### **ASX Announcement**



28 October 2024

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GM Corporate & GC Stuart Burvill

Company Secretary
David Palumbo

Exploration Manager – Western Australia
Thomas Dwight

Exploration Manager – Nevada

Steve McMillin

Chief Geologist Peng Sha

#### **Capital structure**

Last traded price A\$0.058

Current shares on issue

Current market capitalisation

A\$44 M

Cash

A\$6.2 M (at 30 Sep 2024)

Debt

Zero

# Initial Metallurgical Testwork Delivers High Gold Recoveries at Ricciardo

Testwork demonstrates viable processing and gold production routes

#### **HIGHLIGHTS:**

- Initial metallurgical testing of primary mineralisation samples from the Ricciardo deposit returns high gold recoveries, demonstrating a potential pathway for both the direct export of a primary gold flotation concentrate, and the secondary treatment of flotation concentrates on site to produce gold bars (dore).
- Primary flotation concentrate production: Gold recoveries of up to 96% were achieved (via flotation to a concentrate and cyanidation of tails).
- <u>Secondary processing of concentrate on-site</u>: 95% of gold in concentrate can be recovered (via bacterial oxidation and cyanide leaching) resulting in a net recovery of 88% gold (combined processes).
- Further studies to follow, including on optimising flotation and testing alternative methods of gold extraction including samples from other deposits in Golden Range.
- Ricciardo Mineral Resource Estimation (MRE) update progressing well and on track for completion late November 2024. Additional RC drill program finalised and scheduled.

Warriedar Resources Limited (ASX: WA8) (**Warriedar** or the **Company**) provides preliminary metallurgical results from Ricciardo, the largest gold deposit within the Golden Range Project, located in the Murchison region of Western Australia.

The results show a clear pathway to processing the gold ore at Ricciardo. Initial metallurgical testwork included:

- "Grinding" (turning the rock into a fine slurry) and "flotation" (treating the slurry with reagents to separate out gold-bearing material) of the samples to form a concentrate:
- liberating the gold from fine-grained sulphides within the concentrate ("oxidation") to render it amenable to extraction using conventional cyanide leaching – the oxidation process used in this initial testwork was bacterial oxidation (subjecting the concentrate to a bacterial culture) as used in mines such as Fosterville gold mine in Victoria; and
- subjecting the residue from the flotation process (the "flotation tailings") to conventional cyanide leaching.



Overall gold recoveries of up to 96% from the initial single-stage ("rougher") flotation testwork (92% recovery to concentrate) then cyanidation of flotation tailings (4% recovery) were obtained from the Ricciardo primary drill samples.

Further testwork involving "closed-circuit" flotation (where flotation products are iteratively fed back into the process) showed:

- Flotation recovery of 84% into a concentrate followed by cyanidation of flotation tailings recovering a further 8% giving a combined gold recovery of up to 92%.
- Bacterial oxidation then cyanide leaching recovering 95% of gold in concentrate,
- A net recovery of 88% of gold through the overall process flowsheet.

The next stage metallurgical work will focus on optimizing the comminution (crushing and grinding) and flotation processes; and investigating and refining various potential gold extraction methods for flotation concentrate.

Test work including samples from other deposits within the Golden Corridor will follow in due course.

#### Warriedar Managing Director and CEO, Amanda Buckingham, commented:

"This is positive news for our Company as it shows there is a viable pathway for processing the Ricciardo gold ore. These results deliver strong validation of Warriedar's decision to focus its exploration activities on the large-scale Ricciardo deposit and broader 'Golden Corridor'.

Our primary focus remains our pursuit of the abundant opportunities to continue to grow the resource base within the Golden Corridor and to search for new deposits along the main shear."

#### Ricciardo deposit - Viable processing pathways for the primary gold Resource

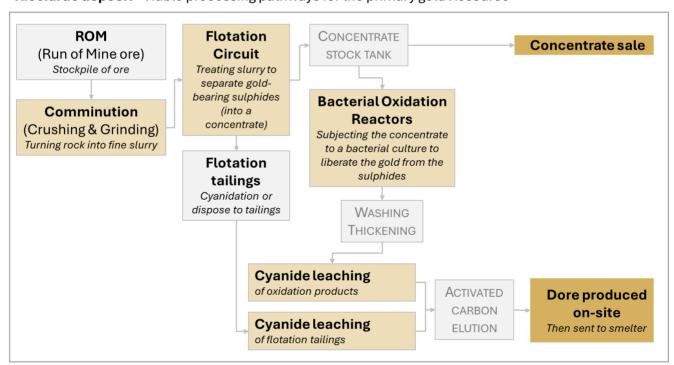


Figure 1: Simplified flowsheet showing the processes described in the announcement.



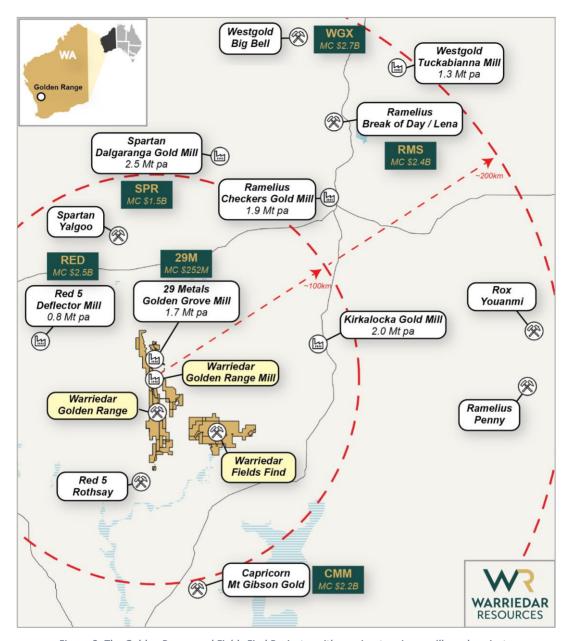


Figure 2: The Golden Range and Fields Find Projects, with proximate mines, mills and projects.

#### **Key Ricciardo context**

The Ricciardo gold system spans a strike length of approximately 2.3km, with very limited drilling having been undertaken below 100m depth. Ricciardo possesses a current MRE of 8.7 Mt @ 1.7 g/t Au for 476 koz gold.¹ Historical mining operations at Ricciardo were primarily focused on oxide material, with the transition and primary sulphides mineralisation not systematically explored.

<sup>&</sup>lt;sup>1</sup> For full details of the Ricciardo Mineral Resource Estimate (and broader Golden Range Project Mineral Resource Estimate), refer to Appendix 1 and WA8 ASX release dated 28 November 2022, *Major Gold Project Acquisition*. Warriedar confirms that it is not aware of any new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning the estimates in that ASX release continue to apply and have not materially changed.



Warriedar's drilling of Ricciardo has achieved excellent results, demonstrating high-grade extensions to the resource. The results demonstrate that the previously quantified resource is part of a much larger system. See the location of Ricciardo within the wider Golden Corridor in Figure 3.

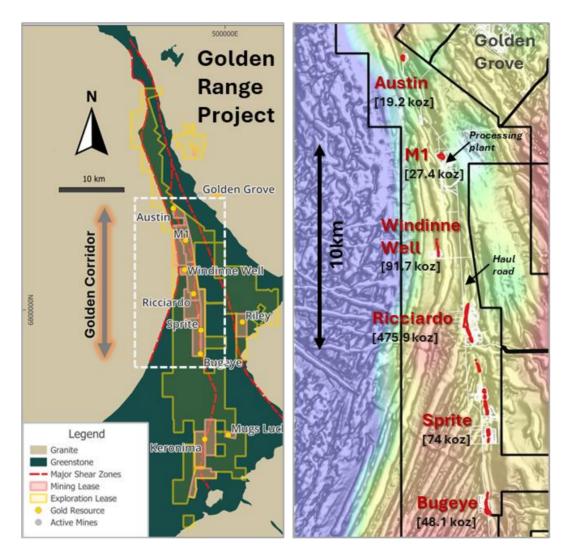


Figure 3: The 'Golden Corridor' within the Golden Range Project. The image on the right is gravity over shaded residual magnetic RTP.

The gold and antimony mineralisation at Ricciardo is predominantly hosted within intensely altered and deformed ultramafic units and controlled by structure. Newly identified high grade antimony-dominant mineralisation sits above high-grade gold mineralisation in the same area.



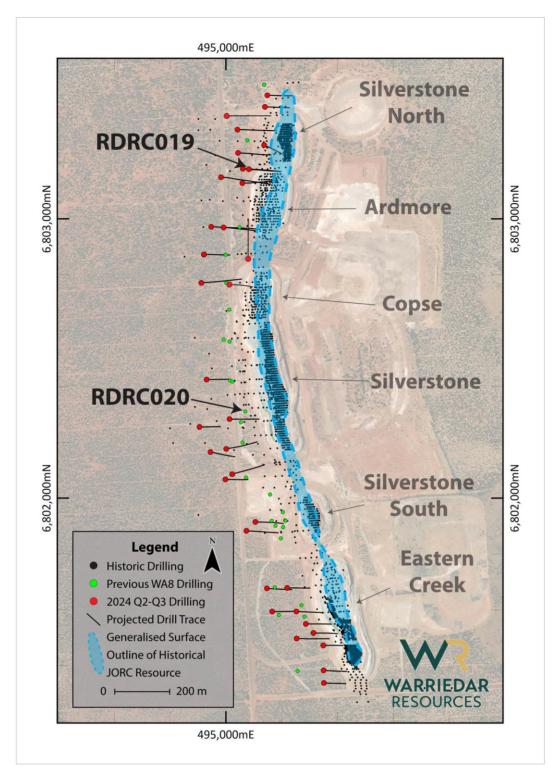


Figure 4: Plan view of the Ricciardo deposit with the locations of drillholes RDRC019 and RDRC020.



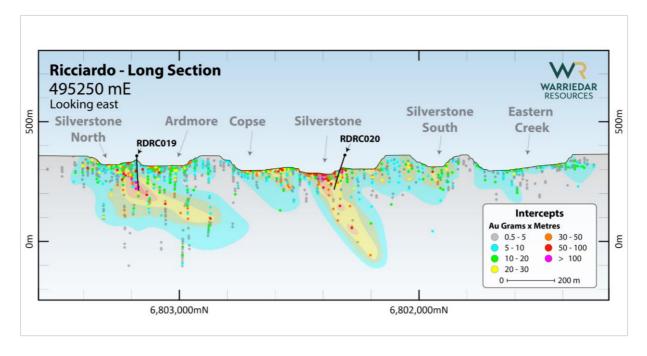


Figure 5: Long Section through Ricciardo (looking East) showing the known gold distribution, with the metallurgical hole locations annotated.

#### Historical primary mineralisation metallurgical test work

The Ricciardo deposit has been mined historically by previous operators from 2001-2004 and 2013-2018. Activities were focused on oxide mineralisation zones and only limited test work was carried out on transition material and primary sulphide mineralisation.

Notably, Albion Process<sup>TM</sup> test work was carried out in 2017 by Core Metallurgy and returned up to 99% recovery following downstream cyanidation of finely ground and oxidised flotation concentrates. However, a lack of information as to the sample location limits the Company's ability to rely on that study. Further Albion test work (as part of an optimisation study) is anticipated as one of a number of potential alternative processing pathways.

#### **IMO Testwork**

Independent Metallurgical Operations Pty Ltd ("IMO") were engaged to carry out metallurgical test work to evaluate gold leaching and gold flotation performance and other metallurgical properties of reverse circulation (RC) drilling samples from the Ricciardo resource. RC drill intervals from two metallurgical holes (RDRC019 and RDRC020, refer Figures 4 & 5) were provided to IMO to produce four composite samples<sup>23</sup>.

Due to low conventional cyanide extraction recovery from the fresh rock samples, the focus of the metallurgical work was on flotation testing of the sulphide gold mineralisation.

<sup>&</sup>lt;sup>2</sup> For full details of the RDRC019 and RDRC020 refer to WA8 ASX release dated 1 February 2024.

<sup>&</sup>lt;sup>3</sup> Details of composite samples provided in Appendix 3.



#### **Initial Single-Stage "Rougher" Flotation Test**

IMO's testwork involved "rougher" flotation, a single initial stage of flotation for each sample. This commenced with "sighter" tests in which initial grind size and reagent dosage parameters were tested and evaluated to assist with optimising the parameters for further testing. The four composite samples each underwent two rougher flotation tests (tests involving a single stage of flotation for each sample) at higher and lower reagent dosages. The float test samples were ground to 80% passing 75 microns (µm) and then floated at natural pH.

The results of these sighter tests suggested that higher reagent dosages and longer flotation times generally resulted in higher gold recoveries. The test work indicated further increases in flotation times may help increase recoveries.

#### **Optimised Rougher Flotation with Tails Cyanide Leach**

Each of the four composites underwent one optimised rougher flotation test using the same float feed grind size and float pH but with the higher reagent option and a longer flotation time than the sighter tests.

Cyanide leach tests were performed on the optimised rougher float tails. The purpose of the float tails leach work was to establish an estimate for combined gold recovery if a flotation circuit with a tails leach were to be adopted. The results are set out in Table 1 below.

7	able 1 Optimised	Rougher Fi	lotation Sun	nmary, Flotatio	n Tail Cyanide	Leach Reco	veries and To	tal Recoveries

Comp Sample ID	Feed		Flotati	on Conce	ntrate		Tail Cyanide Leach Recovery	Total Au Recovery
	Au Calc. Head	Au Grade	Au Rec	S	As	Sb	Tail Au	
	g/t	g/t	%	%	%	%	%	%
GRM1-HG_B	6.21	46.27	92.1	14.6	8.1	0.2	4.4	96.5
GRM1-LG_B	1.17	10.85	90.9	6.1	2.4	0	4.9	95.8
GRM2-HG_B	7.38	55.87	91.5	17.2	7.6	1.6	5.2	96.8
GRM2-LG_B	0.85	6.28	82.4	7.8	0.8	9.9	9.0	91.5

#### **Flotation Optimisation and Bacterial Oxidation Tests**

#### **Flotation Optimisation Test**

After encouraging results were received from the IMO test work, the Yantai Jinpeng laboratory was engaged to undertake further flotation optimisation testwork and to test the samples for amenability to gold extraction using bacterial oxidation. A new bulk sample<sup>4</sup> was created by combining the RC material from RDRC019 and RDRC020 and delivered to the metallurgical laboratory.

A closed-circuit flotation test, in which the flotation products are iteratively fed back into the process, was carried out. The two float test samples were prepared by grinding to 65% passing 75 microns

<sup>&</sup>lt;sup>4</sup> Details of bulk sample provided in Appendix 3.



(200 mesh) and 85% passing 75 microns (200 mesh) respectively. The results of the tests are shown in Table 2. The "mass pull" for each sample tested is the percentage (by mass) of the original sample contained in the resulting concentrate and flotation tail respectively.

Table 2: Result of closed-circuit flotation test results.

	Mass Pull	Float Con Size	Au	Au Recovery	As	Fe	S	Sb
	%	Passing 75µm	g/t	%	%	%	%	%
Con 1	6.5	65% Pass 75 μm	29.15	80.6	4.0	21.4	14.2	2.7
Tail 1	93.5	65% Pass 75 μm	0.49	19.4	0.2	7.0	0.1	0.3
Con 2	7.4	85% Pass 75 μm	26.58	83.9	3.7	20.1	13.5	2.6
Tail 2	92.6	85% Pass 75 μm	0.41	16.1	0.1	7.3	0.1	0.3

Cyanide leach tests were performed on the closed-circuit flotation test tail. The purpose of the float tails leach work was to establish an estimate for combined gold recovery if a flotation circuit with a tails leach were to be adopted. Two samples, one with no further grinding of the float tail and the other with further grinding to 95% passing 75 microns (200 mesh), were each applied and tested. The highest recovery achieved was through grinding size 95% passing 75 microns (200 mesh), resulting in **48.78%** gold recovery from the tail.

#### **Bacterial oxidation**

The Yantai Jinpeng laboratory produced a gold concentrate using a bulk flotation process which was similar to the closed-circuit flotation concentrate. The concentrate was subjected to a bacterial culture to liberate the gold from fine-grained sulphides in the concentrate (a process known as bacterial oxidation).

The results of the bacterial oxidation tests are shown in Table 3.

Table 3: Bacterial oxidation result compared with feed gold concentration

	Mass Pull (%)	Au (g/t)	As %	Fe %	S %
Gold Concentrate	100	25.3	3.9	20.4	12.4
Bacterially Oxidised Slag	83.2	30.41	0.7	13.1	6.9
Element removal rate (%)	<u> </u>		85	46	53

Cyanide leaching tests were then carried out on the oxidised slag. The resulting recovery of gold from the oxidised slag from these tests averaged **95.3%** (refer Table 4). The bacterial oxidation tests show that the bacterial oxidation of the Ricciardo sample was effective in increasing the cyanidation leach recovery.



Table 4: Attributable recovery of bacterial oxidation

	Bacterial Oxidation Recovery	Overall Recovery
Recovery	95.3%	87.8% <sup>5</sup>

#### **Summary**

Flotation and bacterial oxidation results show that there is a clear potential pathway for future development of the Ricciardo resource, including direct concentrate export and producing dore bars on site.

It should be emphasised that these are preliminary tests which will be the subject of further optimisation, particularly of flotation and bacterial oxidation, while alternative means of processing (in particular oxidation) will be evaluated as development studies proceed.

Antimony core samples from Ricciardo have also been sent for separate metallurgical testwork to evaluate the potential to produce a discrete saleable antimony concentrate.

In parallel, the Company continues to grow the gold resource base within the Golden Corridor and to search for new gold deposits along the main shear. Metallurgical testwork of the other deposits along the shear will be undertaken progressively.

Engage with this announcement at the Warriedar InvestorHub

This announcement has been authorised for release by: Amanda Buckingham, Managing Director

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<sup>&</sup>lt;sup>5</sup> **Overall Recovery** = (Flotation Recovery x Bacterial Oxidation Recovery) + (Flotation Tail Au Recovery x Tail Au Leaching Recovery)

**Overall Recovery [87.81%]** = (Flotation Recovery **[83.88%**, *table 2*] x Bacterial Oxidation Recovery **[95.32%**, *table 4*]) + (Flotation Tail Au Recovery **[16.12%**, *table 2*] x Tail Au Leaching Recovery **[48.78%**, *body page 7*])



#### **About Warriedar**

Warriedar Resources Limited (ASX: WA8) is an advanced gold and copper exploration business with an existing resource base of over 1.8 Moz gold (148 koz Measured, 819 koz Indicated and 864 koz Inferred)¹ across Western Australia and Nevada, and a robust pipeline of high-calibre drill targets. Our focus is on rapidly building our resource inventory though modern, innovative exploration.

#### **Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Peng Sha. Mr Sha is an employee of Warriedar and a member of the Australasian Institute of Mining and Metallurgy ("AusIMM") and has sufficient experience of relevance to the styles 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 Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("2012 JORC Code"). Mr. Sha consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

The information in this report that relates to metallurgical results is based on information compiled and reviewed by Mr Lanliang Niu of SRK Consulting, a Competent Person who is a member of the AusIMM and a Metallurgist. Mr Niu has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 JORC Code. Mr Niu consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



#### **Appendix 1: Mineral Resources**

Golden Range and Fields Find Projects, Western Australia

	Go	olden Ra	ange N	lineral I	Resourc	es (JOR	C 2012)	- Dec	ember 2	2019		
		Meas	ured		Indicate	d		Inferre	d	Tota	al Resou	ırces
Deposit	kt	g/t Au	kOz Au	kt	g/t Au	kOz Au	kt	g/t Au	kOz Au	kt	g/t Au	kOz Au
Austin	-	-	-	222	1.30	9.1	212	1.5	10.1	434	1.4	19.2
Rothschild	-	-	-	-	-	-	693	1.4	31.3	693	1.4	31.3
M1	55	1.80	3.3	131	2.50	10.4	107	4.0	13.7	294	2.9	27.4
Riley	-	=	-	32	3.1	3.2	81	2.4	6.3	113	2.6	9.5
Windinne Well	16	2.33	1.2	636	3.5	71	322	1.9	19.8	975	2.9	91.7
Bugeye	14	1.56	0.7	658	1.2	24.5	646	1.1	22.8	1319	1.1	48.1
Monaco-Sprite	52	1.44	2.4	1481	1.2	57.2	419	1.1	14.2	1954	1.2	74
Mugs Luck- Keronima	68	2.29	5	295	1.6	15	350	1.6	18.5	713	1.7	38.6
Ricciardo (Silverstone)	62	3.01	6	4008	1.6	202.6	4650	1.8	267.5	8720	1.7	475.9
Grand Total	267	2.17	18.6	7466	1.64	393	7480	1.68	404.2	15213	1.67	815.7

Note: Appropriate rounding applied

The information in this report that relates to estimation, depletion and reporting of the Golden Range and Fields Find Mineral Resources for is based on and fairly represents information and supporting documentation compiled by Dr Bielin Shi who is a Fellow (CP) of The Australasian Institute of Mining and Metallurgy. Dr Bielin Shi has sufficient experience relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking 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. Dr. Shi consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

Big Springs Project, Nevada

	Big S	prings	Minera	al Reso	urces (	JORC 2	012) - I	Novem	ber 202	22		
	Meas	ured		Indicat	ted		Inferre	d		TOTAL		
Deposit	kt	g/t Au	koz	kt	g/t Au	koz	kt	g/t Au	koz	kt	g/t Au	koz
North Sammy	345	6.6	73.4	698	3.1	70.6	508	2.4	39.1	1,552	3.7	183.1
North Sammy Contact	-	-	-	439	2.2	30.9	977	1.4	45	1,416	1.7	75.8
South Sammy	513	3.4	55.5	4,112	2.0	260.7	1,376	1.5	64.9	6,001	2.0	381.2
Beadles Creek	-	-	-	753	2.6	63.9	2,694	1.9	164.5	3,448	2.1	228.4
Mac Ridge	-	-	-	-	-	-	1,887	1.3	81.1	1,887	1.3	81.1
Dorsey Creek	-	-	-	-	-	-	325	1.8	18.3	325	1.8	18.3
Brien's Fault	-	-	-	-	-	-	864	1.7	46.2	864	1.7	46.2
Sub-Totals	858	4.7	128.9	6,002	2.2	426.1	8,631	1.7	459.1	15,491	2.0	1,014.1

Note: Appropriate rounding applied

The information in the release that relates to the Estimation and Reporting of the Big Springs Mineral Resources has been compiled and reviewed by Ms Elizabeth Haren of Haren Consulting Pty Ltd who is an independent consultant to Warriedar Resources Ltd and is a current Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy and Member of the Australian Institute of Geoscientists. Ms Haren 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 "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code).



#### Appendix 2: JORC CODE (2012) TABLE 1.

# 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.</li> <li>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 pulverized 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>For Reverse Circulation (RC) drilling program, 1m RC drill samples were collected through a rig-mounted cone splitter designed to capture a one metre sample with optimum 2kg to 4kg sample weight. Once drilling reached fresh rock a fine spray of water was used to suppress dust and limit the loss of fines through the cyclone chimney.</li> <li>Compositing RC samples in lengths of 4 m was undertaken from host rocks via combining 'Spear' samples of the 1m intervals to generate a 2 kg (average) sample.</li> <li>Diamond Core samples were taken, generally on 1 m intervals or on geological boundaries where appropriate.</li> <li>For 1m RC samples, field duplicates were collected at an approximate ratio of 1:50 and collected at the same time as the original sample through the chute of the cone splitter. Certified reference materials (CRMs) were inserted at an approximate ratio of 1:15 and blanks were inserted at an approximate ratio of 1:25. Grade range of the certified samples were selected based on grade population and economic grade ranges. For composite RC samples, field duplicates were made via combining 'Spear' samples. Duplicates, CRMs and blanks were inserted at an approximate ratio of 1:50.</li> <li>Samples were sent to the lab where they were pulverised to produce a 30g or 25g charge for fire assay.</li> </ul>
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	<ul> <li>Top Drill drill rig was used for the RC holes. Hole diameter was 140 mm.</li> <li>Diamond drilling was also undertaken by Top Drill rig using HQ.</li> <li>Core was orientated using Axis Champ Ori digital core orientation tool.</li> </ul>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.      Measures taken to maximize sample recovery and ensure representative nature of the samples.      Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	<ul> <li>For RC each metre interval, sample recovery, moisture and condition were recorded systematically. The majority of samples were of good quality with ground water having minimal effect on sample quality or recovery.</li> <li>The diamond drill core recovered is physically measured by tape measure and the length recovered is recorded for every run.</li> <li>There is no obvious relationship between sample recovery and grade.</li> <li>During the RC sample collection process, the sample sizes were visually inspected to assess drill recoveries.</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> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>RC chips were washed and stored in chip trays in 1 m intervals for the entire length of each hole. Chip trays were stored on site in a sealed container.</li> <li>RC chips and diamond core were visually inspected and logged by an onsite geologist to record lithology, alteration, mineralisation, veining, structure, sample quality etc.</li> <li>Logging and sampling have been carried out to industry standards to support a Mineral Resource Estimate.</li> <li>Drill hole logs are recorded in LogChief and uploaded into database (DataShed), and output further validated in 3D software such as Surpac and Micromine. Corrections were then re-submitted to database manager and uploaded to DataShed.</li> <li>The metallurgical tests samples are from RDRC019 and RDRC020.</li> </ul>



Criteria	JORC Code explanation	Commentary
		The Competent Person considers that the level of detail is sufficient for the reporting of metallurgical results.
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>RC samples were split from dry 1 m bulk samples via a splitter directly from the cyclone to obtain a sample mass of 2-3kg.</li> <li>Composite RC samples were generated by taking a spear sample from each 1m bag to make rough 2 kg sample.</li> <li>Half Core samples were taken, generally on 1 m intervals or on geological boundaries where appropriate.</li> <li>Samples including RC chips and diamond core were sorted and dried at 105 °C in client packaging or trays.</li> <li>All samples weighed and recorded when sample sorting.</li> <li>Pulverize 3kg to nom 85% &lt;75um. All samples were analysed for Au using fire assay.</li> <li>Sample preparation technique is appropriate for Golden Range projects and is standard industry practice for gold deposits.</li> </ul>
Quality of assay data and Laboratory tests	<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>Most of drilling samples were submitted to Jinning Testing &amp; Inspection's Perth laboratory. Samples were assayed by 30g fire assay ICP-OES finish from Jinning (FA30I). The multi element assay were completed by mixed acid digest ICP-OES finish (MADI33). The high grade Sb samples (&gt;3.5%) are reanalysed by fusion method to obtain near total digestion. Samples drilled from RDRC019 and RDRC020 were submitted to Independent Metallurgical Operations Pty Ltd and then analysed by Interteck Gealysis Perth. Interteck Gealysis applies 25g lead collection fire assay.</li> <li>Field duplicates, blanks and CRMs were selected and placed into sample stream analysed using the same methods.</li> <li>For 1m RC sample sequence, field duplicates were collected at a ratio of 1:50 and collected at the same time as the original sample through the cone splitter. CRMs were inserted at an approximate ratio of 1:15 and blanks were inserted at an approximate ratio of 1:25.</li> <li>For composite RC samples, duplicates, CRMs and blanks were inserted at an approximate ratio of 1:15 and blanks were inserted at an approximate ratio of 1:25.</li> <li>For diamond drilling CRMs were inserted at an approximate ratio of 1:25.</li> <li>No portable XRF analyses result has been used in this release.</li> </ul>
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>Logging and sampling were recorded on digital logging sheet and digital sample sheet. Information was imported into DataShed database after data validation. File validation was also completed by geologist on the rig. Datashed was also applied for data verification and administration.</li> <li>There were no twin holes drilled during the RC/diamond program.</li> <li>All the sample intervals were visually verified using high quality photography.</li> <li>Assay results received were plotted on section and were verified against neighbouring holes. QAQC data were monitored on a hole-by-hole basis.</li> <li>Any failure in company QAQC protocols resulted in follow up with the lab and occasional repeat of assay as necessary.</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</li> </ul>	<ul> <li>Hole collars were picked-up by a licenced surveyor using DGPS equipment. All location data are captured in the MGA projection coordinates on GDA94 geodetic datum.</li> <li>During drilling most holes underwent gyroscopic down hole surveys on 30m increments. Upon completion of the hole a continuous gyroscopic survey with readings taken automatically at 5m increments inbound and outbound. Each survey was carefully checked to be in bounds of</li> </ul>



Criteria	JORC Code explanation	Commentary
	control.	acceptable tolerance.
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>At Ricciardo exploration drilling has been drilled on a grid pattern.</li> <li>Spacing is considered appropriate for this style of the mineralisation and stage of the exploration.</li> <li>Holes spacing at Ricciardo was sufficient for resource estimation.</li> <li>RC samples have been composited to 4m lengths outside proposed target zones</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>	WA8 and historical drilling are mainly orientated to perpendicular are main structural trend of the area; however, there are multiple mineralisation events and there is insufficient data to confirm the geological model.
Sample security	The measures taken to ensure sample security.	Calico sample bags are tied, grouped by sample ID placed into polyweave sacks and cable tied. These sacks were then appropriately grouped, placed within larger in labelled bulka bags for ease of transport by company personnel or third-party transport contractor. Each dispatch was itemised and emailed to the laboratory for reconciliation upon arrival. IMO metallurgical samples were transported directly to the IMO laboratory and managed by qualified metallurgist. Yantai Jinpeng metallurgical samples were shipped from IMO storage by a freight agent.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The competent person for exploration results has visited the project where sampling has taken place and has reviewed and confirmed the sampling procedures. The competent person for metallurgical result has reviewed related reports and materials.

## Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<ul> <li>There are 64 tenements associated with both Golden Dragon and Fields Find. Among them, 19 are mining leases, 27 are exploration licenses and 2 are in prospecting licenses. The rest of the tenements are G and L licenses. Third party rights include: 1) Gindalbie iron ore rights; 2) Mt Gibson Iron ore right for the Shine project; 3) Messenger's Patch JV right on M 59/357 and E 59/852: 4) Mt Gibson's iron ore and non-metalliferous dimension stone right on Fields Find; 5) GoldEX Royalty to Anketell Pty Ltd for 0.75% of gold and other metals production from M 59/379 and M 59/380; 6) 2% NSR royalty on products produced from Fields Find tenements to Mt Gibson; 7) Royalty of A\$5 per oz of gold produced payable to Mr Gary Mason, limited to 50Koz produced from P 59/1343, which covers part of E 59/1268. 8) Minjar royalty for A\$ 20 per oz of gold production from the project subject to a minimum received gold price of A\$2000 per oz with a cap of A\$18 million.</li> <li>There is no determined native title in place.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Gold exploration at the region commenced in the 1980s. Normandy Exploration commenced the systematic exploration in late 1980s and 1990s. Project were acquired by Gindalbie Gold N.L. in December 1999. Golden Stallion Resources Pty Ltd acquired the whole project in March 2009. Shandong Tianye purchased 51% of



Criteria	JORC Code explanation	Commentary
		Minjar (the operating company) in July 2009. Minjar became the wholly owned subsidiary of Tianye in 2010.
		Over 30,000 drill holes are in the database and completed by multiple companies using a combination technic of Reserve Circulation (RC), diamond drilling (DD), airecore (AC), Auger and RAB. Most of the drill holes were completed during the period of 2001-2004 and 2013-2018 by Gindalbie and Minjar respectively.
Geology	Deposit type, geological setting and style of mineralisation.	• In the Golden Range area, gold mineralisation is dominantly controlled by structures and lithologies. North trending shear zones and secondary structures are interpreted to be responsible for the hydrothermal activity that produced many of the region's gold deposits. Two major shear structures have been identified, the Mougooderra Shear Zone and the Chulaar Shear Zone; both striking approximately north and controlling the occurrence of gold deposits. Host lithology units for gold mineralisation are predominantly the intensely altered mafic to ultramafic units, BIF, and dolerite intrusions. Main mechanism for mineralisation is believed to be associated with: 1) Shear zones as a regional control for fluid; 2) dolerite intrusions to be reacted and mineralised with auriferous fluids; 3) BIF as a rheological and chemical control; 4) porphyry intrusions associated with secondary or tertiary brittle structures to host mineralisation.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	Exploration results are not being reported.
	easting and northing of the drill hole collar	
	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	dip and azimuth of the hole     down hole length and interception depth	
	hole length.	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	In reporting Exploration Results,     weighting averaging techniques,     maximum and/or minimum grade     truncations (eg cutting of high grades)     and cut-off grades are usually Material     and should be stated.	Exploration results are not being reported.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and	These relationships are particularly important in the reporting of Exploration Results.	Exploration results are not being reported.
intercept lengths	If the geometry of the mineralisation	



Criteria	JORC Code explanation	Commentary
	with respect to the drill hole angle is known, its nature should be reported.  If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Appropriate maps are included in the announcement
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.	Exploration results are not being reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All meaningful and material metallurgical testwork results are detailed in the body of this announcement. The metallurgical testwork program included:
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	<ul> <li>Further work includes RC and diamond core drilling programs to extend the identified mineralisation along strike and toward depth of the deposits sitting on Mougooderra Shear and other paralleled shear structure.</li> <li>Repeated parallel ore bodies toward will be tested as well.</li> </ul>



#### **Appendix 3: Metallurgical Composites Generation and Head Assay Results**

IMO Metallurgical Test Bulk Composites Generation

Hole ID	Interval ID	Depth From	Depth To	Composite	Mass (kg)	Au (g/t)	Comment		
RDRC019	WFS25109	148.5	149.5		19.26	1.1	ļ		
	WFS25126	163.5	164.5	GRM1-LG_B	19.01	0.69	Low Au		
	WFS25127	164.5	165.5		18.44	0.94			
	WFS25108	147.5	148.5		5	4.81			
	WFS25110	149.5	150.5		3.27	5.97			
	WFS25111	150.5	151.5		5.01	10.85			
	WFS25112	151.5	152.5		5.01	7.85			
	WFS25113	152.5	153.5		5.01	8.4			
	WFS25114	153.5	154.5		5.02	3.82			
RDRC019	WFS25116	154.5	155.5	GRM1-HG_B	5.02	5.28	High Au		
	WFS25117	155.5	156.5		2.78	5.47			
	WFS25118	156.5	157.5		5.02	3.79			
	WFS25119	157.5	158.5		5.01	5.71			
	WFS25120	158.5	159.5		5.02	7.79			
	WFS25121	159.5	160.5		5.02	5.69			
	WFS25122	160.5	161.5		5.01	6.11			
	WFS25306	142	143		29.68	0.7			
RDRC020	WFS25307	143	144	GRM2-LG_B	28.57	1	Low Au		
	WFS25308	144	145		7.22	1	1		
	WFS25309	145	146		11.65	8.8			
RDRC020	WFS25310	146	147	GRM2-HG_B	16.32	9.19	High Au		
	WFS25311	147	148		26.71	7.44			

#### IMO Metallurgical Test Split Composites Generation

Hole ID	Interval ID	Depth From	Depth To	Composite	Mass (g)	Au (g/t)	Comment	
	WFS25109	148.5	149.5		731	1.1		
RDRC019	WFS25126	163.5	164.5	GRM1-LG_S	731	0.69	Low Au	
	WFS25127	164.5	165.5		730	0.94		
	WFS25108	147.5	148.5		230	4.81		
	WFS25110	149.5	150.5		132	5.97		
	WFS25111	150.5	151.5		230	10.85		
RDRC019	WFS25112	151.5	152.5	GRM1-HG_S	231	7.85	High Au	
	WFS25113	152.5	153.5		230	8.4		
	WFS25114	153.5	154.5		231	3.82		
	WFS25116	154.5	155.5		231	5.28		



Hole ID	Interval ID	Depth From	Depth To	Composite	Mass (g)	Au (g/t)	Comment	
	WFS25117	155.5	156.5		0	5.47		
	WFS25118	156.5	157.5		0	3.79		
	WFS25119	157.5	158.5		230	5.71		
	WFS25120	158.5	159.5		231	7.79		
	WFS25121	159.5	160.5		231	5.69		
	WFS25122	160.5	161.5		231	6.11		
	WFS25306	142	143		800	0.7	Low Au	
RDRC020	WFS25307	143	144	GRM2-LG_S	801	1		
	WFS25308	144	145		573	1		
	WFS25309	145	146		731	8.8		
RDRC020	WFS25310	146	147	GRM2-HG_S	731	9.19	High Au	
	WFS25311	147	148		731	7.44		

#### IMO Metallurgical Test Composite Head Assay Analysis Result

Element	Au	Ag	As	Cu	Fe	Ni	S	Sb
Unit	g/t	g/t	ppm	ppm	%	ppm	%	ppm
GRM1-HG_B	6.319	2.5	12,059	75	7.15	292	2.11	363
GRM1-LG_B	1.351	1.29	2,746	57	9.99	178	0.74	76
GRM2-HG_B	7.219	1.53	9,339	35	6.24	410	2.16	3,072
GRM2-LG_B	0.709	1.28	1,593	31	4.82	1,251	1.05	16,663
GRM1-LG_S	0.83	0.97	1,922	44	9.72	148	4	96
GRM1-HG_S	7.35	2.29	12,904	65	7.1	287	12	339
GRM2-LG_S	0.93	1.18	1,723	34	4.16	1,346	133	20,331
GRM2-HG_S	7.92	1.6	10,013	36	5.76	416	34	4,235

#### Yantai Jingpeng Metallurgical Test Bulk Composites Generation

Hole ID	ID	From	To	Weight kg	Au ppm	S %
	WFS25092	134.5	135.5	22	0.18	0.2
	WFS25096	137.5	138.5	31	0.68	0.4
RDRC019	WFS25123	161.5	162.5	6	0.45	0.5
RDROOTS	WFS25124	162.5	163.5	15	1.17	1.2
	WFS25128	165.5	166.5	17	0.24	0.2
	WFS25129	166.5	167.5	22	6.71	1.6
	WFS25279	137.5	138.5	22	0.2	1.0
RDRC020	WFS25280	120	121	20	0.17	1.3
	WFS25312	148	149	23	0.29	0.3
	WFS25314	150	151	12	0.18	0.4



Hole ID	ID	From	То	Weight kg	Au ppm	S %
	GRM1-HG_B Composite	N/A	N/A	24	6.33	2.1
RDRC019	GRM1-HG_S Composite	N/A	N/A	20	7.39	2.1
RDRC019	GRM1-LG_B Composite	N/A	N/A	18	1.36	0.7
	GRM1-LG_S Composite	N/A	N/A	5	0.83	0.6
	GRM2-HG_B Composite	N/A	N/A	18	7.3	2.2
RDRC020	GRM2-HG_S Composite	N/A	N/A	5	7.88	2.2
RDRC020	GRM2-LG_B Composite	N/A	N/A	27	0.76	1.1
	GRM2-LG_S Composite	N/A	N/A	3	0.95	1.4

Yantai Jingpeng Metallurgical Test Bulk Composites Head Assay Analysis Result

Element	Au	Fe	S	C	Cu	Pb	Zn	As	Sb	Ag
	g/t	%	%	%	%	%	%	%	%	g/t
Content										