

ASX RELEASE

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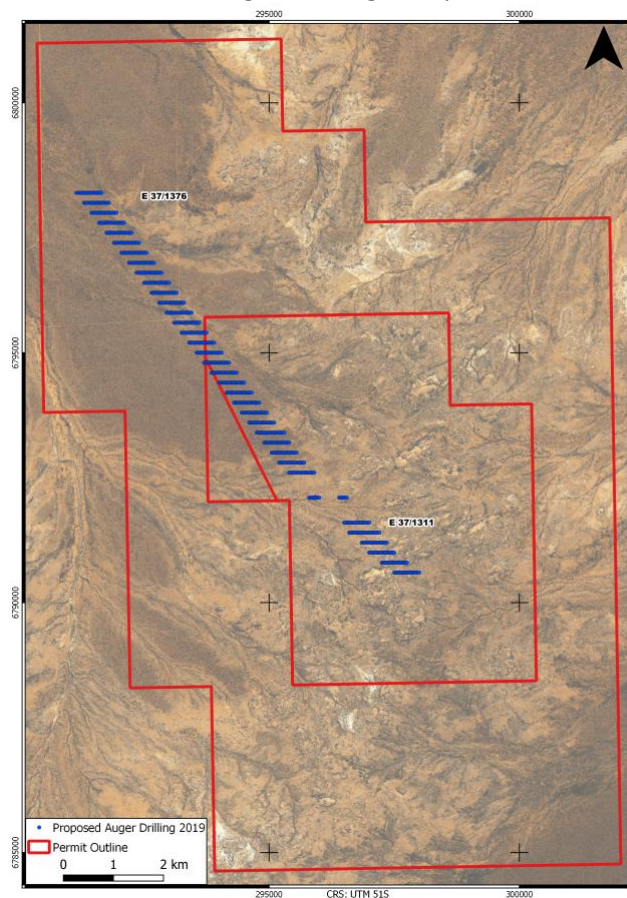
## **COMMENCEMENT OF REE EXPLORATION PROGRAMME AT REDLINGS PROJECT**

Marquee Resources Limited ('Marquee' or 'the Company') (ASX:MQR) is pleased to announce that it has commenced its Auger sampling programme at the Redlings REE Project in WA.

The auger soil programme follows a successful site visit by RSC Mining and Mineral Exploration ('RSC') in October and will be conducted on a 25 m by 200 m grid spacing that is designed to test the anticipated extensions of the Redlings Dyke. Figure 1 shows the planned auger holes that will be sampled as part of Phase 1 of the exploration programme. Sampling will be conducted by a 4WD-mounted rig and it is anticipated that 100 samples will be collected per day. Phase 1 is expected to take 14 days for a total of 1,400 samples.

Figure 2 shows the locations of auger soil sampling by previous owners of the project. The north-south auger lines were sampled and submitted to ALS Laboratory, where samples were prepared for analysis but never assayed. It is likely that these samples have been disposed of after relinquishment of the tenement by the previous owner.

Following on, and subject to the success of the Phase 1 auger programme, Marquee intends to conduct a Phase 2 Auger Programme to gain a better understanding of the regional potential.



*Figure 1: Phase 1 planned sample locations.*

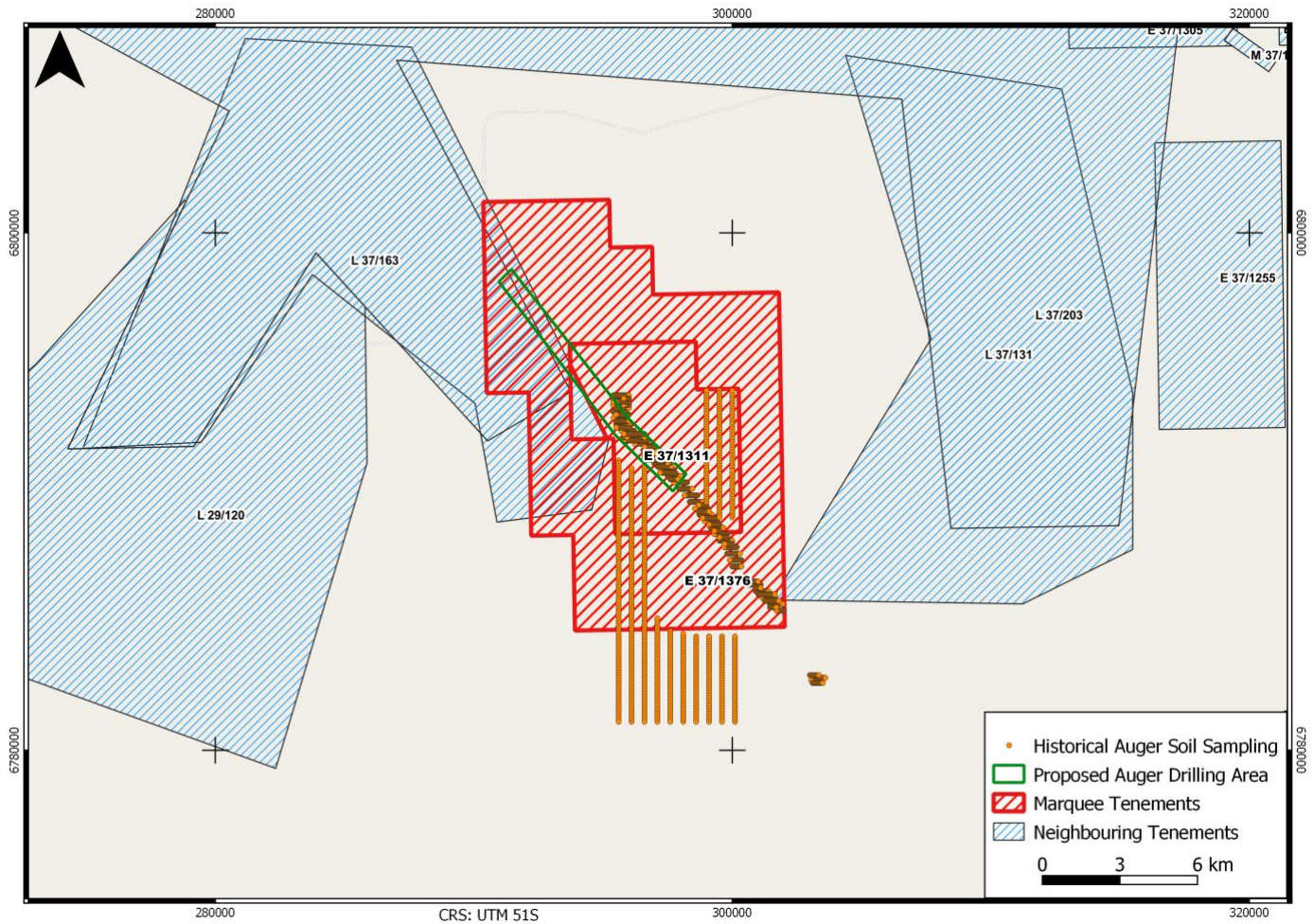


Figure 2: Previous Auger Soil Sampling (Source: DMIRS - Geoview).

## Redlings Project Summary

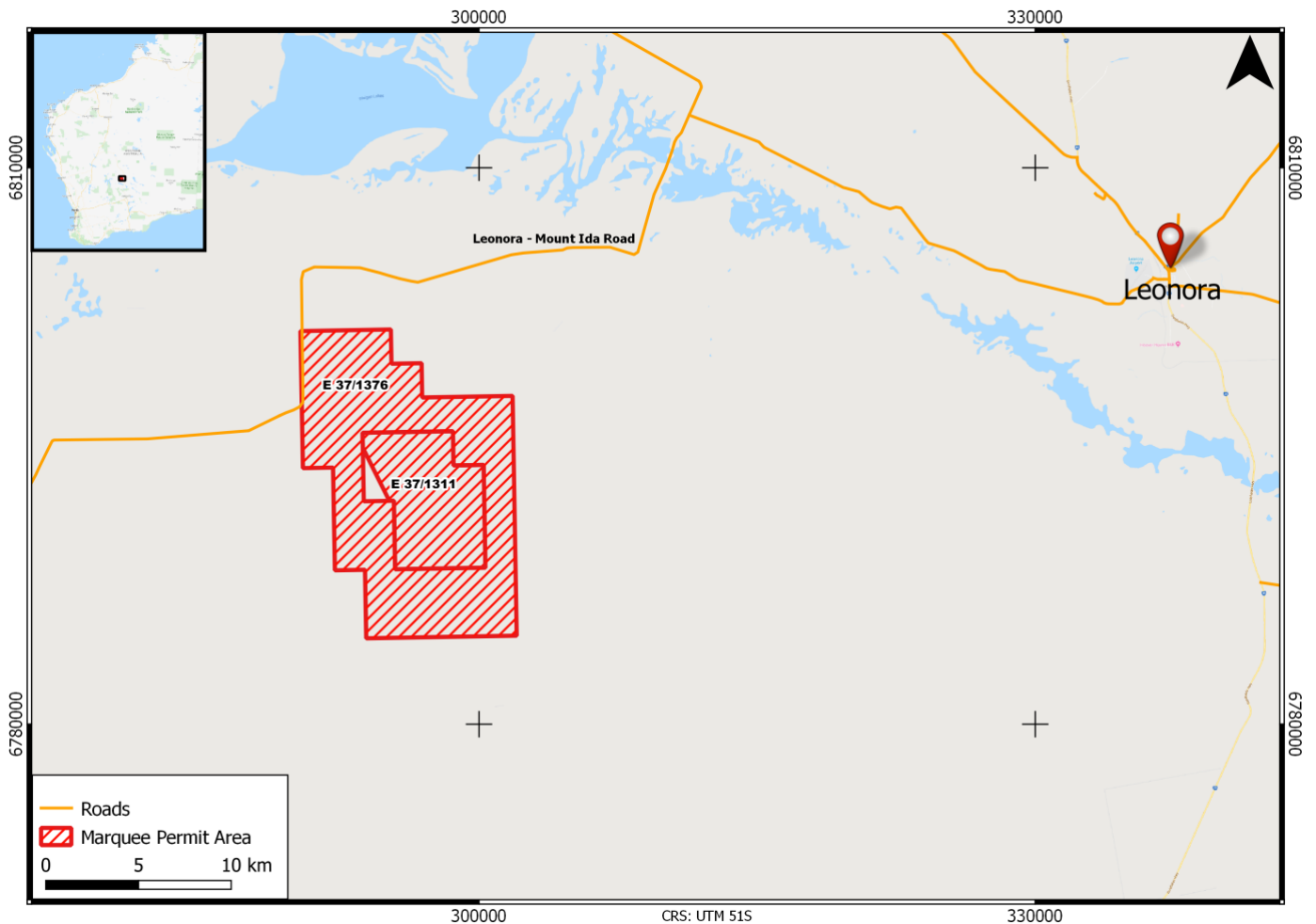
### Tenure & Ownership

The Redlings project covers an area of approximately 146 km<sup>2</sup> and comprises one granted tenement and one tenement application (Table 1). The project tenements are located in the Shire of Leonora and the Mt Margaret Mineral Field, approximately 40 km west of Leonora, Western Australia (Figure 3).

Table 1: Redlings project tenement details.

Tenement ID	Start Date	End Date	Area (BL)	Min Expenditure (\$)
E37/1311	7/12/2017	6/12/2022	13	20,000
E37/1376	application		36	36,000 *

\* Expected upon grant



*Figure 3: Location and extent of the Redlings project.*

## Access

The project area is situated 40 km west of Leonora and can be accessed by the Leonora - Mount Ida Road. Station tracks provide limited access throughout the project.

## Previous Work<sup>1</sup>

### Exploration History

Little work was done in the project area for non-gold resources prior to 1991, when Stockdale Prospecting Limited (**Stockdale**) took a significant ground position west of Leonora and began exploration for diamondiferous kimberlite pipes (Hwang 1993). Regional work included magnetic surveys and stream sediment, loam and rock chip sampling. A number of reverse circulation (RC) holes was also drilled into several prospects coincident with magnetic

<sup>1</sup> All historic exploration results were compiled by Marquee and were reported in the ASX Announcement of 25 June 2019: 'Marquee Resources Acquires Redlings Rare Earths Project – Up to 12.8% TREO'. Competent Person: Mr Jonathan King. Refer for a full statement regarding previously announced information to page 16.

anomalies, most importantly at Turkey Well, 20 km west of the Redlings project. Heavy mineral stream sediment samples around Mieztkie Well, about 5 km to the east of the current Redlings project also generated considerable interest. A magnetic anomaly, approximately 2 km west of Redlings 3 with surrounding kimberlitic float samples, was drilled but only unmineralized granite was found. A total of 1,085 samples were taken on the project and assayed for heavy minerals indicative of diamond mineralisation. Despite widespread work, insufficient evidence of economic diamondiferous pipes resulted in Stockdale relinquishing their tenements upon expiry in 1996 (Fried 1996).

In 1996, Western Diamond Corporation NL ('WDC') started exploring for diamondiferous kimberlite pipes on their Perrinvale project, part of their larger Leonora ground holding (Marx 1997). Regional soil sampling and subsequent loam sampling revealed three potential kimberlite bodies (Redlings 1, 2 and 3).

Samples were taken from costeans at Redlings 1 and were assayed for a variety of elements (Marx 1998). The samples returned 250 – 280 ppm Cr and up to 250 ppm Ni, as well as minor Ce, La, Nd and Ba. Multi-element geochemistry identified the samples as garnet peridotite. Trench samples from Redlings 2 were also indicative of a kimberlite/ultramafic. A trenching programme was carried out at the Redlings 3 prospect and 4 diamond holes were drilled for a total of 150 m. Three holes intersected weathered granite. An unspecified rock type was intersected in the fourth hole (Red3/4, 25 - 30 m) and was interpreted as potentially kimberlitic in origin. The samples were only analysed for diamonds and associated indicator minerals, but not for REE. Samples are thought to have been destroyed in the process and discarded, preventing further analysis for other elements.

In 2008, Vedo Energy Pty Ltd ('Vedo') re-visited the Jungle Well project and took two samples from a costean at Redlings 3 that exposed a kimberlitic dyke (Vedo 2010). Significant REE values were obtained from these samples (Table 2, Samples 1 and 2). Two additional rock samples taken from the costean in 2009 (Table 2, 09\_RD\_01 and \_02) supported the tenor of the first samples.

*Table 2: Vedo rock sample REE analytical results of Redlings 3 costean (ppm)<sup>2</sup>.*

Elements	Ce	Dy	Er	Eu	Gd	La	Nd	Pr	Y	Yb
<b>Sample 1</b>	28,950	644	337	195	878	20,433	10,919	3,436	3,686	282
<b>Sample 2</b>	35,624	648	331	207	863	22,817	12,188	3,944	3,534	288
<b>09_RD_01</b>	29,300	560	349	130	634	12,700	6,630	2,120	3,550	292
<b>09_RD_02</b>	31,200	429	173	210	772	26,800	14,600	4,990	2,010	129

North-East Minerals Pty Ltd ('NEM') acquired the project tenement (E29/679) from Vedo in 2010 and re-named it the Sturt Meadows Project. NEM collected 17 soil samples around the Redlings 3 prospect on a 25 m by 25 m grid, and confirmed the interpretation that the dyke continues to the northwest (Brown 2011). A total of 25 rock chip samples was collected. Fifteen of these originated from various locations in the project and apparently targeted gold in quartz veins but returned no significant gold values. The remaining 10 rock chip samples were collected from a 65-metre-long portion the REE bearing dyke at Redlings 3. The assay results ranged between 0.9% and 12.8% total rare earth oxides ('TREO') and averaged 5% TREO (Table 3).

<sup>2</sup> First reported in ASX Announcement of 25 June 2019: 'Marquee Resources Acquires Redlings Rare Earths Project – Up to 12.8% TREO'. Competent Person: Mr Jonathan King

*Table 3: NEM rock samples REO analytical results of the dyke at Redlings 3<sup>3</sup>.*

<b>Samples</b>	<b>53790</b>	<b>53791</b>	<b>53794</b>	<b>53795</b>	<b>53796</b>	<b>53797</b>	<b>53798</b>	<b>53800</b>	<b>53801</b>	<b>53802</b>
La <sub>2</sub> O <sub>3</sub> (%)	0.68	1.83	3.42	1.33	0.5	0.43	0.42	0.27	0.36	4.23
Ce <sub>2</sub> O <sub>3</sub> (%)	4.05	3.16	4.66	1.92	0.5	0.51	1.71	0.39	1.15	4.74
Pr <sub>2</sub> O <sub>3</sub> (%)	0.12	0.32	0.59	0.22	0.08	0.07	0.07	0.04	0.06	0.71
Nd <sub>2</sub> O <sub>3</sub> (%)	0.36	0.95	1.76	0.69	0.25	0.21	0.21	0.12	0.19	2.06
Sm <sub>2</sub> O <sub>3</sub> (ppm)	658	1,120	2,203	848	310	218	321	172	288	241
Eu <sub>2</sub> O <sub>3</sub> (ppm)	107	138	260	107	40	24	48	26	40	268
Gd <sub>2</sub> O <sub>3</sub> (ppm)	544	613	1,187	516	203	92	224	141	208	1,233
Tb <sub>2</sub> O <sub>3</sub> (ppm)	106	82	161	67	25	11	36	18	36	151
Dy <sub>2</sub> O <sub>3</sub> (ppm)	728	464	795	365	130	54	224	98	231	800
Ho <sub>2</sub> O <sub>3</sub> (ppm)	134	84	143	68	25	9	43	19	46	123
Er <sub>2</sub> O <sub>3</sub> (ppm)	396	241	395	196	68	24	132	48	143	317
Tm <sub>2</sub> O <sub>3</sub> (ppm)	59	5	55	26	9	3	19	6	22	41
Yb <sub>2</sub> O <sub>3</sub> (ppm)	385	215	324	149	47	19	121	34	133	220
Lu <sub>2</sub> O <sub>3</sub> (ppm)	51	28	44	21	7	2	16	5	18	28
Y <sub>2</sub> O <sub>3</sub> (%)	0.38	0.28	0.49	0.27	0.1	0.04	0.14	0.05	0.15	0.49
TREO (%)	5.91	6.84	11.48	4.67	1.52	1.31	2.67	0.93	2.03	12.79
LREO/TREO	0.89	0.93	0.93	0.91	0.89	0.95	0.91	0.90	0.88	0.94

Victory Mines Limited ('VML') acquired an option over the project in 2011 (renaming it back to Jungle Well) to target the previously indicated rare earth potential (Victory Mines 2012). The results obtained by NEM encouraged VML to target REE mineralisation and they conducted a high-resolution aeromagnetic and radiometric survey over the project immediately after listing on the ASX in October 2012. The survey was carried out by UTS Geophysics and revealed a single 11 km long, north-northwest-trending magnetic anomaly that appeared to link all three Redlings prospects originally defined by WDC (Figure 4). VML reported that they believed the interpreted structure controlled the distribution of REE mineralisation on the project (Peebles 2013).

In May 2013, VML targeted the structure by auger soil sampling on a 25 by 250 m east-west grid for a total of 669 locations (Peebles 2015). The results identified 14 REE targets for further follow-up work (Figure 5).

<sup>3</sup> First reported in ASX Announcement of 25 June 2019: 'Marquee Resources Acquires Redlings Rare Earths Project – Up to 12.8% TREO'. Competent Person: Mr Jonathan King

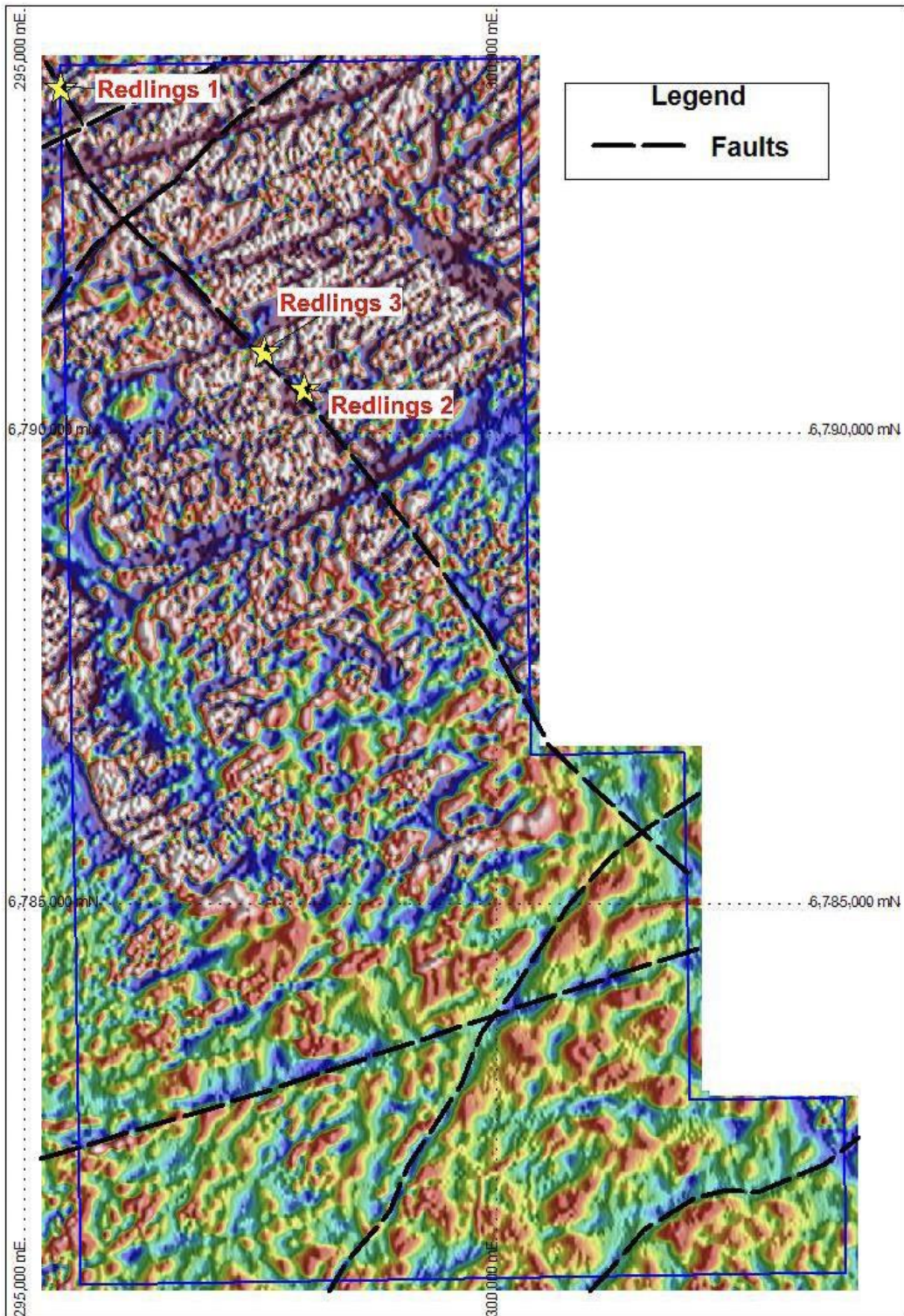


Figure 4: RTP 1VD aeromagnetic image from VML with interpreted faults and prospect locations Permit outline: historic E29/679. Source: Peebles, 2013.

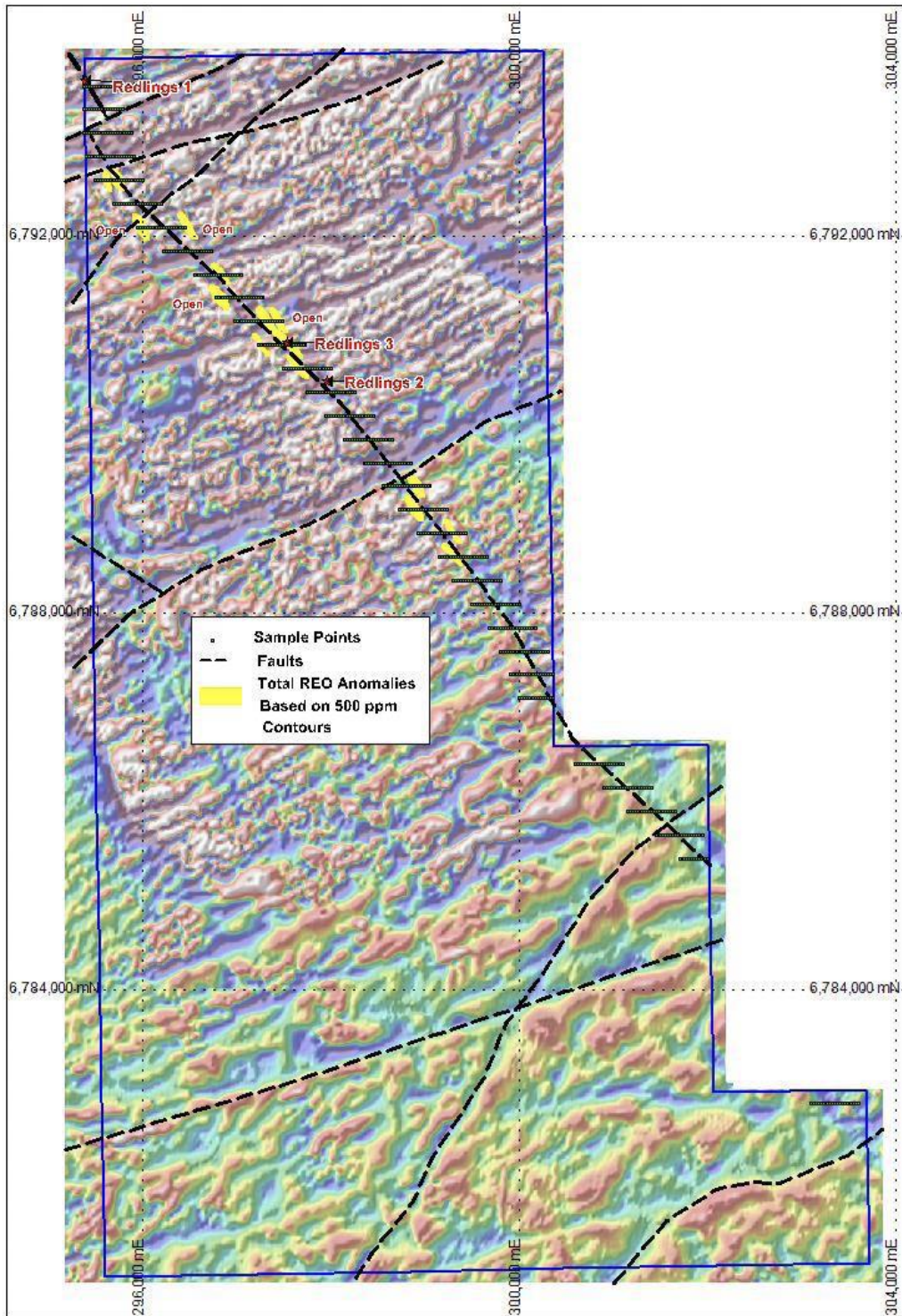


Figure 5: RTP 1VD aeromagnetic image with results from VML's initial auger soils programme. Permit outline: historic E29/679. Source: Peebles, 2015.

A further 1,305 samples were collected over the tenement in 2013-2014, as part of an auger soil sampling programme designed to generate a dataset for regional targeting. Figure 6 shows the sample locations of the second phase auger soil samples. The samples were sent to ALS Laboratories in Perth for preparation but were discarded before analysis after VML decided to relinquish the project in June 2015. A significant magnetic anomaly with a similar response and orientation to the mineralised dyke (Figure 6, circled in red) was sampled but remains untested as a result of this decision.

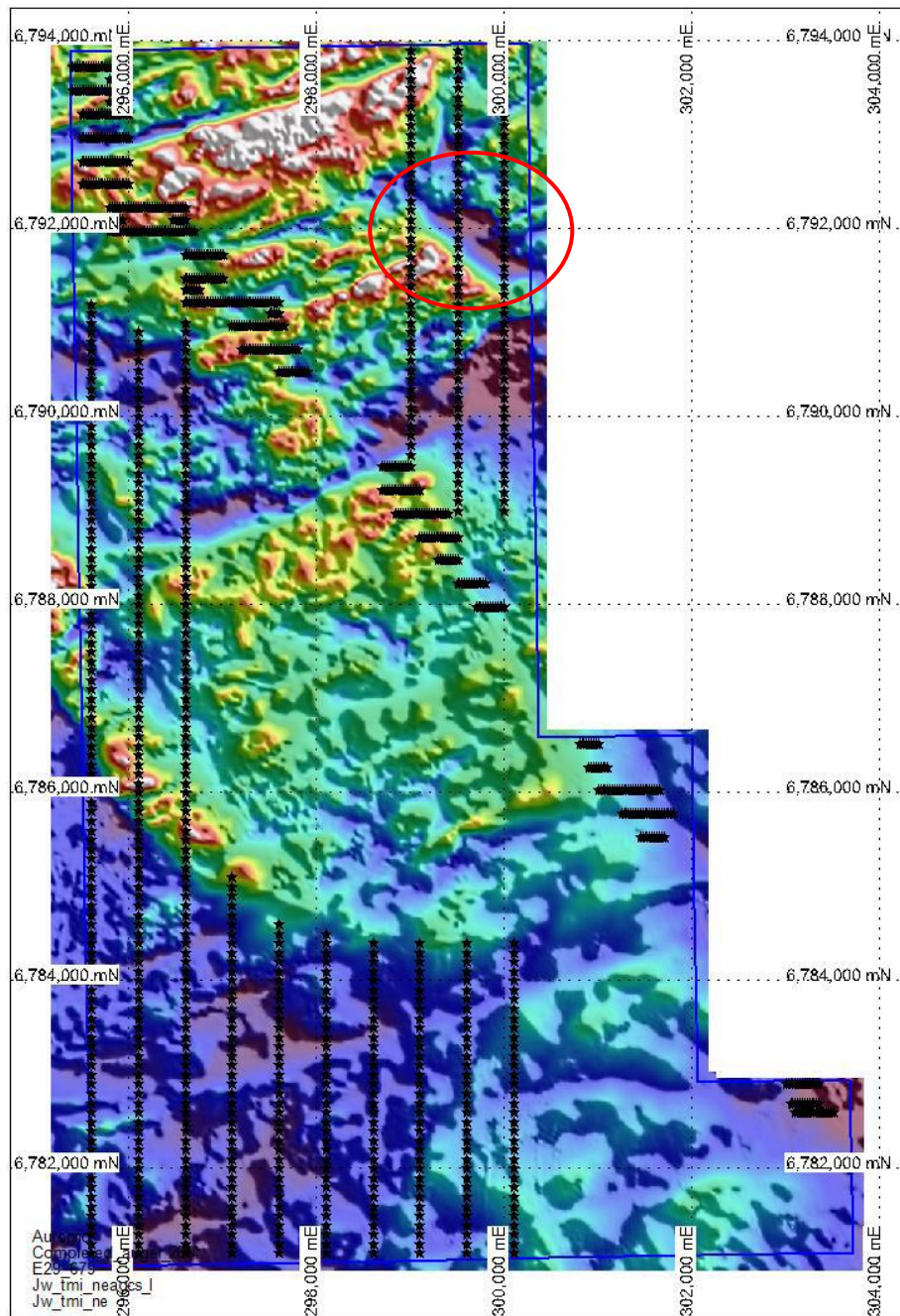


Figure 6: Locations of the second phase auger soils programme. Permit: historic E29/679. Source: Peebles, 2015.

## Geological Setting and Mineralisation

### Regional Geological Setting

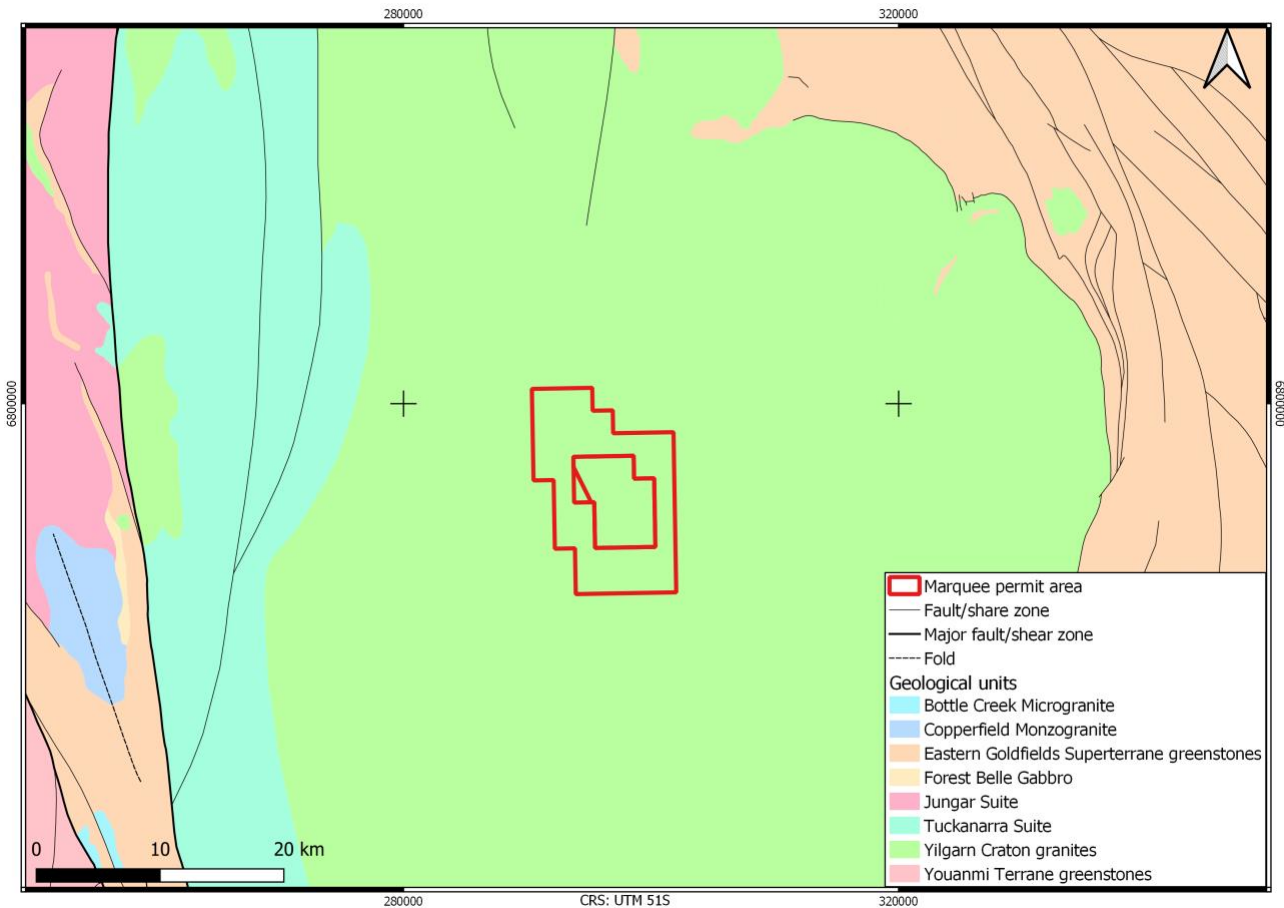


Figure 7 Redlings project on regional interpreted bedrock geology (source: Geoview).

### Geological Setting and Mineralisation

The basement of the Redlings project area is comprised largely of an unnamed biotite monzogranite (Figure 7, Thom & Barnes 1974). The area is covered by laterite and shallow transported colluvium but there are granitic outcrops noted to contain thin quartz veins running northeast-southwest (Thom & Barnes 1974). The relationship of the veins to the ultramafic dykes is currently unknown.

Collection of fresh rock samples to determine any characteristic proximal wallrock alteration and to conduct petrological studies is an important step in confirming the deposit model. Quantifying the proportions of scandium, titanium, phosphorus and carbonate in the host rock should also assist with creating an accurate genetic model.

### Known Comparable Deposits

Based on currently available information, the closest analogue to the Redlings mineralisation appears to be Hastings Technology Metals Limited's (**Hastings**) Yangibana Project in the northern Gascoyne of Western Australia (Figure 8).

The deposits at Yangibana contain significant REE mineralisation within the primary (unweathered) zones of extensive 'ironstone dykes', associated with ferro-carbonatite veins. Hastings note that the dykes contain goethite, hematite and magnetite and are surrounded by narrow zones of 'fenitic' alteration. Fenitic alteration haloes are characterised by the presence of feldspars and/or Na-amphiboles and magnetite.

The dykes at Yangibana are described as "sinuous pods and veins less than 10 m wide that are traceable cumulatively for up to 25 km" (Hastings, 2019). A similar morphology can be inferred at Redlings, where historic reports from successive phases of trench sampling indicate that the dyke varies from 0.2 m to over 2 m in thickness at surface and up to 5 m thick at 30 m below surface (Marx 1998; Vedo 2010; Peebles 2012). NEM's high resolution aeromagnetic survey and subsequent auger sampling by VML is consistent with a strike length of over 11 km at Redlings.

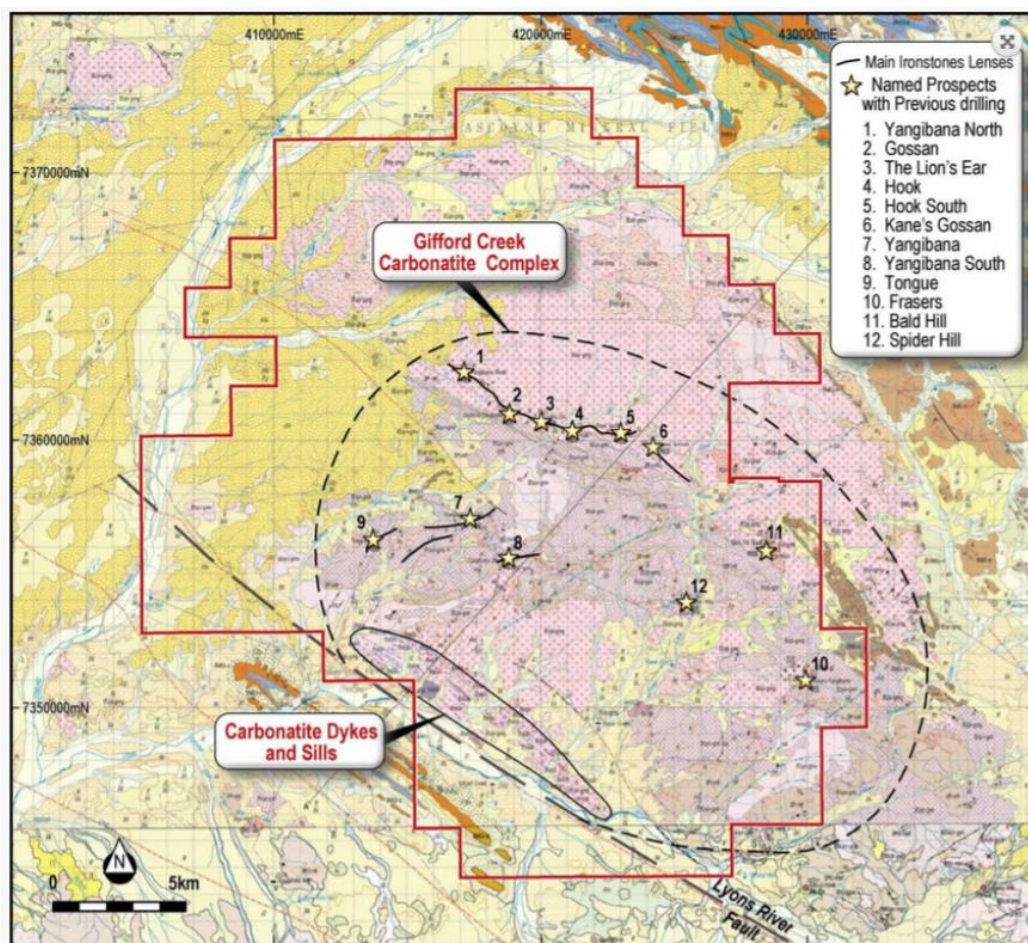


Figure 8: Overview of REE-mineralised prospects at Yangibana, Gascoyne Province (Cadence Minerals).

## **Exploration Potential**

Although the Redlings project is still at an early stage of exploration for REEs the work done to date is encouraging, with best historic results including 12.79% TREO from a trench sample of the dyke at Redlings 3.

Airborne geophysical data and auger soil sampling suggest that strike extent of the mineralised dyke is over 11 km in length. However, this length was only constrained by the previous operators' tenement size. With the tenements held by Marquee representing a near doubling in land area, the opportunity exists to increase the extent of mineralisation further along strike.

Comparisons with similar projects highlight the potential for additional mineralised dykes to exist within the project area.

## **Conclusions**

The Redlings project represents an early stage exploration opportunity, with significant potential for economic REE mineralisation already identified. Marquee intends to expand the available dataset with a multi-phase exploration campaign over the coming months.

The historic work targeting rare earths has had a limited spatial focus and approximately 5% of the current project tenure has been effectively tested for REE mineralisation. The relatively thin geometry of such dykes can make them difficult to discover through traditional geophysical methods. The poor mobility of rare earths in the weathered profile also makes it difficult to discover potentially economic mineralisation through widely-spaced regional surface geochemical techniques, hence the close spacing of sample locations in the upcoming programme.

## **About RSC**

RSC is an international geological contracting and consulting group with offices in Australia, New Zealand, and Africa. Its international team has a broad range of geological experience, knowledge and expertise, and run projects from early-stage exploration through to development, operations, project close-out and sustainable environmental remediation. RSC has significant experience conducting field programmes to evaluate mineral deposits for economic potential and is highly focussed on making things work properly on the ground. These projects encompass all stages of the mineral project evaluation process from early stage reconnaissance to delineation drilling and resource modelling. Many of these projects have been evaluated from situations where available exploration data has been limited.

RSC has worked for a wide range of companies including majors such as Barrick; mid-tier producers such as Evolution Mining, Resolute, Newcrest, OceanaGold, St Barbara Mines and Independence Group; and is widely active in many other exploration projects worldwide

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## DISCLAIMER

Forward-looking statements are statements that are not historical facts. Words such as “expect(s)”, “feel(s)”, “believe(s)”, “will”, “may”, “anticipate(s)”, “potential(s)” and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the Company’s prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

## REFERENCE TO PREVIOUS RELEASES

Historic exploration results referred to in this announcement have been previously announced to the market in the report dated 25 July 2019, that is available to view and download from the company website at [www.marqueeresources.com.au](http://www.marqueeresources.com.au). Marquee confirms that it is not aware of any new information or data that

materially affects the information included in the original market announcements. Marquee confirms that the form and context in which the Competent Person's (Mr Jonathan King) findings are presented here have not been materially modified from the original market announcements.

## **AUTHORISATION**

The provision of this announcement to ASX has been authorised by the board of directors of the Company.

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