

## ASX ANNOUNCEMENT

9 February 2021

# DOWN-HOLE EM IDENTIFIES NEW PARALLEL TARGET ZONE AT STAKEWELL

**Odyssey Gold Limited (ASX:ODY) (“Odyssey” or “Company”)** is pleased to announce results of recently completed down-hole electro-magnetics (“**DHEM**”) which have identified a new target zone at the Company’s high-grade gold project, Stakewell.

This new target zone is in addition to down-plunge targets of the high-grade Kohinoor deposit previously announced.

### *Recent DHEM of a historical drill hole was successful, indicating a new target zone:*

- The DHEM plate is approximately 100m north of the current underground workings with a modelled target region of 150m x 40m.
- The target sits approximately 150m below the historic Bushmans Prospect – which reportedly produced 100t at 18g/t Au in 1906 (*source: Mindex S001347*).
- The DHEM plate appears to lie on the contact of a parallel banded iron formation (“**BIF**”) unit, approximately 120m to the north, and the same cross-cutting fault that is interpreted to have controlled the Kohinoor mineralisation.
- Strong signal response identified, with a conductance of 1500 Siemens (“**S**”) indicated. This is a similar conceptual response to other pyrrhotite-rich gold systems.

### **Executive Director, Matt Syme commented:**

*“Southern Geoscience were recently successful in undertaking a DHEM survey down a historical diamond hole drilled in 2011. This exciting new DHEM target ticks the right boxes in terms of DHEM response, position, and interpreted lithology and structure.”*

*“The new Bushmans Deeps Prospect now gives us two strong areas to target potential high-grade gold mineralisation within the same broad footprint. Drilling activities are expected to commence in the next few weeks, pending approvals.”*

### **For further information, please contact:**

#### **Matt Syme**

Executive Director

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## OVERVIEW

Odyssey controls a highly prospective footprint in the Meekatharra-Cue belt, with over 30km of strike of highly fertile BIF and greenstones, with extensive gold mining history and outstanding exploration potential. Both the Tuckanarra and Stakewell projects have a number of strong drill targets based on previous mining and drilling which demonstrate high-grade mineralisation continuing at depth and/or along strike.

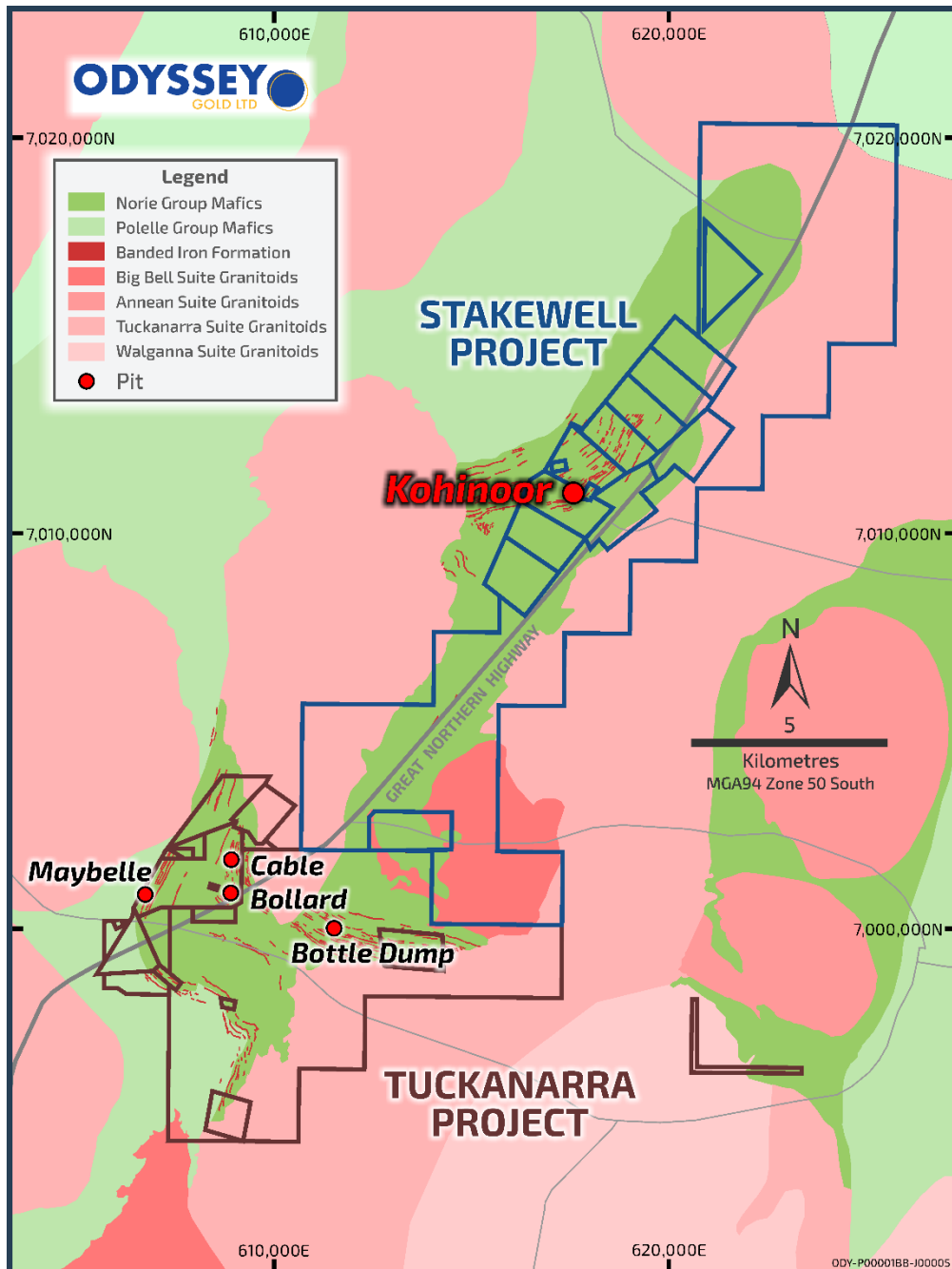


Figure 1: Tuckanarra & Stakewell Projects with key target regions.

Gold mineralisation at the Stakewell Project is hosted within quartz veins, quartz reef and porphyry. It is structurally and metasomatically controlled and is associated with a series of plunging shoots contained within a BIF host, enclosed within the mafic sequence. The lode system is dominated by fine to medium grained quartz-pyrite-pyrrhotite schist. Accessory minerals include chlorite, hornblende, biotite, epidote, chalcopyrite and haematite. Supergene enrichment is a pronounced feature of the gold camp.

The Kohinoor ore body is situated at the intersection of a sequence of BIF and a north-south striking shear zone. The BIFs are typically 1m to 10m thick and are intercalated with mafic schists. Mineralisation within the Kohinoor pit is controlled by rheological and permeability contrasts between the BIF and the mafic volcanic.

Higher-grade mineralisation at Kohinoor is associated with sulphide deposition (pyrite + pyrrhotite) within the BIF and mafic volcanics at the footwall contact of the BIF, adjacent to shear zones.

## STAKEWELL DHEM

The DHEM survey was undertaken in January 2021 by Southern Geoscience (“SGC”) on an historic hole (11SD002) to a depth of 360m. The survey was conducted using a 300m x 300m loop, Transmitter Technologies TTX-2 transmitter and a DigiAtlantis 3 field fluxgate; with a 20m x 10m x 5m/2.5m station spacing.

Two anomalies were identified: Anomaly A, which is a short wavelength feature close to the drillhole and associated with mineralisation encountered by the drillhole; and Anomaly B, which was a larger wavelength feature associated with a larger off-hole conductor.

The Anomaly B plate was modelled to be 50m wide and 140m in depth extent with a conductance value of 1,500 Siemens, which is interpreted to be a similar conceptual response to other pyrrhotite-rich gold systems. The location of the Anomaly B relative to the known mineralisation is shown in Figures 2 and 3.

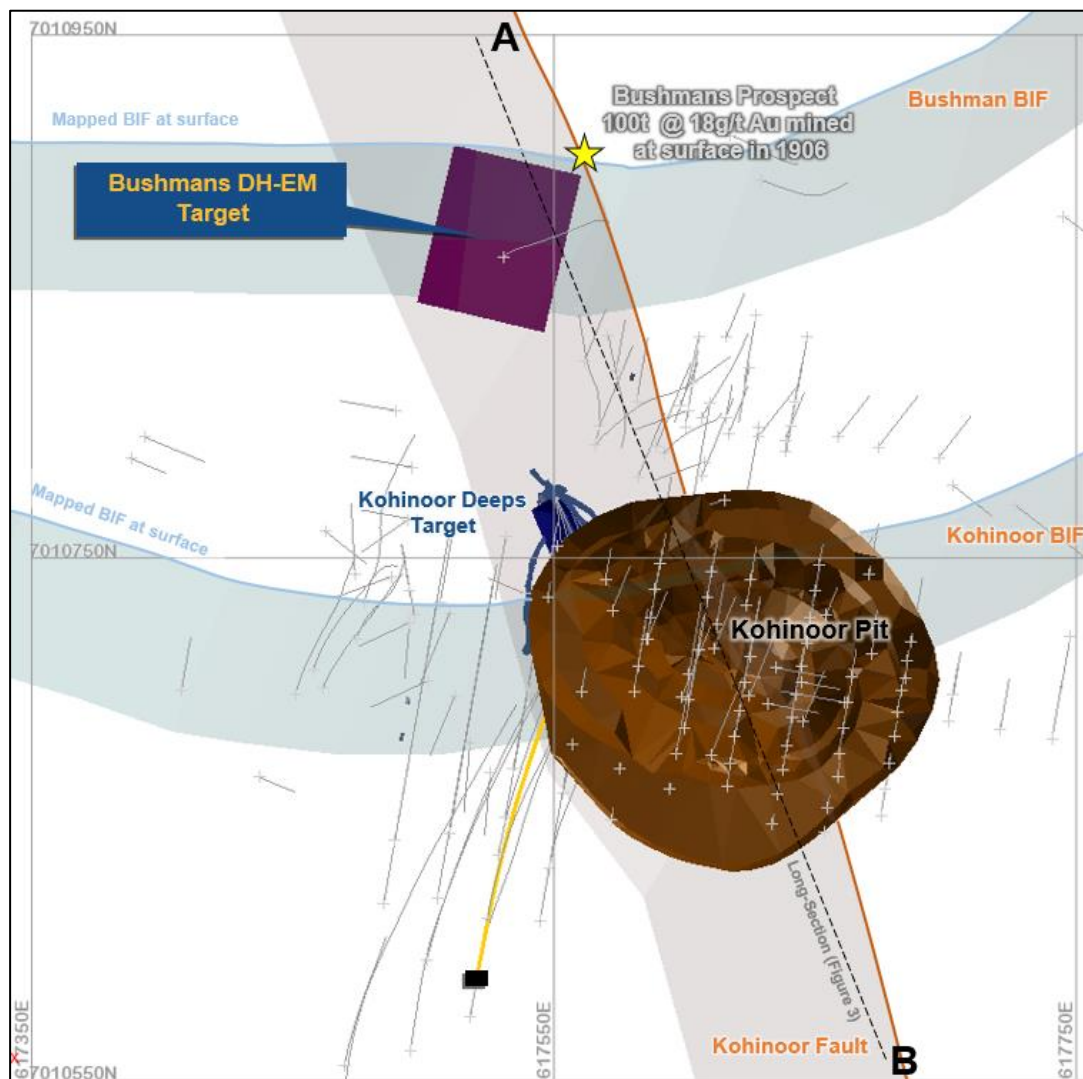
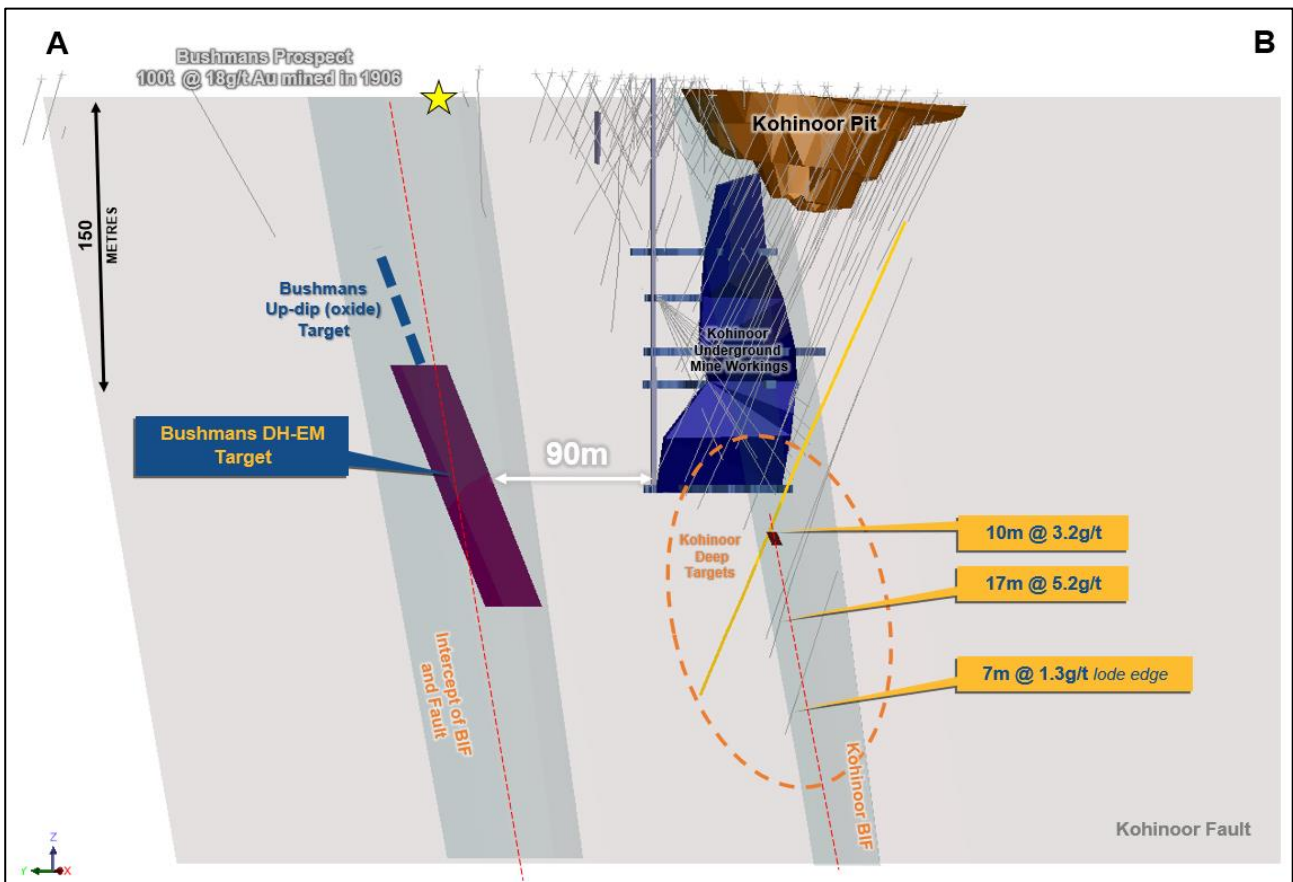


Figure 2: Plan View of Stakewell near-pit targets, showing the relationship of BIFs and fault controlled mineralisation.



**Figure 3: Long Section showing DHEM target, Kohinoor pit and drilling (looking into the plane of the fault).**

## COMPETENT PERSONS STATEMENT

*The information in this announcement that relates to exploration results is based on information reviewed by Mr Neil Inwood of Sigma Resources Consulting, who is a consultant to Odyssey Gold Limited and is an accurate representation of the available data and information available relating to the reported historical exploration results. Mr Inwood is a Fellow of the Australian Institute of Mining and Metallurgy and a proposed holder of incentive options and shares in Odyssey Energy Limited. Mr Inwood has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity being undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Based on the available information relating to the historical exploration results reported in this announcement, Mr Inwood consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.*

*The information in this presentation that relates to historical exploration results are extracted from the Company's ASX announcements dated 4 September 2020, 22 October 2020 and 14 January 2021. These announcements are available to view on the Company's website at [www.odysseygold.com.au](http://www.odysseygold.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, Exploration Target or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements; and that the information in the announcement relating to exploration results is based upon, and fairly represents the information and supporting documentation prepared by the named Competent Persons.*

## FORWARD LOOKING STATEMENTS

*Statements regarding plans with respect to Odyssey's project are forward-looking statements. There can be no assurance that the Company's plans for development of its projects will proceed as currently expected. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of the Company, which could cause actual results to differ materially from such statements. The Company makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of that announcement.*

*This ASX Announcement has been approved in accordance with the Company's published continuous disclosure policy and authorised for release by the Company's Board.*



## APPENDIX 1 - JORC Code, 2012 Edition – Table 1

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<i>Nature and quality of sampling (eg 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.</i>	This announcement refers to geophysical results; refer to announcement dated 4 September 2020 for historical results.  Records for data collection prior to the Silver Swan Group ("SSG") have not been observed by the author. Comments referring to data integrity are focused on the SSG drilling. SSG collected and reported the geological information in line with the 2004 JORC Code guidelines prior to the introduction of the 2012 guidelines.
	<i>Include reference to measures taken to ensure sample representation and the appropriate calibration of any measurement tools or systems used.</i>	The collar locations of the 2011 SSG drill holes were surveyed by DGPS; refer to announcement dated 4 September 2020 for historical results.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>  <i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	N/A
<b>Drilling techniques</b>	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</i>	This announcement refers to geophysical results; refer to announcement dated 4 September 2020 for historical results.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	N/A
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	N/A
	<i>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.</i>	No relationship between recovery and grade has been identified.
<b>Logging</b>	<i>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.</i>	All chips and drill core were geologically logged by SSG geologists and independent geologists, using the SSG geological logging legend and protocol.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging of RC chips and drill core records lithology, mineralogy, mineralisation, weathering, colour and other features of the samples. All samples are wet-sieved and stored in a chip tray. Half of the drill core is stored.
	<i>The total length and percentage of the relevant intersections logged</i>	All holes were logged in full.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	N/A
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	N/A
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	N/A
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representation of samples.</i>	N/A

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	N/A
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	N/A
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	N/A
	<i>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.</i>	The DHEM survey was undertaken in January 2021 by Southern Geoscience ("SGC") on the historic hole 11SD002. The survey was undertaken using a 300m x 300m loop, Transmitter Technologies TTX-2 transmitter and a DigiAtlantis 3 field fluxgate; with a 20m x 10m x 5m/2.5m station spacing. Two anomalies were identified: Anomaly A, which is a short wavelength feature close to the drillhole and associated with mineralisation encountered by the drillhole; and Anomaly B, which was a larger wavelength feature associated with a larger off-hole conductor. The Anomaly B plate was modelled to be 50m wide and 140m in depth extent with a conductance value of 1,500 Siemens. The location of the Anomaly B relative to the known mineralisation is shown in Figures 2 and 3. Anomaly B is interpreted to be dipping 60 degrees towards 190-200 degrees.
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	The QA/QC protocols were varied across the companies conducting the exploration at the time and this information is still being collected.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	N/A
	<i>The use of twinned holes.</i>	N/A
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	N/A
	<i>Discuss any adjustment to assay data.</i>	N/A
<b>Location of data points</b>	<i>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.</i>	Key drillholes collars were verified in the field in 2020 using a handheld GPS, with a reported accuracy of approximately +/-3m.
	<i>Specification of the grid system used.</i>	The project currently uses the MGA94, Zone 51 grid system. Previous workers also used AMG Zone 50/51.
	<i>Quality and adequacy of topographic control.</i>	The site topographic surveys including the pit survey at Kohinoor match well with the drill hole collars.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	N/A
	<i>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.</i>	Further work is required at the Project to test for extension of mineralisation potential and verification of historical collars. Some drilling is on a spacing which is sufficient to test the grade continuity of mineralisation for this style of mineralisation. The current data set is considered potentially appropriate for use in a future Mineral Resource providing further drilling is completed.
	<i>Whether sample compositing has been applied.</i>	N/A

Criteria	JORC Code explanation	Commentary
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	N/A
	<i>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.</i>	N/A
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	N/A
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	The Company is undertaking an ongoing review of the historical data.

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<i>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.</i>	The Stakewell Project comprises of ten Prospecting Licences (P51/2869, P51/2870, P51/2871, P51/2872, P51/2873, P51/2874, P51/2875, P51/2876, P51/2877 and P51/2878) and one Exploration Licence (E51/1806). The Company has a beneficial 80% stake in the licences through a joint venture with Diversified Asset Holdings ("DAH").
	<i>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.</i>	The tenement package is in good standing with the WA DMIRS.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Refer to the body of the report.
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Project area is located within the Meekatharra-Wydege Greenstone belt within the north-eastern Murchison Domain. The majority of greenstones within the Meekatharra-Wydege belt have been stratigraphically placed within the Polelle Group and the Norie Group of the Murchison Supergroup.</p> <p>The Project area covers Archean basement rocks assigned to the 2815-2805 Ma basal Norie group of the Murchison Supergroup, which covers the eastern margin of the Meekatharra-Wydege greenstone belt. The Norie group comprises a thick succession of pillowed and massive tholeiitic basalts of the Muroulli Basalt, and conformably overlying and mafic schist and felsic volcanoclastics with interbedded BIF and felsic volcanic rocks of the Yaloginda Formation (Van Kranendonk et al, 2013). These rocks are folded around the south-plunging Besley Anticline. Adjacent to these rocks are the mafic sequences of the Meekatharra Formation (Polelle Group).</p> <p>Granitoids in the Project area comprise of the Jungar Suite and Annean Supersuite to the east and the Munarra Monzogranite of the Tuckanarra Suite to the west. The Jungar Suite comprises of foliated to strongly sheared K-feldspar-porphyritic monzogranites. These rocks are characterized by strong shear fabrics that suggest they may have been emplaced during, or just before, shearing. The Annean Supersuite includes hornblende tonalite and monzogranitic rocks. The Tuckanarra Suite consists of strongly foliated and locally magmatically layered granodiorite to monzogranitic rocks.</p> <p>The Project is situated within the 'Meekatharra structural zone', a major regional, NE-trending shear dominated zone, about 50 to 60km wide, stretching from Meekatharra through the Cue region as far south as Mount Magnet. This major shear zone is dominated by north and northeast-trending folds and shears</p>



Criteria	JORC Code explanation	Commentary
		<p>(e.g. Kohinoor shear). The Mt Magnet fault is the major east-bounding structure of the Meekatharra structural zone.</p> <p>Gold mineralisation at the Stakewell Project is hosted within quartz veins, quartz reef and porphyry. It is structurally and metasomatically controlled and is associated with a series of plunging shoots contained within a BIF host, enclosed within the mafic sequence (Hill, 1986). The lode system is dominated by fine to medium grained quartz-pyrite-pyrrhotite schist. Accessory minerals include chlorite, hornblende, biotite, epidote, chalcopyrite and haematite (Hill, 1986). Supergene enrichment is a pronounced feature of the gold camp.</p>
<b>Drill hole Information</b>	<p>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:</p> <ul style="list-style-type: none"> <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> <p>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.</p>	This announcement refers to geophysical results; refer to announcement dated 4 September 2020 for historical results.
<b>Data aggregation methods</b>	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	This announcement refers to geophysical results; refer to announcement dated 4 September 2020 for historical results.
	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.	This announcement refers to geophysical results; refer to announcement dated 4 September 2020 for historical results.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/A
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</p>	This announcement refers to geophysical results; refer to announcement dated 4 September 2020 for historical results.
<b>Diagrams</b>	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 figures are in the body of this announcement.
<b>Balanced reporting</b>	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.	Balanced reporting has been used.
<b>Other substantive exploration data</b>	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,	No other meaningful data is required to be presented other than what has been presented in the body of this announcement.

Criteria	JORC Code explanation	Commentary
	<i>geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	
<b>Further work</b>	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>Work planned to develop the targeting profile for the project in the near future will include reassessment and re-processing of historical hi-resolution magnetics in the area, potential SAM geophysics or ground magnetics, an updated 3D structural targeting model of the region, confirmation of the drill database through on-ground work and referral to company reports, re-interpretation of soils data including potential infill lines; and a target ranking exercise over the area.</p> <p>Additional work in the future will also focus on validating the current drillhole and soils database and QAQC information through validation checks to original company reports, resampling of historical core (if obtainable), identification of collars in the field and twinning of key drillholes.</p>