




20 May 2021

Southern Cross Assay Results Update

Highlights:

-  **Single-metre split assay results returned from Boordarding (E77/2584)**
-  **Deep intercepts confirm historic diamond and RC drilling targets**
-  **Prospect remains open along strike and at depth**

Xantippe Resources Limited (ASX: XTC) (Xantippe, XTC, or the Company) is pleased to announce the return of split assays from reverse circulation (RC) drilling at the Boordarding Prospect.

The three RC holes drilled at Boordarding followed up the abandoned drilling attempted last year and aimed to test historic diamond and RC drilling which intercepted anomalous gold at approximately 100-150m below surface. All three holes were completed to depth with two of the three RC holes intercepting gold mineralisation, confirming the potential existing at the Boordarding Prospect on Xantippe lease E77/2584.

Boordarding Assay Results

Single-metre fire assay (30g) results have been returned from anomalous composite samples during RC drilling of the Boordarding Prospect earlier this year. The RC drilling proved difficult with numerous water-bearing fractures intercepted at depth, resulting in wet samples being produced from approximately 100m onwards. Analysis of wet samples in these conditions can sometimes produce uncertain results with gold potentially washed away. Due to the uncertain nature of wet RC samples the resultant assay results are considered to be indicative of mineralisation but do not provide an absolute measure of grade. Xantippe will use these results for targeting purposes, with the aim of utilising diamond drilling techniques in the future.

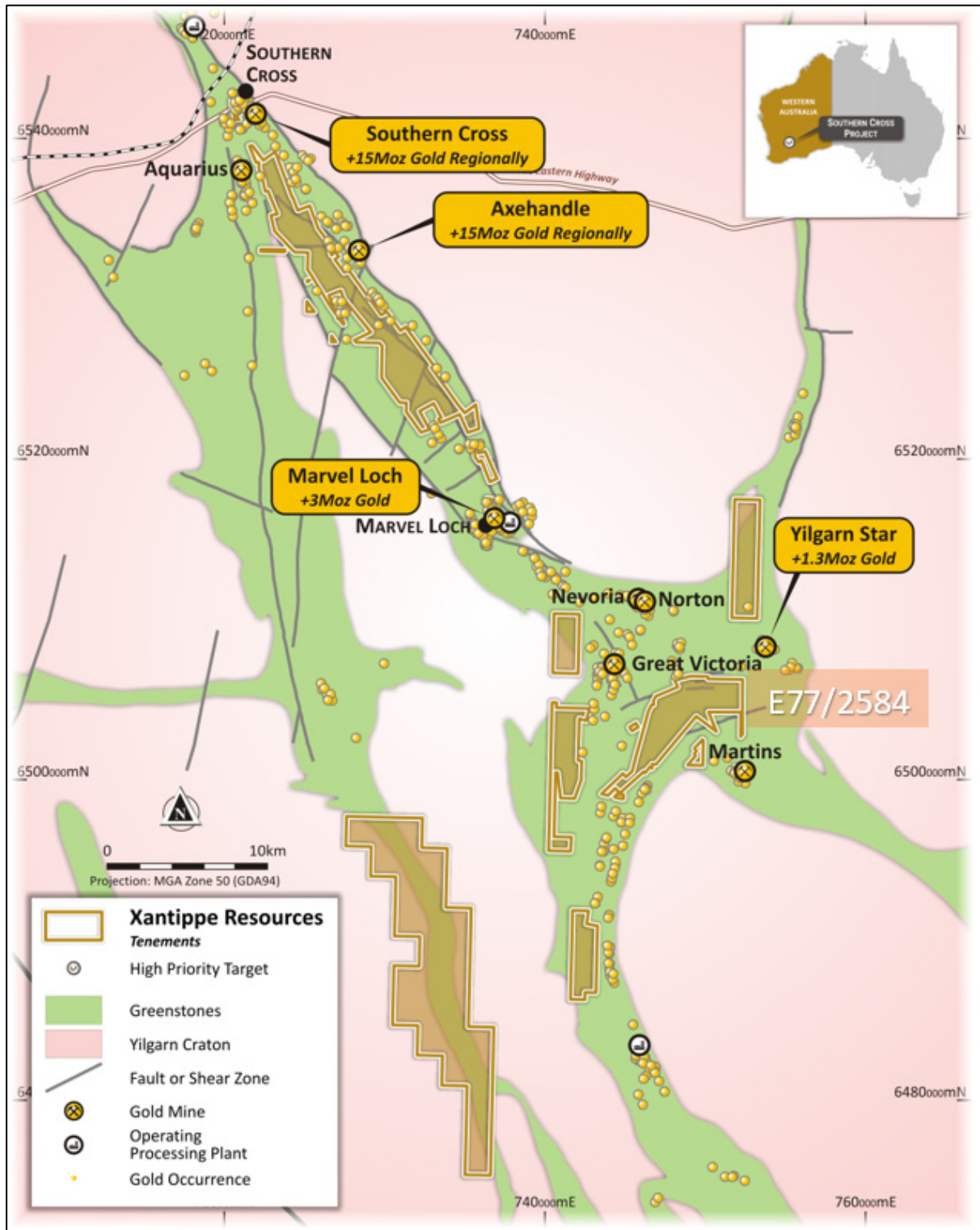


Figure 1: Southern Cross Project Location Map

The results correlate with historic drill intercepts. Xantippe considers that this increases the confidence in these results and in developing the prospect. Quartz vein hosted gold has been intercepted throughout the area and remains open both along strike and with depth.

Hole ID	From	To	g/t Au
BD_003B	151	152	1.33
BD_001B	104	105	0.49
BD_001B	105	106	0.73
BD_001B	106	107	1.01
BD_001B	107	110	0.98
BD_001B	118	119	3.16

Table 1: Drill highlights from Boodarding split assays.

The Boodarding prospect is located beneath sediments on a prominent fold hinge, interpreted from magnetic data. The geology comprises greenstones and banded iron formation and the structural position is similar to that hosting the nearby Marvel Loch mineralisation. Previous explorers have reported encouraging results and Xantippe believes that this prospect will yield economic mineralisation with persistence. Xantippe is frustrated by the setback with the RC drilling being unable to penetrate the water table, but is confident that future diamond drilling will yield positive results.

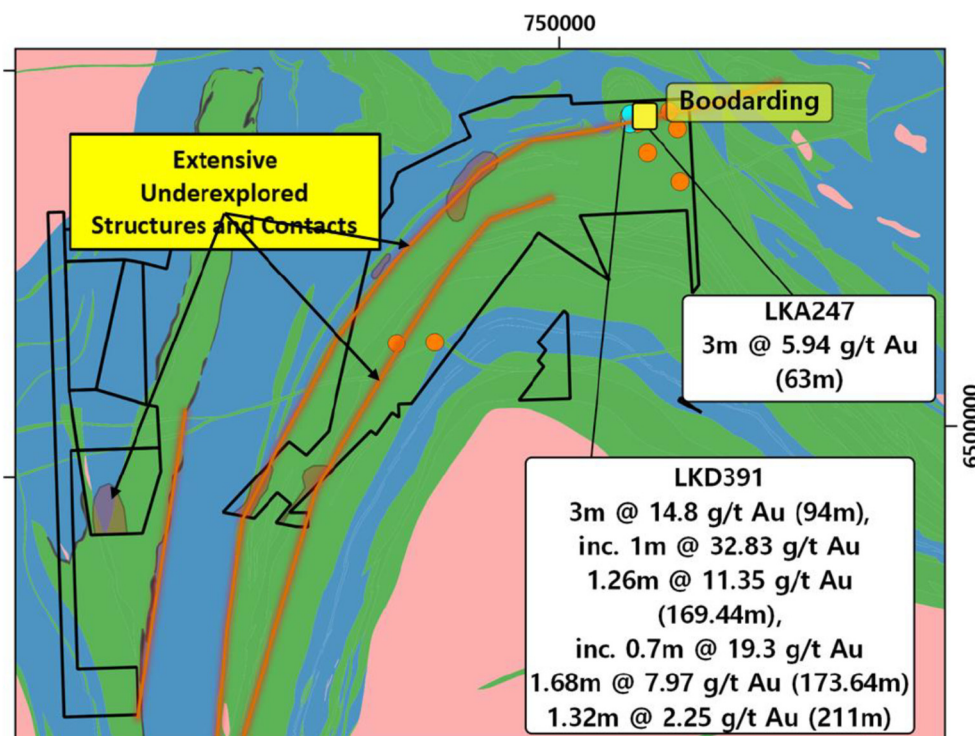


Figure 2: Historical results from Boodarding (refer ASX release 12 December 2019)

Summary

The successful gold intercepts at Boodarding reinforce the underexplored potential of the area. Target generation can continue with extensions open for further gold mineralisation along strike and at depth. Xantippe aims to utilise diamond drilling in this area in the future to minimise the impact of water intersected at depth.

With the recent acquisitions in the area, giving Xantippe one of the largest footprints in the Southern Cross region, the Company is now investigating all geophysical and airborne magnetic data to fully investigate and analyse the full extent on the gold mineralisation within the XTC tenements. This will result in a much more clear definition of future drilling targets.

Referring to a recent article by Robin Brumby [**Gold explorers reap the benefits of mistakes a century ago**, **MiningNews.net The Outcrop 20.05.21**], he eloquently describes a view of gold exploration that is a significant part of the XTC exploration strategy...

“In fact, we are seeing at this time a far more impressive rebirth of gold, much (probably most) of it through revival of historic mines and reappraisal of drilled but undeveloped discoveries.

The Times finished its Australian chapter by noting that “it is always possible that the systematic and intensive prospecting which is now beginning will disclose not merely isolated mines but new fields of magnitude, in which case the economic results upon the whole continent would be far-reaching.

But what we are seeing today is a fresh new wave for the gold sector, and one that will make Australia a gold power for years to come — thanks largely to what the old timers left behind.”

Southern Cross Greenstone Belt – Overview

The XTC tenements now cover around 40km of linear strike of the Southern Cross Greenstone Belt, which has historically produced around 15Moz gold, predominantly from the Marvel Loch and Southern Cross centres, both of which are in operation to varying extents.

The Southern Cross Greenstone Belt is an elongated belt of altered intrusive and meta-sedimentary rocks with a strike length of about 300m. The belt has been metamorphosed to amphibolite and is complexly deformed by multiple phases of folding, shearing and faulting.

High quality government mapping is available for the Southern Cross region in both online and digital format. Regional geological mapping of this province at 1:250,000 scale was carried out by GSWA between 1973 and 1979.

Limited ground exploration activity has been conducted on Xantippe’s Southern Cross project since 2005.

Gold mineralisation in the belt can be categorised into two distinct styles: shear hosted and vein deposits. Most gold deposits in the Southern Cross Greenstone Belt are located at contacts between different rock types or are controlled by shear zone networks.

This announcement has been approved for release by the Board of Xantippe Resources.

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Competent Persons Statement

The Exploration Results reported in this announcement are based on, and fairly represent, information and supporting documentation prepared by Mr Jeremy Peters, FAusIMM CP (Mining, Geology). Mr Peters is a geologist and mining engineer and is an employee of Burnt Shirt Pty Ltd and has extensive professional experience with the geology of the Western Australian Goldfields. Mr Peters consents to the form and context in which the Exploration Results are presented in this announcement.

About the Southern Cross Gold Project

The Southern Cross Project is located 380km east of Perth, south east of Southern Cross in the Yilgarn Goldfield.

The project comprises 19 Prospecting Licences and 6 Exploration Licences with a combined area of around 182 km², over mostly contiguous tenements covering around 40km of strike of the Southern Cross Greenstone Belt, which has historically produced around 15Moz gold, predominantly from the Marvel Loch and Southern Cross centres, both of which are in operation to varying extents.

The project area is serviced by sealed roads, grid power, scheme water, rail and town amenities. Minjar operates the Marvel Loch plant nearby and Ramelius Resources operates the Edna May facility some 60 kilometres to the west.

Appendices

Drill Hole Collar Details:

HoleID	East MGA	North MGA	RL	Depth	Dip	Azimuth
BD_001B	751250	6505940	400	150	-60	270
BD_002	751250	6505980	400	180	-60	270
BD_003B	751280	6505900	400	180	-60	270

*All coordinates in GDA 94, MGA Zone 50 and are preliminary.

Assay reporting of split sample results:

HoleID	DepthFrom	DepthTo	Interval	AuPPM
BD_001B	104	105	1	0.49
BD_001B	105	106	1	0.73
BD_001B	106	107	1	1.01
BD_001B	107	108	1	1.21
BD_001B	116	117	1	-0.01
BD_001B	117	118	1	0.13
BD_001B	118	119	1	3.16
BD_001B	119	120	1	0.36
BD_001B	144	145	1	0.37
BD_001B	145	146	1	0.08
BD_001B	146	147	1	0.37
BD_001B	147	148	1	0.26
BD_002	168	169	1	-0.01
BD_002	169	170	1	0.12
BD_002	170	171	1	0.01
BD_002	171	172	1	-0.01
BD_003B	64	65	1	0.03
BD_003B	65	66	1	0.04
BD_003B	66	67	1	0.28
BD_003B	67	68	1	0.14
BD_003B	108	109	1	0.02
BD_003B	109	110	1	0.02
BD_003B	110	111	1	-0.01
BD_003B	111	112	1	0.02
BD_003B	148	149	1	0.04
BD_003B	149	150	1	-0.01
BD_003B	150	151	1	0.01
BD_003B	151	152	1	1.33

JORC Code, 2012 Edition: Table 1
Section 1: Sampling Techniques and Data

Criteria	<i>JORC – Code of Explanation</i>	Commentary
Sampling techniques	<i>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.</i>	Samples were collected from the drill cyclone and split into 1m intervals using a cone splitter. These 1m splits have been used for fire assay following the return of composite samples. Sample residue was composited into 4m samples for preliminary assay using the photon analysis technique to identify mineralised intersections for further fire assay. The Competent Person considers the sampling techniques and approach to be appropriate for exploratory drilling.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	An industry-standard 5 ½” RC face sampling hammer drill was used in conjunction with a cone splitter. The site geologist observed sample return to identify any potential sample loss.
	<i>Aspects of the determination of mineralisation that are material to the Public Report. In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	Mineralisation at Southern Cross is usually associated with sulphides, with some coarse gold. The Competent Person considers that the combination of photon and fire assay is an appropriate approach to assaying such mineralisation. Photon assay examines the whole of a 500g split from a sample and is useful in assaying mineralisation where coarse gold may be present. The results of the photon assay will be compared to those of the subsequent fire assay of mineralised intersections.
Drilling techniques	<i>Drill type (e.g. 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>	Drilling was undertaken by a pneumatic 5 ½” face sampling reverse circulation (RC) drill. This type of drill is ubiquitous to Western Australia’s Eastern Goldfields.

Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	The site logging geologist observed sample returns and reported no abnormally low recoveries except in cases where holes were abandoned due to an influx of water. These holes are not being reported in this release.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	A cone splitter was attached to the cyclone and the entire sample passed through the splitter. Preliminary composite samples of 4m were taken using a spear from the cone splitter residue for photon assay to identify mineralised zones.
	<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>	The Competent Person considers that comparison of the preliminary samples to the fire assays will assist in identifying such a bias.
Logging	<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 drill holes were geologically logged in their entirety in a manner appropriate to exploration drilling. More detailed logging was not undertaken and the Competent Person considers this to be unnecessary at this stage and Mineral Resources are not being estimated.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging of RC drill chips was qualitative, with salient factors noted, such as the presence of sulphides, quartz or alteration.
	<i>The total length and percentage of the relevant intersections logged.</i>	<i>Drill holes were logged in their entirety.</i>
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No core drilling has been undertaken.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Samples were split from the cyclone by a cone splitter. Wet samples have been recorded in the database and are generally beyond 100m depth.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Sample preparation is appropriate to the sample type and is of a standard considered acceptable by the Competent Person
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Commercially prepared blank and standard samples were added "blind" at a rate of one blank sample per drill hole and one standard sample per ~40m.
	<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>	One duplicate sample was taken and submitted "blind" each ~40m.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The Competent Person considers the sample size to be appropriate for the material being sampled. Comparison of the photon and fire assay results will be used to verify this.

Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The Competent Person considers that industry standard assay techniques have been used that are appropriate for gold exploration. The Competent Person considers that the combination of photon assay and fire assay provides a total assay of the sample lot.
	<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 derivations, etc.</i>	No geophysical analysis has been used
	<i>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.</i>	The Competent Person considers that commercially prepared blank and standard samples and the addition of duplicate samples is in sufficient proportion to inform a meaningful analysis of accuracy with results confirming this.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Exploration drilling results are being reported here and no such verification has been undertaken and the Competent Person does not consider it to be necessary at this stage.
	<i>The use of twinned holes.</i>	No holes have been twinned and the Competent Person does not consider it to be necessary at this stage
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All data was captured in the field digitally. The data has subsequently been added to a commercial relational database.
	<i>Discuss any adjustment to assay data.</i>	No adjustments have been made to the data.
Location of data points	<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>	Hole collars were located with a hand-held GPS with attendant degree of accuracy. Collars have not yet been surveyed. This drilling is not being used to inform a Mineral Resource estimation and the Competent Persons considers that the accuracy is sufficient to inform preliminary exploration.
	<i>Specification of the grid system used.</i>	All hole collars were located in accordance with the MGA94 grid, Zone 50
	<i>Quality and adequacy of topographic control.</i>	The drill holes being reported have not been surveyed.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	The Competent Person considers that the drill holes have been located appropriately for preliminary exploration drilling of targets identified from high resolution aeromagnetic surveys.
	<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>	No Mineral Resource has been estimated.

	<i>Whether sample compositing has been applied.</i>	Samples were initially composited to 4m using a sampling spear to provide preliminary samples for photon assay to identify zones of mineralisation.
Orientation of data in relation to geological structure	<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>	Orientation of sampling is orthogonal to the interpreted orientation of structure and is not considered by the Competent Person to have introduced biases for the purpose of early-stage exploration results.
	<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>	Sample bias is possible, but the competent Person does not consider it to be material in preliminary exploration drilling of targets identified and interpreted from high-resolution aeromagnetic data.
Sample security	<i>The measures taken to ensure sample security.</i>	Samples were collected on site under the supervision of the logging geologist and dispatched by courier to the assay laboratory. The Competent Person considers sample security to be adequate.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audit has been undertaken of the preliminary results being reported.

Section 2: Reporting of Exploration Results

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

	JORC – Code of Explanation	Commentary
Tenement and land tenure status	<p><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></p> <p><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></p>	<p>Most of the tenure is held by V. Strange under prospecting licences and exploration licences, granted and pending. Tenements will be transferred to Xantippe Resources Ltd on execution of exclusive options. There are no native title interests over granted tenure. Tenement applications may be subject to native title, yet to be determined.</p> <p>Tenements are granted or pending and reported to be in good standing</p>
Exploration done by other parties	<p><i>Acknowledgement and appraisal of exploration by other parties.</i></p>	<p>The Company has obtained historical exploration records from DMIRS WAMEX database. Most of the historical work was conducted by Sons of Gwalia Ltd (public company) and Stephen Arthur Payne (private individual). The Competent Person considers this work to have been undertaken in accordance with industry standards current at the time.</p>
Geology	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>The mineralisation types include structurally controlled epithermal gold, banded-iron-formation (BIF) hosted gold, pegmatitic tin-tantalum-niobium and porphyry copper-gold mineralisation. The geological setting is Archean greenstones of the Yilgarn Goldfield intruded by Archean granite domes.</p>
Drill hole information	<p><i>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:</i></p> <ul style="list-style-type: none"> • <i>easting and northing of the drill hole collar</i> • <i>elevation or RL (Reduce Level) – elevation above sea level in metres) of the drill hole collar</i> • <i>dip and azimuth of the hole</i> • <i>down hole length and interception depth</i> • <i>hole length</i> <p><i>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.</i></p>	<p>Preliminary drill hole collar locations are included in the body of this Report. The hole collars have not yet been formally surveyed and the Competent Person considers the preliminary locations to be appropriate for these Exploration Results.</p> <p>This data is included where possible but the Competent Person advises that it is preliminary and that drill hole collar locations have not yet been formally surveyed. The Competent Person</p>

		does not consider that this is material to the reporting of preliminary Exploration Results.
Data aggregation methods	<i>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.</i>	Assay data is reported as received from the laboratory.
	<i>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.</i>	Results reported as received
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalent values have been reported.
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	These relationships are yet to be determined. All results are reported as intercept lengths and not true mineralisation widths
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Drill holes were designed to intersect the strike and dip of interpreted geological structures orthogonally, where possible. The Competent Person advises that the results represent the findings of early exploration and that the true orientation of the mineralisation has not yet been identified.
	<i>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').</i>	Down hole lengths are reported in all instances and the true width of mineralisation not known.
Diagrams	<i>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.</i>	The Competent Person advises that formal collar surveys have not yet been completed and that maps and sections are interpreted from this best-available information and is sufficient for this level of analysis.
Balanced reporting	<i>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.</i>	The Competent Person considers that appropriate cautions have been included in this report that alert the reader to the nature of the results.
Other substantive exploration data	<i>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.</i>	Data collection is still in progress and additional information will be released in due course.

Further work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	The Company is planning drilling of other targets identified from geophysics and will expand drilling from the current programme where mineralisation has been identified.
	<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>	The Competent Person advises that geological interpretation is ongoing and subject to change with the most current understandings presented in this report at the time of writing.