

January 28, 2022

CEO & Managing Director

## Letter to Shareholders

Dear shareholder

As we advance towards our vision of becoming a leading supplier of critical minerals, I'm very happy to recap our achievements of the past year that have set us up for further progress in 2022 and beyond.

These achievements were in the following key areas:

- **Expanding our resources**
- **Gaining all regulatory approvals to develop our flagship projects**
- **Building US Government Support**
- **Establishing our presence with US R&D Efforts**
- **Listing on American exchange, OTC Markets**
- **Completing a capital raise with global investment firm Fidelity**
- **Welcoming highly experienced US-based Board members**

Before outlining these achievements in more detail, I want to thank shareholders who have supported us while we have been developing our projects and building our presence in North America, and welcome new shareholders who have joined us as we embark on the next stage of our journey.

I would also like to pay tribute to our Chairman Creagh O'Connor for his wisdom and guidance, and our Board members for sharing their expertise across a range of matters affecting our business. To all our management team, staff and contractors, I extend my congratulations. Whether based in our Sydney headquarters or on the ground in Arizona or Wyoming, all have displayed hard work and commitment to our strategy while dealing with time differences and ongoing Covid restrictions.

Below are more details on our progress, with links to the relevant ASX announcements that include further technical information.

### Expanding our total resources

- The increased size and higher grades of the 890 hectare (2,200 acre) La Paz project in Arizona places it firmly in a leading position to become one of North America's largest rare earths projects.  
We were excited to report in August drilling results that delivered an indicated

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resource estimate increase of 117% to 35.2 million tonnes (MT). A culmination of drilling work conducted across the first half of 2021, the results also confirmed the overall total rare earth elements (TREE) grade is up 5.2% to 391 parts per million at the project.

Total resource tonnes jumped by 33.1% to 170.6 million, equating to about 66.6 million kilograms of TREE.

The updated resource also contains 4.4 million kilograms of scandium oxide.

While not classified as an REE, scandium is a highly sought-after critical mineral used in aluminium products and to make solid oxide fuel cells.

- Later in August preliminary test results using magnetic separation revealed a 216% increase in (TREE) grade and a 90% rise in scandium grade at La Paz, along with a 76% drop in ore mass.

Additionally, assays revealed that La Paz has the lowest thorium levels of any US REE project. This is a big advantage for us to reduce processing and handling costs associated with radioactive materials. We were extremely pleased with the preliminary test results at La Paz as it demonstrated that the ore can be effectively concentrated using proven technologies.

All results were classified in accordance with the 2012 edition of The Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012).

## Approvals

Following the significant upgrades to our total resources we were thrilled to announce that [we received the highly anticipated exploration permits for our flagship US projects](#), La Paz and 1,257 hectare (3,109 acre) Halleck Creek in Wyoming during December. Special thanks to Dwight Kinnes our Chief Technical Officer for navigating the permitting process and preparing the respective drill programs. With all regulatory permits and approvals received, the company now has a clear pathway to advance drilling activities and further develop the exploration program at these two key North American rare earths projects.

## US Government Support

In March La Paz received the backing of government officials at a national level, in addition to its support from the State of Arizona, after being [one of the few projects to be exempted from the Biden Administration's 60-day halt on ground disturbing activity approvals](#).

The decision by the Administration came a week after a group of federal, state, county and city officials, plus private industry executives, conducted a visit at La Paz, which was hosted by Head of US Business Marty Weems.

The exemption gave us immense confidence in the potential of the project to become a mine of national significance as well as further validation that La Paz sits within a mining-friendly jurisdiction.



*20 federal, state, county, and city officials, plus private industry executives visited the La Paz project where Marty Weems gave a presentation on the importance of the project.*

## R&D Efforts in the US

The US team led by Marty Weems have worked diligently to establish our presence on a number of top tier rare earths innovation programs.

Thanks to the team's efforts, we joined multiple consortiums in R&D project funding applications that are part of concerted government efforts to develop a more diverse and secure supply chain for the critical minerals market, which is essential for American competitiveness in clean energy technology and for national defense industry supply chains.

Our involvement with these projects provides a boost to our profile in the US, while giving impetus to our strategy to be not just an explorer but also a fully vertically integrated major rare earths supplier.

The La Paz and Halleck Creek projects are among the few REE mineral deposits that qualify for use in these programs because they give access to almost all 17 rare earths metals in a single source containing negligible thorium levels. This means the researchers do not have to manage potentially radioactive waste, as they do with other REE feedstocks.

- Early this year we were [named as a Team Member by the Critical Materials Institute, Department of Energy funded Innovation Hub](#) due to our collaboration with a DOE funded R&D Partner. Fellow organisations on the highly esteemed Critical Materials Institute (CMI) Team Members list include the world's second-largest metals producer Rio Tinto (as the only other company with rare earths mining deposits involved), leading

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universities and national laboratories, as well as private companies.

- The CMI membership follows October's invitation to supply feedstock for researchers associated with a [US Defense Advanced Research Projects Agency's \(DARPA\) Rare Earth Elements \(REE\) bioengineering research program](#). This fascinating program encourages US scientists to engineer a new REE supply chain by using 'biomining' approaches through the Environmental Microbes as a Bio-Engineering Resource (EMBER) program. If successful, Biomining would allow domestic REE separation and purification, and is more environmentally friendly than traditional processing.

### Appointment of highly experienced American Board members

Throughout 2021 we welcomed three US-based non-executive directors who bring not only a depth of in-country knowledge but also valuable expertise.

They include:

- [Clarence McAllister](#) who has more than 30 years of international experience in engineering and construction and has been the Chairman of the Board of our wholly owned subsidiary Western Rare Earths for over two years. Mr McAllister also serves on the Arizona Supreme Court Alternative Business Structure Board.
- [Melissa \(Mel\) Sanderson](#) who brings more than 30 years' international [experience in senior mining and US State Department diplomacy roles](#). Ms Sanderson serves as [Chair](#) of the Phoenix Committee on Foreign Relations and the Arizona District Export Council.
- [Sten Gustafson](#), who is an energy and service industry executive, investment banker and corporate securities attorney. With more than 25 years of experience in the global energy sector, Mr Gustafson has advised on over 100 corporate transactions worth in excess of \$100 billion.



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## Capital Raise Completed

We finished 2021 with the [completion of a AU\\$6.1M capital raise with leading multinational fund Fidelity](#), which is renowned for its long-term focus and ESG (environmental, social and governance) credentials. The strategic placement gives Fidelity an initial 9.9% stake in our company. This is a major show of confidence by an esteemed institutional investor in our growth plans, while on a more practical level it enables us to accelerate the development of our projects.

## US Listing

On 22 November our shares started trading on the OTC Markets QB level (OTCQB), the largest alternative trading system in the US with more than 11,000 securities quoted.

Shares continue to trade on the ASX under the code ARR, with the cross listing completed in a non-dilutive manner to provide added liquidity and strength to existing shareholders.

The OTC markets listing, with shares trading under the code ARRNF, allows us to further build our visibility and investor base in the US, home to our most advanced projects.

We are additionally listed on the Frankfurt Stock Exchange, giving us visibility on this US\$1,776 billion European market.

## Growing demand

According to research conducted by Fortune Business Insights, the global rare earths elements market is projected to grow from US \$2.8 billion in 2021 to US \$5.5 billion in 2028 at a compound annual growth rate (CAGR) of 10.0% in the forecast period.

Driving demand is the move to cleaner energy technology mentioned above, as well as rising global uptake of digital devices, such as smartphones and laptops, in which rare earth elements are used.

The scandium market is forecast to register growth of 11% CAGR from 2022 to 2027. This is due to its accelerating usage in solid oxide fuel cells (SOFCs) and the rising demand for aluminium-scandium alloys, according to Mordor Intelligence.

This demand scenario is set against the geopolitical backdrop referred to above (in the review of our collaboration with US Government backed R&D projects).

It's no secret that the US Government recognises the need to "onshore" these materials to reduce national security and supply chain risks. Three Presidential Orders and bi-partisan legislation are promoting domestic upstream and downstream production of rare earths and magnets that supply them, including the provision of US\$800 million for research and development. More recently, on January 14 2022, a bi-partisan piece of legislation was introduced in the US Senate that would force

defence contractors to stop buying rare earths from China by 2026 and use the Pentagon to create a permanent stockpile of the strategic minerals. With our US projects and leadership presence, we are well positioned to grow the company and be at the forefront of the US rare earths industry transformation.

## Vision & Strategy

It's our vision to create the next major rare earths and critical minerals business and play a key role helping to restore the supply chain of these critical materials to the United States of America.

As part of our vision we aim to be more than just a mining company but a technology leader in this space: vertically integrated and one day producing the rare earth metals that are critical to our future.

It's our strategy to not only focus on advancing our rare earths mining projects that have some of the cleanest ore in the world but to continue working collaboratively with R&D leaders to build processing and refining capability. By helping develop disruptive, green technologies we will provide critical minerals not just for today but also for future generations.

Becoming a member of the Critical Minerals Institute is one small step in the pursuit of our vision and the journey that lies ahead. Being a member of the CMI provides the opportunity to drive R&D, license green and clean technology for deployment, and provide input to CMI research programs.

ESG is a key focus at American Rare Earths and is central to what we do. We are committed to building an ESG-centric culture, working with our people and our wider stakeholder community to build a positive and more sustainable future.

Under the umbrella of ESG we are adopting a "Book End" strategy to create shareholder value and reduce time to market.

To close the supply chain gap the company will focus on developing our major projects through all stages of mine development to produce a rare earth concentrate. At the same time it will work with R&D leaders and partners further down the supply chain to develop processing and refining capability in order to supply a metal product.

The company is extremely well capitalised and 2022 is shaping up to be a transformational year.

## What's next?

As we work towards our vision we will continue to create shareholder value by progressing with:

- Drilling at the La Paz Project's new Southwest area, with the goal to significantly increase the 170 million tonne JORC Resource. Drilling commences early February 2022.
- Complete the current phase of Metallurgical Testing with Wood PLC and Nagrom to advance the La Paz Project. Results are expected in Q2.
- Preparing a Preliminary Economic Assessment (PEA) for the La Paz project.
- Establishing a maiden resource for the Halleck Creek Project. The maiden drill program commences in Q1 and further drilling is planned for Q2/3.
- Working collaboratively with multiple R&D project partners as a Team Member of the US Department of Energy innovation hub, the Critical Minerals Materials Institute (CMI).
- Continuing work with research teams and providing feedstock to funding program applicants, including researchers from US national laboratories and elite American 'Research One' universities applying to the US Defense Advanced Research Project Agency's EMBER program.
- Developing a stakeholder engagement and management plan. Proactively engaging with all stakeholders surrounding our projects to ensure they are consulted in a timely, accurate and relevant manner.

As we gain momentum towards achieving our vision, I recognise that you invest in our company to achieve your own goals.

I thank you for your ongoing support and invite you to keep in touch and follow our updates in 2022, including our latest [quarterly report](#), via our [website](#) or on [Twitter](#), [LinkedIn](#) or [Facebook](#).

Sincerely

Chris Gibbs

CEO & Managing Director  
American Rare Earths Ltd.

Approved by the Board of Directors