

# **QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDING 31 MARCH 2021**

- 500m maiden diamond drilling program commenced at Boolaloo subsequent to the Quarter to assess mineralisation, alteration and host rock stratigraphy which will bolster RC drilling program planned for later this year.
- Reprocessing of the airborne hyperspectral survey data from Kingfisher's Boolaloo
  Project is complete with new imagery revealing laterally extensive zones of
  hydrothermal alteration. The alteration is spatially associated with the known
  mineralisation and is strongly correlated with high grade and anomalous copper
  rock chip results.
- High-resolution airborne EM surveys to commence for Boolaloo, Kingfisher and Mick Well and are scheduled to commence in the June Quarter. The surveys are expected to deliver results which will significantly assist the Company in its exploration efforts for copper sulphide mineralisation.
- Additional tenements at Mick Well and Arthur River which cover the Company's interpreted target horizon for copper mineralisation at its Gascoyne projects have been applied for, increasing the Company's tenure from 1,138km<sup>2</sup> to 1,375 km<sup>2</sup>.

Kingfisher Mining Limited (ASX:KFM) ("Kingfisher" or the "Company") is pleased to provide an update on its activities during the March 2021 Quarter.

Commenting on the Company's activities during the Quarter, Kingfisher's Executive Director and CEO James Farrell said: "The Company has been very busy during the March Quarter, hitting the ground running with exploration work at all of its projects. We have undertaken reviews of all of the past geophysical data and have been on the ground at all of our projects in the Ashburton and Gascoyne preparing for the up-coming airborne electromagnetic surveys and drilling programs which form a major component of our exploration activities this year.

Frustratingly, we had to delay the planned diamond drilling at our flagship Boolaoo due to excessive rain with the last being in the wake of Cyclone Seroja. Access to Boolaloo has been now restored and we are relieved and excited that the planned diamond drilling is underway.

Towards the end of the Quarter, we will be flying a high-resolution helicopter-borne electromagnetic survey at the Boolaloo, Kingfisher and Mick Well Projects. The survey is substantial, and will cover 1,500 line kilometres and will be a key part of the design of our drilling programs planned for later in the year."

### **Company Projects**

Kingfisher has four wholly owned projects in Western Australia. The Company's flagship Boolaloo Project is located in the Ashburton Mineral Field, approximately 35km from the Paulsens gold mine, and has a number of exciting copper and gold exploration targets. The Kingfisher, Mick Well and Arthur River Projects are located in the Gascoyne region and are prospective for volcanogenic massive sulphide style mineralisation, with copper mineralisation at Kingfisher exposed in a series of shallow historical mining pits over a strike length of 2km.



All of the projects have been subject to limited historic exploration which has identified numerous mineralisation zones. The Company has identified a significant quantity of high-quality targets and has recently continued to add to its portfolio by acquiring additional tenure that covers the strike extents of the target mineralised structures.

# **Boolaloo Project**

Kingfisher's Boolaloo copper-gold and base metal project is located approximately 160km west of Paraburdoo and 35km southwest of the Paulsen's gold mine in the Ashburton region of Western Australia (Figure 1).

Past exploration at the project included geological mapping, surface geochemistry, geophysical surveys and reverse circulation (RC) drilling. This produced 22 mineralised targets, with only six of the targets tested by previous drilling. Past exploration has also established significant mineralisation strike lengths at K15 and K16, with the K16 mineralised zone being intersected over a strike length of 1.5km.

Mineralisation at Boolaloo occurs on east-west trending faults. The Company has pegged exploration licences over the potential strike extents of the interpreted mineralised structures. The Company's tenure now covers more than 30km of strike of the interpreted mineralised structures; approximately three times the strike length of the previous Boolaloo exploration area (Figure 2).

# **Diamond Drilling Program**

During the Quarter, Kingfisher finalised its plans for a 500m maiden diamond drilling program at the Boolaloo Project which has now commenced. The diamond drilling has been designed to follow-up previous reverse circulation (RC) drill intercepts at the K15, K16 and Copper Strike Prospects

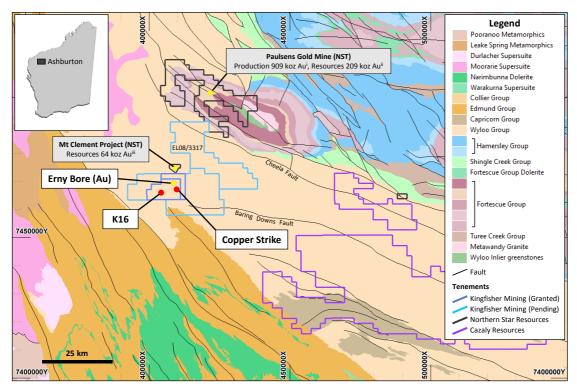
The purpose of the drilling is to assess the mineralisation, alteration and host rock stratigraphy which will assist the Company with designing a 5,000m RC drilling program planned for Boolaloo later in the year. The diamond drilling will also provide samples for petrophysical analysis which will be used to improve the interpretation of the geophysical surveys.

Significant historic drill results close to the up-coming diamond drilling include:

- 4m @ 1.06% Cu & 1.40 g/t Au from 109m, including 1m @ 1.41% Cu & 2.70 g/t Au from 110m (MIRC002) and 2m @ 1.44% Cu & 1.36 g/t Au from 137m, including 1m @ 2.28% Cu & 2.28 g/t Au from 138m (MIRC009);
- 3m @ 3.05% Cu & 0.57 g/t Au, including 2m @ 3.90% Cu & 0.77 g/t Au from 63m (MIRC013);
   and
- 2m @ 3.81% Cu & 0.62 g/t Au from 62m (MIRC027).

Location plans and cross-sections for the planned drilling at the K15, K16 and Copper Strike Prospects are shown in Figure 3 to Figure 7.





**Figure 1:** Location of the Boolaloo Project in the Ashburton Mineral Field showing the K16, Copper Strike and Erny Bore Prospects within the Company's tenure and the 1:2,500,000 geology map of Western Australia. Selected tenements of other companies active in the Ashburton Basin are also shown. Refer to the previous announcements section of this release for detailed information on the past production<sup>i</sup> and resources<sup>ii</sup> of Paulsens Gold Mine and Mt Clement Project<sup>iii</sup>.

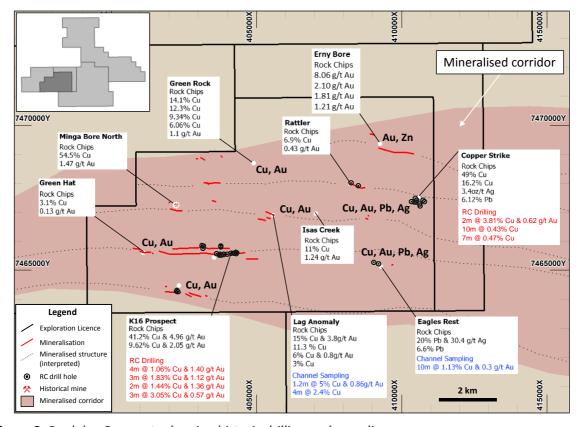
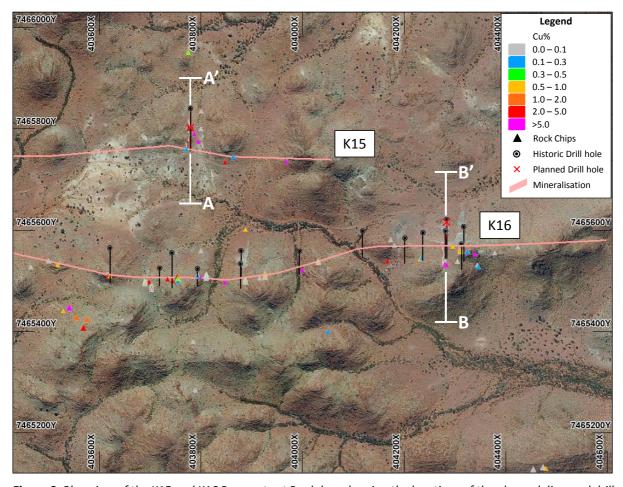


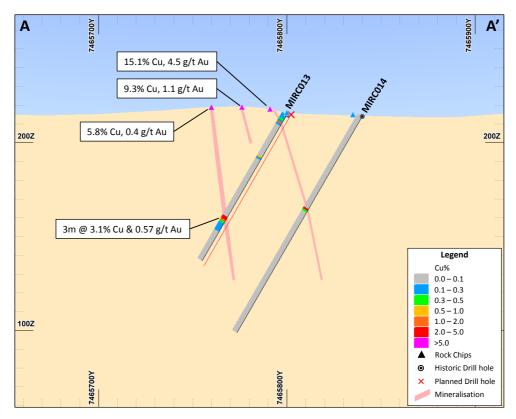
Figure 2: Boolaloo Prospects showing historic drilling and sampling.



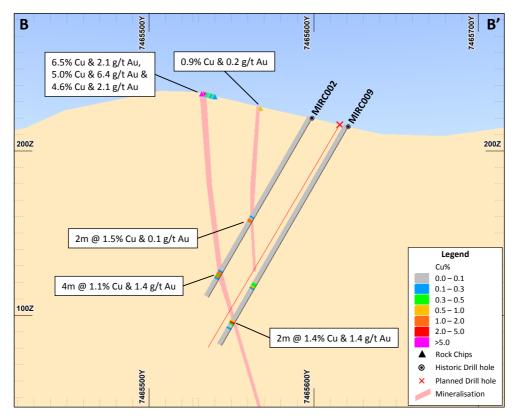


**Figure 3:** Plan view of the K15 and K16 Prospects at Boolaloo, showing the locations of the planned diamond drill holes as well as historic drill holes and rock chip samples. Cross sections A-A' and B-B' are shown in Figure 4 and Figure 5.



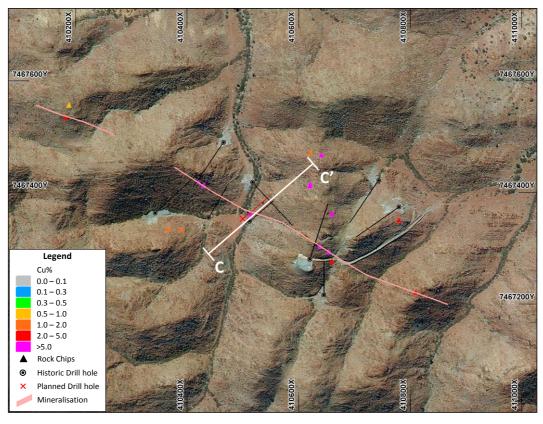


**Figure 4:** Cross section A-A' at the K15 Prospect showing the location of the planned diamond drill hole as well as historic drill holes and rock chip samples. The location of the cross section is shown in Figure 3.

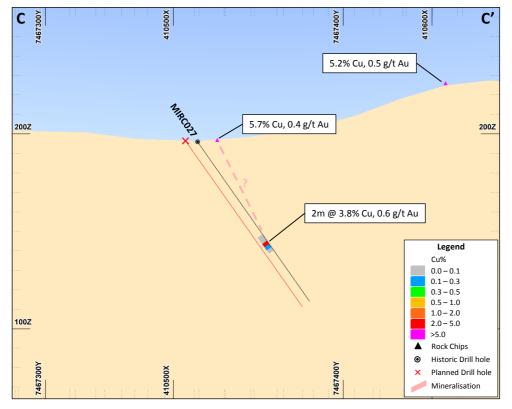


**Figure 5:** Cross section B-B' at the K16 Prospect showing the interpreted mineralisation and the location of the planned diamond drill hole as well as historic drill holes and rock chip samples. The location of the cross section is shown in Figure 3.





**Figure 6:** Plan view of the Copper Strike Prospect at Boolaloo, showing the locations of the planned diamond drill holes as well as historic drilling and rock chip samples. Cross section C-C' is shown in Figure 7.



**Figure 7:** Cross section C-C' at the Copper Strike Prospect showing the location of the planned diamond drill hole as well as historic drilling and rock chip samples. The location of the cross section is shown in Figure 6.



## **Hyperspectral Survey Reprocessing**

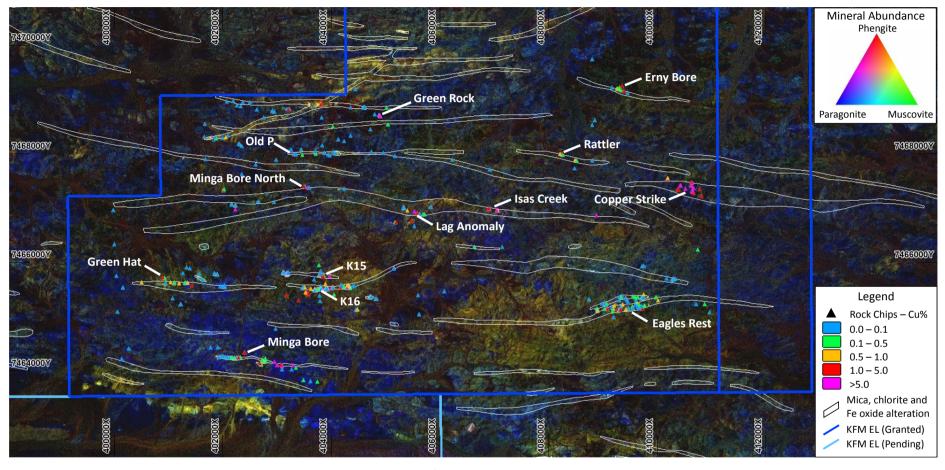
During the Quarter, Kingfisher engaged Western Geospectral to reprocess data from a 2007 airborne hyperspectral survey covering a large part of the Boolaloo Project area. The survey consisted of four lines totalling 65.2 line kilometres. The survey utilised HyMap airborne hyperspectral scanner imagery, delivering 126 bands over the 450nm to 2500nm spectral interval.

Reprocessing involved spectral unmixing, noise reduction through the use of matched filters and the use of spectral indices to extract geological information from absorption feature depths and feature wavelengths. A total of 58 new images were produced over the surveyed area that can be used to map the surface mineralogy and discriminate various lithologies and alteration.

Interpretation of the reprocessed hyperspectral imagery by Western Geospectral and Kingfisher has focussed on the alteration minerals around the known mineralisation, and in particular, the white mica, chlorite and iron oxide minerals.

The interpretation of the alteration has highlighted numerous laterally extensive zones of hydrothermal alteration that extend across the entire survey area, with some alteration zones over 10km in length (Figure 8). The alteration is also associated with outcropping copper and gold mineralisation that has previously been sampled by rock chipping at all of the current Boolaloo prospects and drill targets.





**Figure 8:** Phengite, muscovite and paragonite mica hyperspectral map for the Boolaloo area showing the new alteration interpretation and historic rock chip samples. The alteration interpretation includes is based on white micas, chlorite and iron oxide and form laterally extensive zones which are interpreted to be associated with the mineralised structures.



# **Kingfisher Project**

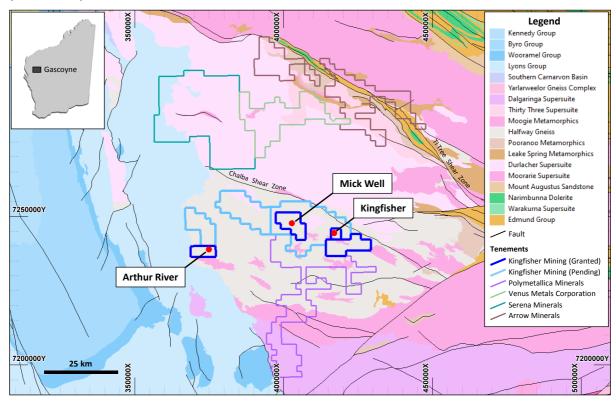
The Kingfisher Project is located approximately 235km east of Carnarvon, in the Gascoyne region of Western Australia (Figure 9). The area is prospective for volcanogenic massive sulphide style mineralisation and copper mineralisation is exposed in a series of shallow historical mining pits over a strike length of 2km.

Previous exploration at the Kingfisher Project has included geophysical surveys, surface geochemical sampling and limited reverse circulation drilling, with significant drilling intercepts including 3m @ 0.6% Cu (KFRC10) and rock chip results of 15.3% Cu, 6.3% Cu, 6.2% Cu, 5.9% Cu and 3.4% Cu.

## **Mick Well Project**

The Mick Well Project is located approximately 290km via road east of Carnarvon in the Gascoyne Mineral Field.

Mineralisation at Mick Well outcrops as quartz reefs and gossanous ironstones which are up to 10m in width. Past exploration in the area is limited, with previous rock chip sampling showing results up to 10.6% Cu over a strike length of 1km within a laterally extensive geological zone. Only four drill holes have been completed at Mick Well, with the best result being 11m @ 0.25% Cu from 118 m (MWDD001).



**Figure 9:** Location of the Kingfisher, Mick Well and Arthur River Projects in the Gascoyne Mineral Field and the 1:2,500,000 geology map of Western Australia. Selected tenements of other companies active in the Gascoyne Region are also shown.

## **Arthur River Project**

The Arthur River project is located approximately 50km northeast of the Gascoyne Junction, and approximately 200km east of Carnarvon. The project lies within the Gascoyne Complex and the



geology of the area dominantly consists of quartzites, mafic amphibolites, ferruginous cherts, marbles and pegmatites.

Copper anomalism and historic workings are widespread through the project area, with historic rock chip samples returning results of up to 6.6% Cu.

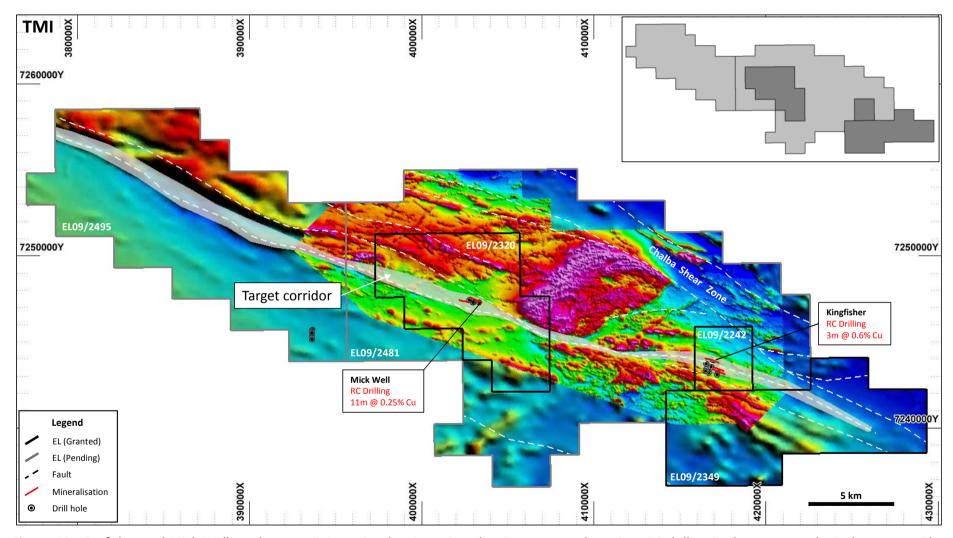
# **Geophysical Data Reprocessing**

A geophysical consultant was engaged by Kingfisher during the Quarter to review and reprocess the historic geophysical data for the Boolaloo, Kingfisher and Mick Well projects.

The historic helicopter electromagnetic (EM) survey from Boolaloo as well as existing regional TEMPEST airborne EM surveys for Boolaloo, Kingfisher and Mick Well were reviewed during the Quarter. The reviews were completed as part of the preparation for upcoming high-resolution airborne EM surveys which have been contracted for Boolaloo, Kingfisher and Mick Well and are now scheduled for completion in the June Quarter 2021.

Data from an historic airborne magnetics survey which covers Kingfisher and Mick Well was also reprocessed and new images of the data generated during the Quarter (Figure 10). Interpretation of the reprocessed magnetics data was also completed, with several discrete magnetic anomalies identified for follow-up field work, ground geophysics and drilling later in the year.





**Figure 10:** Kingfisher and Mick Well total magnetic intensity showing mineralisation zones and previous RC drilling in the target geological structure. The magnetic image is limited to the boundary of the Company's tenure.

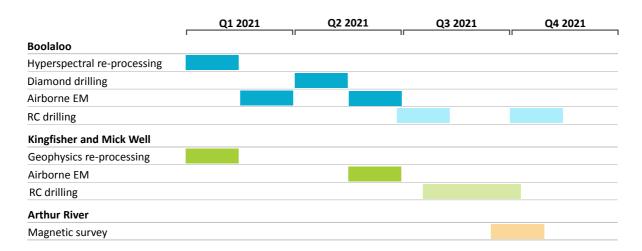


## **On-going Exploration Work Program**

The Company has planned the following exploration activities for the June 2021 Quarter:

- **Exploration diamond drilling:** A 500m of diamond drilling to follow-up previous RC drill intercepts at the K15, K16 and Copper Strike Prospects at Boolaloo commenced subsequent to the end of the Quarter. The purpose of the drilling is to assess the mineralisation, alteration and host rock stratigraphy. This information will assist the Company with a 5,000m RC drilling program planned for Boolaloo later in the year. The diamond drilling will also provide samples for petrophysical analysis which will be used in to improve the interpretation of the geophysical surveys.
- Fieldwork: Fieldwork commenced at Boolaloo subsequent to the end of the Quarter, with
  first-pass mapping and rock chip sampling completed in the alteration zones identified from
  the hyperspectral survey reprocessing (see announcement ASX:KFM 17 February 2021). The
  fieldwork has the potential to lead directly to new drill targets, adding to the current exciting
  targets at Boolaloo that are yet to be drill tested.
- Airborne electromagnetic survey (EM): Airborne EM surveys have been contracted to commence at Boolaloo, Kingfisher and Mick Well in the June 2021 Quarter. The planned timing of the survey remains unchanged for Kingfisher and Mick Well, however the Boolaloo survey has been delayed by approximately six weeks due to a lack of availability of equipment to complete the survey. Airborne EM surveys are effective in identifying conductive sulphide mineralisation up to depths of 300m below surface; a style of mineralisation which is targeted by the Company.

Activities completed Q1 2021, planned activities for Q2 and an indicative plan for Q3 to Q4 2021 are shown below.



### Corporate

During the Quarter, the Company made applications for additional tenements at Mick Well (155km²) and Arthur River (81km²). These tenements significantly increase the Company's tenure from 1,138km² to 1,375km² and results in the consolidation of as contiguous strike length of over 50km of the targeted copper and base metal horizon at the Kingfisher and Mick Well projects. Reviews of the previous exploration data for the tenements, which include the historic Mt Dalgety Zinc-Lead-Copper Project, will be completed during the June Quarter.



Tenements E08/2945, E09/2242, E09/2319, E09/2320 and E09/2349 were transferred to Company from Peter Gianni and Red Field Pty Ltd, in accordance with the tenement sale agreement which was completed as part of the Company successful listing on the ASX.

Subsequent to the Quarter, the Company was awarded tenement EL09/2481 in a ballot which was drawn on 22 April 2021. The tenement increases the Company's Gascoyne exploration tenure by 245km<sup>2</sup>, connecting the Kingfisher and Mick Well projects and increasing the Company's holdings across the target copper horizon to a strike length of more than 50km (see Figure 10 for tenement location).

### **Financial Commentary**

The Appendix 5B for the quarter ended 31 March 2021 provides an overview of the Company's financial activities. Exploration expenditure for the quarter was \$0.110m. Corporate and other expenditure for the quarter was \$0.155m. The total amount paid to Directors of the Company, their associates and other related parties was \$0.081m and includes salary, fees and superannuation.

# Comparison of Forecast to Actual Use of Funds Statement from Prospectus<sup>1</sup> [as required under ASX LR 5.3.4]:

Expenditure Item	Forecast (2 years) \$'000	Actual (6 months) [inclusive of GST] \$'000	Variance \$'000	Explanation	
Exploration expenditure	3,980	174	(3,806)	Timing issue (the Company listed during the last quarter and funds are budgeted for expenditure over 8 quarters).	
Directors' fees	633	73	(560)	Timing issue (the Company listed during the last quarter and funds are budgeted for expenditure over 8 quarters).	
General administration fees & working capital	730	291	(439)	Timing issue (the Company listed during the last quarter and funds are budgeted for expenditure over 8 quarters).	
Future acquisition costs	450	-	(450)	Timing issue.	
Estimated expenses of the offer	507	544	37	GST excluded from forecast but included within actual.	
Total	6,300	1,082	(5,218)		

### For further information, please contact:

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<sup>&</sup>lt;sup>1</sup> Dated 9 November 2020.



### **About Kingfisher Mining Limited**

Kingfisher Mining Limited (ASX:KFM) is a mineral exploration company committed to increasing shareholder wealth through the acquisition, exploration and development of mineral resource projects throughout Western Australia. The Company's tenements and tenement applications cover 1,375km² in the underexplored Ashburton and Gascoyne Mineral Fields and has advanced coppergold exploration targets as well as significant strike lengths of the target geological units.

To learn more please visit: www.kingfishermining.com.au

## **Previous ASX Announcements**

The information contained in this announcement related to the Company's past exploration results is extracted from, or was set out in, the following ASX announcements which are referred to in this Quarterly Activities Report:

- The report released 17 February 2021, 'Reprocessed airborne survey reveals extensive hydrothermal alteration at Boolaloo copper-gold project'
- The report released 24 March 2021, 'Diamond drilling to commence at Kingfisher's Boolaloo Copper-Gold Project'
- The report released 28 April 2021, 'Diamond drilling and fieldwork underway at Kingfisher's Boolaloo copper-gold project'
- The report released 29 April 2021, 'Kingfisher expands Gascoyne copper tenement package'

### **Information Sources for Figure 1**

- <sup>1.</sup> Paulsens Gold Mine past production: Northern Star Paulsens Gold Operations Fact Sheet dated July 2018: https://www.nsrltd.com/wp-content/uploads/2018/08/NSR-Paulsens-Operations-Fact-Sheet-July-2018.pdf
- ii. Paulsens Gold Mine resources: ASX Announcement "Production set to increase 30% over next two years and costs to fall 10%" released 13 August 2020. https://www.nsrltd.com/wp-content/uploads/2020/08/Resources-and-Reserves-Production-and-Cost-Guidance-Update-ex-KCGM-13-08-2020.pdf
- Mt Clement resources: Artemis Resources Limited Annual Report to Shareholders for year ended 30 June 2019.

# **Forward-Looking Statements**

This announcement may contain forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.



### **Competent Persons Statements**

The information in this report that relates to Exploration Results is based on information compiled by Mr James Farrell, a geologist and Executive Director / CEO employed by Kingfisher Mining Limited. Mr Farrell is a Member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to this style of mineralisation and type of deposit under consideration and to the activity that is being reported on 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". Mr Farrell consents to the inclusion in the report of the matters in the form and context in which it appears.

## **Schedule of Tenements**

Project	Tenement	Registered Holder	Status	Area (BI)	Expiry Date	Interest Held @ 31-Dec-20	Interest Held @ 31-mar-21
Boolaloo	E08/2945	Kingfisher Mining Ltd <sup>3</sup>	Granted	24	14 May 2023	100%	100%
	E08/3067	Kingfisher Mining Ltd	Granted	9	22 April 2025	100%	100%
	EL08/3246	Kingfisher Mining Ltd	Pending	23	-	100%	100%
	EL08/3247	Kingfisher Mining Ltd	Pending	74	-	100%	100%
	EL08/3317 <sup>1</sup>	Kingfisher Mining Ltd	Pending	96	-	100%	100%
Kingfisher	E09/2242	Kingfisher Mining Ltd <sup>3</sup>	Granted	4	1 February 2023	100%	100%
	E09/2349	Kingfisher Mining Ltd <sup>3</sup>	Granted	24	21 October 2025	100%	100%
	E09/2481 <sup>2</sup>	Kingfisher Mining Ltd	Pending	79	-	100%	100%
Mick Well	E09/2320	Kingfisher Mining Ltd <sup>3</sup>	Granted	20	20 March 2023	100%	100%
	E09/2495	Kingfisher Mining Ltd <sup>4</sup>	Pending	50		-%	100%
Arthur River	E09/2319	Kingfisher Mining Ltd <sup>3</sup>	Granted	10	15 January 2024	100%	100%
	E09/2494	Kingfisher Mining Ltd <sup>4</sup>	Pending	26		-%	100%

### Notes for the schedule of tenements:

- 1. Kingfisher applied for E08/3317 which covers 96 blocks (303km²) on 21 December 2020. A competing application covering four blocks of the same area was lodged on the prior business day, and Kingfisher's application is likely to be reduced to 96 blocks.
- 2. Kingfisher applied for E09/2481 which covers 79 blocks (245km²) on 14 December 2020. A competing application was lodged on the same date, and an area of overlap between the applications of 25 blocks (78km²) was decided by ballot on 22 April 2021 and awarded to Kingfisher.
- 3. During the Quarter, tenements E08/2945, E09/2242, E09/2320, E09/2319 and E09/2349 were transferred to Kingfisher from Red Field Pty Ltd and Peter Gianni.
- 4. Kingfisher applied for tenements E09/2494 which covers 26 blocks (81km²) and E09/2495 which covers 50 blocks (155km²). The tenements cover the potential extensions of the Company's projects in the Gascoyne region, with the majority of the area was previously under tenement applications held by Rio Tinto Exploration Pty Ltd.