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#### **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)

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ASX Media Release - 07 July 2017

# Springfield Exploration Update

# Ongoing work to identify and test Monty fault offset position and selected follow up RC drilling

### **Highlights**

- Springfield Joint Venture exploration budget approved for the threemonth period to the end of September. Work planned includes:
  - RC drilling to test the reinterpreted western extension of Monty horizon fault offset position
  - DHEM surveys of RC holes in fault offset position
  - Third deep diamond drill hole targeting interpreted Monty horizon fault offset position at depth and to provide EM platform for DHEM survey
  - Follow up RC drilling at Monty North East and at geochemical anomalies
  - Assessment and review of recently identified exploration opportunities and interpretations including Monty North East, Monty East and Homer South Trend
  - Assessment of results of the recent Induced Polarisation (IP) geophysical survey over the Monty deposit and Monty North East anomaly
- Work completed under Springfield Joint Venture exploration budget for the three-month period to the end of June included:
  - Two of three planned deep diamond drill holes to test within the immediate vicinity of the known Monty deposit
  - DHEM surveys of deep diamond drill holes and RC drill holes
  - Limited targeted RC drilling within the Monty region testing lithogeochemical air-core anomalies
  - Infill air-core drilling in areas identified from earlier first pass air-core drilling
  - Collection of IP survey data over Monty and Monty North East

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Talisman Mining Limited (ASX: **TLM**, "**Talisman**") advises that the Springfield Joint Venture ("**Springfield**") (Talisman 30% and Sandfire Resources NL 70% (ASX: **SFR**, "**Sandfire**")), has approved a \$1 million budget (100% basis) for the quarter ending September 2017 with work now underway. This budget is separate to expenditure on the ongoing development of the Monty Copper-Gold Mine ("**Monty**").

The current three month exploration budget focuses predominantly on developing and testing the current interpreted fault offset of the interpreted Monty horizon to the west of the Monty deposit. Work will include two reverse circulation (RC) holes to test the interpreted fault offset position and a subsequent deep diamond hole to test the newly reinterpreted host position. A downhole electromagnetic (DHEM) survey will be undertaken to test for potential mineralised zones in close proximity to the Monty deposit.

This work continues from the previous budget period where two deep diamond holes were drilled to test within the immediate vicinity below the defined Monty resource. Whilst no visual sulphide mineralisation was encountered in these two holes, the geological observations confirmed the host position to the east of the Mataro Fault. Subsequent review has led to the re-interpretation of the position of the host sedimentary unit to the west of the Mataro Fault where the Monty mineralisation is interpreted to have been truncated and off-set.

Joint Venture exploration efforts also continue outside of the known Monty deposit with further air-core and RC drilling planned to follow-up on previously identified geochemical anomalies at both Monty North East and Monty South.

Consistent with this strategy, a key aspect of the forthcoming budget is technical assessment and review by the Joint Venture Manger of recent interpretations by Talisman of new potential prospective positions within the Springfield project. These recent interpretations are based on Talisman's assessment of geological, geochemical and geophysical data collected both recently by the Joint Venture and previously by Talisman prior to the discovery of the Monty deposit and the formation of the Joint Venture with Sandfire.

The discovery of Monty, when combined with Sandfire's DeGrussa complex of deposits, provides genuine proof of concept for the potential of the Doolgunna region to host multiple deposits or clusters of high-grade and high value VMS deposits.

With an estimated resource grade of 9.4% copper combined with spectacular bornite mineralisation not seen at DeGrussa, Monty represents a separate mineralising event within the Doolgunna region. This is interpreted to be at a different stratigraphic level within the same prospective volcanic and sedimentary rock sequence. It further demonstrates the diversity of the ore forming systems in these exceptionally high value and prospective mining districts and the prospectivity of the Springfield ground.

While the variation in grade, deposit size and the ore forming minerals of these deposits adds exploration upside to the region, it also adds exploration complexity, as a technique targeting one deposit style may not be the most appropriate for finding another.

The vast majority of the prospective corridors within Springfield have only been subject to air-core drill coverage and limited, isolated RC drill holes. Talisman believes that there remains much work to be undertaken to understand the deposits and basin scale geology and structure in the Doolgunna region. Importantly, the interpreted basement geology, and positions of the prospective sedimentary units are constantly being updated with the addition of new drilling data obtained by the Joint Venture.

This work is crucial to unlocking the location of potential new lenses and fault displaced extensions to known mineralisation; uncovering new stand-alone deposits within the identified prospective host horizons; as well as identifying new host stratigraphic positions within the wider basin package.



#### Springfield Exploration during Budget Period 1 April to 30 June 2017

Work completed at the Springfield project over the three-month budget period ending 30 June 2017 included 10,595 metres of air-core, 1,278 metres of RC and 1,910 metres of diamond drilling as depicted in Figure 1.

In addition to the recent drilling activities, on-ground exploration was also focused on the completion of a detailed ground-based Induced Polarisation (IP) orientation survey over the Monty deposit and Monty North East air-core anomaly and DHEM testing of RC and diamond holes.

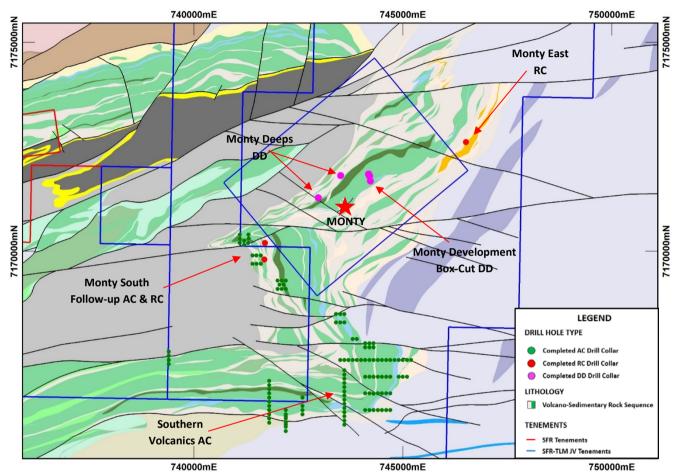


Figure 1: Springfield June 2017 quarter drilling location plan.

#### Monty Deeps Diamond Drilling

Two of the planned three deep diamond EM platform holes (*Figure 1 and Figure 2*) have now been completed by the Joint Venture (TLDD0114 and TLDD0115). The location of the third hold was dependent on the drill results and subsequent DHEM surveys of these first two holes and is discussed below. Talisman has been advised by Sandfire that the holes are interpreted to have intersected sediment units that correlate with the prospective stratigraphy. No visual copper mineralisation was logged in the drill core.

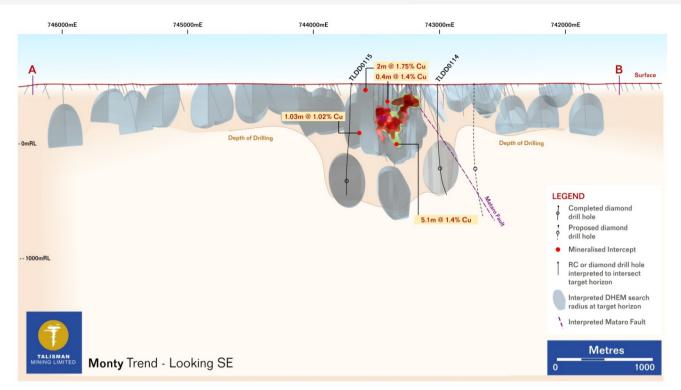


Figure 2: Monty deposit projected long section with completed and proposed diamond hole locations, and interpreted DHEM coverage.

DHEM data collection from both holes has been completed and preliminary advice and discussions with Sandfire has confirmed that no immediate or obvious bedrock anomalism was identified. Final reporting of the data is in progress and Talisman will complete a detailed review of the DHEM survey once the data has been supplied by the Joint Venture Manager.

The effectiveness of DHEM is dependent on many factors. Estimated off-hole coverage is influenced by the size and nature of mineralisation and the continuity of any potential conductive body of mineralisation. Talisman believes the DHEM undertaken to date on the Springfield tenements to be a useful tool for searching for large orebodies within a 100 to 200 metres radius of a surveyed drill hole, but has reduced effectiveness and coverage for smaller, fractured mineralised orebodies.

Importantly, results, and observations in the two completed deep diamond drill holes has led to an updated geological interpretation of the fault off-set host stratigraphy to the west of Monty. A number of RC drill holes will be undertaken to test the new interpretation (*Figure 3* and *Figure 4*). The first of these RC holes is currently underway and all RC holes will be completed and subject to DHEM surveys in advance of finalising the position for the third deep diamond DHEM platform hole.

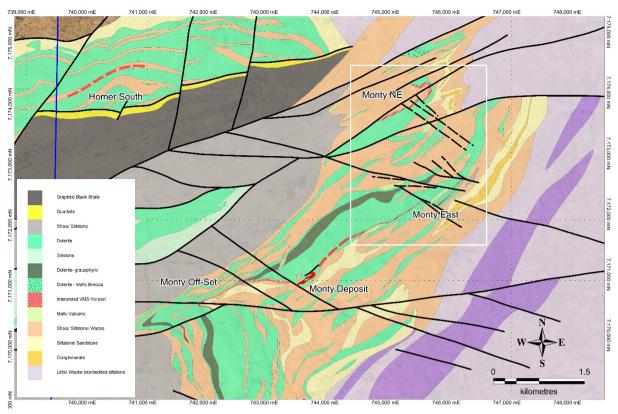


Figure 3: Springfield Project simplified geology plan, showing prospect locations, and the Month East & Monty North East areas recently re-interpreted by Talisman (area indicated by the white box).

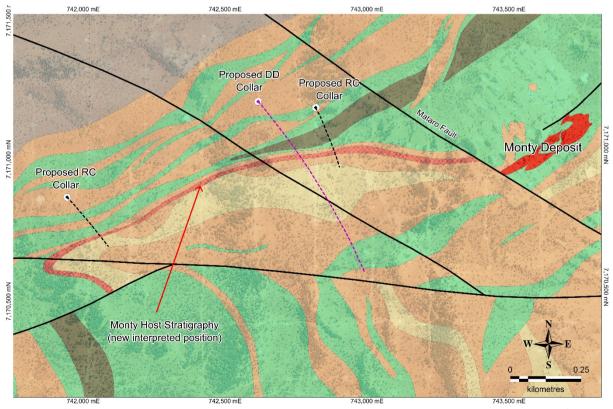


Figure 4: Monty offset geological interpretation showing new geological interpretation, and proposed drill-hole locations<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Note: the final location of the proposed diamond drill (DD) hole may change based on results of the proposed RC drilling.



#### Reverse Circulation Drilling

A total of three RC drill holes have been completed in the June budget period. These holes were selectively targeting litho-geochemical anomalies identified by the Joint Venture Manager in air-core drilling over Monty South and Monty East (*Figure 1*).

Results from these holes did not return any significant copper mineralisation. DHEM data has also been collected from these holes, and preliminary advice and discussions with Sandfire has confirmed that no immediate or obvious bedrock anomalism was identified. Final reporting of the data is in progress.

#### Air-core Drilling

Air-core drilling focused on the eastern end of the Southern Volcanics, and "boxing-out" isolated single point anomalies identified in previous drilling (*Figure 1*) to provide bottom-of-hole (BOH) samples for lithogeochemical analysis. Results from this analysis are still being received and compiled by the Joint Venture Manager.

#### **Other Activities**

A small orientation IP survey was undertaken over the Monty deposit and Monty North East anomaly (*Figure 3*). Data has been successfully collected and is now being QA/QC reviewed prior to processing, with results expected early in the next quarter.

The aim of this survey was to assess the ability of this technique to detect Monty mineralisation from surface which, if successful, could then be applied to other areas of Springfield.

#### **Budgeted Exploration for Period Ending 30 September 2017**

As noted earlier, budgeted exploration for the forthcoming quarter will predominantly focus on developing and testing the current interpreted fault offset of the interpreted Monty horizon to the West of the Monty deposit. Work will include two RC holes to test the current interpretation and a subsequent deep diamond hole to test the newly re-interpreted host position. DHEM will be undertaken to test for potential mineralised zones in close proximity to the Monty deposit

Exploration within the wider Springfield project during the September budget period will include RC drilling at Monty North East to test a second and separate BOH air-core anomaly in this area and the reassessment and re-interpretation of the existing extensive database. This will include consideration of recent work by Talisman that has resulted in new interpretations for the position of the prospective host sequence at Monty East, Monty North East (*Figure 5*) and Homer South (*Figure 3*).

These recent interpretations are based on Talisman's assessment of geological, geochemical and geophysical data collected both recently by the Joint Venture and previously by Talisman prior to the discovery of the Monty deposit and the formation of the Springfield Joint Venture.

Talisman incorporated all the relevant data sets, and generated first principles geological interpretations for areas showing quantitative geochemical anomalism. Based on this, a detailed review of all surrounding drilling data was completed to highlight subtle alteration and/or litho-facies changes that may indicate potential prospective host stratigraphic sequences. A review of the effectiveness of the existing drill testing in these areas was the final stage of the Talisman review.



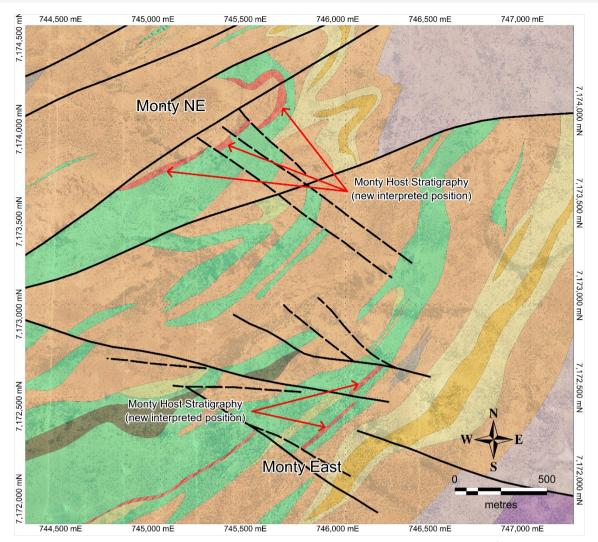


Figure 5: Monty East & Monty North East – Talisman interpretation showing new geological interpretation of the prospective host horizon.

These findings were presented by Talisman and discussed with the Joint Venture Manager's geological team at a site-based Joint Venture geological workshop in June.

Talisman will complete a similar holistic review process for the Southern Volcanics Corridor now that the initial first pass air-core is complete, and once all assay data has been received. An initial review of the available air-core drilling by Talisman has shown that a significant proportion of holes have ended in dolerite, limiting the usefulness of the BOH lithogeochemical processing employed by the Joint Venture Manager as an initial vectoring tool. An alternate targeting methodology may need to be implemented along this 16km long corridor.

The Joint Venture Manager has commenced a review of these new proposed exploration opportunities as part of the forthcoming budget period activities. Talisman anticipates that this review will result in additional RC and/or diamond drilling with DHEM to test the new interpreted host horizon positions.

#### **ENDS**

For further information, please contact: Dan Madden – Managing Director on +61 8 9380 4230 For media inquiries, please contact: Michael Vaughan - Fivemark 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 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 coppergold deposit 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 located in the world-class Agnew-Wiluna greenstone belt in WA's north-eastern 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.

#### **Competent Person's Statement**

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.

#### **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 or any changes in events, conditions or circumstances on which any such forward looking statement is based.



#### Table 1 - 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 June 2017 quarter:

Hole ID	Grid ID	Dip	Azimuth	East (m)	North (m)	RL (m)	Hole Type	Max Depth	Hole Status
TLDD0114	MGA94_50	-62 <sup>0</sup>	140 <sup>0</sup>	742,974	7,171,278	593	RC/DDH	1,171.4	Complete
TLDD0115	MGA94_50	-61 <sup>0</sup>	134 <sup>0</sup>	743,511	7,171,810	595	RC/DDH	1,113.6	complete
TLRC0065	MGA94_50	-61 <sup>0</sup>	83 <sup>0</sup>	741,701	7,170,199	593	RC	406	Complete
TLRC0066	MGA94_50	-62 <sup>0</sup>	83 <sup>0</sup>	741,684	7,169,801	596	RC	424	Complete
TLRC0067	MGA94_50	-62 <sup>0</sup>	133 <sup>0</sup>	746,511	7,172,613	619	RC	448	Complete

#### Table 2: Drill-hole Assay Intersections for the Springfield Cu-Au Project

Details of relevant intersections received by Talisman during the June 2017 quarter are provided below.

Calculation of RC and DD 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 (m)	Depth To (m)	Interval (m)	Cu (%)	Au (ppm)	Zn (%)
TLDD0114	Results Pending					
TLDD0115	Results Pending					
TLRC0065	No significant Intercepts					
TLRC0066	No Significant Intercepts					
TLRC0067	No Significant Intercepts					



# **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary		
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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 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.</li> </ul>	<ul> <li>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.</li> <li>Sampling is guided by Sandfire DeGrussa protocols and QAQC procedures as per industry standard.</li> <li>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.</li> <li>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.</li> <li>Samples are assayed using Mixed 4 Acid Digest (MAD) 0.3g charge and MAD Hotbox 0.15g charge methods with ICPOES or ICPMS.</li> <li>Fire Assay is completed by firing 40g portion of the sample with ICPMS finish.</li> </ul>		
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).	<ul> <li>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.</li> <li>All drill collars are surveyed using RTK GPS.</li> <li>All core, where possible is oriented using a Reflex ACT II RD orientation tool.</li> <li>Downhole surveying is undertaken using a gyroscopic survey instrument.</li> </ul>		
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Sandfire core is meter marked and orientated to check against the driller's blocks, ensuring that all core loss is taken into account. Diamond core recovery is logged and captured into the database with weighted average core recoveries of approximately 98%.</li> <li>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.</li> <li>Samples are routinely weighed and captured into a central secured database.</li> <li>No indication of sample bias with respect to recovery has been established.</li> </ul>		
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> </ul>	<ul> <li>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™.</li> </ul>		



Criteria	JORC Code explanation	Commentary
	The total length and percentage of the relevant intersections logged.	<ul> <li>Logging is both qualitative and quantitative depending on field being logged.</li> <li>All drill-holes are logged in full.</li> <li>All cores are digitally photographed and stored.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>RC and AC samples are Boyd crushed to -4mm and pulverised using LM5 mill to 90% passing 75 µm.</li> <li>Sample splits are weighed at a frequency of 1:20 and entered into the job results file.</li> <li>1:20 grind quality checks are completed for 90% passing 75µm criteria using wet sieving technique to ensure representativeness of sub-samples.</li> <li>Sampling is carried out in accordance with Sandfire protocols as per industry best practice.</li> <li>The sample size is appropriate for the VHMS and Gold mineralisation styles.</li> </ul>
	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>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.</li> <li>No geophysical tools are used in the analysis.</li> </ul>



Criteria	JORC Code explanation	Commentary
		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 assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Significant intersections have been verified by alternate Talisman personnel.</li> <li>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.</li> <li>The primary data is always kept and is never replaced by adjusted or interpreted data.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Sandfire DeGrussa Survey team undertakes survey works under the guidelines of best industry practice. All surface drilling is accurately located using RTK-GPS.</li> <li>For the Springfield project MGA94 Zone 50 grid coordinate system is used.</li> <li>Topography control was established from aerial photography using series of survey control points.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Infill drilling at Monty is based on a nominal 30m x 40m grid.</li> <li>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</li> <li>Exploration drill spacing outside of the Monty Mineral Resource is not sufficient to estimate Mineral Resources.</li> <li>No sample compositing has been applied to the exploration results.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>At Springfield, no significant orientation based sampling bias is known at this time.</li> <li>The drill holes may not necessarily be perpendicular to the orientation of the intersected mineralisation.</li> </ul>
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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Sandfire Resources NL and Talisman Mining Limited have formed a Joint Venture which covers Talisman's Doolgunna Project tenements (E52/2282, E52/2313, E52/2466, E52/2275).</li> <li>Sandfire and Talisman hold a 70%:30% interest respectively in the Joint Venture, with the exception of tenement E52/2275 where interests of approximately 81%:19% respectively are held.</li> <li>Both parties are contributing proportionately to expenditure.</li> <li>Sandfire Resources NL has been appointed as the Joint Venture Manager.</li> <li>All tenements are current and in good standing.</li> <li>The Talisman tenements are currently subject to a Native Title Claim by the Yungunga-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 which were executed by Talisman. These agreements allow Sandfire to carry out mining and exploration activities on their traditional land.</li> </ul>		
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.	<ul> <li>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.</li> <li>The principal exploration targets at the Doolgunna Projects are Volcanogenic Massive Sulphide (VMS) deposits located with the Proterozoic Bryah Basin of Western Australia.</li> </ul>		
Drill-hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill-hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill-hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	Drill hole information relating to the Springfield Project is included in Table 1 Drill-hole Information Summary, Springfield Project.		



Criteria	JORC Code explanation	Commentary		
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>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.</li> <li>Cu grades used for calculating significant intersections are uncut.</li> <li>Minimum and maximum DD sample intervals used for intersection calculation are 0.3m and 1.2m respectively.</li> <li>RC reported intersections are based on regular 1m sample intervals.</li> <li>No metal equivalents are used in the intersection calculation.</li> <li>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.</li> </ul>		
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>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 2: Drill hole assay intersections &gt;1% for the Monty Prospect).</li> <li>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 of the mineralisation, the angle between mineralisation 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 interpreted top of mineralisation surface (at the intersection point of that drill-hole) as well as the dip and azimuth of the drill-hole at that position.</li> </ul>		
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;	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		
	potential deleterious or contaminating substances.			
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Planned exploration across the Springfield Joint Venture Project area includes both surface and downhole geophysical techniques and reconnaissance and exploration drilling with Diamond, Reverse Circulation and air-core drilling techniques.		