

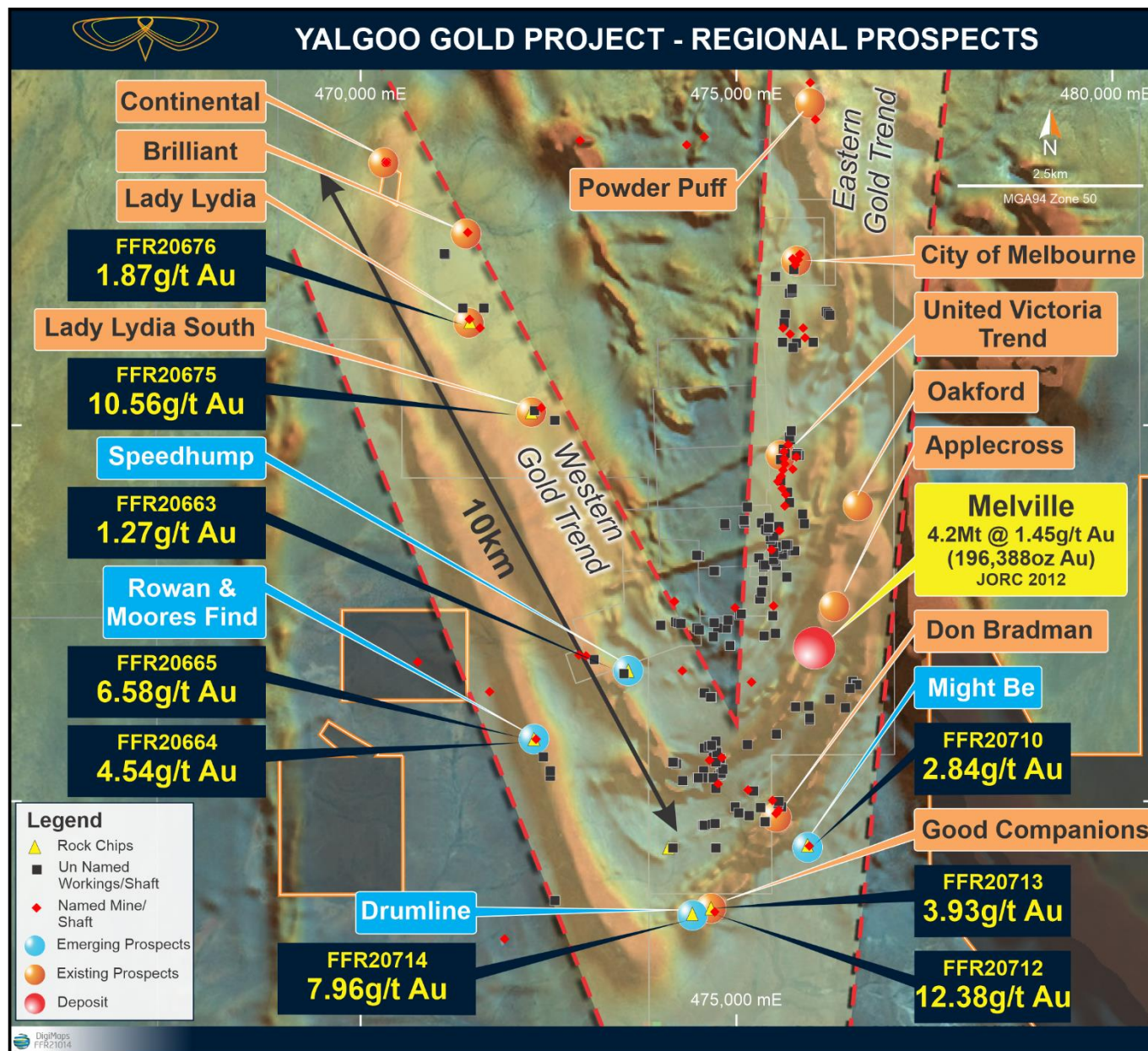
## Regional exploration rock-chipping enhances potential for widespread shallow gold at Yalgoo

**Initial groundwork over previously undrilled and unrecorded century-old workings return assays of up to 12.38g/t**

### Highlights:

- Multiple unrecorded and undrilled gold shafts and shallow workings identified from high-resolution drone imagery.
- Ground-truthing and geological mapping of unrecorded workings illustrates porphyry/shear/Banded Iron Formation (BIF) relationship to gold mineralisation at all the mapped occurrences.
- Opportunistic sampling at a number of the historical workings, as well as on a sheared porphyry contact outcropping across an access track (Speedhump), has returned significant assays at surface including:
  - FFR20663 – 1.27g/t – “Speedhump” quartz vein outcropping in access track
  - FFR20664 – 4.54g/t – “Rowan+Moores Find” – 3 x historical shafts along 700m of strike
  - FFR20665 – 6.58g/t – “Rowan+Moores Find” – 3 x historical shafts along 700m of strike
  - FFR20675 – 10.56g/t – “Lady Lydia South” – 4 x shallow pits along 300m of strike
  - FFR20676 – 1.87g/t – “Lady Lydia” – 2 x historical shafts along 200m of strike
  - FFR20710 – 2.84g/t – “Might Be” – Shallow pit 500m SW of Don Bradman
  - FFR20712 – 12.38g/t – “Good Companions” – 2 x historical shafts
  - FFR20713 – 3.93g/t – “Good Companions” – 2 x historical shafts
  - FFR20714 – 7.96g/t – “Drumline” – 3 x historical shafts (spoil sample)
- Correlation of existing prospects, recorded workings and “rediscovered” unrecorded workings shows a strong relationship between local to regional-scale NW faults/shears where they offset the highly-magnetic BIF sequences.
- The mineralisation style seen at all the mapped gold occurrences across the north of Yalgoo is identical to that seen at the Melville Gold Deposit, where Firefly recently declared a maiden JORC 2012 Mineral Resource of 196,000oz @ 1.45g/t (0.7g/t cut-off) from surface.
- This regional sampling work further validates Firefly’s geological model and confirms a defined set of priority drilling targets through the delivery of high-grade gold results.
- Systematic mapping and sampling work on the historical workings is ongoing with further assays expected in the coming weeks.
- Firefly is committed to increasing its gold inventory across the wider Yalgoo Gold Project through targeted drilling and sampling of priority targets identified through the employment of a practical on-ground exploration methodology combined with effective use of innovative and efficient technology.

Firefly Resources Ltd (**ASX: FFR; Firefly or the Company**) is pleased to report significant new assay results from the initial round of sampling of recorded and unrecorded gold workings across the northern extent of its 100%-owned **Yalgoo Gold Project** in Western Australia (see Figure 1)

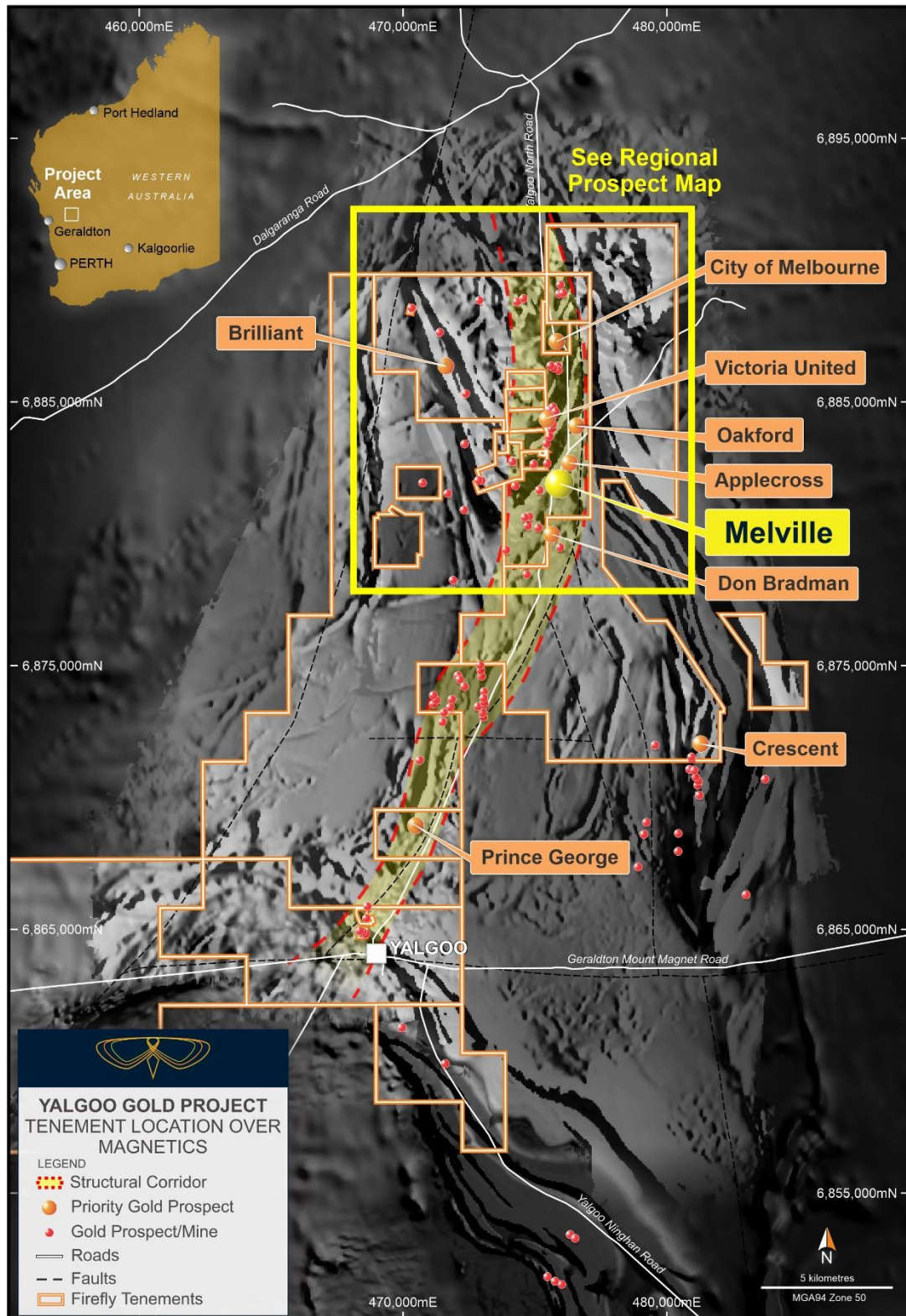


**Figure 1.** Plan view of northern Yalgoo Gold Project illustrating widespread gold mineralisation that Firefly has defined as the Western and Eastern Gold Trends. These trends roughly follow the orientation of the steeply dipping regional BIF sequences and extend for 10's of kilometres with historical gold workings predominantly centred around fault/shear offsets. 95% of the historical workings mapped so far are undrilled and no modern exploration work has ever been conducted over them.

Firefly is building an expansive dataset of geological information across Yalgoo through intensive field-mapping and sampling aided by:

1. High-resolution drone imagery to locate and identify the spatial distribution and frequency of historical workings; and
2. Sub-Audio Magnetic geophysics, critical in defining the subsurface architecture, particularly the key faults/shears within the BIF-sequences.





**Figure 2.** Plan view of Firefly's 100%-owned Yalgoo Gold Project tenement with current Firefly priority gold targets over black and white magnetics. The 196,000-ounce Melville Gold Deposit sits within one of several kilometre-scale gold mineralisation trends that Firefly is targeting at Yalgoo. The area of focus of this announcement is shown in yellow.

## Management Comment

Firefly Managing Director, Simon Lawson, said: *"This latest round of results from Yalgoo provides further validation of the Yalgoo Gold Project's prospectivity for widespread, high-grade gold mineralisation. Following our consolidation of the ownership of this prolific historical goldfield under the Firefly banner over the past 12 months, we are only just starting to reveal the true scale of mineralisation across our exciting and expansive 100%-owned land package.*

*"The maiden resource estimate of almost 200,000 ounces of gold from surface at the Melville deposit provides a very strong foundation for our ongoing exploration activities, with drilling of advanced prospects both along-strike from Melville and along parallel mineralisation trends providing very real potential to rapidly expand our resource inventory. In addition, our regional work programs using advanced aerial and ground-based technologies is delivering a pipeline of targets that indicates Yalgoo has the potential to become a significant new gold asset in Western Australia."*

## Authorised by Simon Lawson, Managing Director – Firefly Resources Ltd

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## Melville JORC 2012 Mineral Resource Estimate

Indicated			Inferred			Total		
Tonnes	Au (g/t)	Ounces	Tonnes	Au (g/t)	Ounces	Tonnes	Au (g/t)	Ounces
3,314,900	1.47	156,753	887,547	1.39	39,635	4,202,447	1.45	196,388

<sup>1</sup>Calculated using a 0.7g/t cut-off grade

FFR confirms that it is not aware of any new information or data that materially affects the information contained in ASX announcement dated 17 March 2021 in relation to the above resource estimate. All material assumptions and technical parameters underpinning the mineral resource estimates continue to apply and have not materially changed.

## Competent Persons Statement

The information in this announcement that relates to Exploration Results and Mineral Resources is based on and fairly represents information and supporting documentation reviewed, collated and compiled by Mr Simon Lawson, a full-time employee and the Managing Director of Firefly Resources Ltd. Mr Lawson is a professional geoscientist and Member of The Australian Institute of Mining and Metallurgy and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves. Mr Lawson consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

## Annexure A

### Collar and Assay Table

Sample ID	Easting	Northing	mRL	Au (g/t)	Sample Type
FFR20663	473569	6881697	362	1.27	Rock Chip
FFR20664	472307	6880814	369	4.54	Rock Chip
FFR20665	472307	6880814	369	6.58	Rock Chip
FFR20675	472272	6885161	350	10.56	Rock Chip
FFR20676	471453	6886367	352	1.87	Rock Chip
FFR20710	475950	6879390	372	2.84	Rock Chip
FFR20712	474670	6878565	376	12.38	Rock Chip
FFR20713	474670	6878565	376	3.93	Rock Chip
FFR20714	474424	6878479	373	7.96	Rock Chip

Annexure B

**JORC TABLE 1**  
**Section 1 Sampling Techniques and Data**

<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
<i>Sampling techniques</i>	<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>	<p>All Reverse Circulation ('RC') samples consist of 1m primary sample calico bags taken directly off the cyclone splitter. Due to the nature of the Melville mineralisation being comprised of shallow oxide, transition, and fresh primary mineralisation it was decided that this sampling methodology was an efficient and low risk approach.</p> <p>Historical sampling criteria is unclear for pre 2008 drilling.</p> <p>FFR sampling is undertaken using standard industry practices including the use of duplicates, standards and blanks at regular intervals. All RC samples are split to 1-3kg in weight through the cyclone splitter on the drill rig for 1m drill intervals. A Thermo Scientific Niton Gold XL3+ 950 Analyser is available on site to aid geological interpretation. No pXRF results are reported.</p> <p>Representative rock chip sampling using hand tools of outcropping geology.</p>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	All co-ordinates are in UTM grid (GDA Zone 50). All drill hole collars are to be surveyed professionally on a campaign basis to an accuracy of <0.5 m. Initially all holes are picked up by the geologist using a handheld GPS with an accuracy of ± 2m.
	<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>	No compositing was conducted. All 1m samples are split to 1-3kg in weight through a cyclone splitter which is air blasted clean at the end of each rod. Individual samples weigh less than 3kg to ensure total preparation at the laboratory pulverisation stage. Rock Chip sampling provides a minimum of 2kg of samples for analysis. The sample size is deemed appropriate for the grain size of the material being sampled. Samples are sent to North Australian Laboratories Pty Ltd (NAL) in Pine Creek, NT, where they are prepared and analysed using FA40 (Lower limit of 0.01g/t Au and

		upper limit of 100g/t Au). A blank quartz wash is inserted between every sample during preparation
<i>Drilling techniques</i>	<i>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).</i>	RC drilling accompanied by Auxiliary and Booster and a 5.5" face sampling hammer.  Historical RAB, AC, RC and DD drilling has been undertaken by several companies over a period of 30 years. The specifics of the machinery used have not been provided by previous tenement holders.
<i>Drill sample recovery</i>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	No records of this data in historical reports
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Historical sampling recovery is unclear for pre 2008 drilling.
	<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 significant sample loss or bias has been noted in current drilling or has been found in historical exploration reports.
<i>Logging</i>	<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 geological, structural and alteration-related observations are stored in the company drill-hole database.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Lithology, structure, alteration, mineralisation, weathering, colour, and any other important features of RC drill chips have been logged on a 1 m basis or in specific composite intervals.
	<i>The total length and percentage of the relevant intersections logged.</i>	All drill holes were logged in full on completion.
<i>Subsampling techniques and sample preparation</i>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Every 1 m RC interval is sampled dry as a bulk calico primary bag taken off the cyclone. Drill sample preparation and precious metal analysis is undertaken by a registered laboratory (NAL). Sample preparation is by dry pulverisation to 85% passing 75 micron. FFR field QAQC procedures involve the use of certified standards  (1:40), blanks (1:40) and duplicates at appropriate intervals for Grade Control programs. High, medium and low certified gold standards (Certified Reference Material) are used. Historical QAQC procedures are unclear for pre 2008 drilling Sampling is carried out using standard protocols



		and QAQC procedures as per industry practice. Duplicate samples are taken (~1:40) and more frequently when in prospective zones of mineralisation. These duplicates are routinely checked against the originals at the end of each program. Sample sizes are considered appropriate for grain size of sample material to give an accurate indication of gold mineralisation.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Every 1 m RC interval was sampled dry as a bulk calico primary bag taken off the cyclone.
	<i>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</i>	The drill sample preparation is undertaken by a registered laboratory using industry standard techniques and equipment which is considered appropriate for the type of material being sampled.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	No sub-sampling has been undertaken by Firefly. Historical sub-sampling procedures are unclear for pre 2008 drilling.
	<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>	Firefly has conducted a number of duplicate drill-holes to ensure reproducibility of assays compared to historic drilling. Historical sampling procedures are unclear for pre 2008 drilling.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are considered appropriate for grain size of sample material and to provide an accurate indication of gold mineralisation.
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>	On 1m RC cyclone split and rock chip samples, analysis is undertaken by NAL (a registered laboratory). Samples are analysed using Fire Assay (FA40) (Lower limit of 0.01g/t Au and upper limit of 100g/t Au). This assay protocol is considered appropriate for the style of mineralisation. Historical QA/QC procedures are unclear for pre 2008 drilling.
	<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>	Not applicable to this announcement.



	<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>	Quality Control procedures are employed during each stage of sample preparation at Lab. A blank quartz wash is inserted between every sample during preparation. Internal certified laboratory QA/QC is undertaken including check samples, blanks and internal standards. Historical QA/QC procedures are unclear for pre 2008 drilling.
<i>Verification of sampling and assaying</i>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Reported assay and sampling data has been consolidated and cross referenced by FFR staff and deemed to accurately represent the ore intercepts and outcropping bedrock observed.
	<i>The use of twinned holes.</i>	No twin holes have been completed.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Data has been compiled from various historical reports and consolidated in a centralised database.
	<i>Discuss any adjustment to assay data.</i>	Any intersects reported by the lab as <0.01 g/t Au are generally normalised to 0.00 g/t Au to prevent errors in data import into spatial software.
<i>Location of data points</i>	<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>	All maps and location data are in UTM grid (GDA 94 Zone 50) and historical drill hole collars have been surveyed or measured by hand-held GPS with an accuracy of $\pm 2$ m. The rig is aligned using an Azi-Aligner tool. Down hole surveys are undertaken using a gyroscopic down-hole tool at regular 30m intervals.  Rock chip samples located using Garmin GPS and recorded using Avenza mapping software.
	<i>Specification of the grid system used.</i>	All historical drill hole and sample co-ordinates have been normalised in the database to UTM grid (GDA94 Zone 50). Transformations were conducted from local grids where necessary for historical data sets.
	<i>Quality and adequacy of topographic control.</i>	All current drill hole collars and RL's are surveyed by qualified surveyors post-drilling. In some cases drillhole collars are surveyed in pre-drilling to ensure regular collar spacing. Topographic control is provided by recent high-resolution RTK drone imagery.
<i>Data spacing and</i>	<i>Data spacing for reporting of Exploration Results.</i>	Drill spacing is designed to achieve approximately 20m line spacing, infilling historic drilling with new drill data

<i>distribution</i>	<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>	The drill spacing and 1m downhole sampling provides sample spacing that is considered both regular and adequate in providing high confidence in grade continuity and variability across the prospect.
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been applied.
<i>Orientation of data in relation to geological structure</i>	<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>	The Don Bradman host unit dips at approximately 85 degrees to the south east. The orientation of drilling through the mineralised zone is as close to perpendicular to the dip of the ore zone providing unbiased sample orientation as well as true width of ore zone thickness.
	<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>	No orientation-based sampling bias is known at this time.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Drill Samples - All 3kg samples are bagged and tied at the rig, before being collated into larger bulka bags of roughly 300kg and zip-tied. The bulka bags are then transported to Perth, loaded into fork cages on a freight truck to NAL Labs where they are received and stored in a secure compound prior to analyses. Information not available for analysis completed prior to 2008. Rock Chip Samples – Maintained in possession of FFR geologist and securely transported to analysis facility
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	FFR geologists reviewed the historic sampling techniques, where available, upon acquisition of the Yalgoo Gold Project in 2020. Firefly geologists conduct regular reviews of data to ensure sampling is effective and accurate.  The NAL lab has been audited by Firefly geologists.

## JORC TABLE 1

### Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<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. 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>	This reported results are wholly contained on the Yalgoo Gold Project tenements. The tenements are partially subject to standard Native Title heritage agreements and state royalties. Third party royalties are also present on some individual tenements. The tenements are all in good standing,
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Historical drilling, surface sampling, soil sampling and geophysical surveys have been undertaken in different areas within the tenements intermittently by multiple third parties over a period of ~30 years.
Geology	<i>Deposit type, geological setting, and style of mineralisation.</i>	Geology comprises typical Archaean greenstone belt lithologies and granitic intrusions. The main style of mineralisation present is Yilgarn Archaean lode gold. Currently identified rock type hosts include: Channel Iron Deposit/Clay, Banded Iron Formation, Quartz Feldspar Porphyry, Amphibolite/Basalt & Mafic Schist.
Drill hole Information	<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: 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 o down hole length and interception depth hole length.</i>	No drilling undertaken regarding this announcement
Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	Significant assay intervals are generally recorded above 0.3/t Au. No cut-off has been applied to any sampling.

	<p><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></p>	<p>No cut-off has been applied to any sampling. Reported intervals are generally aggregated using individual assays above 0.3g/t Au with no more than 2m of internal dilution &lt;0.1g/t Au for any interval.</p>
	<p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>Not applicable to this announcement as not reporting any metal equivalents.</p>
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</i></p> <p><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></p>	<p>Down-hole intervals are reported. True dip and orientation of mineralised zones has not been determined.</p>
<p><i>Diagrams</i></p>	<p><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></p>	<p>Drill holes and locations indicate recorded locations for reported data. Cross-section schematic diagrams are shown to represent the general geometry of the ore zones. All maps are included in the body of the text.</p>
<p><i>Balanced reporting</i></p>	<p><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></p>	<p>No Drilling undertaken regarding this announcement.</p>
<p><i>Other substantive exploration data</i></p>	<p><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></p>	<p>All material results from geochemical and geophysical surveys and drilling, related to these prospects has been reported or disclosed previously.</p>
<p><i>Further work</i></p>	<p><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></p>	<p>Further exploration is underway in the area and further work is being planned by Firefly Resources.</p>



*Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*

Refer to figures in the body of this announcement.