



20 September 2022

## HIGH PRIORITY REE TARGETS IDENTIFIED AT THE COMPANY'S CRITICAL ELEMENTS PROJECT

### HIGHLIGHTS

- High priority REE (rare earth element) targets identified by expert geophysical consultants, Southern Geoscience
- Multiple radiometric anomalies and structural zones prospective for pegmatite intrusions identified
- REE targets are located on the Company's exploration licences E09/2354 and E09/2377 in the highly prospective Gascoyne Province, Western Australia
- Initial exploration program to commence later this month, comprising ground reconnaissance, rock chip sampling and geochemical analysis

Reach Resources Limited (ASX: RR1) ("Reach" or "the Company") is pleased to update the market on the identification of several high priority targets prospective for REE mineralisation. Targets were identified by expert geophysical consultant, Southern Geoscience. The Company's aim is to identify pegmatite bodies or carbonatite-associated intrusions within these targets that have the potential to host REE mineralisation.

The high priority targets sit within tenements held by Reach Resources wholly owned subsidiary, Critical Elements Pty Ltd (**Critical Elements**), that were acquired in November 2021. The Critical Elements Project lies in close proximity to successful explorer Kingfisher Mining (ASX:KFM) and are also only ~80km south of the Company's Skyline tenure, which is immediately adjacent to Hastings Technology Metals Limited (ASX: HAS "Hastings"), Yangibana REE development which has a current Ore reserve of 16.7Mt at 0.95% TREO for 158Kt (Refer HAS ASX Announcement 27 July 2021). (Refer to Figure 1).

Figure 1: Reach Resources regional locations

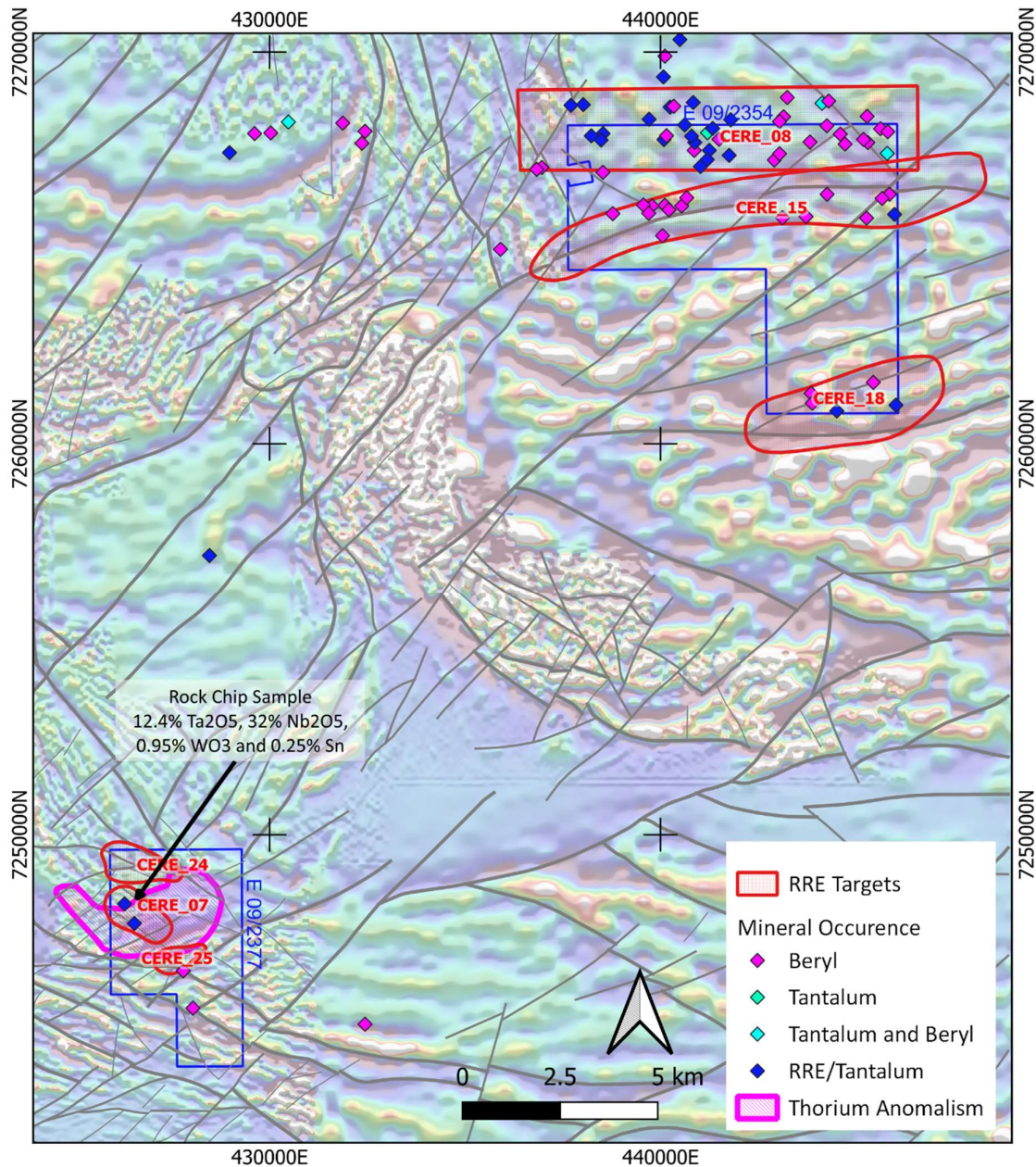




Southern Geoscience focussed on structural interpretation and target generation based on airborne magnetic data, with additional detail derived from interpretation of radiometric data and satellite imagery. Resulting from the interpretation was the identification of six REE targets within Reach tenure. A full list of identified targets within Reach tenure is included in Table 1 and depicted in Figure 2.

All targets display geological and structural complexity combined with previously identified prospective critical metal and/or REE mineral association.

**Figure 2: Targets and Magnetics**





Costeasing has been undertaken previously within the project areas and returned significant results including 12.4% Ta<sub>2</sub>O<sub>5</sub>, 32.0% Nb<sub>2</sub>O<sub>5</sub>, 0.95% WO<sub>3</sub> and 0.25% Sn, from selective rock chip samples (Refer ASX Announcement 29 November 2021). REEs were not analysed at that time however thorium anomalism, which has been shown by Kingfisher Mining and others to be associated with REE mineralisation in the region, has also been identified on Reach tenure from the radiometric data for the area interpreted by Southern Geoscience.

**Table 1 : REE target details**

Target ID	Tenement	Description
CERE_08	E09/2354	Broad target area with known Tantalum, Niobium, Beryl occurrences.
CERE_07	E09/2377	Zone of structural complexity within granite. Pegmatites may be focussed along faults and fractures. Proximal to known mineral occurrences
CERE_15	E09/2354	Broad target area along contact/major structure between granite Durlacher and Moorarie supersuites. Known Beryl occurrences associated with pegmatites.
CERE_18	E09/2354	Zone of structural complexity comprising major and secondary structures. Proximal to late granite intrusion and known Beryl, Tantalum, Niobium occurrences.
CERE_24	E09/2377	Zone of structural complexity within granite. Pegmatites may be focussed along faults and fractures.
CERE_25	E09/2377	Zone of structural complexity within granite. Pegmatites may be focussed along faults and fractures.

This geophysical study represents the commencement of the Company's systematic exploration approach. The detailed data review process has now identified targets for ground-based geologic and geochemical assessment. This ground reconnaissance will include mapping of pegmatite bodies and/or carbonatite-associated intrusions and extensive rock chip sampling and is planned for completion late September 2022.

The Company will update the market on its progress at the Critical Elements Project and looks forward to providing analytical results from the field program as soon as they become available.

*This announcement has been authorised by the Board of Reach Resources Limited*

For further information please contact:

**Jeremy Bower**  
Chief Executive Officer  
Level 4, 216 St Georges Terrace  
Perth, 6000 W.A  
[jeremy@reachresources.com.au](mailto:jeremy@reachresources.com.au)

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**About Reach Resources Limited**

*Reach Resources is an emerging gold and rare earth element (REE) explorer. It has built up a portfolio of gold tenements in the well-known and historically producing gold district of Payne's Find with a significant Inferred Resource Estimate and Exploration Target and a strategy to continue exploration to inform future development of this asset.*

*With the acquisition of several highly prospective REE tenements and exposure to a unique REE magnet recycling technology, the Company has the flexibility to also position itself towards the REE side of the minerals exploration sector with exposure to downstream processing. The company is committed to maximising shareholder value through the development of those opportunities*

**Competent Person's Statement**

*Information in this announcement that relates to exploration results is based on and fairly represents information and supporting documentation prepared and compiled by Mr Matthew Svensson, who is a Member of the Australian Institute of Geoscientists. Mr Svensson is Exploration Manager for Auris Minerals Limited and consults to Reach Resources Limited on a part-time basis. Mr Svensson has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Mr Svensson consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.*

**Forward Looking Statement**

*This report contains forward looking statements concerning the projects owned by Reach Resources Limited. If applicable, statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward looking statements are based on management's beliefs, opinions and estimates as of the dates the forward looking statements are made and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.*



JORC Code, 2012 Edition, Table 1

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	This report covers the structural interpretation and target generation and associated processing of DMIRS aeromagnetic and radiometric data. No new sampling is being reported.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The DMIRS aeromagnetic and radiometric datasets are from DMIRS published gridded data conducted at 100m (Wabli Creek) and 500m (Yinnietharra) line spacings.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Not applicable - No new sampling reported.
<b>Drilling techniques</b>	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Not applicable - No new drilling reported.
<b>Drill sample recovery</b>	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable - No new drilling reported.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not applicable - No new drilling reported.
	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.	Not applicable - No new drilling reported.
<b>Logging</b>	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.	Not applicable - No new drilling reported.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Not applicable - No new drilling reported.
	The total length and percentage of the relevant intersections logged.	Not applicable - No new drilling reported.
<b>Sub-sampling techniques and sample preparation</b>	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable - No new sampling reported.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Not applicable - No new sampling reported.



Criteria	JORC Code Explanation	Commentary
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Not applicable - No new sampling reported.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Not applicable - No new sampling reported.
	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.	Not applicable - No new sampling reported.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Not applicable - No new sampling reported.
<b>Quality of assay data and laboratory tests</b>	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Not applicable - No new sampling reported.
	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..	Not applicable - No new sampling reported.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Not applicable - No new sampling reported.
<b>Verification of sampling and assaying</b>	The verification of significant intersections by either independent or alternative company personnel.	Not applicable - No new sampling reported.
	The use of twinned holes.	Not applicable - No new sampling reported.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Not applicable - No new sampling reported.
	Discuss any adjustment to assay data.	Not applicable - No new sampling reported.
<b>Location of data points</b>	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.	Not applicable - No new sampling reported.
	Specification of the grid system used.	Not applicable - No new sampling reported.
	Quality and adequacy of topographic control.	Not applicable - No new sampling reported.
<b>Data spacing and distribution</b>	Data spacing for reporting of Exploration Results.	Not applicable - No new sampling reported.
	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.	Not applicable - No new sampling reported.
	Whether sample compositing has been applied.	Not applicable - No new sampling reported.
<b>Orientation of data in relation to</b>	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Not applicable - No new sampling reported.



Criteria	JORC Code Explanation	Commentary
<b>geological structure</b>	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.	Not applicable - No new sampling reported.
<b>Sample security</b>	The measures taken to ensure sample security.	Not applicable - No new sampling reported.
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	The report accompanying the structural interpretation and target generation completed by Southern Geoscience was review internally by other qualified Geophysicist and by Reach representatives prior to being finalised.

### Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Wabli Creek (E09/2377) and Yinnietharra (E09/2354) projects cover an area of approximately 59m <sup>2</sup> The projects are located 270km east of Carnarvon. Gascoyne Junction is situated 110km to the west-southwest.
	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.	Reach owns 100% of both projects.
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	Historic exploration has been limited comprising of rock chip sampling addressed in ASX Announcement 29 November 2021.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	Reach's projects within Gascoyne Mineral Field are prospective for rare earths mineralisation associated with carbonatite intrusions and associated fenitic alteration as well as Lithium mineralisation associated with pegmatites.
<b>Drill hole Information</b>	<p>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:</p> <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar;</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres);</li> <li>○ of the drill hole collar;</li> <li>○ dip and azimuth of the hole;</li> <li>○ down hole length and interception depth; and</li> <li>○ hole length.</li> </ul> <p>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.</p>	Not applicable - No new drilling reported.



Criteria	JORC Code Explanation	Commentary
<b>Data aggregation methods</b>	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Not applicable - No new drilling reported.
	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.	Not applicable - No new drilling reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents are used.
<b>Relationship between mineralisation widths and intercept lengths</b>	These relationships are particularly important in the reporting of Exploration Results.	Not applicable - No new drilling reported.
	If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.	Not applicable - No new drilling reported.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Not applicable - No new drilling reported.
<b>Diagrams</b>	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.	Appropriate maps are included within the body of the accompanying document.
<b>Balanced reporting</b>	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.	Not applicable - No new drilling or sampling reported.
<b>Other substantive exploration data</b>	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.	The geophysical data used by SGC during the structural interpretation and target generation is published by DMIRS and was completed at 100m and 500m line spacing at Wabli Creek and Yinnietharra respectively.
<b>Further work</b>	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Ground reconnaissance to evaluate identified targets is planned to be undertaken late September 2022.