ASX Announcement



American Rare Earths Limited: (ASX:ARR)

An Australian exploration company focused on the discovery & development of Rare Earths, Scandium and critical mineral resources in North America and Australia

Commodity Exposure

Rare Earth Elements and Scandium in the USA

Scandium and Cobalt in Australia

Projects

- La Paz Rare Earths Project Arizona USA
- Searchlight Heavy Rare Earths Project Nevada USA
- Laramie Rare Earths Project
 Wyoming USA
- Split Rocks Project Western Australia

Directors & Management

Creagh O'Connor - Non-Executive Chairman Keith Middleton - Managing Director Geoff Hill - Non-Executive Director Denis Geldard - Non-Executive Director Jim Guilinger - Chief Technical Advisor Wayne Kernaghan - Company Secretary

Capital Structure

Ordinary Shares on Issue 343,058,326

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LA PAZ DRILLING PRODUCES SIGNIFICANT RESULTS

Potential new ore body discovery

Resource mineralisation continues at previously undrilled depths Resource upgrade in progress, robust size increase expected

Highlights

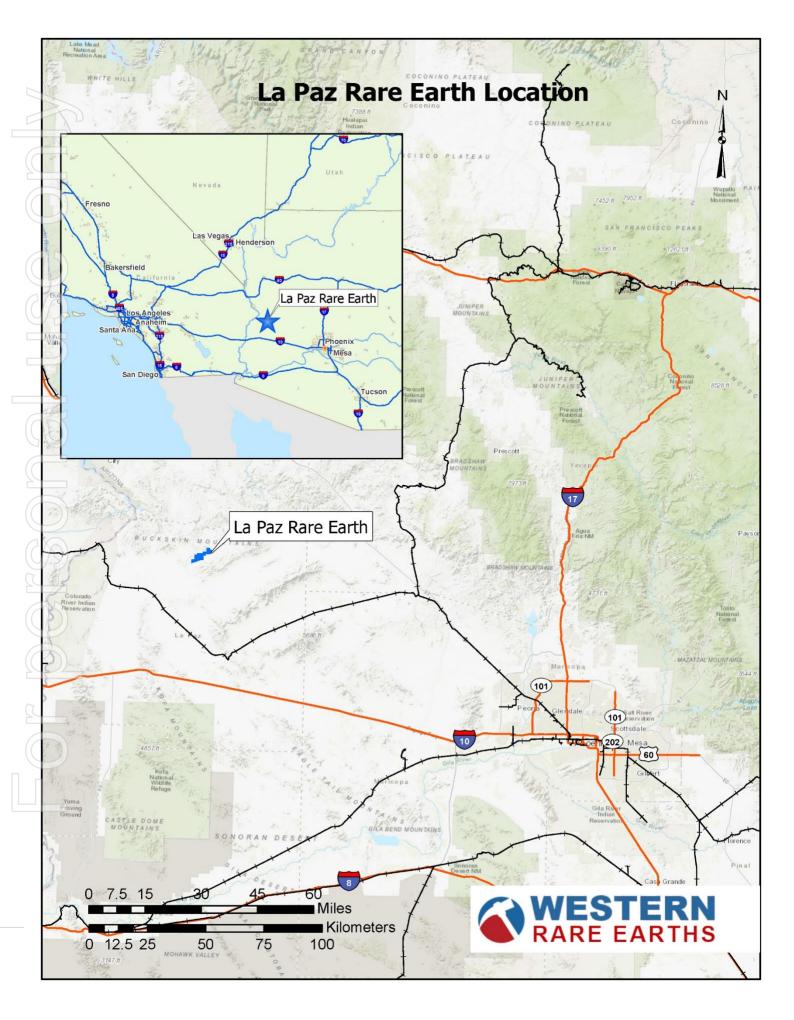
- All assayed drill holes, including new Southwest areas, produce REE grades higher than cutoff and deeper than original resource
- Potential new ore body discovery in previously undrilled SW areas
- > Twinned holes in the resource area help confirm the asset
- Scandium confirmed at depth; grades consistent with historical surface sampling
- Consistent REE grades above cutoff to depth of 122 metres in drill hole LP 21-07: depth 4 times deeper than adjacent 2011 holes
- Average drillhole thickness of material with TREE grades >= 300ppm is approximately 45.33 metres in the 2021 core holes data compared to 24.1 metres in 2011 data
- Average Total REE (TREE) grade 398ppm, +6.4% > resource avg
- Extraordinarily low radioactive materials; Thorium 5.1ppm avg
- Lowest Thorium of any advanced US REE mine project
- Resource upgrade in progress, robust size increase expected

American Rare Earths Limited (ASX: "ARR") ("the Company") is pleased to announce the drilling results produced by its wholly owned US subsidiary Western Rare Earths (WRE) at the La Paz Rare Earths project (La Paz REE) in Arizona, globally ranked as the #2 friendliest mining jurisdiction. During Q2 2021 WRE has completed an analysis of the drilling program at La Paz.

This market announcement has been authorised for release to the market by the Board of American Rare Earths Limited.

Keith Middleton Managing Director







2021 Drilling Results

In March 2021, Western Rare Earths ("WRE"), a wholly owned subsidiary of American Rare Earths Limited (ASX:"ARR" or the "Company"), completed a nine (9) hole core drilling program totalling 2,238 feet (682m) for the La Paz Rare Earths and Scandium Project ("La Paz REE") Project in La Paz County Arizona, (see Project Location Map and Drill Hole Location Map). The Fraser Institute ranks Arizona as the #2 most friendly mining jurisdiction in the world.

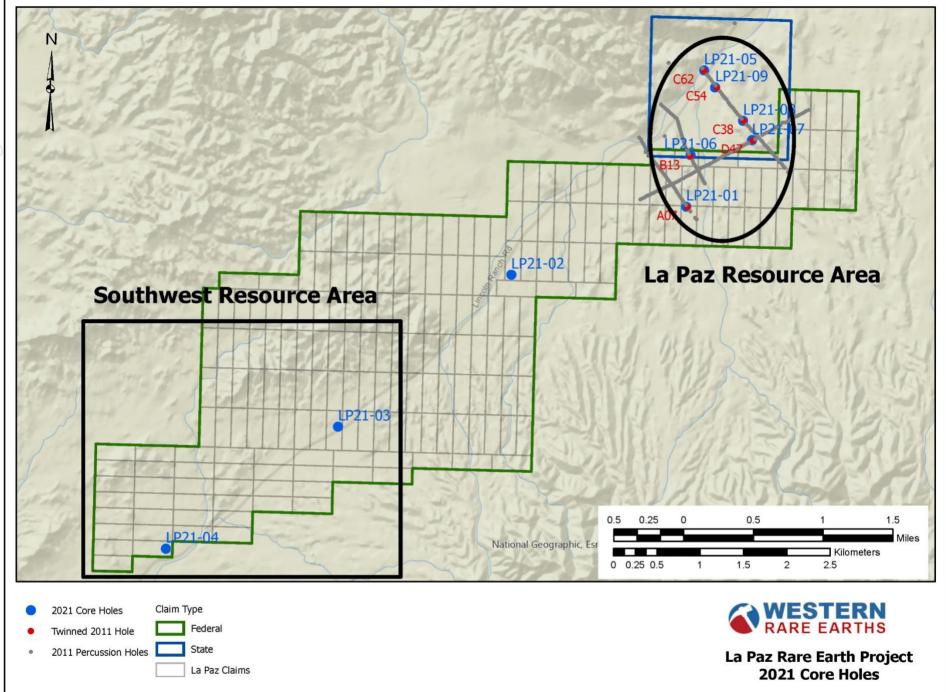
Specifically, the drilling campaign comprised of six (6) core holes that were drilled as twins of previously drilled percussion holes originally completed in 2011. An additional three (3) holes were drilled using widely spaced exploration holes drilled to test the previously undrilled southwest portion of the claim block. The results of the exploration drilling are summarised in the April 21, 2021, press release entitled "Drilling at the La Paz Project Completed with Favourable Geology Identified".

Approximately 514 core samples were collected via HQ size (63.5mm) diamond drilling. Approximately 42 samples were tested for specific gravity to determine relative densities of the primary rock types at La Paz. Each sample was analysed using a 60 element ICP analyser by American Assay Labs in Sparks, Nevada. A detailed analysis of the resulting data shows the following:

- Opportunity to significantly upgrade indicated and inferred resource estimates
- Resource mineralisation continues at previously undrilled depths in all assayed drill holes. Notably, Drill hole LP 21-07 contains consistent REE grades above 300ppm REE cutoff to a depth of 122 metres, a depth 4X deeper than adjacent 2011 drill holes.
- An increase in high value magnetic and heavy rare earths
- Potential new ore body discovered 4-7 Km southwest of the maiden resource

The 2021 La Paz drilling results have exceeded the company's expectations with the mineralisation being found as much as 4X deeper in select holes at previously undrilled depths. Drilling in the heart of the resource area is mineralized at terminal depth, indicating the resource may remain open at depth as well as laterally. The results show an increase in grades of certain high value Rare Earth elements, including magnetic and heavy Rare Earths used in numerous technologies such as Electric Vehicles (EVs), wind turbines, air conditioners/refrigeration, phones, and critical national defence industry tech.

An updated JORC Table 1 resides in Appendix A.





Analytical Results

Analysis of the drilling results from La Paz show higher grade presence of Magnet Rare Earths (Praseodymium (Pr), Terbium (Tb)) and Samarium (Sm) concentrations in the 2021 La Paz core holes compared to 2011 percussion drill results (see Table 1). Tb and Pr are magnetic REEs and thus the total Magnetic REE (MagREE) grades in drill hole data present significantly higher than in the 2011 drill results.

The average Total REE (TREE) grade within the 2021 drill hole data is approximately 398ppm compared to 372ppm in 2011 percussion hole data, based on a cut-off of 300ppm. Drill hole lengths of mineralized zones exceeded the length of mineralized zones compared to previous 2011 drilling. The average drillhole thickness of material with TREE grades >= 300ppm is approximately 45.33 metres in the 2021 core holes data compared to 24.1 metres in previous data.

Scandium (Sc) grades with a weighted average of 16ppm was also found in the analytical data.

Opportunity to increase the size of the resource estimate

Due to consistent assay results of mineralization below the original resource, as produced by deeper drilling, the indicated and inferred resource estimates have the potential for significant upgrade in size. Deeper mineralization was observed in all core drilling in the resource area. In the heart of the strike, mineralization was above the resource cutoff at depths as great as 122 metres in hole LP21-07, 4X deeper than the original extremely shallow resource. The holes nearest LP21-07 also indicated the greatest depth and consistency of mineralization (see fence diagram "LP21 All Holes). These results indicate that additional drilling and deeper drilling in the heart of the strike is warranted. Also, more drilling is required to reduce drill hole spacing, further de-risk the project and to increase indicated resources at depths below and across the entirety of the maiden resource area.

Potential new ore body discovery in previously undrilled SW areas

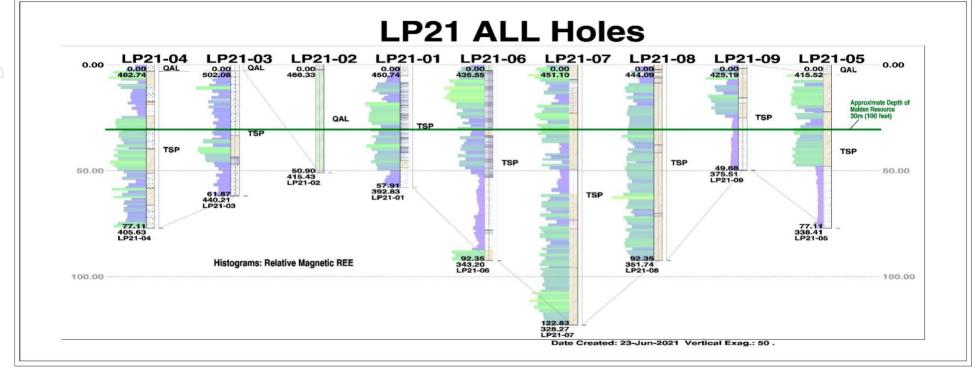
Two Reconnaissance diamond core holes, LP21-03 and LP21-04, were drilled in the southwest area of the La Paz project area, see drill hole location map. LP21-03 was drilled to a depth of 203 feet (61.9m) and LP21-04 was drilled to a depth of 253 feet (77.1m). Drill Hole LP21-03 is approximately 4.75 km southwest of drill hole LP21-01. Drill LP21-04 is approximately 2.22 km southwest of LP21-03 and 7.0 km southwest of LP21-01.

Drill Hole LP21-03 contains REE mineralization zones similar to the maiden resource area, showing an average TREE of 377ppm over 14.8 meters of length using a 300ppm TREE cut-off. Drill hole LP21-04 shows the more favorable REE mineralization of the two holes, showing an average TREE of 401ppm over 48.6 meters of length using a 300ppm TREE cut-off.

The fence diagram entitled, "LP21 All Holes" illustrates how the holes in the southwest area compare to the core holes in the main La Paz maiden resource area to the Northeast.

With the favorable results shown in LP21-04, WRE will be staking additional claims and planning additional exploration in the area to determine the extent of REE mineralization.





Scandium at depth is consistent with historical surface sampling

Scandium has been reported in surface samples in 2019 and 2020 across the project area. Notably, the Scandium bearing surface samples have been in both the REE resource area and the prospective areas to the Southwest of the resource. The 2021 drill campaign netted Scandium results consistent with the historical surface samples in all of the diamond drill core holes that were assayed. The Scandium is most prevalent in the areas of higher grade REEs and appears ubiquitous in the REE mineralized zones.

If the Scandium concentrates to commercially viable grades during the REE beneficiation and metallurgy, the resulting economic benefit could be extremely significant to the project. High purity Scandium metal prices recently reported by BAIINFO (Beijing) as greater than \$3400/kg (USD). (See https://www.linkedin.com/feed/update/urn:li:activity:6809028997888933888/)

Twinned holes contribute to confirming the maiden resource

The six diamond core drill holes in the resource area were twins of select holes of the 2011 percussion drilling that established the maiden resource of Rare Earths (REEs). By drilling twinned holes across the resource area and to greater depths, there was opportunity to compare and confirm the 2011 data. Without exceptional differences in the data, the 2021 drill campaign produced results complimentary to the 2011 percussion drilling results. Thus the 2021 drill campaign has aided in confirming the asset and its associated historical data.

Average Total REE (TREE) grade is 398ppm, +6.4% higher than maiden resource

As higher average grades were observed in the 2021 assay data of the core drill campaign, there may be opportunity to upgrade the resource in both size and grade. The higher average remains similar enough to the original resource grade average so as to be confirmatory to the historical data while providing a modest lift in the average grade across the resource area.

Magnetic REE (Nd, Pr, Dy and Tb) constitute approximately 27% of the TREE. The Nd:Pr ratio is market optimal at approximately 4:1 and these elements (Nd+Pr) constitute near 23% of the TREE. Heavy REEs constitute near 22% of the TREE (see Table 2 below).

The 15 Lanthanides are known as the Rare Earths. Each has a different market price of the respective oxide or metal. Market value is heavily focused on the high value Magnet REEs (Nd, Pr, Dy, Tb) and the Heavy REEs (Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu). Recent market pricing can be found https://treo.substack.com/

Scandium is valued separately and at a traditionally high price per Kg as noted previously in this report.

Nd and Pr are typically paired in a 4:1 ratio for optimal input into NdFeB permanent magnet manufacturing. NdFeB magnets are the necessary inputs to for electric traction motors of electric vehicles If the ratio is 4:1 in situ and maintains that ratio throughout processing, then Nd+Pr need not the additional processing expense of further separation prior to sale. The ideal ratio of the La Paz Nd+Pr could offer processing cost savings opportunity downstream.

The US Department of Defense is keenly focused on sourcing a secure supply chain of critical heavy REEs such as Dy, Tb and others.

Elevated Terbium (Tb) and Praseodymium (Pr) grades observed in the La Paz Project 2021 drilling data These two Critical Rare Earths have been observed as the most significantly greater than crustal

abundance in the La Paz drilling assays of 2021. As each is considered a critical REE and necessary for REE permanent magnet production for utilization in both defense technology applications and in the fast growing renewable energy and electric vehicle supply chains.

WRE extracted weighted average summaries of select REE elements using a lower limit of 300ppm Total REE, see Table 1. Weighted averages are reported in Table 1 using a 300ppm cutoff as was used for the calculation of the maiden resource estimate for the La Paz project.

DHID	Sc	Y	La	Се	Pr	Nd	Sm	Eu	Dy	Tb
LP21-01	17	45	68	137	20	73	14	3	10	5
LP21-03	15	39	63	131	19	73	13	3	8	8
LP21-04	14	40	72	144	19	74	13	3	8	7
LP21-05	16	43	75	140	19	80	15	4	9	6
LP21-06	17	45	71	146	20	79	15	3	9	4
LP21-07	16	43	68	138	19	72	13	3	9	10
LP21-08	17	49	62	131	16	68	14	3	11	9
LP21-09	17	44	65	131	17	71	13	3	9	5
Wgt Average	16	44	68	138	18	73	14	3	9	7

Table 1 Results of 2021 La Paz Analysis for Select Elements (TREE>=300ppm)

Magnetic and Heavy Rare Earths have increased

Magne	tic and He	eavy Rare	e Earths	have inc	creased					
Magnetic Rare earths are highly sought after due to their uses in magnets used in electronics, auto manufacturing and defence. The La Paz results show Magnetic Rare Earths (Pr, Nd, Dy and Tb) constitute approximately 27% of the TREE, see Table 2. The Nd:Pr ratio is approximately 4:1 and these elements constitute approximately 23% of the TREE. Heavy REE constitute approximately 22% of the TREE.							ıte			
						Is and us	es.			
DHID	Thk (m)	TREE	LREE	HREE	MagREE*		•	•	-	MagREE/ TREE
-01	36.24	398	312	86	107	3.7	23%	2.1	4%	27%
-03	14.78	377	299	78	108	3.8	24%	1.0	4%	29%
-04	48.56	401	322	79	108	3.9	23%	1.2	4%	27%
-05	35.53	414	329	85	114	4.3	24%	1.5	4%	27%
-06	41.76	416	331	84	113	3.9	24%	2.1	3%	27%
-07	90.03	398	311	87	109	3.8	23%	0.9	5%	27%
-08	79.15	389	291	98	103	4.3	22%	1.2	5%	27%
-09	16.62	379	297	82	102	4.1	23%	1.7	4%	27%
-	Magnetic manufact approxim constitute See Table DHID -01 -03 -04 -05 -06 -07	Magnetic Rare earth: manufacturing and de approximately 27% o constitute approxima See Table 3 below for DHID Thk (m) -01 36.24 -03 14.78 -04 48.56 -05 35.53 -06 41.76 -07 90.03 -08 79.15	Magnetic Rare earths are highly manufacturing and defence. The approximately 27% of the TREE, constitute approximately 23% of See Table 3 below for explanatio DHID Thk (m) TREE -01 36.24 398 -03 14.78 377 -04 48.56 401 -05 35.53 414 -06 41.76 416 -07 90.03 398 -08 79.15 389	Magnetic Rare earths are highly sought af manufacturing and defence. The La Paz resu approximately 27% of the TREE, see Table constitute approximately 23% of the TREE.See Table 3 below for explanation on differDHIDThk (m)TREE-0136.24398-0314.78377-0448.56401-0535.53414-0641.76416-0790.03398-0879.15389	Magnetic Rare earths are highly sought after due to manufacturing and defence. The La Paz results show N approximately 27% of the TREE, see Table 2. The Not constitute approximately 23% of the TREE. Heavy RE See Table 3 below for explanation on different rare earth DHID Thk (m) TREE LREE HREE -01 36.24 398 312 86 -03 14.78 377 299 78 -04 48.56 401 322 79 -05 35.53 414 329 85 -06 41.76 416 331 84 -07 90.03 398 311 87 -08 79.15 389 291 98	manufacturing and defence. The La Paz results show Magnetic Ranapproximately 27% of the TREE, see Table 2. The Nd:Pr ratio is a constitute approximately 23% of the TREE. Heavy REE constitute See Table 3 below for explanation on different rare earth materia DHID Thk (m) TREE LREE HREE MagREE* -01 36.24 398 312 86 107 -03 14.78 377 299 78 108 -04 48.56 401 322 79 108 -05 35.53 414 329 85 114 -06 41.76 416 331 84 113 -07 90.03 398 311 87 109 -08 79.15 389 291 98 103	Magnetic Rare earths are highly sought after due to their uses in magn manufacturing and defence. The La Paz results show Magnetic Rare Earths approximately 27% of the TREE, see Table 2. The Nd:Pr ratio is approxim constitute approximately 23% of the TREE. Heavy REE constitute approxim See Table 3 below for explanation on different rare earth materials and usDHIDThk (m)TREELREEHREEMagREE*ND:PR Ratio-0136.24398312861073.7-0314.78377299781083.8-0448.56401322791083.9-0535.53414329851144.3-0641.76416331841133.9-0790.03398311871093.8-0879.15389291981034.3	Magnetic Rare earths are highly sought after due to their uses in magnets used manufacturing and defence. The La Paz results show Magnetic Rare Earths (Pr, Nd, D approximately 27% of the TREE, see Table 2. The Nd:Pr ratio is approximately 4:1 constitute approximately 23% of the TREE. Heavy REE constitute approximately 23% of the TREE. Heavy REE constitute approximately 225 See Table 3 below for explanation on different rare earth materials and uses. DHID Thk (m) TREE LREE HREE MagREE* PRND/Ratio -01 36.24 398 312 86 107 3.7 23% -03 14.78 377 299 78 108 3.8 24% -04 48.56 401 322 79 108 3.9 23% -05 35.53 414 329 85 114 4.3 24% -06 41.76 416 331 84 113 3.9 24% -07 90.03 398 311 87 109 3.8 23% -08 79.15 389 291 98 103 4.3 22%	Magnetic Rare earths are highly sought after due to their uses in magnets used in electr manufacturing and defence. The La Paz results show Magnetic Rare Earths (Pr, Nd, Dy and Tb approximately 27% of the TREE, see Table 2. The Nd:Pr ratio is approximately 4:1 and thes constitute approximately 23% of the TREE. Heavy REE constitute approximately 22% of the See Table 3 below for explanation on different rare earth materials and uses.DHIDThk (m)TREELREEHREEMagREE*RatioPRND/ RatioDy:Tb Ratio-0136.24398312861073.723%2.1-0314.78377299781083.824%1.0-0448.56401322791083.923%1.2-0535.53414329851144.324%1.5-0641.76416331841133.924%2.1-0790.03398311871093.823%0.9-0879.15389291981034.322%1.2	Magnetic Rare earths are highly sought after due to their uses in magnets used in electronics, au manufacturing and defence. The La Paz results show Magnetic Rare Earths (Pr, Nd, Dy and Tb) constitu approximately 27% of the TREE, see Table 2. The Nd:Pr ratio is approximately 4:1 and these element constitute approximately 23% of the TREE. Heavy REE constitute approximately 22% of the TREE.DelidThk (m)TREELREEHREEMagREE*PRND/ RatioDy:TbDYTB/ RatioDHIDThk (m)TREELREEHREEMagREE*ND:PR RatioPRND/ RatioDy:TbOYTB/ Ratio-0136.24398312861073.723%2.14%-0314.78377299781083.824%1.04%-0448.56401322791083.923%1.24%-0535.53414329851144.324%1.54%-0641.76416331841133.924%2.13%-0790.03398311871093.823%0.95%-0879.15389291981034.322%1.25%

Table 2 Results of 2021 La Paz Analysis by REE Group (TREE >= 300ppm)



		Atomic	Atomic	Primary	
Element	Symbol	Number	Weight	Oxide	Primary Uses
			L	ight REEs	
Lanthanum	La	57	138.91	La2O3	Rechargeable Batteries, Catalysts
Cerium	Ce	58	140.12	Ce2O2	Polishing Compounds, Pigment
Praseodymium	Pr	59	140.91	Pr6011	High Strength Magnets
Neodymium	Nd	60	144.24	Nd2O3	High Strength Magnets
Samarium	Sm	62	150.36	Sm2O3	High Strength Magnets (w/ Co)
(\bigcirc)			Н	eavy REEs	
Yttrium	Y	39	88.91	Y2O3	Alloys, super-conductor, CRT Tubes
Europium	Eu	63	151.96	Ue2O3	Red Phosphorescence, quantum computing
Gadolinium	Gd	64	157.25	Gd2O3	Nuclear Medicine, Steel Alloy
Terbium	Tb	65	158.92	Tb407	Green Phosphorescence, highly magnetostrictive
Dysprosium	Dy	66	162.50	Dy2O3	Lasers, Magnets
Holmium	Но	67	164.93	Ho2O3	Magnetic fields, lasers, quantum computing
Erbium	Er	68	167.26	Er2O3	Lasers, Alloys
Thulium	Tm	69	168.93	Tm2O3	Infra-red lasers, x-ray source, ceramic magnets
Ytterbium	Yb	70	173.04	Yb2O3	Lasers, Alloys, gamma-ray source, nuclear clocks
Lutetium	Lu	71	174.97	Lu2O3	PET scanners, Petroleum refining

 Related Elements

 Scandium
 Sc
 21
 45.00
 Sc2O3
 Hardening of Aluminum Alloys

 Magnetic REE (Praseodymium, Neodymium, Terbium, Dyprosium)
 Automatic and alloys
 Automatic and alloys

Table 3 Summary of Rare Earth Elements and Uses

Mineralized Zone increased at depth

During the drill program the company saw that the mineralized zone increased in depth. Drill hole lengths of mineralized zones in LP21 holes exceed the length of mineralized zones in 2011 drilling. The average drill hole thickness of TREE >300ppm in the 2021 drilling is approximately 45.3m. The average drill hole thickness of TREE >400ppm in the 2021 drilling is approximately 26.1m.

Extremely Low Radioactive Elements

The new drilling data confirmed that radioactive elements found at La Paz are extremely low compared to other projects in the USA. The company believes these elements being so low are a significant competitive advantage. In the 2021 drilling results, the Thorium weight average is 5.1ppm with a maximum assay value of 38ppm. The Uranium weight average is 0.9ppm with a maximum assay value of 4.4ppm (see Table 4). Thus, the La Paz project is extremely unlikely to produce radioactive raw ore. Additionally, it is unlikely that beneficiation would concentrate the Uranium and Thorium to levels that would require special handling, resulting in significant cost savings in both permitting and ongoing operations.



	Thorium	Uranium
DHID	ppm	ppm
LP21-01	5.9	1.0
LP21-03	5.1	0.8
LP21-04	6.2	0.9
LP21-05	4.9	1.2
LP21-06	5.7	0.9
LP21-07	4.3	0.6
LP21-08	3.9	0.6
LP21-09	5.4	1.1
Wgt Average	5.1	0.9

Table 4 Average Drill Hole Grades of Thorium and Uranium in the La Paz 2021 Drilling

Resource Upgrade and Work Program Recommendations

- ARR is currently upgrading its resources at present and will present these results to the market once the JORC study has been completed.
- ARR is reviewing its exploration plans and developing an exploration plan at La Paz.
- The company is currently completing a GAP analysis to focus on the steps needed for a scoping study and then a Preliminary Economic Assessment.
- Approximately 500 kg of core has been shipped to Nagrom Labs, in Perth Australia, for additional mineral processing and metallurgical testing as follow up early-stage testing done by SGS labs in 2011 and by Saskatchewan Research Council (SRC) in 2021.
- Results of the metallurgy work done in 2021 by SRC will be reported in a future report, expected in calendar Q3 2021. Results from the metallurgy work to be performed later in 2021 by Nagrom, with guidance from Rare Earths processing experts at WOOD PLC, will have updates published intermittently with a final report and processing flowsheet recommendations expected in calendar Q4 2021.

Zagros USA Consulting retained for additional expert metallurgy guidance

High efficiency mineral processing and metallurgy are of critical importance to the development of any Rare Earths mining project. The Company has sought the lab expertise of the renown Saskatchewan Research Council in early 2020 with additional guidance of WOOD PLC and their respective REE processing experts. Additionally, the company has recently engaged the expertise and guidance of the US Consulting firm Zagros USA Consulting, based in Arizona USA. The staff of Zagros have extensive experience and published research in the area of REE metallurgy with both proven processes and emerging technologies. Expertise includes previous work on the REE R&D efforts of Fortune 500 international miner, Freeport McMoran which is also headquartered in Arizona. With so few REE experienced, PhD credentialed metallurgists in North America, adding highly qualified metallurgy expertise is of high value to all Company projects.

Summary (directors quote)

Mr. Keith Middleton, Managing Director of ARR adds, "We are incredibly pleased with the enormous potential indicated by the recent drilling results at our flagship La Paz Rare Earths project. So many positives have come of this campaign, including higher grade assays to depths 4X the maiden resource, an additional new ore body opportunity within the claim control tenancy, high value Scandium ubiquitous to the maiden REE resource area and new areas to the Southwest, elevated grades of high value magnet metals (Pr & Tb) and heavy REEs (Tb) compared to the 2011 drilling, along with the opportunity to upgrade the resource in size and grade.



Government and industry leaders speak of acceleration of those industries that must have Rare Earths. These include Offshore wind, Electric Vehicles, phones/tablets, air conditioners and the reducedcarbon new-energy economy. North American and European leaders openly speak of the need to develop Rare Earths supply chains and stockpiles, ex-China, to feed critical defense industry technologies. With a never-before-seen convergence of market pull and Government push happening on a global scale, these are genuinely exciting times.

The Company continues to make good progress toward its goals of 1) cementing itself as a key player in the development of critical high value scandium and rare earths 2) building scale to meet critical US demand 3) while maximizing shareholder value."

Keith Middleton

Managing Director

This ASX announcement refers to information extracted from market announcements, which are available for viewing on ARR's website https://americanrareearths.com.au

ARR confirms it is not aware of any new information or data that materially affects the information included in the original market announcements, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. ARR confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcements.

Competent Persons Statement: The information in this report that relates to Exploration Results is based on information compiled by Mr. Jim Guilinger. Mr. Guilinger is a Member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc). Mr. Guilinger is Principal of independent consultants World Industrial Minerals LLC. Mr. Guilinger has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Guilinger consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

About American Rare Earths

American Rare Earths Limited (ASX: ARR) is the only Australian company listed on the ASX with assets in the growing rare earth metals sector of the United States of America, itself emerging as an alternative international supply chain to counter China's market dominance of a global rare earth market expected to balloon to US\$20 billion by the mid-2020s. ARR owns 100% of the world-class La Paz rare earth project, located 170km northwest of Phoenix, Arizona. The project's highly shallow 2012 JORC resource (128.2Mt @ 373.4ppm (0.037%) Total Rare Earth Elements), is less than 30m below surface and is contained within just 525 acres of ARR's total La Paz footprint of 5,143 acres that points to potential resource upside. As a large tonnage, bulk deposit, La Paz is also potentially the largest, rare earth deposit in the USA and benefits from containing exceptionally low penalty elements such as radioactive thorium and uranium. ARR plans to deliver its first Preliminary Economic Assessment for La Paz in by 2022 and is working with leading USA research institutions to have La Paz's mineral profile incorporated into emerging US advanced rare earth processing technologies.

ARR has acquired a second USA rare earth asset, the Searchlight Rare Earths project in Nevada.

ARR has also acquired a third USA rare earth asset, the Laramie project in Wyoming.

	e, 2012 Edition – Table 1 La Paz Ra Techniques and Data	
	on apply to all succeeding sections.)	
Criteria	JORC Code explanation	Commentary
	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.	Historical drilling: In 2011, the prospect was drill tested by 195 percussion drill holes ranging from 40' (13m) to 100' (30m depth) for a total of 18,805' (5,731)m. Drilling was completed on 3 parallel section lines across strike and 1 section line along strike, with holes spaced 100' along section lines.
		March 2021 Core Drilling: WRE drilled 9 diamond core holes of HQ size ranging from 168 feet to 403 feet in depth with a total length of 2,238 feet (682 meters), 6 Holes core were twins of select percussion holes drilled in 2011.
Sampling techniques	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Representative 1kg samples were collected from each 5' (1.52m) interval of drilling
	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 (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.	A 250g sub-sample was pulverized to -75 microns and a 0.5g charge was assayed for REEO by ICP-MS using standard industry procedures at ALS Chemex, Reno, Nevada.
Drilling techniques	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).	Historical drilling: A track mounted percussion rig supplied by Dynamic Rock Solutions LLC, Salome, Arizona was used to drill 195 3.5" diameter percussion holes. Drilling began on April 20th, 2011 and was completed on May 31st 2011. Hole depths varied from 40- 100', with 142 out of 195 holes drilled to 100' depth. A total of 18,805' (5,731m) was drilled

Appendix A

		March 2021 Core Drilling: Timberline Drilling, Inc. from Elko Nevada used a track mounted core rig to drill HQ diameter core holes. 6 holes were in the La Paz Resource area and 3 other holes were drilled on the remainder of the property. See the Drill Hole Location Map. Drilling commenced on March 11, 2021 and concluded on March 31, 2021. Drill hole depths varied between 168 feet and 403 feet for a total length of 2,238 feet (682 meters).
	Method of recording and assessing core and chip sample recoveries and results assessed.	Sampling of ~200g per foot drilled to produce a composite~1kg sample for every 5' drill interval which is considered representative of each interval.
Drill sample	recoveries and results assessed.	March 2021 Core Drilling: Core recovery was 98% <u>+</u> . Core material was sent to America Assay Labs, in Spark, Nevada for assay.
recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.	All drilling was carried out above the water table to minimize possible contamination
	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.	
	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.	A representative sample of each 5' interval was retained in chip trays for logging. Geological logging is considered to have been logged to a level of detail appropriate to support Mineral Resource Estimates.
Logging	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Chip sample logging is qualitative in nature
	The total length and percentage of the relevant intersections	Drill holes were logged in full based on representative samples from every 5' interval.
	logged.	March 2021 Core Drilling: All core was geologically logged and photographed on site by qualified geologists.
Sub-sampling	If core, whether cut or sawn and whether quarter, half or all core	No core samples were collected in the 2011 drilling.
techniques and sample preparation	taken.	March 2021 Core Drilling: All core was shipped to American Assay Labs for further logging and testing. Additional samples were selected for metallurgical testing.

	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Percussion chips were collected in a bucket for every 5' interval. A representative 1kg sample from each 5' interval was prepared by the site geologist.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	All samples were dry. Sample preparation: 1kg samples split to 250g for pulverizing to -75 microns. Sample analysis: 0.5g charge assayed by ICP-MS technique
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	The 1kg samples were delivered to an accredited laboratory for sample preparation and analysis
	Measures taken to ensure that the sampling is representative of	Sample preparation techniques are considered industry practice and are conducted at accredited external laboratory, all considered appropriate to the style of mineralization and suitable for determining Mineral Resource Estimates
	the in situ material collected, including for instance results for field duplicate/second-half sampling.	March 2021 Core Drilling: After logging, photographing, samples were boxed and securely banded for shipping to American Assay Labs. The lab performed assays, additional photography and cutting in preparation for studies and mineral processing and metallurgy. Chans of custody were always maintained.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Sample analysis: A 250g split from each sample was pulverized to - 75 micron and a 0.5g subsample fused with lithium borate, then subjected to a 4-acid digest and then assayed by ICP-MS for 38 elements.
Quality of assay data and laboratory tests	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.	No geophysical tools, spectrometers, handheld XRF instruments, etc used.
	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.	The laboratory used standard quality control procedures incorporating duplicate samples, standards and blanks.
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	Significant intercepts were verified by an independent consultant geologist as part of the resource estimation.
assaying	The use of twinned holes.	No twinned holes were used.

	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Originally all chip trays for each hole interval were stored in a secure facility in Bouse, Arizona. All drill hole logs, associated interval assay results were stored electronically within the company. All geologic data was entered onto log sheets manually then subsequently entered into the computer. Data always was secure WRE collected QAQC samples during sample preparation. WRE is in the process of statistically analysing the sample QAQC sample results.
	Discuss any adjustment to assay data.	None
	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.	Down hole surveyed were not used due to the short length (max 30m depth). Hole collars were surveyed using a handheld GPS.
Location of data		March 2021 Core Drilling: Location were determined using Handheld GPS units. Downhole surveys were not performed due to relatively shallow depths.
points		Historic 2011 Drilling: UTM grid system NAD 1927 Zone 12
	Specification of the grid system used.	March 2021 Core Drilling: UTM grid system NAD 1983 Zone 12. (The entire project was updated to use NAD 1983 UTM Zone 12 projections.
	Quality and adequacy of topographic control.	Drill hole elevations were estimated using existing USGS topographic base maps as control.
	Data spacing for reporting of Exploration Results.	
Data spacing and distribution	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.	The data spacing and distribution are considered sufficient for the current level of early exploration of the areas of interest
	Whether sample compositing has been applied.	Samples have not been composited as all sample intervals were equal (5').
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Close-spaced vertical drill holes were used to overcome any structural bias of the fine-grained disseminated REEO mineralisation.

)			March 2021 Core Drilling: New diamond core from 6 twinned holes completed in the resource area to confirm the reserve and acquire detailed geological understanding of the mineralized zones. See Drill Hole Location Map. March 2021 Core Drilling: 3 exploration core holes were drilled in the southwest portion of the claim area to follow-up on surface samples and to explore additional mineralized zones at depth. See Drill Hole Location Map.
		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.	
	Sample security	The measures taken to ensure sample security.	Drill samples were kept in a secure storage locker before dispatch by bonded courier to the laboratory.
			March 2021 Core Drilling: All core was collected from the drill rig daily and stored in a secure, locked facility until the core was dispatched by bonded courier to America Assay Labs. Chains of custody were always maintained.
	Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been conducted. Extensive review of the data has been undertaken for the purpose of updating the historic and current planned exploration activity.

Section 2 Repo	orting 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	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 tenement schedule is included in the appendix to this report. The tenements are in the form of 20-acre United States Bureau of Land Management lode mining claims. The total land package controlled by the Company in the La Paz Project Area consists of 261 unpatented lode mining claims totalling 5392.26 acres (2178.47 has). The State Exploration Permit totals 640 acres (259 has). The mining claims are 100% owned by the Company with no royalties. All claims are outside of any wilderness or national park and environmental settings. An historic railroad line crosses a portion of the claims but is outside of any historic or planned exploration programs. The State leased land is subject to a State royalty (yet undetermined) once the exploration activity has advanced to the exploitation level. At this point the State engineer and geologists will evaluation any defined mineral deposit and determine an appropriate royalty. The QP is not aware of any environmental liabilities attached to th La Paz claims and is not a Qualified Person with respect to environmental issues. An archaeological survey of the La Paz claims conducted by Professional Archaeological Services of Tucson, Arizona, dated March 20, 2011, was submitted to the Arizona State Land Department. The survey found no substantial areas of archaeological significance (P.A.S.T., 2011). The author in ot a Qualified Person with respect to archaeological issues.
	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.	As long as annual Arizona State lease holding fees and annual claim holding fees are paid to both the BLM and the County (La Paz) in which the claims reside, tenure is secure.

Q	Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Rare earths were first recognized in June 2010 by John Petersen, a geologist, who submitted for analysis a reconnaissance sample from the Swansea and Bill Williams River areas that analysed 459.98 ppm total rare earth elements (TREE). A further 119 samples returned TREE values of 20.6 to 674.21 ppm. Scandium varied from 1.1 to 30.2 ppm. AusAmerican then conducted a confirmation sampling exercise of 22 samples that returned values of 6 to 588 ppm TREE, followed in February 2011, by a sample grid of 199 samples that returned 49 to 714 ppm TREE. 195 percussion drill holes were drilled in early 2011. Additional sampling was conducted in 2019 and 2020. All drilling was carried out by AusAmerican Mining Corporation and at the time the company was listed on the ASX.
	Geology	Deposit type, geological setting and style of mineralisation.	The project lies within the Harcuvar metamorphic core complex within the Basin and Range Province of Arizona. Mineralisation is hosted in alkali granitic gneiss and to a lesser extent, a structurally superimposed suite of continental red beds. REEOs occur in Allanite (epidote) that occurs as fine-grained disseminations and micro- fracture fillings.
	Drill hole Information	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:	AusAmerican in 2011 contracted Dynamic Rock Solutions LLC of Salome, Arizona, to conduct exploratory drilling using a track- mounted percussion drill. Drilling began on April 20, 2011 and was completed on May 31, 2011. One hundred and ninety-five 3.5" diameter holes were completed for the purpose of obtaining samples of the rock types present. Holes varied in depth from 40 to 100 feet: most holes (142 of 195) were completed to 100 feet and total footage drilled was 18,805 feet. Distances between holes was 100 feet and holes were situated along 4 lines: Lines A, B, and C were oriented NW-SE, and one, Line D, was oriented in the NE direction and crossed the other lines. The map below illustrates the La Paz percussion drill hole locations and the sample lines.

		March 2021 Core Drilling: Timberline Drilling, Inc. from Elko Nevada used a track mounted core rig to drill HQ diameter core holes. 6 holes were in the La Paz Resource area and 3 other holes were drilled on the remainder of the property. See the Drill Hole Location Map. Drilling commenced on March 11, 2021 and concluded on March 31, 2021. Drill hole depths varied between 168 feet and 403 feet for a total length of 2,238 feet (682 meters).
	easting and northing of the drill hole collar	
	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	March 2021 Core Drilling: Locations of the March 2021 Core Hole
	dip and azimuth of the hole	data are in Appendix B of the Press Release.
	down hole length and interception depth	
	hole length.	
	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.	
Data aggregation	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.	Drill holes cuttings were collected at five-foot intervals. An approximate 2 lb. (1.36 kg) sample was submitted to ALS Chemex laboratory in Reno, Nevada, for geochemical analysis. A total of 3269 samples were submitted: all were analysed for 60 elements, including REE, Y and Sc. REE assay results from the percussion drilling program are summarized in an Appendix at the back of the report
methods	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.	March 2021 Core Drilling: All core was boxed in 10-feet long sections in core boxes. No aggregations of the core were performed.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between	These relationships are particularly important in the reporting of Exploration Results.	
mineralisation widths and	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The vertical drill hole orientations, 5' sample lengths are considered appropriate to the style of flat-lying bulk tonnage mineralisation

intercept lengths	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').	
Diagrams	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.	See drill hole location map in text
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.	Exploration results are included in the body of this report under both the "Exploration" and "Drilling" Sections March 2021 Core Drilling: Assay results are presented in Appendix D of the press release.
	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk	Metallurgical test work was completed following the 2011 drilling program. Drillhole LP-B7 was twinned, and sixteen samples submitted to Saskatchewan Research Council, Saskatoon, Saskatchewan, Canada for pre-concentration and preliminary leaching tests
Other substantive exploration data	samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Representative rock specimens were submitted to SGS Canadian Laboratories, Vancouver, Canada from within the resource areas to determine overall mineral assemblages and liberations/association of rare earth element carriers
		March 2021 Core Drilling: Approximately 500 kg of core has been shipped to Nagrom Labs, in Perth Australia, for additional mineral processing and metallurgical testing.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	March 2021 Core Drilling: Approximately 500 kg of core has been shipped to Nagrom Labs, in Perth Australia, for additional mineral processing and metallurgical testing.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	