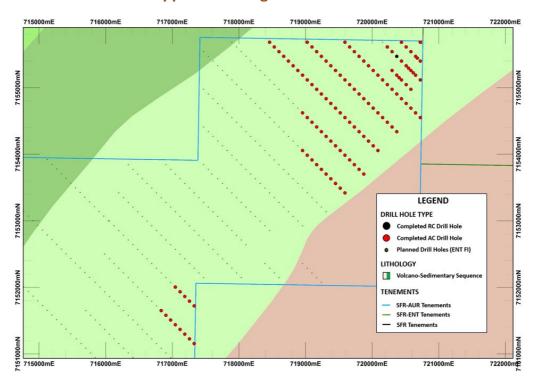
Figure 3: Sandfire's Greater Doolgunna Project showing 100% owned tenure and farm-in joint ventures including Auris Minerals Ltd Farm-in.



Appendix 1: Detailed Drill log for MWRC0001

Hole_ID	From (m)	To (m)	Lithology	Description
MWRC0001	0	7	Cover	Ferruginous alluvium/colluvium with minor pisoliths
	7	10	Dolerite	Ferruginous Saprolite after dolerite
	10	23	Dolerite	Saprock after fine to medium grained dolerite
	23	213	Dolerite	Fine to medium grained dolerite
	213	297	Mafic Breccia	Sedimentary breccia comprising basalt and dolerite clasts within a siltstone matrix
	297	306	Basalt	Chlorite altered basalt
	306	312	Siltstone	Chlorite altered siltstone with finely disseminated pyrite and minor hematite
	312	313	Siltstone	Chlorite altered siltstone with minor sulphide layers (10% Sulphide: 10% pyrite)
	313	320	Siltstone	Strongly chlorite altered siltstone with finely disseminated pyrite and minor hematite
	320	335	Siltstone	Finely bedded, magnetite bearing siltstone. Minor colloidal jasper clasts.
	335	359	Siltstone	Foliated siltstone with moderate chlorite alteration. Minor quartz-carbonate veining.
	359	360	Siltstone/Semi Massive Sulphide	Chlorite altered siltstone with subordinate sulphide. (35% Sulphide: 30% Pyrite, 5% Chalcopyrite).
	360	363	Siltstone	Finely laminated, strongly chlorite altered siltstone.
	363	364	Siltstone with hydrothermal magnetite replacement	Strongly chlorite altered siltstone containing 40% massive magnetite and 1% disseminated chalcopyrite.
	364	367	Siltstone	Finely laminated, strongly chlorite altered siltstone.
	367	373	Siltstone	Moderately chlorite altered siltstone with minor pyrite
	373	385	Siltstone	Siltstone with silicification towards base of unit
	385	448	Basalt	Weakly foliated basalt with silicic alteration.

Appendix 2: Regional Collar Plan



JORC 2012 TABLE 1 – EXPLORATION RESULTS

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.	AC samples are collected using spear techniques for both composite and single metre samples. RC samples are collected by a cone splitter for single metre samples or a sampling spear for first pass composite samples using a face sampling hammer with a nominal 140mm hole.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Sampling is guided by Sandfire protocols and Quality Control (QC) procedures as per industry standard.
	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.	AC and RC samples are crushed to -4mm through a Boyd crusher and representative subsamples pulverised via LM5. Pulverising is to nominal 90% passing -75µm and checked using wet sieving technique. Samples are assayed using Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g charge methods with ICPOES or ICPMS. Fire Assay is completed by firing 40g portion of the sample with ICPMS finish.
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.).	All AC drilling was completed with a Drillboss 300 with on-board compressor (700cfm at 400psi) using a nominal 90mm diameter air core drill bit. AC drill collars are surveyed using a Garmin GPS Map 64. All RC drilling was completed with a Schramm T685 drill rig using a sampling hammer with a nominal 140mm hole diameter. Downhole surveying is undertaken using a gyroscopic survey instrument. RC drill collars are surveyed using RTK GPS with down hole surveying.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	AC and RC sample recoveries are logged and captured into the database.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Appropriate measures are taken to maximise sample recovery and ensure the representative nature of the samples. Recovery and moisture content are routinely recorded for composite and 1m samples. The majority of AC and RC samples collected are of good quality with minimal wet sampling in the project area.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse	No sample recovery issues are believed to have impacted on potential sample bias. When grades are available the comparison can be completed.

Criteria	JORC Code Explanation	Commentary		
	material.			
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.	AC and RC chips are washed and stored in chip trays in 1m intervals. Geological logging is completed for all holes and representative across the project area. All geological fields (i.e. lithology, alteration etc) are logged directly to a digital format following procedures and using Sandfire geological codes. Data is imported into Sandfire's central database after validation in Ocris.		
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is both qualitative and quantitative depending on field being logged. All chip trays are photographed.		
	The total length and percentage of the relevant intersections logged.	All drill holes are fully logged.		
Sub-sampling techniques and sample	If core, whether cut or sawn and whether quarter, half or all core taken.	No core drilled as part of this report		
preparation	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	AC samples consist of 5m composite spear samples produced from 1m sample piles. Additional 1m sampling is completed depending on results from 5m composite samples or where mineralisation is observed while drilling is occurring. RC 1m samples are split using a cone or riffle splitter. The majority of RC samples are dry. On occasions that wet samples are encountered they are dried prior to splitting with a riffle splitter.		
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	All samples are sorted, dried at 80° for up to 24 hours and weighed. Samples are Boyd crushed to - 4mm and pulverised using LM5 mill to 90% passing 75µm. 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 using wet sieving technique.		
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	1:20 grind quality checks are completed for 90% passing 75%µm criteria to ensure representativeness of sub-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.	Sampling is carried out in accordance with Sandfire protocols as per industry best practice.		
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered appropriate for the VHMS and Gold mineralisation types.		
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.	Samples 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		

Criteria	JORC Code Explanation	Commentary
		the samples. The analytical methods are considered appropriate for this mineralisation style.
	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	No geophysical tools were used in the analysis. For RC drilling downhole Electromagnetic (DHEM) Geophysical Surveys have been completed for Sandfire by Merlin Geophysical Solutions. Geophysical survey parameters include: • Merlin Geophysical Solutions MT-200 transmitter, DigiAtlantis probe and receiver • 300m x 300m single turn loop, or as appropriate to the geological context.
	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.	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.
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections have been verified by alternative company personnel.
assaying	The use of twinned holes.	None of the drill holes in this report are twinned.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is captured on field "tough book" laptops using Ocris Software. The software has validation routines and data is then imported into a secure central database.
	Discuss any adjustment to assay data.	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.	The Sandfire Survey team undertakes survey works under the guidelines of best industry practice. All AC holes are surveyed in the field using a Garmin GPS Map 64. Estimated accuracy of this device is +/- 4m's. All RC drill collars are accurately surveyed using an RTK GPS system within +/-50mm of accuracy (X,Y,Z). Downhole surveys are completed by gyroscopic downhole methods at regular intervals.
	Specification of the grid system used.	Coordinate and azimuth are reported in MGA 94 Zone 50.
	Quality and adequacy of topographic control.	Topographic control was established using LiDar laser imagery technology.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	First pass AC and drilling is completed at a spacing of 400 m x 100 m. Infill drilling may be completed at 200 m x 100 m dependant on results. In areas of observed mineralisation and adjacent to it, hole spacing on drill may be narrowed to 50m. RC drilling is completed as required to test geological targets. A set pattern is adopted once a zone of economic mineralisation has been broadly defined
	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.	Data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation.
	Whether sample compositing has been applied.	AC samples consist of 5m composite spear samples produced from 1m sample piles. Additional 1m sampling is completed depending on results from 5m composite samples or where visible mineralisation is observed while drilling is occurring. No compositing is applied to RC samples

Criteria	JORC Code Explanation	Commentary
Orientation of data in relation to geological	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	There is no significant orientation based sampling bias known at this time in the Morck's Well project area.
structure	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 drill hole may not necessarily be perpendicular to the orientation of the intersected mineralisation. Orientation of the mineralisation is not currently known. All reported mineralised intervals are downhole intervals not true widths.
Sample security	The measures taken to ensure sample security.	Appropriate security measures are taken to dispatch samples to the laboratory. Chain of custody of samples is being managed by Sandfire Resources NL. Samples are stored onsite and transported to laboratory by a licenced transport company in sealed bulker bags. The laboratory receipts 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.	No external audits or reviews of the sampling techniques and data have been completed, on this project.

Section 2: Reporting of Exploration Results

Criteria		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.	The Morcks Well project encompasses E52/1672, E52/1613 and E51/1033 which are jointly owned by Auris Minerals Limited (80%) and Fe Limited (20%). Sandfire is currently farming into the project with the right to earn 70% interest in the project area. (Refer to terms of Farm-In Agreement dated 27th February 2018). The Project is centred ~120km north-east of Meekatharra, in Western Australia and forms part of Sandfire's Doolgunna Project, comprising of a package of 6,276 square kilometres of contiguous tenements surrounding the DeGrussa Copper Mine. All tenements are current and in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Aside from Sandfire Resources and Auris Minerals Limited there has been no recent exploration undertaken on the Morcks Well Project. Exploration work completed prior to Auris's tenure included geochemical soil, stream sediment, laterite and rock chip sampling combined with geological mapping.

Criteria		Commentary
Geology	Deposit type, geological setting and style of mineralisation.	The Morcks Well Project lies within the Proterozoic-aged Bryah rift basin enclosed between the Archaean Marymia Inlier to the north and the Proterozoic Yerrida basin to the south. The principal exploration targets in the Doolgunna Project area are Volcanogenic Massive Sulphide (VMS) deposits located within the Proterozoic Bryah Basin of Western Australia. Secondary targets include orogenic gold deposits.
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) o 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 Tables 2 and 3 in the main body of this release: Morcks Well Project Drill hole Information Summary.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	No analyses are reported in this release.
	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.	No analyses are reported in this release.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No analyses are reported in this release.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Downhole intercepts of mineralisation reported in this release are from a drillhole orientated approximately perpendicular to the understood regional stratigraphy. The drillhole may not necessarily be perpendicular to the mineralised zone. All widths are reported asdownhole intervals.

Criteria		Commentary
	If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.	The geometry of the mineralisation, relative to the drillhole, is unknown at this stage.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	All intersections reported in this release are downhole intervals. True widths are not known.
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 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 (eg 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.	Additional work including additional drilling, downhole geophysics and surface geophysics is being planned. Once initial analytical results are received for the drill holes discussed in this release further work programs may be planned.