



Board of Directors

Jeremy Kirkwood Non-Executive Chairman

Dan Madden Managing Director

Alan Senior Non-Executive Director

Brian Dawes Non-Executive Director

Karen Gadsby Non-Executive Director

Contact Details

Telephone: +61 8 9380 4230

Email: info@talismanmining.com.au

Website: www.talismanmining.com.au

Capital Structure

Shares on Issue: 185,699,879 (TLM)

Options on Issue: 10,505,000 (Unlisted)

ASX Media Release – 28 April 2017

Quarterly Activities Report March 2017

Highlights

Springfield Cu-Au Project - (JV with Sandfire Resources NL)

- Feasibility Study completed and decision to proceed with **development** of Monty Copper-Gold deposit made by Talisman Board.
- Maiden Probable Ore Reserveⁱ for Monty of 80kt copper and 42koz gold at the exceptionally high grade of 8.7% copper (100% basis). This would place Monty amongst the highest grade copper mines globally.
- Outstanding forecast financial returns¹ of A\$64M pre-tax free cash flow, pre-tax NPV₈ of A\$46M and 78% pre-tax IRR (Talisman 30% share).
- Discussions with short list of potential financiers to provide debt funding for up to 100% of Talisman's forecast pre-production capital costs for Monty well advanced.
- Exploration programs continuing in parallel with project development to **test for new mineralised zones** in close proximity to the Monty deposit and **target further new discoveries**:
 - **first** of **three deep diamond drill holes** (**TLDD0014**) **commenced** subsequent to the end of the quarter.
- New zone of shallow high-grade gold mineralisation intersected in firstpass air core drilling at Southern Volcanics VMS corridor: 5m @ 44.8g/t Au from 10m².

Sinclair Nickel Project (100% Talisman)

- Project wide targeting review completed, new targets identified at Fly Bore, Pink Well and Mt Clifford prospect areas.
- Reconnaissance mapping and aircore drilling program planned for the June 2017 quarter.

² Air-core results are based on five-metre composite spear sampling.

¹ Please refer to TLM ASX announcement: "Monty Feasibility Study Results", dated 6 April for a description of the financial parameters & summary of key Monty Feasibility Study financial return outcomes.



Springfield Copper-Gold Project (Joint Venture with Sandfire Resources NL)

During the March quarter, the focus of Talisman's activities was the finalisation of the components of the Feasibility Study for the Monty Copper-Gold deposit and discussions with potential financiers to provide debt funding for up to 100% of Talisman's share of pre-production capital.

Monty Feasibility Study

Subsequent to the end of the March quarter, Talisman announced the completion of the Feasibility Study and maiden Ore Reserve for the Monty Copper-Gold deposit in Western Australia (**Monty**). Monty forms part of Talisman's Springfield Project (**Joint Venture**) with Sandfire Resources NL (**Sandfire**) in which Sandfire holds a 70% interest and is Joint Venture manager. Talisman holds a 30% interest in the Joint Venture.

The Monty deposit is located approximately 900km north of Perth and 10km east of Sandfire's DeGrussa copper-gold mine (**DeGrussa**) in the Gascoyne Region of Western Australia. Monty was discovered in mid-2015 and an initial Mineral Resource estimateⁱⁱ for the deposit was reported in April 2016, notable for its very high copper grade. A Mining Lease Application (**MLA**) for Monty was submitted in July 2016 and was granted during the quarter. The detailed Feasibility Study concluded development of the deposit is both technically and financially viable. Full details of the Feasibility Study and its key agreements can be found in the announcement and presentation released to the Australian Securities Exchange on 6 April 2017.

Key agreements

An Ore Sale and Purchase Agreement (**OSPA**) has been executed between Talisman and Sandfire with Talisman's share of the ore mined from Monty – and any mineralised extensions to the Monty deposit – to be sold to Sandfire for subsequent treatment at Sandfire's nearby DeGrussa plant, allowing Talisman to benefit from the established infrastructure. Further economic discoveries made within the broader Joint Venture area will be subject to a new OSPA at the discretion of the Joint Venture parties and negotiated at that time. A Mining Joint Venture Agreement (**MJVA**) and an Exploration Joint Venture Agreement (**EJVA**) have also been executed between Talisman and Sandfire for the Joint Venture (collectively **Joint Venture Agreements**).

Under the OSPA, Talisman will receive payment for ore delivered to a purpose-built ROM ore pad at the DeGrussa plant based on payable metal content at monthly average commodity prices. Payable metal is calculated on an independently assessed ore mined grade and delivered tonnage to which fixed recovery formulae (derived from detailed feasibility study metallurgical test work) and fixed percentage payability (set at industry determined benchmarks) are applied. An Ore Treatment Fee (**OTF**) and applicable royalties are then deducted from the calculated revenue. The OTF recognises all costs of processing the ore including downstream logistical and marketing costs associated with the production and sale of copper concentrate which are converted to a per tonne of ore basis. The OTF also includes a capital charge for use of the DeGrussa processing plant and associated infrastructure. The cost components of the OTF are closely aligned with actual DeGrussa capital, processing, G&A and downstream costs. Based on the Feasibility Study results, the OTF equates to approximately A\$211 per ore tonne mined (equivalent to US\$0.83/lb copper).

Talisman will also contribute its 30% share of costs associated with mining and hauling Monty ore under the terms of the Mining Joint Venture Agreement.



A schematic summary of the OSPA and MJVA mechanics is illustrated in Figure 1.

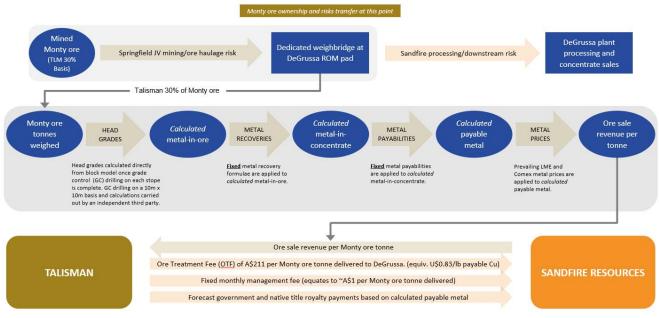


Figure 1: Schematic summary of OSPA and MJVA mechanics

Ore Reserveⁱ

The maiden Ore Reserve estimate for Monty, as at 31 March 2017, totals 0.92Mt at 8.7% copper and 1.4g/t gold. Contained metal stands at 80kt copper and 42koz gold at what is an extremely high copper, and copper-equivalent, grade relative to other copper projects globally. All of the current Ore Reserve estimate is contained in the Probable Ore Reserve category.

Talisman's 30% share of the currently defined Probable Ore Reserve estimate is 24kt copper and 13koz gold, being 0.28Mt at 8.7% copper and 1.4g/t gold.

The Ore Reserve estimate is based on the Indicated Mineral Resourceⁱⁱ estimate for Monty, released on 13 April 2016. The Probable Ore Reserve estimate includes both the defined Upper and Lower Zones of mineralisation at Monty.

Feasibility Study: Operating and financial outputs

Monty is one of the highest grade copper-gold discoveries made globally in recent decades, which has been a key driver of the highly attractive forecast financial returns outlined in the Feasibility Study. The proximity of the deposit to Sandfire's DeGrussa plant provides an expedited and low risk pathway to production with an extremely low development capital intensity compared to other greenfield copper discoveries globally.

The Feasibility Study details forecast total production of 74.4kt of contained copper (plus 38.4koz contained gold and 413.4koz contained silver) over an initial ore production life of 30 months. This production profile is a function of Monty being scheduled to be mined and processed through the DeGrussa plant at a maximum throughput rate of approximately 0.4Mtpa with a 4.5% Cu cut-off grade, providing the best economic outcome.



Talisman's share of total estimated pre-production capital cost for the development of Monty is A\$22M. This delivers an outstanding and globally attractive pre-production capital intensity of approximately A\$2,500 (approx. US\$2,000) per tonne of annual copper (in concentrate) production capacity.

The key pre-production capital items comprise (on a 100% basis):

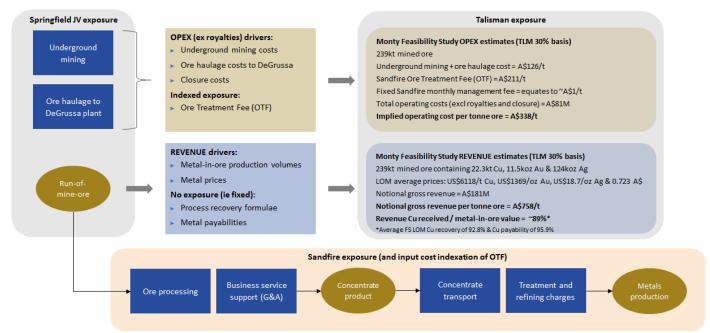
- Surface infrastructure including haul/access roads and drainage, box-cut and owner's team costs (A\$33M).
- Underground mine development including portal and decline establishment (A\$32M).
- Underground mine infrastructure including ventilation shaft and fan (A\$8M).

Talisman's share of forecast life-of-mine sustaining capital is A\$5.5M.

The estimated notional C1 Operating cash cost (excl. royalties) of production for Monty is an impressive A1.56/lb of payable copper (US1.13/lb). The notional All-in Sustaining Cost (**AISC**) is A1.90/lb of payable copper (US1.37/lb).³

With these strong expected margins, Monty is forecast to yield more than A\$64M in forecast ungeared pre-tax free cash flow to Talisman, inclusive of all capital expenditure. This delivers a pre-tax Net Present Value (**NPV**) of A\$46M at a real 8% discount rate. The forecast pre-tax internal rate of return (**IRR**) is 78%.

Talisman's underlying operating and economic interest in Monty is illustrated below in Figure 2.





³ C1 and AISC are calculated on the basis of notionally including the OSPA Ore Treatment Fee as a production cost. AISC is defined as the operating cash cost of production (net of by-product credits) plus royalties and sustaining capital and closure costs but exclusive of any finance costs or corporate overhead allocation.



Development timeline and funding

These robust Feasibility Study outcomes, coupled with the OSPA and Joint Venture Agreements executed with Sandfire, have resulted in Talisman's Board of Directors giving approval to proceed with the development of the Monty deposit.

The Talisman Board has approved A\$0.6M of initial project development expenditure, representing its 30% share of detailed engineering design, preliminary site activities and long lead item orders. At 31 March 2017, Talisman had A\$13.8 M cash which provides ample liquidity to undertake these early project works and maintain current exploration expenditure levels.

While the ultimate funding structure for Monty remains subject to the finalisation of terms, Talisman is seeking to debt fund up to 100% of its A\$22M share of Monty pre-production capital costs.

Following a competitive process, Talisman is in final discussions with a short list of potential financiers to provide project funding debt facilities. These facilities are expected to be in place by the end of the June quarter 2017. Talisman is seeking to put these debt facilities in place without a mandatory requirement for price hedging of future production volumes from Monty.

Exploration

While considerable resources have been focused on the completion of the Feasibility Study for Monty, on-ground exploration has continued within the wider Springfield Joint Venture project area throughout the March quarter. This on-ground exploration has included air-core, reverse circulation (RC) and diamond drilling, and is summarised in Table 1. Unfortunately, adverse weather events during the quarter restricted drilling activity. Following the completion of the Feasibility Study Talisman anticipates that exploration activities within the Springfield Joint Venture will now increase throughout the remainder of calendar 2017.

Air-core Drilling

Air-core drilling was focused on completing the first pass 400m x 100m coverage of the 16km long Southern Volcanics VMS corridor (Figure 3). This work, which is aimed at providing initial basement geological and geochemical data to aid in the identification of the potential host sedimentary units within the prospective stratigraphic sequence, has returned a high-grade gold intersection associated with quartz veining in basement dolerite. The intersection in hole **TLAC3143** returned **5m @ 44.8 g/t Au** from 10m down hole. Infill air-core and deeper RC drilling to follow-up on this high-grade intersection is planned for the June quarter. Full details of the hole collar location and intersection are provided in Table 2 and Table 3.



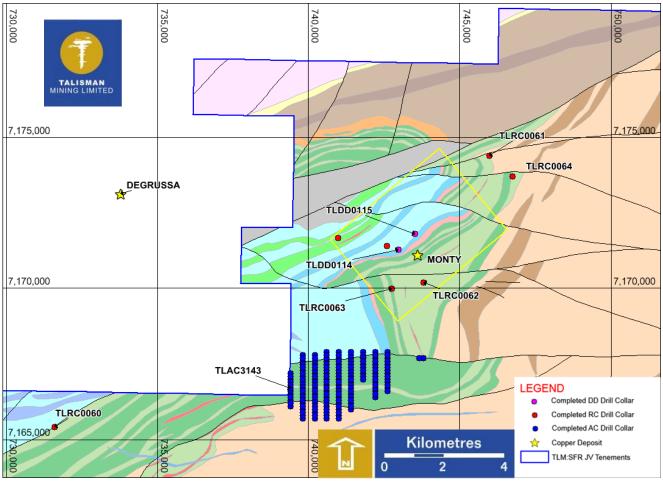


Figure 3: Springfield Cu-Au Project March Quarter drill collar locations

RC Drilling

A total of five RC exploration drill holes (*and two water bores – collars not labelled in Figure 3*), were completed during the quarter. The RC exploration holes were designed to follow-up previously identified geochemical anomalies in air-core drilling on the Southern Volcanics Corridor, Monty South and Monty NE areas. Assay results from this RC drilling did not return any significant intersections. Assay results are listed in Table 3.

Diamond Drilling

Drilling of the first of three deep diamond drill holes aimed at testing the immediate vicinity adjacent and beneath the defined high-grade Monty Cu-Au deposit commenced during the quarter. Pre-collars for the first two holes were drilled during the quarter (TLDD0114 and TLDD0115), with the location of the third collar to be refined once drilling and DHEM surveys have been completed on the initial hole TLDD0114 (Figure 3 and Figure 4).

TLDD0114 commenced subsequent to the quarter and is targeted to drill to a depth of approximately 1,400 metres. Full details of the diamond drill holes are provided in Table 1 and Table 2.



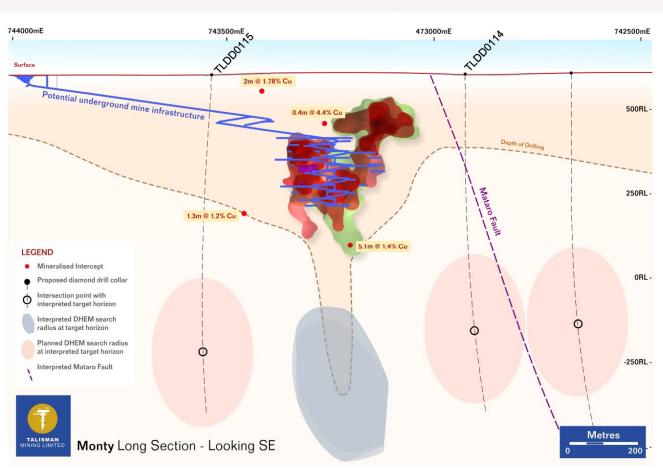


Figure 4: Monty deposit projected long section with locations of the current and proposed deep diamond DHEM platform holes

June 2017 Quarter Exploration

The Springfield Joint Venture partners have approved a \$2.2m (100% basis) exploration budget for the 2017 June quarter. Works in this budget include:

- infill air-core drilling targeting geochemical anomalies (like the recent gold intersection in TLAC3143) and a number of other discrete anomalies identified in previous air-core drilling;
- an allowance for follow-up deeper RC drilling of these air-core anomalies; and
- the continuation of the three deep diamond drill holes which are aimed at providing DHEM platforms in the untested immediate vicinity around the high-grade Monty Cu-Au deposit.

In addition to the on-ground drilling activity detailed above, an in-house review of all surface and downhole geophysical data from the Springfield Cu-Au Project has been completed. Additional Induced Polarisation ("IP") geophysical data will be collected over the Monty Cu-Au deposit, along with an initial IP survey of the Monty NE copper anomaly, which has been subject to previous infill air-core and some isolated RC drilling. This surface geophysical survey is included in the approved June quarter budget.



Sinclair Nickel Project Exploration

Talisman has now completed a project wide targeting review identifying a number of prospective exploration targets that warrant further work. Detailed lithogeochemical assessment of the main ultramafic host units across the project has highlighted areas that have undergone very little previous exploration. These areas are interpreted to represent highly favourable environments for the accumulation of massive nickel sulphides.

Field reconnaissance and geological mapping is schedule to commence in early May, targeting the Fly Bore, Pink Well and Mt Clifford prospect areas, and will provide the basis for future work.

A program of air-core drilling is anticipated during the June 2017 quarter to provide geological and geochemical information in areas with little to no historic exploration at the Delphi and Schmitz Well South prospects. (Figure 5).

Additional air-core drilling is also anticipated at Stuart Meadows to target a gold-in-regolith anomaly identified from historic RAB drilling. The Stuart Meadows prospect is along strike to the south of the Bannockburn Gold Mine, which produced 312koz of gold during the 1990's.

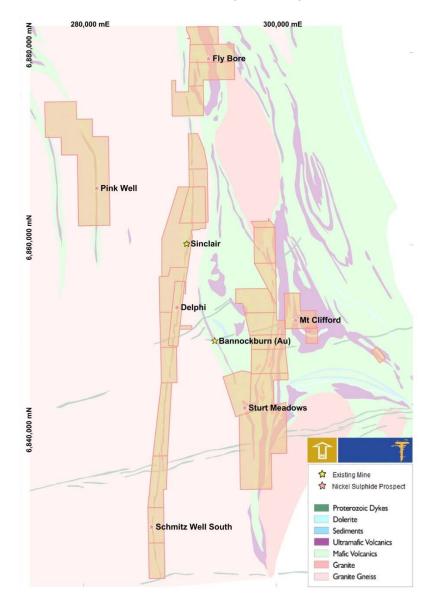


Figure 5: Plan showing Talisman tenement holding at the Sinclair Nickel Project and selected prospects



ENDS

For further information, please contact: Dan Madden – Managing Director on +61 8 9380 4230 For media inquiries, please contact: Michael Vaughan – Fivemark Partners on +61 422 602 720

About Talisman Mining:

Talisman Mining Limited (ASX:TLM) is an Australian mineral development and exploration company. The Company's aim is to maximise shareholder value through exploration, discovery and development of complementary opportunities in base and precious metals.

Talisman holds a 30% interest in the Springfield Joint Venture (Springfield) with Sandfire Resources NL (70% and JV manager). Springfield is located in a proven VMS province in Western Australia's Bryah Basin and contains multiple prospective corridors and active exploration activities. Springfield hosts the high-grade Monty Copper-Gold deposit (Monty) which is located 10 kilometres from Sandfire's DeGrussa operations. Monty is one of the highest-grade copper-gold discoveries made globally in recent decades and a Feasibility Study on its development was completed in March 2017. The Feasibility Study highlighted the strong technical and financial viability of Monty.

Talisman also holds 100% of the Sinclair Nickel Project (Sinclair) located in the world-class Agnew-Wiluna greenstone belt in WA's northeastern Goldfields. The Sinclair nickel deposit, developed and commissioned in 2008 and operated successfully before being placed on care and maintenance in August 2013, produced approximately 38,500 tonnes of nickel at an average life-of-mine head grade of 2.44% nickel. Sinclair has extensive infrastructure and includes a substantial 290km² tenement package covering more than 80km of strike in prospective ultramafic contact within a 35km radius of existing processing plant and infrastructure.

Forward-Looking Statements

This ASX release may include forward-looking statements. These forward-looking statements are not historical facts but rather are based on Talisman Mining Ltd.'s current expectations, estimates and assumptions about the industry in which Talisman Mining Ltd operates, and beliefs and assumptions regarding Talisman Mining Ltd.'s future performance. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates", "potential" and similar expressions are intended to identify forward-looking statements. Forward-looking statements are only predictions and are not guaranteed, and they are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of Talisman Mining Ltd. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Actual values, results or events may be materially different to those expressed or implied in this presentation. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Talisman Mining Ltd does not undertake any obligation to update or revise any information or any of the forward-looking statements in this announcement is based.

No new information relating to the Sinclair Nickel Project (Sinclair) that is considered material is included in this document. All information relating to Sinclair exploration results have been previously released to the market and are appropriately referenced in this document. As a result, JORC tables related to Sinclair are not considered necessary to accompany this document.



Competent Person's Statements

Information in this ASX release that relates to Exploration Results and Exploration Targets is based on information completed by Mr Anthony Greenaway, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Greenaway is a full-time employee of Talisman Mining Ltd and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves". Mr Greenaway consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

¹ Subject to the below, information in this ASX release that relates to Ore Reserves is based on, and fairly represents, information and supporting documentation prepared by Mr Neil Hastings, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Hastings is a full-time employee of Sandfire Resources NL and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves". Mr Hastings consents to the inclusion in this ASX release of the Ore Reserves and the supporting information, and the matters based on that information, in the form and context in which it appears.

Information in this ASX release that relates to the relevant part of the Ore Reserves and which also specifically relates to Talisman Mining Limited (being its 30% share of the Monty Ore Reserve and the financial impact on Talisman resulting from the application of the MJVA and OSPA agreements) is based on, and fairly represents, information and supporting documentation prepared by Mr Benjamin Wilson, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Wilson is a full-time employee of Talisman Mining Ltd and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Mineral Resources and Ore Reserves". Mr Wilson consents to the inclusion in this ASX release of the matters based on that information in the form and context in which it appears.

ⁱⁱ Information in this ASX release that relates to the Monty JORC Mineral Resource estimate is information previously published by Sandfire Resources NL ("Sandfire") and is available on the Sandfire and ASX websites (see announcement "Maiden High-Grade Mineral Resource for Monty VMS Deposit: 99,000t of Copper and 55,000oz of Gold", dated 13 April 2016 (Sandfire Announcement)). For full details of the Monty Resource estimate, including the Competent Person's Statement related to the estimation of the Monty Mineral Resource, please refer to the Sandfire Announcement.

Talisman confirms that it is not aware of any new information or data that materially affects the information included in the Sandfire Announcement, and that all material assumptions and technical parameters underpinning the estimates in the Sandfire Announcement continue to apply and have not materially changed and confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original Sandfire Announcement.

Table 1 – Budget Vs Actual drilling details for quarter ending 31 March 2017, Springfield Cu-Au Project

| | Janu | lary | Febr | uary | Ma | rch | | Total | |
|-------------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|----------------|
| | Budget metres | Actual metres | % Completed |
| Diamond Drilling | - | - | - | - | 1,900 | -* | 1,900 | - | 0%* |
| RC Drilling | 1,600 | 594 | 2,200 | 1,831 | - | - | 3,800 | 2,425 | 64% |
| Air-core Drilling | 12,460 | 3,339 | 9,400 | 6,073 | - | 3,194 | 21,860 | 12,606 | 58% |
| Total: | 14,060 | 3,933 | 11,600 | 7,904 | 1,900 | 3,194* | 27,560 | 15,031 | 54% |

*Note: diamond metres completed in hole TLDD0114 are not listed as the hole is still "in progress"

Table 2 – Drill-hole Information Summary, Springfield Cu-Au Project

Details and co-ordinates of drill-hole collars for air-core, RC and diamond drilling completed during the March 2017 quarter:

| Hole ID | Grid ID | Din | Azimuth | East | North | RL | Hole | Мах | Hole Status |
|----------|----------|------------------|------------------|---------|-----------|-----|--------|-------|-------------|
| Hole ID | GhàiD | Dip | Azimum | (m) | (m) | (m) | Туре | Depth | |
| TLDD0114 | MGA94_50 | -62 ⁰ | 141 ⁰ | 742,974 | 7,171,278 | 593 | RC/DDH | 220 | In Progress |
| TLDD0115 | MGA94_50 | -59 ⁰ | 135 ⁰ | 743,511 | 7,171,810 | 593 | RC/DDH | 124 | Pre-collar |
| TLRC0060 | MGA94_50 | -60 ⁰ | 175 ⁰ | 731,599 | 7,165,427 | 573 | RC | 316 | Complete |
| TLRC0061 | MGA94_50 | -63 ⁰ | 299 ⁰ | 745,972 | 7,174,394 | 609 | RC | 448 | Complete |
| TLRC0062 | MGA94_50 | -62 ⁰ | 86 ⁰ | 743,806 | 7,170,201 | 600 | RC | 420 | Complete |
| TLRC0063 | MGA94_50 | -62 ⁰ | 85 ⁰ | 742,745 | 7,170,000 | 596 | RC | 448 | Complete |
| TLRC0064 | MGA94_50 | -62 ⁰ | 85 ⁰ | 746,738 | 7,173,700 | 610 | RC | 448 | Complete |
| TLWB009 | MGA94_50 | -90 ⁰ | 00 | 742,590 | 7,171,408 | 593 | WB | 122 | Water bore |
| TLWB010 | MGA94_50 | -90 ⁰ | 00 | 740,972 | 7,171,699 | 583 | WB | 120 | Water bore |
| TLAC3143 | MGA94_50 | -60 ⁰ | 180 ⁰ | 739,400 | 7,166,700 | 607 | AC | 70 | Complete |

Table 3: Drill-hole Assay Intersections for the Springfield Cu-Au Project

Details of relevant intersections received by Talisman during the March 2017 quarter at the Springfield Cu-Au Project are provided below.

Calculation of RC intersections for inclusion into this table are based on a 0.5% Cu cut-off, no more than 3m of internal dilution and a minimum composite grade of 1%Cu. Intersection length, Cu (%), Au (ppm), Ag (ppm) and Zn (%) are rounded to 1 decimal point.

| Hole ID | Depth From | Depth To | Interval | Cu | Au | Zn | |
|----------|---------------------------|-------------|----------|--------|-------|--------|--|
| | (m) | (m) | (m) | (%) | (ppm) | (%) | |
| TLDD0114 | In Progress | | | | | | |
| TLDD0115 | Pre-collar only | | | | | | |
| TLRC0060 | No significant Intercepts | | | | | | |
| TLRC0061 | No Significant Intercepts | | | | | | |
| TLRC0062 | No Significant Intercepts | | | | | | |
| TLRC0064 | No Significant Intercepts | | | | | | |
| TLAC3143 | 10 | 15 | 5 | 0.0004 | 44.8 | 0.0004 | |



Appendix 1: Talisman's Tenement Holding

| Project / Tenement | Location and Blocks (Area) | Interest at Beginning Quarter | Interest at End Quarter | Acquired during Quarter | Surrendered during Quarter | Joint Venture Partner / Farm-In Party |
|-----------------------|-------------------------------------|-------------------------------------|----------------------------|-------------------------------|----------------------------------|---|
| HALLOWEEN WEST | W Australia | | | | | JV - Sandfire Resources NL |
| E52/2275 | 6 | 18.8% | 18.8% | - | - | |
| HALLOWEEN | W Australia | | | | | JV - Sandfire |
| P52/1528 | (200 HA) | 18.8% | 18.8% | - | | Resources NL |
| SPRINGFIELD | W Australia | | | | | |
| E52/2282 | 42 | 30% | 30% | - | - | |
| E52/2313 | 8 | 30% | 30% | - | - | |
| E52/2466 | 14 | 30% | 30% | - | - | |
| E52/3423 | 1 | 0% | 30% | - | - | JV - Sandfire |
| E52/3424 | 1 | 0% | 30% | - | - | Resources NL |
| E52/3425 | 6 | 0% | 30% | - | - | |
| E52/3466 | 12 | 0% | 30% | - | - | |
| E52/3467 | 20 | 0% | 30% | - | - | |
| L52/170 | (246.4HA) | 0% | 30% | - | - | |
| M52/1071 | (1,642HA) | 0% | 30% | - | - | |
| E51/1767 | 14 | 0% | 0% | Application | - | N/A |

| Project / Tenement | Location and Blocks (Area) | Interest at Beginning of Quarter | Interest at End of Quarter | Acquired during Quarter | Surrendered during Quarter | Joint Venture Partner / Farm-In Party |
|-------------------------------|-------------------------------------|--|----------------------------------|-------------------------------|----------------------------------|---|
| SINCLAIR NICKEL PROJECT | W.Australia | | | | | |
| E36/650 | 16 | 100% | 100% | - | - | |
| E37/903 | 13 | 100% | 100% | - | - | |
| E37/1231 | 3 | 100% | 100% | - | | |
| L36/198 | (103.1 HA) | 100% | 100% | - | - | |
| L37/175 | (83.9 HA) | 100% | 100% | - | - | |
| M36/444 | (568.0 HA) | 100% | 100% | - | - | |
| M36/445 | (973.0 HA) | 100% | 100% | - | - | |
| M36/446 | (843.0 HA) | 100% | 100% | - | - | |
| M37/362 | (981.5 HA) | 100% | 100% | - | - | |
| M37/383 | (841.7 HA) | 100% | 100% | - | - | |
| M37/384 | (536.7 HA) | 100% | 100% | - | - | N/A |
| M37/385 | (926.8 HA) | 100% | 100% | - | - | IN/A |
| M37/386 | (983.8 HA) | 100% | 100% | - | - | |
| M37/424 | (891.0 HA) | 100% | 100% | - | - | |
| M37/426 | (505.0 HA) | 100% | 100% | - | - | |
| M37/427 | (821.0 HA) | 100% | 100% | - | - | |
| M37/590 | (120.0 HA) | 100% | 100% | - | - | |
| M37/692 | (136.1 HA) | 100% | 100% | - | - | |
| M37/735 | (959.0 HA) | 100% | 100% | - | - | |
| M37/816 | (818.4 HA) | 100% | 100% | - | - | 1 |
| M37/818 | (806.5 HA) | 100% | 100% | - | - | |
| M37/819 | (380.2 HA) | 100% | 100% | - | - | |
| M37/1063 | (604.0 HA) | 100% | 100% | - | - | |
| M37/1089 | (574 HA) | 100% | 100% | - | - | |



| Project / Tenement | Location and Blocks (Area) | Interest at Beginning of Quarter | Interest at End of Quarter | Acquired during Quarter | Surrendered during Quarter | Joint Venture Partner / Farm-In Party | |
|-----------------------|-------------------------------------|--|----------------------------------|-------------------------------|----------------------------------|---|--|
| M37/1090 | (478 HA) | 100% | 100% | - | - | | |
| M37/1126 | (603 HA) | 100% | 100% | - | - | | |
| M37/1127 | (603 HA) | 100% | 100% | - | - | | |
| M37/1136 | (986 HA) | 100% | 100% | - | - | | |
| M37/1137 | (850 HA) | 100% | 100% | - | - | | |
| M37/1148 | (44.78 HA) | 100% | 100% | - | - | | |
| M37/1168 | (190 HA) | 100% | 100% | - | - | | |
| M37/1223 | (675 HA) | 100% | 100% | - | - | | |
| M37/1275 | (1,961 HA) | 100% | 100% | - | - | | |
| P37/7228 | (61.57 HA) | 100% | 100% | - | - | | |
| P37/7233 | (116.01 HA) | 100% | 100% | - | - | | |
| OTHER | NSW | | | | | NI/A | |
| ELA5456 | (273km ²) | 0% | 0% | Application | - | N/A | |



Appendix 2: JORC Tables Sections 1, 2 & 4

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

| 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 3kg was pulverised to produce a 30g 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 techniques employed by Sandfire on the Doolgunna Project include half core sampling of NQ2 Diamond Drill (DD) core, Reverse Circulation (RC) drilling samples collected by a cone splitter for single metre samples or sampling spear for composite samples, and air-core (AC) sample collected using spear techniques for both composite and single metre samples. Sampling is guided by Sandfire DeGrussa protocols and QAQC procedures as per industry standard. RC and AC sample size reduction is completed through a Boyd crusher to -4mm and pulverised via LM5 to nominal -75µm. Pulp size checks are completed. Diamond core size reduction is through a Jaques jaw crusher to -10mm and all samples Boyd crushed to - 4mm and pulverised via LM5 to nominal 90% passing - 75µm 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, openhole 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.). | Sandfire drilling is completed using industry standard practices. RC drilling is completed with a face sampling hammer of nominal 140mm size, AC drilling is with a blade bit and diamond drilling is completed using NQ2 size coring equipment. All drill collars are surveyed using RTK GPS. All core, where possible is oriented using a Reflex ACT II RD orientation tool. Downhole surveying is undertaken using a gyroscopic survey instrument. |
| 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. | Sandfire core is metre 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 98%. 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 a central secured database. No indication of sample bias with respect to recovery has been established. |
| 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. | Sandfire geological logging is completed for all holes and is representative across the ore body. The lithology, alteration, and structural characteristics of drill samples 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[™]. |



| Criteria | JORC Code explanation | Commentary |
|---|---|--|
| | The total length and percentage of the relevant intersections logged. | Logging is both qualitative and quantitative depending on field being logged. All drill-holes are logged in full. 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. | Sandfire DD Core orientation is completed where possible and core is 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. Additional 1m sampling may be completed depending on the results from the 5m composites samples. All samples are 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. Pulverising is completed using LM5 mill to 90% passing 75µm. RC and AC samples are Boyd crushed to -4mm and pulverised using LM5 mill to 90% passing 75 µm. Sample splits are weighed at a frequency of 1:20 and entered into the job results file. 1:20 grind quality checks are completed for 90% passing 75µm criteria using wet sieving technique to ensure representativeness of sub-samples. Sampling is carried out in accordance with Sandfire protocols as per industry best practice. The sample size is appropriate for the VHMS and Gold mineralisation styles. |
| | 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. | Sandfire 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 the samples. No geophysical tools are used in the analysis. Sandfire DeGrussa QAQC protocol is considered industry standard with standard reference material (SRM) submitted on regular basis with routine samples. |



| Criteria | JORC Code explanation | Commentary | | | |
|--|--|---|--|--|--|
| | | SRMs and blanks are inserted at a minimum of 5% frequency rate. | | | |
| 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 alternate Talisman personnel. Sandfire primary data is 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. All surface drilling is accurately located using RTK-GPS. For the Springfield project MGA94 Zone 50 grid coordinate system is used. Topography control was established from aerial photography using series of survey control points. | | | |
| 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. | Infill drilling at Monty is based on a nominal 30m x 40m grid. Resource definition drill spacing and distribution of exploration results is sufficient to support Mineral Resource Estimation procedures. Refer ASX: SFR 13/04/2016 Maiden High Grade Mineral Resource for Monty VMS Deposit Exploration drill spacing outside of the Monty Mineral Resource is not sufficient to estimate Mineral Resources. No sample compositing has been applied to the exploration results. | | | |
| 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. | At Springfield, no significant orientation based sampling bias is known at this time. The drill holes may not necessarily be perpendicular to the orientation of the intersected mineralisation. | | | |
| 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. | | | |



Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

| 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. | Sandfire Resources NL and Talisman Mining Limited have formed a Joint Venture which covers Talisman's Doolgunna Project tenements (E52/282, E52/2313, E52/2466, E52/3423, E52/3424, E52/3425, E52/3466, E52/3467, E52/2275, P52/1528, L52/170 and M52/1071). Sandfire and Talisman hold a 70%:30% interest respectively in the Joint Venture, with the exception of tenement E52/2275 and P52/1528 where interests of approximately 81%:19% respectively are held. Both parties are contributing proportionately to expenditure. Sandfire Resources NL has been appointed as the Joint Venture Manager. All tenements are current and in good standing. The Talisman tenements are currently subject to a Native Title Claim by the Yugunga-Nya People (WAD6132/98). Sandfire currently has a Land Access Agreement in place with the Yungunga-Nya Native Title Claimants and have assumed management of Heritage Agreements allow Sandfire to carry out mining and exploration activities on their traditional land. |
| Exploration done by other parties | Acknowledgment and appraisal of exploration by other parties. | • Exploration work at Springfield completed prior to Talisman's tenure included geochemical soil and rock chip sampling combined with geological mapping. Some targeted RC drilling was completed over gold and diamond targets. |
| Geology | Deposit type, geological setting and style of mineralisation. | The Doolgunna 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 at the Doolgunna Projects are Volcanogenic Massive Sulphide (VMS) deposits located with the Proterozoic Bryah Basin of Western Australia. |
| 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: easting and northing of the drill-hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill-hole collar dip and azimuth of the hole down hole length and interception depth 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. | No new drill hole information is provided in this report |



| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| 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 intersections reported from the Springfield Project are based on greater than 0.5% Cu 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. Minimum and maximum DD sample intervals used for intersection calculation are 0.3m and 1.2m respectively. RC reported intersections are based on regular 1m sample intervals. 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 purpose of calculating the intersection. The maximum interval of missing core which can be incorporated with the reported intersection is 1m. |
| 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'). | Drill-hole intercepts relating to the Doolgunna Project in this release are reported as both down-hole intersection widths and estimated true width intersections (refer Table 4: Drill hole assay intersections >1% for the Monty Prospect). The geometry of the mineralisation has been interpreted using top of mineralisation surfaces that link mineralised zones, thought to be continuous, between neighbouring drill-holes. Given the variable, and often steeply dipping orientation and drill-holes is not consistent. Downhole intercepts for each drill-hole are converted to estimated true widths using a trigonometric function that utilises the dip and dip direction of the intersection point of that drill-hole) as well as the dip and azimuth of the drill-hole at that position. |
| 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 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. Other data collection will be reviewed and reported when considered material. |



| Criteria | JORC Code explanation | Commentary |
|--------------|---|---|
| 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. | Planned exploration across the Springfield Joint Venture Project area includes both surface and down- hole geophysical techniques and reconnaissance and exploration drilling with Diamond, Reverse Circulation and air-core drilling techniques. |



Section 4 Estimation and Reporting of Ore Reserves (Criteria listed in preceding sections where relevant, also apply to this section.)

| Criteria | JORC Code Explanation | Commentary | y | | |
|---|---|--|---|--|---|
| Mineral Resource estimate for conversion to Ore Reserves | • Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. | Mineral F not conta Mineral F Indicated Mineral F The rema • A vertica | erground Ore Reserve e Resource estimate as at ain a Measured Mineral Resource is available fo Mineral Resource cons Resource estimate tonne ainder is classified as Inf al percentage split of t Mineral Resource by R | the 31 March 2016 Resource therefor or conversion to a stitutes 99% of the s and 98% of the to erred Mineral Reso | b. This estimate does re only the Indicated n Ore Reserve. The e total Monty deposit tal contained copper. uurce. ained copper of the |
| | | Name | RL | Tonnes (%) | Contained Copper (%) |
| 1 | | UZ | >=410mRL | 22 | 11 |
| | | LZ | >=210mRL<410mRL | 72 | 87 |
| | | LZ | <210mRL | 6 | 2 |
| | • Claar statement as to whether | a SFR ASX Annou | In Types Incement, dated 13 April | 2016. | |
| | Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. | Mineral F | Resources reported are i | nclusive of Ore Res | serves. |
| Site visits | • Comment on any site visits undertaken by the Competent Person and the outcome of those visits. | employee | npetent Person for this e of Sandfire Resource es regular site visits. | | |
| | • If no site visits have been undertaken indicate why this is the case. | Site visits | s are undertaken as deso | cribed above. | |



| Criteria | JORC Code Explanation | Commentary | |
|----------------------------------|---|--|--|
| Study status | • The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. | A feasibility study was completed between June 2016 and April 2017. | |
| Cut-off parameters | • The basis of the cut-off grade(s) or quality parameters applied. | • The cut-off parameters used to determine the project Ore Reserves are based on 100% project ownership. JV charges and fees are also considered. Three copper only cut-off grades have been calculated as economic cut-offs in the determination of the Ore Reserves. These are based on study estimated costs, revenues, mill recoveries and modifying factors. The cut-off values are: | |
| | | • Full cost cut-off grade (4.9% Cu) – is based on all operating costs associated with the production of copper metal. | |
| | | Stope incremental cut-off grade (3.2% Cu) - considers material below the full cost cut-off that is accessible, and | |
| | | Development cut-off grade (2.4% Cu) – considers material that has to be mined in the process of gaining access to fully costed economic material. | |
| Mining factors or assumptions | • The method and assumptions used as reported in the Pre- Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). | Ore Reserves have been estimated by generating detailed mining shapes that take account of cut-off grade criteria and geometric complexity for all areas that contain Indicated Mineral Resources. This also includes requirements for access development. Internal stope dilution has been designed into the mining shapes and interrogated. External stope dilution and mining recovery factors have been applied post geological model interrogation to generate final diluted and recovered material that is then reassessed against final Project cut-off grade criteria. | |
| | • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. | • The Monty project is a time constrained project that requires its mining life to align with the processing life of the nearby DeGrussa mine. To minimise extraction risk and provide production capacity and flexibility the Ore Reserve requires to be accessed as early as practical. Development priority is given to accessing the Indicated Massive Sulphide Resource located between 210mRl and 410mRL. | |
| | | • A deep weathering profile in the vicinity of the deposit has impacted on the selection of the location of the portal boxcut and subsequent decline pathway. Boxcut and decline development are located to provide early access to fresh rock in order to minimise orebody access timing risk. | |
| | | • The mining method selected is long-hole open stoping (LHOS) with fill. Primary fill material will be Cemented Aggregate Fill (CAF) with unconsolidated rock fill (RF) used where consolidated fill is not required. This method allows for total extraction where economic and provides good extraction flexibility with variable geometry and ground conditions. | |
| | | An overhand mining sequence has been selected employing multiple mining panels. CAF sill pillars will be established to create mining panels. Strategic CAF rib pillars will be used to manage local stope and mining panel ground stability. | |
| | | • The overhand sequence provides an opportunity to complete grade control drilling prior to accessing the orebody. | |
| | | • The selected mining method is considered appropriate for the nature of the defined Mineral Resources and surrounding host rock. Experienced gained at the nearby DeGrussa underground mine has been adopted where applicable as extraction is expected to occur under comparable conditions. | |



| Criteria | JORC Code Explanation | Commentary | |
|----------|---|---|--|
| | • The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling. | Both the boxcut and near surface decline locations have been assessed via specific diamond drilling programs and subsequent geotechnical assessment. A 40m long primary surface ventilation raise is planned to be established in close proximity to the planned decline pathway. Geotechnical parameters for this raise have been derived from the nearby boxcut and decline geotechnical assessments. | |
| | | No <i>in situ</i> stress measurements have been undertaken. The stress field has been estimated to be low to moderate, supported by the measured stress field at DeGrussa, which is located approximately 10 km west of the Monty Project. | |
| | | • Stope and development geotechnical parameters have been derived from core logging of dedicated geotechnical and metallurgical diamond drillholes, resource diamond drill holes, rock strength testing data and a structural model. | |
| | | Stope stability (size) has been assessed using the industry accepted empirical stability chart method. This method is suitable to provide indicative stope stability assessments but reliable stability forecasts require local scale rock mass information. The method has known published limitations but is considered appropriate for this mine design in the manner in which it has been applied. | |
| | | • Stope size in the UZ is constrained because of the influence of rock fracturing and oxidation associated with the Arneis Fault. This fault runs sub-parallel to and in and out of the UZ mineralisation. The level of confidence in stope performance in this zone is considered low. | |
| | | Rock mass conditions in the LZ are considered to be fair to very good with mineralisation geometric complexity a primary influence on stope size. | |
| | | Grade control drilling requirements have been determined via the use of conditional simulation techniques. A drill hole spacing grid of 10m x 10m has been assumed. | |
| | The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). | • The Monty deposit Mineral Resources as at the 31 March 2016 was used as the basis for stope and development design. No modifications were made to this model for mine design and stope optimisation purposes. | |
| | • The mining dilution factors used. | Internal stope dilution tonnage (waste material contained within the designed stope shape) has been captured via the stope design process and is variable dependent on the geometry of the mineralisation to be extracted. The geometry of the Monty deposit varies both on strike and dip with multiple lodes present. Internal stope dilution tonnage therefore varies and ranges from 0% to 90% with an average of 17%. Internal stope dilution is at zero grade. | |
| | | An external dilution factor (external to the stope shape) is also applied to stopes to account for blasting practices and expected local ground conditions. The UZ is impacted by the Arneis Fault that runs sub-parallel to and in and out of the mineralisation therefore a larger factor has been used compared to the LZ where ground conditions are better and are not impacted by a significant structure. The LZ uses a 3% external dilution tonnage factor at zero grade. The UZ uses a 33% external dilution tonnage factor at an average grade of the Halo Mineral Resource that envelops the massive sulphide. | |
| | • The mining recovery factors used. | • A mining recovery factor of 95% is applied to all diluted stopes. | |



| Criteria | JORC Code Explanation | Commentary | |
|----------|--|--|--|
| | • Any minimum mining widths used. | • A minimum mining width of 3.0m has been used which takes account of the selected equipment fleet, productivity requirements and the nature of the mineralisation. | |
| | • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. | • No Inferred Mineral Resources are included in the Ore Reserves. The Monty deposit contains an Inferred Mineral Resource that constitutes less than 1% of the total mineral resource tonnage. Its inclusion in the LOM plan and subsequent impact on economic viability is negligible. | |
| | The infrastructure requirements of the selected mining methods. | The selected mining method requires the following infrastructure: Orebody access, including boxcut, and egress development drives and raises Orebody intake and return air ventilation development drives and raises Surface primary ventilation exhaust fans Underground service water and compressed air supply and dewatering system Underground communications system Underground power reticulation Crushing and screening facilities and a surface batch plant for shotcrete and CAF backfill supply Surface explosive storage | |



| Criteria | JORC Code Explanation | Commentary |
|--|---|---|
| Metallurgical factors or assumptions | The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? | The Ore Reserve estimate is based on an operating 1.6 Mtpa concentrator plant producing a 24.5% copper-concentrate that contains gold and silver. The ore from Monty will be treated subject to the terms of an Ore Sale and Purchase Agreement. The Monty orebody is a volcanogenic massive sulphide similar in composition to the nearby DeGrussa orebodies. The DeGrussa plant will operate at 1.6 Mtpa and Monty will comprise up to 25% of the ore presented to the plant. The level of testwork is considered adequate as a result of adopting a processing blend strategy and using the existing DeGrussa concentrator plant flowsheet. The testwork completed focused on: Understanding the comminution properties and how these properties affect the DeGrussa milling circuit achieving 1.6Mtpa at a primary grind of 45µm Performing flotation variability testing using the DeGrussa geometallurgical flowsheet to assess the robustness of this flowsheet on natural variations within the Monty ore Investigate the resultant concentrate specifications in order to determine the quality of the concentrate. Flotation testwork included SMC, Bond Ball Work Index and abrasion testing. Seven large diameter PQ diamond drill holes were drilled to provide the samples. These holes were drilled twinning" some of the geological significant areas determined from geotechnical drilling. In particular, in relation to known structural controls, grade ranges, mineralogy and waste characteristics. Testwork on the Monty ore has shown that flotation and comminution characteristics of the ores are similar to DeGrussa ore and Monty can be treated at DeGrussa with high recoveries. Cumminution testwork with mercury, selenium and tellurium in concentrate have been reported from some of the bornite zone composites. Blending of rem this zone requires a lower percentage (<10%) to manage the ris |
| Environmental | The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where | Monty will require a number of environmental approvals, including Mining Proposal (Mining Act), Works Approval and Environmental Licence (EP Act), Native Vegetation Clearing Permit (EP Act), Groundwater Licence (DoW Licence to Take Water). No separate Commonwealth environmental assessment will be required, nor will the project require assessment by the Office of the Environmental Protection Authority (WA). |
| applicable, the status of approvals for process residue storage and waste dumps should be reported. | All the necessary studies required to complete the various applications have been completed and reported. Other reports completed include the Mine Closure Plan. | |



| Criteria | JORC Code Explanation | Commentary | |
|----------------|---|---|--|
| Infrastructure | The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed. | Monty will utilise existing infrastructure and services installed to support mining operations at DeGrussa. The main items includes: Access road from the Great Northern Highway Raw water system and borefield Accommodation village Aerodrome Assay laboratory Core farm External communication connections Underground heavy mobile equipment workshop Mine workers change room facilities DeGrussa ROM pad Infrastructure requirements specific to Monty include: A 14km access road to Monty that will connect the Monty mine to the DeGrussa ROM pad Site earthworks including laydown areas, PAF waste rock storage, ore stockpile, diversion drains and bunds, water storage and event ponds Mining offices, muster/crib room, toilets and first aid treatment; Fuel storage and dispensing; Service facilities for underground mining equipment; Power generators and power distribution; Waste water treatment plant with spray fields; Communications tower; Crushing facilities, batchplant and CAF mixing. | |
| Costs | The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. | Capital and operating costs have been derived from first principles. Quantity information was derived from detailed design and factored from similar works. Cost information primarily supplied from: Existing DeGrussa contractors, and DeGrussa historical costs Monty ore will be subject to an ore treatment fee, as part of an Ore Sale and Purchase Agreement. The fee structure is outlined in the body of the announcement as agreed between Sandfire Resources NL (SFR) and Talisman Mining Ltd (TLM). No allowances have been made for deleterious elements. Exchange rates are based on ANZ bank December 2016 forecasts and vary over the life of the mine. The average weighted LOM AU\$:US\$ exchange rate is 0.72. Land freight and port charges are based on existing contracts. Sea freight charges based on Braemar indices. TC / RC based on benchmark. Monty is subject to Government Royalties. Rates for Government Royalties are: Copper is 5.0% of net revenue Gold is 2.5% of net revenue Silver is 2.5% of net revenue | |



| Criteria | JORC Code Explanation | Commentary | |
|----------------------|---|--|--|
| Revenue factors | The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. | Commodity prices are based on the ANZ bank December 2016 forecast and vary over the life of the mine. Average weighted LOM values are: Copper price: 6126 US\$/t Gold: 1366 US\$/oz Silver: 18.72 US\$/oz | |
| Market assessment | The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. | Monty ore will be sold to SFR to be processed at DeGrussa into a copper concentrate containing gold and silver. SFR is a copper concentrate producer selling into global market for custom concentrates. Pricing is fundamentally on value of contained metals the main metal being copper with gold and small silver credits. SFR produces a clean concentrate, low in deleterious elements. SFR relies upon independent expert publications (CRU, Wood Mac, Metal Bulletin) and other sources (bank reports, trader reports, conferences, other trade publications) in forming a view about future demand and supply and the likely effects of this on both metal prices and concentrate prices. SFR concentrate is sold by competitive tender. | |
| Economic | The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs. | The economic evaluation has been completed on a 100% project ownership basis, including estimated JV charges and fees, and excludes tax considerations. The evaluation has not considered the commercial position of the respective JV parties. Cost inputs as outlined in Costs section with the exclusion of corporate overheads, exploration expenditure, project financing or interest charges and cost escalation. Revenue inputs as outlined in the Revenue factors section. The project is considered to be economically robust. The project is most sensitive to copper price, copper grade and exchange rate. Individual variations in copper price (-20%), average copper grade (-15%) and exchange rate (+10%) all produce positive economic outcomes. | |
| Social | • The status of agreements with key stakeholders and matters leading to social license to operate. | Monty is located wholly within a registered Native Title Claim. An agreement (LAA) exists between the claimants and SFR and the claimants have agreed to amend the existing LAA. | |



| Criteria | JORC Code Explanation | Commentary |
|-------------------|---|---|
| Other | To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. | The owner and proponent of Monty is an Unincorporated Joint Venture between SFR and TLM. SFR holds a 70% interest in the Joint Venture and is the manager while TLM holds the remaining 30%. The Joint Venture is based on three agreements, namely: Exploration JV Agreement (EJVA); Mining JV Agreement (MJVA); and Ore Sale and Purchase Agreement (OSPA). All three agreements have been signed. All areas of the proposed development have been surveyed in accordance with the Aboriginal Heritage Act 1972 (WA) and any areas of significance have been noted and plotted on development plans. The Mining Lease M52/1071 over the Monty Project covers all mining and support infrastructure required before being transported to the DeGrussa for processing. Miscellaneous License L52/170 is for Monty Haul Road and other infrastructure such as pipelines and power lines, as required. Tenement Area Area Holder(s) Application Grant Date Date M52/1071 1,642 16.42 SFR - TLM 13-Jul-16 31-Mar-17 L52/170 246.48 2.46 SFR - TLM 10-Nov-16 17-Feb-17 |
| Classification | The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). | Underground Ore Reserves have been derived from a mine plan that is based on extracting the 31 March 2016 Mineral Resources. Probable Ore Reserves have been derived from Indicated Mineral Resources after consideration of all modifying factors. The Ore Reserve classification appropriately reflects the competent person's view of the deposit. The 31 March 2016 Mineral Resource does not contain any Measured Mineral Resources. Unmodified Massive Sulphide Indicated Mineral Resources comprise 191,000 tonnes at 7.7% Cu for 14,800 tonnes of contained copper. These are generally located at the extremities of the defined orebody where the mineralisation narrows. Underground diamond drilling programs will target these areas during operations. |
| Audits or reviews | • The results of any audits or reviews of Ore Reserve estimates. | The Ore Reserve has been internally reviewed. Modifying factors have been externally peer reviewed by: AMC Consultants Pty Ltd - Mining, geotechnical, geohydrology Battery Limits Pty Ltd - Metallurgical Mintrex Pty Ltd - Surface Infrastructure Integrate Sustainability Pty Ltd - Environment No fatal flaws were identified in the modifying factors by the external peer reviewers. |



| Criteria | JORC Code Explanation | Commentary |
|--|---|---|
| Discussion of relative accuracy / confidence | Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. | The project is considered robust with the Ore Reserve copper grade of 8.6% Cu significantly higher than the full cost cut-off grade of 4.9% Cu. Approximately 19% of the Ore Reserve contained copper tonnes falls between the development incremental cut-off copper grade of 2.4% Cu and the full cost cut-off grade of 4.9% Cu. There has been an appropriate level of consideration given to all modifying factors to support the declaration and classification of Ore Reserves. No statistical or geostatistical procedures were carried out to quantify the accuracy of the Ore Reserve. There is a lower level of confidence associated with the geotechnical parameters adopted to derive the Ore Reserves located in the UZ (>=410mRL) compared to those adopted for the LZ (<410mRL). This area is impacted by rock fracturing and oxidation associated with the Arneis Fault. This fault runs sub-parallel to and in and out of the UZ mineralisation that forms part of the Ore Reserve. This structure will negatively impact on stope performance in this zone. The zone is marginally economic therefore is sensitive to changes in the key economic inputs e.g. copper price, copper grade. The UZ contains approximately 15% of the Ore Reserve tonnes and 8% of the Ore Reserve contained copper. |