

3 October 2023

## ASX Announcement

# Further High Grade REE Mineralisation Discovered at Mick Well

Gravity surveys completed at Mick Well and large LK1 target

### Highlights

- Exceptional results returned from two newly discovered parallel mineralised lodes at MW9, with samples up to 26% Total Rare Earth Oxides (TREO) and 3.62% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2873).
- Strike length of outcropping mineralisation at Mick Well increases to more than 9,000m.
- Other new rock chip results from MW9 include:
  - 20.28% TREO with 3.37% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2882)
  - 10.34% TREO with 1.82% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2871)
  - 10.18% TREO with 1.59% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2887)
- Second area of REE mineralisation at the CH9 target with results up to 0.68% TREO identified at the western end of the 54km long Chalba target corridor, which is more than 22km from Mick Well.
- Gravity surveys targeting undercover carbonatites related to the identified systems completed at LK1 and Mick Well.
- Geochemical survey to commence shortly at LK1 as part of ongoing work to develop drill targets for these large-scale prospects.

Kingfisher Exploration Manager Matt Roach with a large sample of high grade monazite from MW9



Kingfisher Mining Limited (**ASX:KFM**) (“**Kingfisher**” or the “**Company**”) is pleased to announce further discovery from its ongoing exploration within the Mick Well area of the highly prospective Gascoyne Province.

**Kingfisher’s Executive Director and CEO James Farrell commented:** “The discovery of new high grade REE mineralisation at MW9 highlights the significant additional potential of the large scale carbonatite target at Mick Well which extends over an area of 7km by 4km.

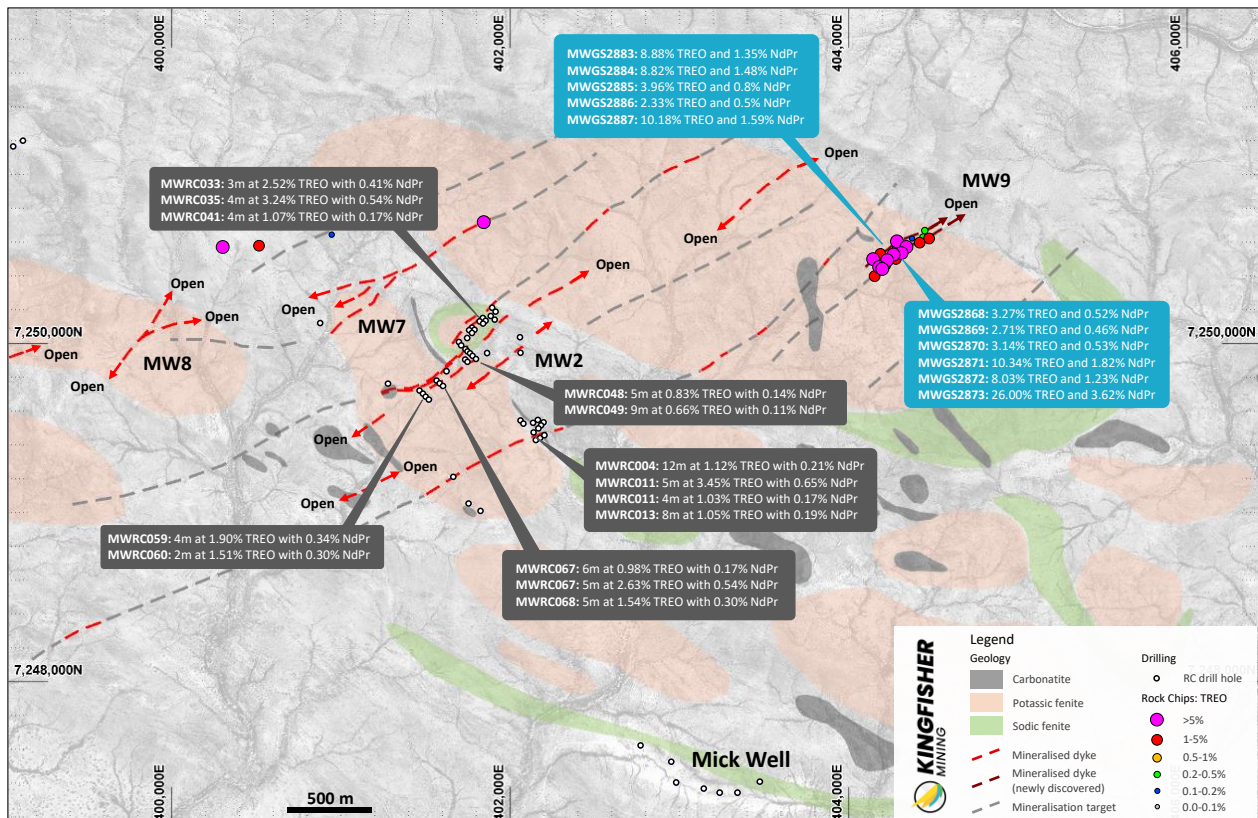
Our ongoing exploration is advancing towards new drill targets, with the recent completion of a gravity survey at Mick Well as well as another at our other very large LK1 target.

In addition to our REE exploration, our lithium pegmatites targeting is continuing, with a soil geochemistry program at Chalby Chalby.”

## MW9 REE Discovery

Ongoing exploration at Kingfisher's Mick Well Project has produced a new discovery which has substantially increased the extent of the outcropping high grade REE mineralisation associated with the CH1 intrusion centre. The newly discovered mineralisation at MW9 occurs in two parallel monazite dominant lodes, which outcrop over a distance or more than half a kilometre (Figure 1). The high grade results from MW9 are shown below, with full results include in Annexure 1.

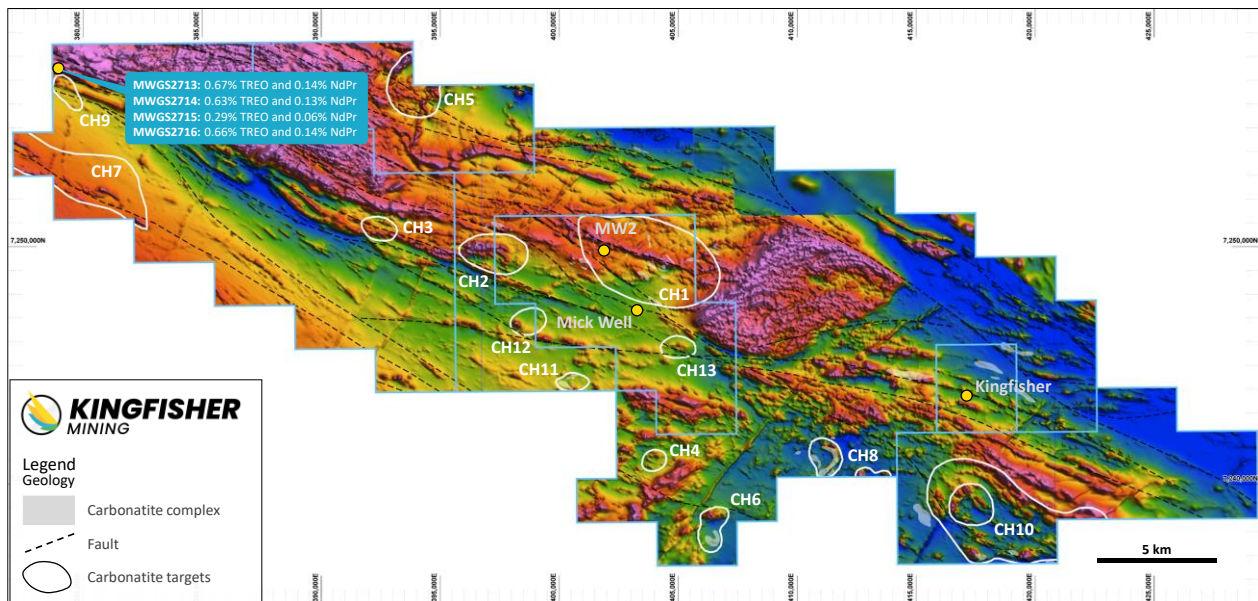
- 26.00% TREO with 3.62% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2873)
- 20.28% TREO with 3.37% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2882)
- 11.43% TREO with 1.88% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2844)
- 10.34% TREO with 1.82% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2871)
- 10.18% TREO with 1.59% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2887)
- 8.94% TREO with 1.52% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2847)
- 8.88% TREO with 1.35% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2883)
- 8.82% TREO with 1.48% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2884)
- 8.03% TREO with 1.23% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2872)
- 6.22% TREO with 0.90% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2874)
- 6.06% TREO with 0.98% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2867)
- 5.86% TREO with 0.98% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (MWGS2881)



**Figure 1:** Mick Well mineralisation and rock chip results from newly discovered MW9 mineralisation (blue boxes). Drill results are shown in grey boxes (see ASX:KFM 7 February 2023, 5 July 2022 and 24 March 2022). Results are stated as Total Rare Earth Oxides (TREO%) and total Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> (%) content.

## Regional REE Mineralisation Discovery

Vein and dyke mineralisation has also been discovered close to the CH9 intrusion centre located at the western end of the 54km long Chalba target corridor and is more than 22km along strike from MW2 (Figure 2). The newly discovered mineralised dykes includes surface sample results of up to 0.68% TREO (MWGS2713). These results are from an area with limited surface outcrop which makes it a compelling target and a surface geochemical program is currently being planned to advance the discovery.



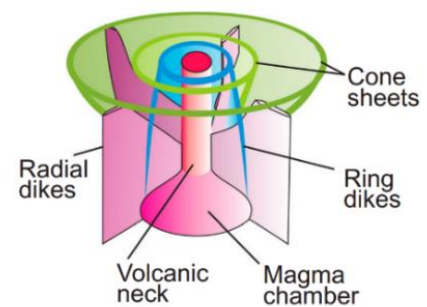
**Figure 2.** Total magnetic intensity for the 54km Chalba target corridor showing priority carbonatite targets and interpreted faults. The newly discovery mineralisation close to the CH9 target is also shown. Results are stated as Total Rare Earth Oxides (TREO%) and total  $\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}$  (%) content.

## Gravity Survey

A ground-based gravity survey has recently been completed over the large-scale 7km by 4km CHI (Mick Well) carbonatite intrusion centre. Gravity surveys are effective for delineating dense carbonatites and carbonatite-related mineralisation from the less dense host rocks and alteration. The CHI survey is currently being processed and results will be announced when they become available.

## The Carbonatite Exploration Model

The carbonatite intrusion model has a central carbonatite pipe which is comprised of multiple phases of carbonatite intrusion that is surrounded by ring dykes which form around and radial dykes which radiate out from the central intrusion (Figure 3). The carbonatite exploration model envisages alteration of the host country rock into which the carbonatites intrude, with development of sodic (Na) and potassic (K) fenites around the intrusions which often hosts the REE mineralisation (Figure 4).

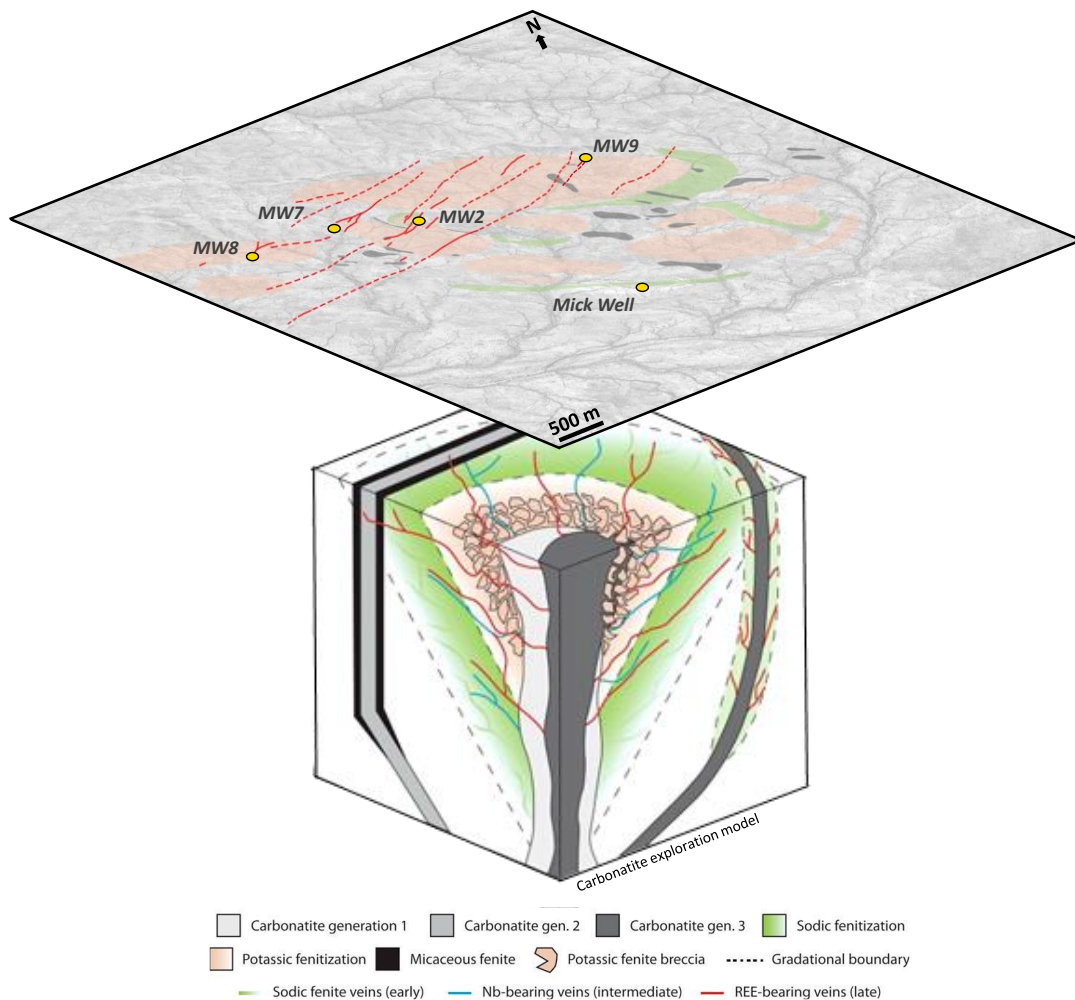


**Figure 3:** 3D schematic of a carbonatite intrusion\*

Each part of the carbonatite system has characteristics which can be detected by modern exploration techniques, for example:

- Thorium associated with the REE mineralisation is apparent in the radiometrics.
- Potassium fenites, the alteration which forms around carbonatites intrusions, is also apparent in the radiometrics.
- Ferrocarbonatites have high iron content and can appear as magnetic highs in the geophysics.
- Carbonatites typically have high density and can be distinguished from the country rocks by gravity surveys.
- ASTER (Advanced Spaceborne Thermal Emission and Reflection Radiometer) remote sensing can detect various minerals and elements, including carbonates, ferrous and ferric iron as well as alumina and magnesium and can assist with of carbonatites and associated alteration.

The combination of these geophysical responses to the carbonatite geology provide a very powerful combination of exploration tools for early stage targeting and project generation.



**Figure 4:** Mick Well geology and the carbonatite associated rare earth element mineralisation model\*. The model shows carbonatite intrusions and dykes, areas of potassic fenitisation as well as the late stage REE-bearing dykes and veins – which have been discovered by the Company.

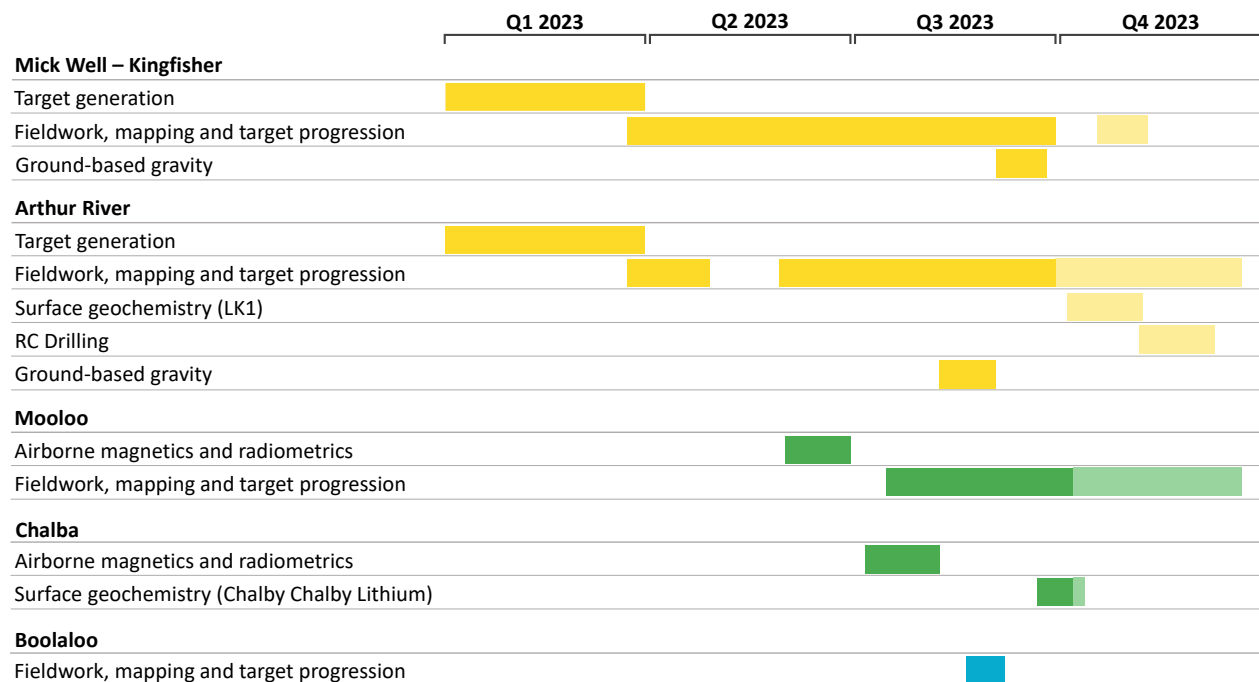
## Gascoyne Exploration Program

Kingfisher is undertaking high impact and value building exploration programs targeting large-scale carbonatite targets along its 54km Chalba target corridor and its 30km long Lockier target corridor. The program will test high priority carbonatite targets across the Company's belt-scale tenement holding, building upon the significant carbonatite discoveries, which confirmed the presence of high grade REE mineralisation along the Chalba target corridor. In addition, the Company is undertaking exploration for lithium associated with various pegmatite outcrops within its tenements at Chalby Chalby.

The exploration work planned for the 2023 field season will include:

- Significant on-ground mapping and sampling targeting interpreted "Mt Weld style" carbonatite plugs as well as dyke mineralisation and alteration which can be used to vector towards the large-scale source of intrusions. The results will be used for drill planning of the high priority targets.
- RC drilling to test carbonatite targets at Mick Well, Kingfisher and Arthur River.
- Ground-based gravity at LK1 and Mick Well. The gravity survey will be used to model higher density rocks (potential mineralised carbonatites) at depth.
- Surface geochemical survey over the large-scale high priority LK1 target at Arthur River, where mapping is restricted by deep weathering associated with the highly altered rocks and cover.
- Surface geochemistry at Chalby Chalby to define additional lithium-bearing pegmatite drill targets.
- Further airborne geophysics to incorporate Mooloo and North Chalba Projects to our early-stage target generation. Magnetics and radiometrics are highly effective for identifying carbonatite mineralisation.

The timeline for the planned and completed activities for 2023 for Kingfisher's projects are shown below.



## Upcoming News

- **October 2023:** Results and target definition from the recently completed gravity surveys at the large-scale Mick Well and LK1 targets.
- **October 2023:** Results from the surface geochemistry program and additional exploration targeting lithium-bearing pegmatites at the Chalby Chalby Prospect.

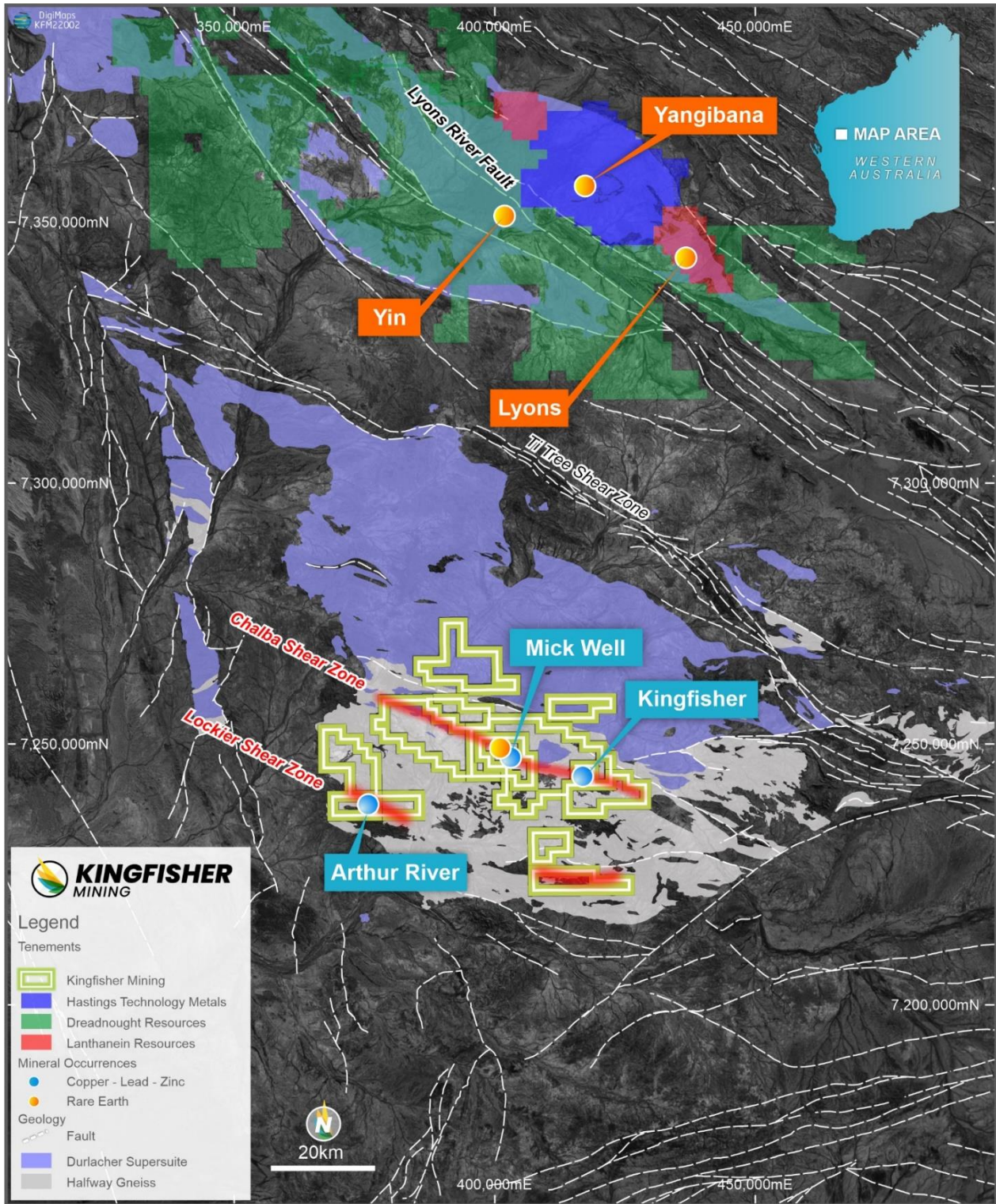
## About the Kingfisher's Gascoyne Projects

The Mick Well and Kingfisher Projects are located approximately 230km east of Carnarvon, in the Gascoyne region of Western Australia where the Company holds exploration licences covering 969km<sup>2</sup>. The geological setting of the tenure is similar to Hastings Technology Metals' world-class Yangibana Deposit which includes 29.93Mt at 0.93% TREO<sup>#</sup> as well as the recent Yin discovery of Dreadnought Resources which includes mineral resources of 20.06Mt at 1.03% TREO<sup>^</sup>. The tenure is also prospective for lithium-bearing Thirty Three Suite Pegmatites which hosts Delta Lithium's Yinnetharra Project and has returned drill results of 33m at 1.9% Li<sub>2</sub>O<sup>+</sup> from Delta's Malinda Prospect and rock chips results of 4.2% Li<sub>2</sub>O<sup>+</sup> from Delta's Jamesons Prospect.

Kingfisher recently made discoveries of hard rock and clay rare earth elements mineralisation at Mick Well. Both styles of mineralisation are associated with carbonatites that intruded along a crustal-scale structural corridor, the Chalba Shear, which extends over a strike length of 54km within the Company's tenure. The Company has also identified a second structural corridor along the Lockier Shear which extends for 18km across the Company's Mooloo Project and 12km across the Arthur River Project.

Drilling at the MW2 Prospect has intersected five parallel ferrocarnatite lodes and associated monazite mineralisation within a 300m wide zone and has returned high-grade REE results with 5m at 2.63% TREO with 0.54% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub>, 4m at 3.24% TREO with 0.54% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub>, 5m at 1.54% TREO with 0.30% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub>, 4m at 1.90% TREO with 0.34% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> and 3m at 2.52% TREO with 0.41% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub>. The results from the ferrocarnatite mineralisation is 500m northwest of Kingfisher's breakthrough REE discovery where maiden drilling returned 5m at 3.45% TREO with 0.65% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> as well as 12m at 1.12% TREO with 0.21% Nd<sub>2</sub>O<sub>3</sub> + Pr<sub>6</sub>O<sub>11</sub> from a separate mineralised lode.

Mapping and sampling for lithium at the Company's Chalby Chalby project has delineated an area of 3.3km by 3km that includes multiple stacked pegmatites with a cumulative strike length of over 11km and with surface sample results up to 0.61% Li<sub>2</sub>O.



**Figure 5:** Location of the Mick Well Project in the Gascoyne Mineral Field showing the extents of the Durlacher Suite and Halfway Gneiss. The location of the Yangibana Deposit and Yin and Lyons Projects 100km north of Kingfisher's projects are also shown.

This announcement has been authorised by the Board of Directors of the Company.

## Ends

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### About Kingfisher Mining Limited

Kingfisher Mining Limited (**ASX:KFM**) is a mineral exploration company committed to increasing value for shareholders through the acquisition, exploration and development of mineral resource projects throughout Western Australia. The Company's tenements and tenement applications cover 1,676km<sup>2</sup> in the underexplored Ashburton and Gascoyne Mineral Fields.

The Company has made a number of breakthrough high grade rare earth elements discoveries in the Gascoyne region where it holds a target strike lengths of more than 54km along the Chalba mineralised corridor and more than 30km along the Lockier mineralised corridor. The Company has also secured significant landholdings across the interpreted extensions to its advanced copper-gold exploration targets giving it more than 30km of strike across the Boolaloo Project target geology.

To learn more please visit: [www.kingfishermining.com.au](http://www.kingfishermining.com.au)

### Previous ASX Announcements

**ASX:KFM:** Carbonatite Intrusions Confirmed at Large-Scale Chalba Targets 10 July 2023.

**ASX:KFM:** Significant Exploration Program Targets Large-Scale Carbonatites 4 April 2023.

**ASX:KFM:** High Grade Drilling Results Confirm New MW2 REE Discovery 7 February 2023.

**ASX:KFM:** MW2 and MW7 Continue to Expand on Latest Surface Sample Results 23 January 2023.

**ASX:KFM:** Assays from MW7 Confirm Another High Grade REE Discovery 29 November 2022.

**ASX:KFM:** New REE Discoveries along Kingfisher's 54km Target Corridor - MW7 and MW8 24 October 2022.

**ASX:KFM:** Further Exceptional REE Results Extends MW2 Strike Length to 3km 4 October 2022.

**ASX:KFM:** 40% REE Returned from Mick Well 30 August 2022.

**ASX:KFM:** Latest Drilling Returns High Grade REEs with 5m at 3.45% TREO, including 3m at 5.21% TREO 5 July 2022.

**ASX:KFM:** Surface Assays up to 21% TREO Define a Further 800m of Outcropping Mineralisation 20 June 2022.

**ASX:KFM:** High Grade Rare Earths Returned from Discovery Drill Hole: 4m at 1.84% TREO, including 1m at 3.87% TREO 24 March 2022.

**ASX:KFM:** Significant Rare Earths Discovery: 12m at 1.12% TREO 10 January 2022.



<sup>^</sup> ASX Announcement '40% Increase in Resource Tonnage at Yin – Mangaroon (100%)'. Dreadnought Resources Limited (ASX:DRE), 5 July 2023.

<sup>#</sup> ASX Announcement 'Drilling along 8km long Bald Hill - Fraser's trend Increases Indicated Mineral Resources by 50%'. Hastings Technology Metals Limited (ASX:HAS), 11 October 2022.

<sup>\*</sup> ASX Announcement 'Stunning new drilling results from Yinnetharra'. Delta Lithium Limited (ASX:DLI), 23 June 2023.

<sup>+</sup> ASX Announcement 'Yinnetharra Lithium Project Continues to Deliver'. Red Dirt Metals Limited (ASX:RDT), 14 April 2023.

### Technical Exploration Papers

<sup>+</sup> Simandl, G.J. and Paradis, S. 2018. Carbonatites: related ore deposits, resources, footprint, and exploration methods, Applied Earth Science, 127:4, 123-152

<sup>\*</sup> Elliott, H.A.L., Wall, F., Chakhmouradian, A.R., P.R.Siegfried, Dahlgrend, S., Weatherley, S., Finch, A.A., Marks, M.A.W., Dowman, E. and Deady, F. 2018. Fenites associated with carbonatite complexes: A review. Ore Geology Reviews, Volume 93, February 2018, Pages 38-59.

### Total Rare Earth Oxide Calculation

Total Rare Earths Oxides (TREO) is the sum of the oxides of the light rare earth elements lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), and samarium (Sm) and the heavy rare earth elements europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb), lutetium (Lu), and yttrium (Y).

### 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.*

## Annexure I: Rock Chip Sample Information

Sample ID	Easting	Northing	CeO <sub>2</sub>	Dy <sub>2</sub> O <sub>3</sub>	Er <sub>2</sub> O <sub>3</sub>	Eu <sub>2</sub> O <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>	Ho <sub>2</sub> O <sub>3</sub>	La <sub>2</sub> O <sub>3</sub>	Lu <sub>2</sub> O <sub>3</sub>	Nd <sub>2</sub> O <sub>3</sub>	Pr <sub>6</sub> O <sub>11</sub>	Sm <sub>2</sub> O <sub>3</sub>	Tb <sub>2</sub> O <sub>3</sub>	Tm <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	Yb <sub>2</sub> O <sub>3</sub>	TREO
MWGS2713	378747	7257790	3092	42.9	11.0	27.0	110.0	5.6	1682	0.57	1100	307	180	10.93	1.03	172	4.90	6747
MWGS2714	378746	7257786	2848	43.2	11.8	25.5	107.8	5.8	1534	0.80	1028	290	172	10.47	1.14	175	6.15	6258
MWGS2715	378748	7257784	1370	18.9	5.7	10.7	45.5	2.7	689	0.45	482	138	76	4.49	0.57	82	3.30	2929
MWGS2716	378744	7257784	2963	45.7	12.3	26.6	114.5	6.1	1653	0.80	1095	302	182	11.05	1.26	187	6.38	6607
MWGS2844	400311	7250564	54570	291.1	78.8	310.9	729.4	39.1	36852	4.32	13967	4792	1455	70.21	7.99	1059	37.80	114265
MWGS2845	400511	7250571	15151	39.6	7.8	87.1	157.8	4.5	10358	0.68	4002	1372	387	11.63	0.80	113	4.78	31698
MWGS2846	400947	7250644	582	13.4	4.3	9.3	24.1	1.9	347	0.34	221	63	39	2.76	0.46	56	2.39	1368
MWGS2847	401846	7250722	42839	155.4	33.0	251.3	543.8	18.4	28579	2.05	11371	3854	1220	44.54	3.20	476	15.49	89407
MWGS2867	404225	7250491	28028	258.2	82.3	192.7	465.0	39.4	19791	4.43	7198	2619	800	56.05	8.57	1033	38.49	60614
MWGS2868	404251	7250494	15469	97.0	34.5	87.8	213.1	14.4	10688	2.84	3852	1371	389	21.98	3.77	419	22.09	32686
MWGS2869	404231	7250495	12377	199.8	70.1	110.4	319.7	30.8	8036	4.32	3446	1132	434	39.36	7.42	885	37.92	27129
MWGS2870	404264	7250507	14769	112.7	41.2	93.2	242.3	17.0	9874	3.75	3930	1335	436	25.09	4.80	493	27.67	31405
MWGS2871	404250	7250522	49108	275.9	72.0	315.0	690.1	37.0	32268	3.87	13603	4552	1412	69.41	7.20	964	32.34	103410
MWGS2872	404246	7250493	37927	236.5	68.6	210.6	529.3	33.0	27028	4.09	9049	3264	912	53.29	6.97	918	33.93	80275
MWGS2873	404316	7250546	125074	199.5	46.4	423.9	726.5	25.1	94596	2.16	26033	10188	1905	54.56	4.57	718	21.98	260019
MWGS2874	404347	7250576	29437	178.7	57.1	153.0	370.7	26.1	21526	3.30	6516	2447	621	39.59	5.94	743	29.95	62154
MWGS2875	404376	7250620	866	8.1	3.2	6.1	12.7	1.3	620	0.34	211	76	22	1.73	0.34	35	2.05	1866
MWGS2876	404450	7250625	1581	19.3	5.7	15.1	37.1	2.9	1091	0.34	481	156	61	4.60	0.57	74	2.85	3533
MWGS2877	404457	7250619	7533	55.7	16.8	49.0	114.7	7.9	4885	1.02	2042	699	210	11.86	1.83	204	8.88	15840
MWGS2878	404447	7250665	1758	116.9	39.5	62.6	185.5	18.4	638	1.82	977	239	214	24.40	4.00	507	18.22	4804
MWGS2879	404417	7250603	7986	37.3	12.6	46.0	104.2	5.6	5428	1.02	2056	714	213	9.44	1.37	160	8.54	16782
MWGS2880	404210	7250458	15916	88.4	25.3	86.0	219.5	12.4	10973	1.36	3997	1410	402	20.72	2.51	331	11.96	33497
MWGS2881	404205	7250441	28136	120.7	30.5	166.9	344.2	15.9	18739	1.71	7264	2576	752	32.92	3.08	417	13.78	58614
MWGS2882	404172	7250447	96874	143.5	14.6	458.9	849.5	12.3	68096	0.57	25199	8520	2292	57.20	1.14	269	4.33	202792
MWGS2883	404144	7250498	42596	148.9	43.5	179.5	395.5	21.0	30338	2.73	9922	3609	849	36.37	4.34	597	22.32	88765
MWGS2884	404191	7250528	42539	137.5	31.9	226.1	500.0	17.4	28326	2.05	11012	3792	1086	38.56	3.08	460	15.14	88187
MWGS2885	404196	7250529	18442	166.6	44.6	193.3	477.0	21.9	10822	2.50	6098	1858	819	43.74	4.45	586	22.09	39601
MWGS2886	404292	7250574	10851	114.8	32.2	126.0	284.8	15.3	5867	2.39	3838	1150	518	29.12	3.54	419	17.76	23269
MWGS2887	404287	7250601	48365	183.5	43.5	252.0	574.5	22.7	34504	2.39	11722	4222	1179	49.49	4.00	621	19.36	101764
MWGS2888	404171	7250415	14942	69.1	17.5	68.9	163.3	9.2	9853	0.91	3648	1315	330	16.00	1.71	224	7.06	30665

All sample information is parts per million (ppm). 100,000 ppm is equal to 10%.

## Attachment 1: JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Rock chip samples were taken as individual rocks representing an outcrop to give an indication of possible grades and widths that can be expected from drilling. Individual rock samples can be biased towards higher grade mineralisation.</li> <li>Rock chip samples were typically between 1 and 2 kg. The entire sample received by the laboratory was crushed and pulverised to 85% passing 75 micron.</li> <li>A duplicate sample of between 0.1 and 0.2 kg was retained by the Company for some of samples reported.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling results are included in this report.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling results are included in this report.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No new drilling results are included in this report.</li> </ul>
<b>Sub-sampling techniques</b>	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>The entire sample received by the laboratory was crushed and pulverised to 85% passing 75 micron.</li> </ul>

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<b>and sample preparation</b>	<p>sampled wet or dry.</p> <ul style="list-style-type: none"> <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>	
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were analysed by Intertek Genalysis in Perth. The sample analysis uses a sodium peroxide fusion with an Inductively Coupled Plasma Mass Spectrometry and Inductively Coupled Plasma (ICP) Mass Spectrometry (MS) and Optical Emission Spectrometry (OES) finish.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Independent checks or field duplicates were not conducted for rock chips and are not considered necessary for that type of sample.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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 control.</li> </ul>	<ul style="list-style-type: none"> <li>Rock chip sample locations were surveyed using a handheld GPS using the UTM coordinate system, with an accuracy of +/-5m.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>No new drilling results are included in this report.</li> </ul>
<b>Orientation of data in relation to</b>	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>Rock chip samples are collected to represent the outcrop. Where different material types are present within the pegmatites, separate samples were</li> </ul>

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<b>geological structure</b>	<i>mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	collected to ensure each material is represented.
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were given individual samples numbers for tracking.</li> <li>The sample chain of custody was overseen by the Company's geologists. Samples were transported to the laboratory in Perth sealed bulka bags.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The sampling techniques and analytical data are monitored by the Company's geologists.</li> <li>External audits of the data have not been completed.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The project area is located 80km northeast of the Gascoyne Junction and 230km east of Carnarvon.</li> <li>The project includes 12 granted Exploration Licences, E09/2242, E09/2349, E09/2319, E09/2320, E09/2481, E09/2494, E09/2495, E09/2653, E09/2654, E09/2655, E09/2660 and E09/2661.</li> <li>The tenements are held by Kingfisher Mining Ltd.</li> <li>The tenements lie within Native Title Determined Areas of the Wajarri Yamatji People and Gnulli People.</li> <li>All the tenements are in good standing with no known impediments.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>No previous systematic exploration for carbonatite-associated mineralisation had been previously completed.</li> <li>Exploration for base metals at Kingfisher undertaken was by Pasminco Ltd in 1994, Mt Phillips Exploration Pty Ltd in 2006 and WCP Resources in 2007.</li> <li>Exploration for base metals at Mick Well was completed by Helix Resources Ltd in 1994, WA Exploration Services Pty Ltd in 1996, Mt Phillips Exploration Pty Ltd in 2006 and WCP Resources in 2007.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Company's tenements in the Gascoyne Mineral Field are prospective for rare earth mineralisation associated with carbonatite intrusions and associated fenitic alteration.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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:</li> </ul>	<ul style="list-style-type: none"> <li>No new drilling results are included in this report.</li> </ul>

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	<ul style="list-style-type: none"> <li>o easting and northing of the drill hole collar</li> <li>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>o dip and azimuth of the hole</li> <li>o down hole length and interception depth</li> <li>o hole length.</li> <li>• 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.</li> </ul>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• No new drilling results are included in this report and no data aggregation has been applied.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• 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').</li> </ul>	<ul style="list-style-type: none"> <li>• No new drilling results are included in this report.</li> <li>• True width is obscured by thin cover and appears to be similar to intervals intersected in drilling, 3 to 5m.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• A map showing relevant data has been included in the report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• All rock chip samples from the pegmatites have been reported. The reported sample batches also included some samples collected as part of ongoing evaluation of the geology of the area.</li> </ul>

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<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All of the relevant historical exploration data has been included in this report.</li> <li>All historical exploration information is available via WAMEX.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>On-going exploration in the area is a high priority for the Company.</li> <li>Exploration to include target-scale acquisition of geochemistry and geophysics data to define the extents of carbonatites, mapping and rock chip sampling as well as additional RC drilling.</li> </ul>