



28 May 2024

### NEWLY IDENTIFIED NIOBIUM AND RARE EARTH TARGETS

### HIGHLIGHTS

- A review of available geophysical data by Southern Geoscience on the Company's 100% owned, Wabli Creek Project, Yinnetharra WA, has identified a large ovoid intrusive feature/magnetic target (Figure 1).
- The magnetic anomaly has been interpreted as a late-stage intrusive granitic sequence, internal to the regionally extensive Durlacher Supersuite, and proximal to the Chalba Shear Zone.
- The 3 highest priority existing geochemical targets, including an area where historical highgrade niobium eluvial mining has been undertaken, have been confirmed to be associated with structures located at the margin of the newly identified magnetic intrusive feature.
- This is the first time that such a potential link has been indicated at Wabli Creek and if correct, it expands the potential of the project to host significant Nb-Y-REE mineralisation.
- Including new targets, a total of 27 targets have now been identified which will be the focus for ongoing exploration.
- High grade eluvial results previously reported include: *Niobium:* 
  - 32% Nb<sub>2</sub>O<sub>5</sub> (ASX Announcement 1 June & 13 December 2022)
  - 14.3% Nb<sub>2</sub>O<sub>5</sub> (ASX Announcement 1 June & 21 December 2023) Yttrium:
  - 0.72% Y<sub>2</sub>O<sub>3</sub> (ASX Announcement 13 December 2022) Rare Earth Elements:
  - 2.6% TREO (ASX Announcement 13 December 2022)
- Following the successful review by Southern Geoscience, detailed airborne geophysical surveys including magnetics, radiometrics and gravity are now planned to further refine priority targets, and potentially identify further additional targets.

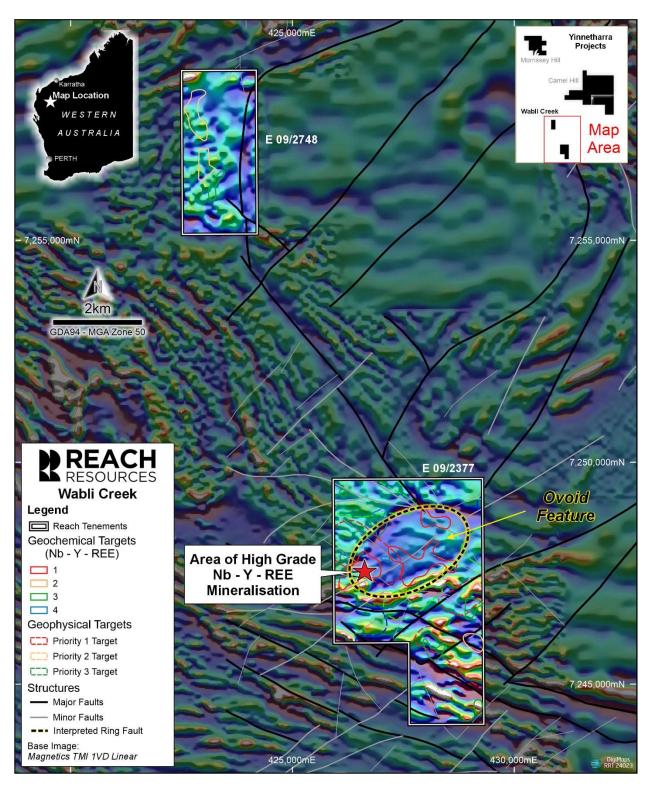
**Reach Resources Limited** (ASX: RR1 & RR1OA) ("**Reach**" or "the **Company**") is pleased to advise that a recent review of airborne, magnetic, and radiometric geophysical data by Southern Geoscience has identified a large ovoid intrusive feature, at the Company's 100% owned Wabli Creek Project, WA.

The large intrusive feature is coincident with previously reported high grade Nb-Y-REE results from eluvial samples and high priority soil geochemical anomalies.

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**Figure 1**: Wabli Creek Project showing structural interpretation and recently identified "Ovoid" feature represented as a magnetic low, overprinting surrounding magnetic feature. Background image is Total Magnetic Intensity First Vertical Derivative (TMI 1VD – linear).

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Located in the highly prospective Gascoyne "Battery Metals" Province of Western Australia, approximately 150kms north of Gascoyne Junction, the Wabli Creek project has provided high grade niobium and TREO results up to 32%  $Nb_2O_5$ , 14.3%  $Nb_2O_5$  and 2.6% TREO. (ASX Announcement 13 Dec 2022, 1 June 2023).

The newly identified ovoid magnetic feature is interpreted to be a younger granitic sequence which has intruded into the older, regionally extensive, Durlacher Supersuite, proximal to the Chalba Shear Zone, a major E-W trending structural corridor.

Importantly, the existing 3 highest priority geochemical anomalies, together with the area historically mined for high-grade niobium eluvium all occur along the margins of this newly identified feature, suggesting a potential genetic link between the intrusive and known mineralisation.

This is the first time that such a potential link has been indicated at Wabli Creek and if correct, it expands the potential of the project to host significant Nb-Y-REE mineralisation.

### **Geophysical Surveys**

Southern Geoscience completed a review of all available geophysical data over the Wabli Creek Project area, with the aim of producing a structural interpretation based on public domain airborne magnetic data, radiometric data and satellite imagery. The key outcome following the study was the identification of a large "ovoid-shaped" magnetic feature central to E09/2377(Refer to Figures 1 and 2).

Importantly, a total of 27 targets have now been identified and will be the focus for ongoing exploration at Wabli Creek, for Niobium-Yttrium-Rare Earth Elements.

Given the success of the geophysical review, and the relatively low resolution of the existing magnetic and radiometric surveys at Wabli Creek (~400m line spacing, 80m station spacing), detailed airborne geophysical surveys including magnetics, radiometrics and gravity are now planned to further refine priority targets and to potentially identify additional exploration targets.

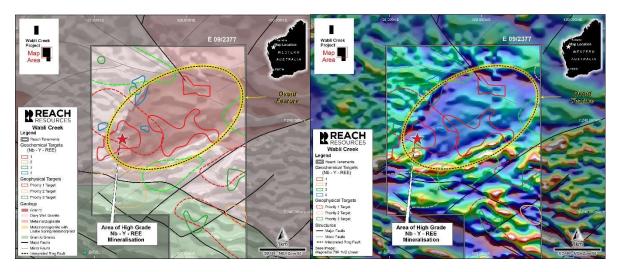
### Jeremy Bower CEO commented:

"The identification of a potentially late stage, younger, granitic intrusive sequence at Wabli Creek is really exciting.

We have previously reported some very high grade Nb-Y-REE rock chip and soil results at Wabli Creek, and having now located what may be the source of mineralisation, could potentially be of significant importance in understanding the source of the mineralization at the project."



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**Figure 2:** Niobium/REE soil anomalies over interpreted geology (left) and TMI-1VD magnetics (right) showing recently identified ovoid intrusive central to E09/2377 Wabli Creek, Yinnetharra. Note the coincidence of the previously reported high grade eluvial samples and high priority Nb/REE anomalies with the margins of the magnetic intrusive feature and major faults associated with it.

### **Next Steps**

- Assays from the most recent rock chip sampling program are due in the short term. Once received they will be analysed and reported.
- Continued mapping and rock chip sampling, including detailed geochemical profiling.
- Ultra-detailed airborne and ground geophysical surveys including magnetics/radiometrics and gravity to identify and refine priority targets.
- Heritage Surveys.
- Drilling, subject to receipt of all the necessary regulatory approvals being obtained and further positive results from existing and planned pre-drilling exploration activities.

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

For further information please contact:

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-ENDS-



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### About Reach Resources Limited

Reach Resources is a critical mineral explorer with a large portfolio of tenements in the resource rich Gascoyne Mineral Field. Recent and historical exploration results have confirmed the presence of Lithium, REE, Niobium and Manganese across the Company's land holdings.

However, the Company is distinct from other pure explorers by also having an Inferred Gold Resource at Payne's Find and a significant investment in a downstream patented technology that recycles the rare earth elements from the permanent magnets required in electric vehicles, wind turbines, hard disk drives and MRI machines.

#### **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 Steve Vallance, who is a Member of the Australian Institute of Geoscientists. Mr Vallance is the Exploration Manager for Reach Resources Limited employed on a full-time basis. Mr Vallance 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 Vallance consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

#### No New Information

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

### Forward Looking Statements

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: Wabli Creek Geophysical Interpretation

### **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <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> <li>Reach Resources Ltd (RR1) engaged Southern Geoscience Consultants (SGC) to undertake a structural interpretation and target generation study of the Wabli Creek project area.</li> <li>SGC reprocessed all available public domain airborne magnetic and radiometric data and Satellite imagery including Sentinel.</li> <li>Airborne magnetic and radiometric data (GSWA) was compiled from various contractors prior to 2020 and 2018 respectively.</li> <li>Surveys were flown generally on an 80m grid, 400m line spacing with various mean terrain clearance.</li> <li>Data was used to identify         <ul> <li>Faults and fractures</li> <li>Intrusive dykes and sills</li> <li>Different lithological features</li> <li>Areas of alteration</li> <li>Radiometric anomalies</li> <li>Trends in satellite data</li> </ul> </li> </ul>
Drilling techniques	<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>	<ul> <li>N/A No drilling has been reported in this ASX release.</li> </ul>
Drill sample 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 and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>N/A No drilling has been reported in this ASX release.</li> </ul>
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> </ul>	<ul> <li>N/A No drilling has been reported in this ASX release.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <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>	
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>N/A No drilling has been reported in this ASX release.</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>The procedures employed by SGC reflect accepted industry standard procedures and provide acceptable accuracy and precision.</li> </ul>
Verification of sampling and assaying	<ul> <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> <li>N/A No drilling has been reported in this ASX release.</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 Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The grid system used in the figures and appendices in this ASX release is MGA Zone 50 (GDA94).</li> <li>The project's topographic control is adequate for early-stage surface targeting and reconnaissance.</li> </ul>

Criteria	JORC Code explanation	Commentary
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>N/A The data is not being used to support estimation of Mineral Resources or Ore Reserves.</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>N/A No drilling has been reported in this ASX release.</li> </ul>
Sample security	The measures taken to ensure sample security.	• N/A
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>RR1 has not undertaken any audits or reviews with respect to this phase of exploration.</li> <li>SGC have employed best practice industry standard techniques at every stage of the process.</li> </ul>

### **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>Yinnetharra Projects</li> <li>The Yinnetharra Projects comprise granted licenses E 09/2375 and M09/101 (Morrisey Hill),E 09/2388 and E 09/2354 (Camel Hill) along the Ti Tree Shear Zone, and E 09/2377 and E09/2748 (Wabli Creek) along the Chalba Shear Zone.</li> <li>In March 2024 RR1 entered into an Earn-in/JV arrangement over the Morrissey Hill and Camel Hill project areas with Delta taking over responsibility for project management. (ASX Release 11/03/2024)</li> <li>This ASX release only refers to workwork conducted within tenements E 09/2377 and E09/2748 (Wabli Creek).</li> </ul>

Criteria	JORC Code explanation	Commentary					
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>This release presents the results of recent exploration activities by RR1 at E 09/2377 and E09/2748 (Wabli Creek).</li> <li>The area has a long history of exploration and prospector scale mining dating back to the 1920's-1940's principally for pegmatite hosted mica and gemstones.</li> <li>Approximately 1 tonne of eluvial samarskite (Nb-Y-REE-Ta Oxide) mineralization was mined from E09/2377 (Fetherston, JM 2004 GSWA)</li> <li>U3O8 Ltd drilled two RC holes in E09/2377 targeting U mineralisation (NOTE – U cannot be mined in Western Australia).</li> <li>E09/2748 has never been drill tested.</li> <li>The historical results provide a broad guide only.</li> </ul>				cale min e hosted i Oxide) / 2004.	
		Company	Report Number	Year	Target commodity	Reach Tenement	
		Pure Minerals Limited	117605, 117689	2018	Li ±Ta	E 09/2375, E 09/2377	
		Mineral Developments	114716, 114717	2017	Beryl, Li, Mica, REE, U	E 09/2375, E 09/2377	
		U308 Ltd	76883, 79787, 84704, 88390	2007, 2008, 2009, 2010	U, Th, V	E 09/2377	
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Reach's Yinnetharra tenements lie in the Mutherbukin Zone of the Gascoyne Province and comprise granites of the Moorarie, Durlacher and Thirty Three supersuites. The Thirty Three Supersuite is recognized as the youngest unit in the Yinnetharra project area and outcrops along the northern edge of the Mutherbukin Zone, along the Ti Tree Syncline. The Thirty Three Supersuite comprises pegmatites, ranging in size from veins to 10–20-m-wide dykes and shallowly dipping sheets up to 200 m in thickness (Sheppard et al., 2010). The pegmatites are typically zoned, with massive quartz cores, and include rare elements (e.g. Bi, Be, Li, Nb,Ta), which have been the subject of small-scale mining (Sheppard et al., 2010). Segue Resources Ltd (now</li> </ul>			urlacher suite is rea and long the matites, hallowly 10). The l include ubject of		

Criteria	JORC Code explanation	Commentary
		<ul> <li>Arrow Minerals Ltd) identified the Thirty Three Supersuite as a fertile and highly fractionated granitic suite with potential to generate Li-Cs-Ta (LCT) pegmatites. Independent studies by the GSWA support this interpretation.</li> <li>The work completed by SGC has identified an ovoid low magnetic feature within E09/2377 which overprints all surrounding magnetic textures.</li> <li>This feature is interpreted to be a late stage granitic intrusive and a potential source of Nb-Y-Ree-Ta mineralization in the Wabli Creek area. Refer to Figures in the release.</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 understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	N/A No drilling has been reported in this release.
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>	• N/A
Relationship between mineralisation widths and	<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> </ul>	<ul> <li>N/A – no drilling has been reported in this ASX release.</li> </ul>

Criteria	JORC Code explanation	Commentary
intercept lengths	<ul> <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>	
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>Appropriate maps for the Yinnetharra projects are included in the release.</li> <li>Known pegmatites, mineral occurrences, projects and mines were extracted from WAMEX.</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.	• Recent and historical results that are considered relevant have been presented here in a balanced manner to avoid misleading reporting. The reported results reflect the full range of results for the target commodities available to Reach Resources at the time of this report. No relevant information has been omitted.
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 or contaminating substances.	<ul> <li>Data which is relevant to this release is included in this report.</li> <li>All relevant data available to Reach Resources has been documented in this report.</li> </ul>
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>Desktop studies and target identification are in progress.</li> <li>Field reconnaissance including mapping and surface geochemical soil and rock chip surveys are planned to recommenced in Q2 2024.</li> <li>An application for an Aboriginal Heritage Survey of Wabli Creek (E09/2377 &amp; E09/2748) has been presented to the relevant parties. It is anticipated that this will be undertaken during Q2/3 2024 .</li> <li>Maiden drill programs are planned to commence once all regulatory approvals have been received.</li> </ul>