# **Exploration Update - Redlings REE Project**

- Final results from regional geochemistry campaign refine targets for ongoing drilling.
- Up to 7,675ppm TREO assay results received from the latest auger programme.
- Significant surficial REE anomalism spatially associated with interpreted carbonatites and the primary source of surficial REE mineralisation identified at Redlings.
- The first drill hole (MQRC167) was completed to a depth of 500m with samples now sent to the laboratory.
- Drill holes MQRC168 and MQRC169 were completed to 386m and 248m, respectively, and intersected interpreted carbonatite intrusions with associated fenitic alteration.
- The final drill hole, MQRC170, has commenced and is expected to take 1 week to complete.

Marquee Resources Limited (**"Marquee" or "the Company"**) (**ASX:MQR**) is pleased to update the market on the ongoing exploration activities at its Redlings REE Project. The Company has received the final results of a 2,228-sample geochemical sampling campaign whilst the current RC drilling programme continues to progress. The current drilling program is planned to consist of ~1,500m RC drilling to target dense pipe-like bodies at the Redlings REE Project. These pipe-like structures are interpreted to represent carbonatite intrusions, extending to significant depths. The interpreted deep-seated carbonatite intrusions are inferred to represent the potential source of surficial rare earth element (REE) anomalism of up to 7.8% TREO previously encountered at the Project. The drilling forms part of the Company's aggressive exploration strategy to fully test the potential of the Project to host an economic REE mineral resource.

#### **Executive Chairman Comment:**

Marquee Executive Chairman, Mr Charles Thomas, commented:

"Drilling continues to progress at Redlings, as we systematically test the shallowest gravity anomalies over the Project extents."

"The first batch of samples have now arrived at the lab and the second batch are being sent as we speak. We look forward to updating the market once we receive the assays from this campaign."

"We are further buoyed by the encouraging results from our latest auger programme, which identified up to 7,675ppm TREO at Redlings."

#### Table 1: Drillhole Table

	Hole ID	EAST	NORTH	RL	Hole Type	Depth
	MQRC167	297632	6794321	460	RC	500
1	MQRC168	295569	6798452	440	RC	386
	MQRC169	297771	6792914	463	RC	248
I	MQRC170	295925	6792096	448	RC	TBC





Figure 1: Geochemistry over gravity density shells and the location of planned drillholes.

#### Exploration Update

The Company recently completed a 1,907-station ground gravity survey (refer MQR ASX Release 4 Oct 2023) and has now received the final, validated assay results from a 2,228-sample geochemical sampling campaign (refer ASX Release 20 December 2023 and 31 January 2024). The geophysical and geochemical results have delineated multiple, coincident gravity and geochemical anomalies interpreted to represent carbonatite intrusions and associated alteration. Three 500m RC drill holes were initially planned to intersect the shallowest part of the identified anomalies to test for rare-earth element enrichment associated with the inferred carbonatites.

MQRC167 was successfully drilled to target depth of 500m, and samples have now been received at the lab. Drillholes MQRC168 and MQRC169 were drilled to 386m and 248m, respectively, and unfortunately did not reach the target depth of 500m due to the significant influx of water into the drillholes and had to be abandoned. As such, MQRC170 has been added to the initial program.

Completion of drilling is expected to take a further 1 week with the first batch of assays expected 6-8 weeks following the completion of drilling. A further drilling campaign is planned to commence post receipt of assays should this exploration campaign be successful.



#### The Redlings Rare Earth Element Project

The Redlings Project is 100% owned by Marquee and comprises exploration licenses E 37/1311 and E 37/1376 (Figure 2). The Project is located approximately 40km west of Leonora, and 77km north of Menzies. Lynas Corporation's Mt Weld Project lies approximately 150km east of the project.

The Redlings Project is situated over an NNW trending high magnetic biotite-hornblende monzogranite granite that has intruded into the surrounding granite pluton. A series of NW trending faults run obliquely through the granite which were targeted historically for REE bearing mafic dykes within the Project due to the orientation of the Redlings dyke identified during prior exploration activities. The Company has greatly enhanced the understanding of the Redlings Project through geophysics, geochemistry and drilling and the carbonatite intrusions are now interpreted to strike NNE. The Company is now using these recent advancements to drill test these targets with the aim of making a significant REE discovery.



Figure 2: Location of the Redlings Project.

#### COMPETENT PERSON STATEMENT

The information in this report which relates to Exploration Results is based on information compiled by Dr. James Warren, a Competent Person who is a member of the Australian Institute of Geoscientists. Dr. Warren is the Chief Technical Officer of Marquee Resources Limited. Dr. Warren has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr. Warren consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

#### **Forward Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Marquee Resources Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.



This ASX Release has been approved by the Board of Directors.

Charles Thomas – Executive Chairman Marquee Resources info@marqueeresources.com.au



#### Table 2: Surface sampling results > 3000ppm TREO (note: Ga and Sc are <u>not</u> included in the calculation of TREO)

Γ	Sample ID	Sample	Depth	East	North	Ce	Dy	Er	Eu	Ga	Gd	Но	La	Lu	Nd	Pr	Sc	Sm	Tb	Tm	Y	Yb	TREO	LREO:
		Туре	(m)			(ppm)	HREO																	
$\geq$	MQRAUG00393	AUGER	0.25	297645	6791491	3630	27	9.32	13.8	70.2	58.6	3.85	1480	0.82	788	285	14.3	100	6.49	1.14	127	6.54	7675	56.39
	MQRAUG00584	AUGER	1	296524	6792234	2160	19.8	8.84	8.65	83	50.4	3.12	1940	1.04	925	345	18.2	90.6	5.2	1.13	141	6.82	6706	57.88
_	MQRAUG01452	AUGER	1	297042	6793792	2190	32.7	13.7	14	34.1	64.5	5.38	1550	1.25	855	292	11.5	130	7.66	1.4	149	8.88	6245	37.86
	MQRAUG00118	AUGER	0.6	297807	6790476	3930	32.4	20.4	3.45	86.3	22.5	6.13	195	2.42	121	40.5	27.4	22	4.45	3.05	164	18.4	5386	40.13
	MQRAUG01818	AUGER	0.5	298582	6794531	952	51.3	28.2	12.4	45.2	68.3	9.66	1590	2.92	852	287	8.5	113	9.34	3.39	358	20.4	5143	20.09
	23RD03	ROCK		297549	6790830	2040	51.9	34.3	11.9	59.9	59.1	11.1	914	3.75	440	140	16	68.8	8.78	4.56	457	25.2	5046	18.57
	MQRAUG04173	AUGER	0.2	296133	6795430	1590	12.4	5.88	4.65	56.4	37.3	2.12	1240	0.65	636	228	11	75.5	3.11	0.67	64	4.48	4585	57.76
	23RD04	ROCK		297549	6790830	1790	40.3	22.9	10.8	53	51.2	7.96	899	2.52	426	138	17	65.4	7.45	3.13	238	17.2	4380	22.26
11	MQRAUG00493	AUGER	0.5	296104	6791991	1030	15.9	5.69	8.28	37.5	34.6	2.34	986	0.45	469	156	12.3	64.3	3.86	0.64	111	3.53	3401	41.27
	MQRAUG00022	AUGER	0.1	297644	6790714	1400	19.8	7.44	4.33	61	29.8	2.95	773	0.53	356	132	20.5	45.1	3.94	0.89	99.7	4.7	3386	39.45



## JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	this section apply to all succeeding sections.) JORC Code explanation	Commentary
Sampling technique	<ul> <li>Nature and quality of sampling (eg</li> </ul>	<ul> <li>Auger soil sampling is a reconnaissance stage technique and offers only an indication of the tenor of underlying mineralisation.</li> <li>Auger soil samples were taken from drilled spoil, scooped by hand from the top of the spoil pile to represent end of hole material.</li> <li>Samples were sieved to 2mm and 1-2kg of material was collected in numbered calico bags.</li> <li>Sample preparation and laboratory analysis was undertaken at LabWest Minerals Analysis Pty Ltd, Perth, Western Australia.</li> <li>Samples were dried, crushed (~2mm) and rotary divided where required. Pulverisation to 85% passing 75 microns is undertaken by LM1 mill, and bowls are barren-washed after each sample.</li> <li>For gold analysis (WAR-25); A 25g portion of pulverised sample is analysed for gold content using aqua-regia digestion, with determination by ICP-MS to achieve high recovery and low detection limits (0.5ppb).</li> <li>For 64 element geochemical analysis (MMA-04); the MMA technique is a microwaveassisted, HF- based digestion that effectively offers total recovery for all but the most refractory of minerals. A portion of sample is digested in an HF-based acid mixture under high pressure and temperature in microwave apparatus for analysis, with determination of ICP-MS and ICP-OES</li> </ul>
Drilling technique	<ul> <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>	Auger holes were drilled vertically down to a maximum dopth of 1m with the average hole
Drill samp recovery	<ul> <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</li> </ul>	<ul> <li>Auger sample recoveries are considered to be 100%.</li> <li>Some sample bias may have occurred during augering through sandy soils, in which material may have fallen into the hole and diluted the end of hole sample.</li> </ul>



Criteria	JORC Code explanation	Commentary
	and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Samples were qualitatively logged with colour, and lithology of end of hole material.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>All company samples submitted for analysis underwent drying and were pulverized to 85 % passing 75 microns each, from which a 0.25 g charge was taken for four-acid digest and ICP analysis.</li> <li>This sample preparation technique is considered appropriate for the type and tenor of mineralisation.</li> <li>The laboratory inserted certified reference material and blanks into the analytical sequence and analysed lab duplicates. These appear to confirm accuracy and precision of the sample assays.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (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> <li>Assaying was completed by Labwest Minerals Analysis Pty Ltd, 10 Hod Way, Malaga WA 6090.</li> <li>For gold analysis (WAR-25); A 25g portion of pulverised sample is analysed for gold content using aqua-regia digestion, with determination by ICP-MS to achieve high recovery and low detection limits (0.5ppb).</li> <li>For 64 element geochemical analysis (MMA-04); the MMA technique is a microwave-assisted, HF- based digestion that effectively offers total recovery for all but the most refractory of minerals. A portion of sample is digested in an HF-based acid mixture under high pressure and temperature in microwave apparatus for analysis, with determination of 64 elements including Rare-Earths by a combination of ICP-MS and ICP-OES from the historical reports.</li> </ul>
Verification of sampling	The verification of significant     intersections by either independent	• This release refers to 2,439 results of a recently completed auger program.



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Criteria	JORC Code explanation	Commentary
and assaying	<ul> <li>or alternative company personnel.</li> <li>The use of twinned holes</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Data was recorded digitally and in hard copy by on-site Company field staff.</li> <li>All field data is directly recorded in hard copy, then sent electronically to the Chief Technical Officer in the office. Assay files are received electronically from the Laboratory. All data is stored in an Access database system, and maintained by the Database Manager</li> <li>All results have been collated and checked by the Company's Chief Technical Officer</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral Resources estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control</li> </ul>	<ul> <li>The coordinate system used is MGA_94 Zone 51.</li> <li>A handheld GPS was used to record the position of the auger holes. Horizontal accuracy was +/- 3 metres.</li> <li>Location accuracy at collars is considered adequate for this stage of exploration</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Company auger hole spacing was approximately 20 metres along 500 metrespaced lines.</li> <li>The spacing is appropriate for this stage of exploration.</li> <li>The samples are not appropriate for Mineral Resources estimation</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Known REE-bearing dykes strike NW. Further work is required to understand the geometries of dyke-bearing structures.</li> <li>Sampling was completed on east-west oriented lines, roughly sub-perpendicular to the orientation of known REE-bearing dykes</li> </ul>
Sample security Audits or	<ul> <li>The measures taken to ensure sample security.</li> <li>The results of any audits or</li> </ul>	<ul> <li>Company samples were kept by the company representatives and submitted directly to the laboratory.</li> <li>No audits or reviews beyond consultant</li> </ul>
reviews	reviews of sampling techniques and data.	geologists have been conducted on the exploration data.



### SECTION 2 Reporting of Exploration Results

#### (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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> <li>Auger drilling was completed on granted exploration licenses E37/1311 and E37/1376.</li> <li>The Company holds 100% interest in the tenements.</li> <li>The tenements are in good standing.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The historical auger, rock chip and trench sampling have been referred to in previous releases, refer MQR Release dated 18/08/2021</li> <li>Vedo Energy Pty Ltd took 2 samples of the Redlings Dyke exposed in a historical trench in 2007.</li> <li>North East Minerals Pty Ltd collected 25 rock chip samples in 2011.</li> <li>Victory Mines Pty Ltd collected 23 rock chip samples and completed 1,305 auger samples between 2012 and 2015.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>The project is located in the northern Eastern Goldfields of Western Australia, in granitic rocks between the Mt Ida and Norseman-Wiluna Greenstone Belts.</li> <li>The Redlings REE mineralisation is located within a structural zone, up to 25m wide, that has been intruded by multiple carbonatitic dyke with pervasive fenitic alteration of granitic country rocks.</li> <li>Due to the early stage of exploration, further work is required to better define and understand the geology and mineralisation of the prospect.</li> </ul>
Drill hole Information	<ul> <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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </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</li> </ul>	<ul> <li>All hole locations drilled as part of this program are identified in Figure 1.</li> <li>Significant assays using a 0.1% TREO lower cut-off have been reported in this announcemen in Appendix 1 and displayed in Figure 1.</li> </ul>



Criteria	JORC Code explanation	Commentary
	understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	<ul> <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>	No data aggregation methods have been used.
Relationship between mineralisation widths and intercept lengths	<ul> <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> <li>Auger drilling is considered reconnaissance in nature and does provide any indication on the geometry of mineralisation.</li> </ul>
Diagrams	<ul> <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> <li>See Figures within the body of the document</li> </ul>
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>Significant assays using a 0.1% TREO lower cut-off have been reported in this announcement in Table 1 and displayed in Figure 1.</li> </ul>
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious	<ul> <li>All available geological, geophysical and geochemical data has been integrated and interpreted by company geologists.</li> <li>All historical auger soil samples (refer MQR ASX releases dated 11<sup>th</sup> Nov 2020, 18th Aug 2021 &amp; 26th April 2022) have been shown in Figure 1.</li> </ul>



Criteria	JORC Code explanation	Commentary
	or contaminating substances.	
Further work	<ul> <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> <li>Ground gravity gradiometer survey.</li> <li>Infill auger geochemistry.</li> <li>Follow-up RC drilling of targets identified from geophysical and geochemical studies.</li> </ul>