American Rare Earths Limited

(ASX:ARR)

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

Commodity Exposure

Rare Earth Elements, in the USA

Heavy Mineral Sands and Cobalt in Australia

Directors & Management

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

Capital Structure

Ordinary Shares on Issue 347,008,326

American Rare Earths Limited

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22 October 2021

September 2021 Quarterly Activities Report

Highlights

- A successful drilling program at the La Paz Rare Earths Project delivered:
  - 33.1% increase in JORC 2012 compliant total resource tonnage from 128.2Mt to 170.6Mt
  - 117% increase in the indicated resource estimate from 16.2Mt to 35.2Mt
  - 20.9% increase in the inferred resource estimate from 112.0Mt to 135.4Mt
  - 4.4Mkg of Scandium Oxide (Sc_2O_3) included in the new resource estimate
  - Opportunity to further extend the maiden resource along strike and at depths where mineralisation from drilling remains open
- Magnetic separation and liquid flotation testwork on surface rock samples from the La Paz resource produced:
  - Production of 1,744ppm TREE and 30ppm Scandium recovering 74.7% and 43.8% of respective mineralisation while reducing ore mass by 76%
  - 216% increase in TREE grade concentrated from 552ppm to 1,744ppm
  - 90% increase in Scandium grade concentrated from 16ppm to 30.4ppm
- High-grade surface samples from the expanded Halleck Creek Rare Earth project of 3,349ppm average TREO in the Overton Mountain Area and 3,002ppm TREO in the Red Mountain Area
- The highest grade observed from 2021 Halleck Creek project samples of 5,756ppm TREO, 552ppm High Rare Earth Oxide (HREO) and 1,433ppm Magnetic Mineral Oxide
- The Company's cash position as of 30 September was $2,940,926
- The Company holds 6,000,448 COB shares worth A$1,950,146, at a COB closing price of A$0.325 on 30 September 2021
- The Company also holds a five year A$3M Promissory Note (PN) with Cobalt Blue Holdings (COB)

American Rare Earths Limited September 2021 Quarterly Activities Report

American Rare Earths Limited (ASX: ARR) (the Company) is pleased to provide the following activities report for the September 2021 Quarter.

A significant upgrade in La Paz Rare Earths Project JORC resources

A successful drilling program comprising of nine diamond core holes was carried out earlier this year at the La Paz Rare Earths Project. Six holes were drilled in the original resource area and the remaining three holes were located to the southwest extension of the resource area. Drilling was completed with subsequent assay analysis and metallurgical test work, producing results that exceeded the Company's expectations.

Following drilling at La Paz, ARR engaged Odessa Resources Pty Ltd to prepare a Methodology and Resource Estimation Report and update the previous JORC 2012 resource. Odessa received 673 surface samples, assays and 42 relative density (apparent specific gravity) samples from 206 drill hole locations.

The report was completed on 1 August 2021. It estimated the La Paz resource to be 170.6 million tonnes with an average grade of 391ppm for a total of 66.6 million kilograms of TREE at a cut-off grade of 300ppm. This represents a 33.1% increase to the previous resource tonnage of 128.2 million tonnes, with a 5.2% increase in the previous TREE grade of 371.7ppm.

On 3 August 2021, ARR reported that the 2021 drilling delivered a significant upgrade in the quality and quantity of the La Paz JORC resources, as summarised below:

- There was a 33.1% increase in the previous JORC 2012 compliant total resource tonnage, up from 128.2Mt to 170.6Mt.
- A 117% increase in the indicated resource estimate, up from 16.2Mt to 35.2Mt.
- A 20.9% increase in the inferred resource estimate, up from 112.0Mt to 135.4Mt.
- A 5.2% increase in overall TREE grade, up from 371.7ppm to 391ppm.
- TREE of 66.6Mkg and 80.0Mkg of TREO in the new resource; and
- 4.4Mkg of Scandium Oxide (Sc_2O_3) included in the new resource estimate.

The upgraded resource estimate comprises an indicated resource of 35.2 million tonnes, representing a 117% increase in the previously indicated resource estimate of 16.2 million tonnes, and an inferred resource of 135.4 million tonnes representing a 20.9% increase to the previous inferred resource estimate of 112.0 million tonnes. The new resource estimate includes 80.0 million kilograms of TREO and 4.4 million kilograms of Scandium Oxide (refer to Tables 1 and 2).

Classification	Tonnage (tonnes)	TREE (ppm)	TREE (kg)	TREO Factor	TREO (ppm)	TREO (kg)
Indicated	35,161,600	382	13,448,019	1.2005	459	16,144,347
Inferred	135,433,800	393	53,198,803	1.2005	472	63,865,163
Total	**170,595,400**	**391**	**66,646,822**	**1.2005**	**469**	**80,009,510**

Table 1: La Paz Model Area Estimated Total Rare Earth Element Oxides (TREO) Resources

Classification	Tonnage (tonnes)	Sc (ppm)	Sc (kg)	Sc Oxide Factor	Sc Oxide (ppm)	Sc Oxide (kg)
Indicated	35,161,600	17	592,653	1.5334	26	908,770
Inferred	135,433,800	17	2,280,914	1.5334	26	3,497,537
Total	**170,595,400**	**17**	**2,873,567**	**1.5334**	**26**	**4,406,306**

Table 2: La Paz Model Area Estimated In-Situ Scandium Oxide Resources

A comparison between the previous 2011 resource estimate and the upgraded 2021 estimate is summarised in Tables 3 and 4 below.

Resource Class	2021 Resource Estimate			2011 Resource Estimate		
	Tonnage	TREE	TREE	Tonnage	TREE	TREE
	million tonnes	ppm	million kg	million tonnes	ppm	million kg
Indicated	35.2	382.0	13.4	16.2	373.4	6.0
Inferred	135.4	393.0	53.2	112.0	371.5	41.6
Total	**170.6**	**391.0**	**66.6**	**128.2**	**371.7**	**47.7**

Table 3: Comparison between 2021 and 2011 La Paz Resource Estimates

Resource Class	Difference (2021 - 2011)			Percentage Difference		
	Tonnage	TREE	TREE	Tonnage	TREE	TREE
	million tonnes	ppm	million kg	million tonnes	ppm	million kg
Indicated	19.0	8.6	7.4	117.0%	2.3%	122.3%
Inferred	23.4	21.5	11.6	20.9%	5.8%	27.9%
Total	**42.4**	**19.3**	**19.0**	**33.1%**	**5.2%**	**39.8%**

Table 4: Differences between 2021 and 2011 La Paz Resource Estimates

The increased tonnage and grade of the indicated resource illustrates the strategic value of the Company's La Paz Rare Earths project. The Directors believe it could become one of the largest Rare Earths projects in North America and a significant asset for the US domestic supply chain of critical minerals, including rare earth elements. The 2021 drilling results also confirmed that radioactive mineralisation grades of Uranium and Thorium are low, indicating that the development of the resource will be environmentally sustainable.

Potential to extend the La Paz Resource

The Methodology and Resource Estimation Report highlighted that approximately 112 of the 195 holes (57% of the 2011 drill holes) had material with TREE grades >=300ppm (refer to Figure 2) and indicated there is an opportunity for the Company to increase the depth of the REE resources through deeper drilling.

The deeper 2021 drilling below the original 2011 maiden resource produced consistent assay results of mineralisation to a depth of 122 metres, four times that of the previously known deposit. Drill intersections within the heart of the resource deposit area indicated the end of hole mineralisation which was open at depth and along strike that potentially, with additional drilling, could result in a further future increase in the size of the resource.

Discovery of a potential new resource to the southwest of the La Paz Resource

As part of the 2021 drilling program at La Paz, three exploratory diamond core holes were drilled in a new zone located in the southwest of the resource area. Two of these holes (LP21-3 and LP21-04) are located approximately 2.22km apart and more than 4.75km away from the first drill hole within the original resource, providing encouraging REE mineralisation zones, similar to the maiden 2011 resource. One of the holes drilled to a depth of 77.1 metres determined mineralisation had an average TREE grade of 401ppm over a 48.6-metre length at a 300ppm TREE cut-off which indicated the discovery of a potential new ore body.

The positive results obtained from the exploratory drill holes has led to the staking of 20 new claims covering 167 hectares (414 acres) adjacent to the southwest area of the La Paz project holding and the development of future exploration targets.

The new exploration drilling program for La Paz southwest target

In September 2021, the Company's Chief Technical Officer, Mr Dwight Kinnes, prepared an Exploration Target Summary of the La Paz Southwest Project Area ("Target Summary Report"). The Target Summary Report is based on the 2021 project tenement drilling results and existing surface samples and summarises the southwest zone's geology, sampling, and drilling history. The report identifies an estimated exploration target tonnage in the range of approximately 742.5 to 928.1 million tonnes with an average TREO grade of 350 to 400ppm and a Scandium Oxide grade of 20 to 24.5ppm.

The exploration target estimate is in addition to the existing and upgraded 170.6 million tonne resource in the northwest of the La Paz project area.

The exploration target estimates are based on various assumptions that have been made from existing sparse geological data and therefore cannot be construed as either resources or reserves. In addition, a range of 20% was applied to estimated tonnage and grade values. Each mapped rock type was defined in ArcGIS to determine an exploration target tonnage. A 75% geological uncertainty factor was used to calculate the selected area in hectares. The in-situ volume was calculated using the factored area and the mineralised thickness of 30 vertical metres. A 2.68 density factor was applied to the estimated volume to determine the in-situ tonnes. Estimations of TREO of 400ppm and Scandium Oxide of 24.5ppm were used.

The Target Summary Report highlighted that approximately 215 of 487 surface samples taken across the La Paz southwest area in 2019 and 2020 had TREO values exceeding 350ppm.

- Drill hole LP21-03 contained approximately 11 metres of TREO mineralisation, exceeding 400ppm; and
- Drill hole LP21-04 contained approximately 30 metres of TREO mineralisation, exceeding 450ppm.

Based on the Target Summary Report, on 29 September 2021, ARR announced plans for a new exploration drilling program for the new La Paz southwest target area, which is five times larger than the original resource area.

The proposed drilling program consists of eight exploration diamond core holes totalling 900 metres designed to determine mineralisation's regional extent and depth (refer to Figure 5). The planned holes are widely spaced and designed to maximise geological information from across the project area. The holes will be drilled into various rock types that show favourable surface sample TREO mineralisation to gauge variation between rock types. Some holes will be aimed at determining alluvial cover thickness. Seven holes will be drilled to a depth of approximately 100 metres. The other planned hole will be drilled to a maximum depth of 200 metres to determine if REE mineralisation continues

at depth and to locate the depth of the regional water table.

In conjunction with the drilling, the Company plans to also undertake further detailed geological mapping on the 20 additional staked mining claims.

A Notice of Intent for the proposed La Paz southwest drilling has been submitted to the BLM for approval. Due to BLM approval and drill rig availability, exploration drilling is anticipated to commence in Q1 2022.

If exploration drilling is successful, the Company plans on developing the La Paz southwest area in conjunction with the existing La Paz resource deposit located approximately 2km to the northeast of the project landholding.

Magnetic separation increases La Paz TREE and Scandium grades

Canadian based Saskatchewan Research Council (SRC) completed a metallurgical testwork program by analysing mineralised rock samples from the original La Paz resource area. SRC carried out magnetic separation and liquid flotation tests on the surface rock samples to determine whether Rare Earth Elements could be upgraded to a viable concentrate for treatment in the refinery. The test program was conducted on a 5kg composite sample prepared from approximately 72kg of material comprised of 32 rock samples (MET-01 to MET-32) collected from the resource area in early 2021 (Figure 1).

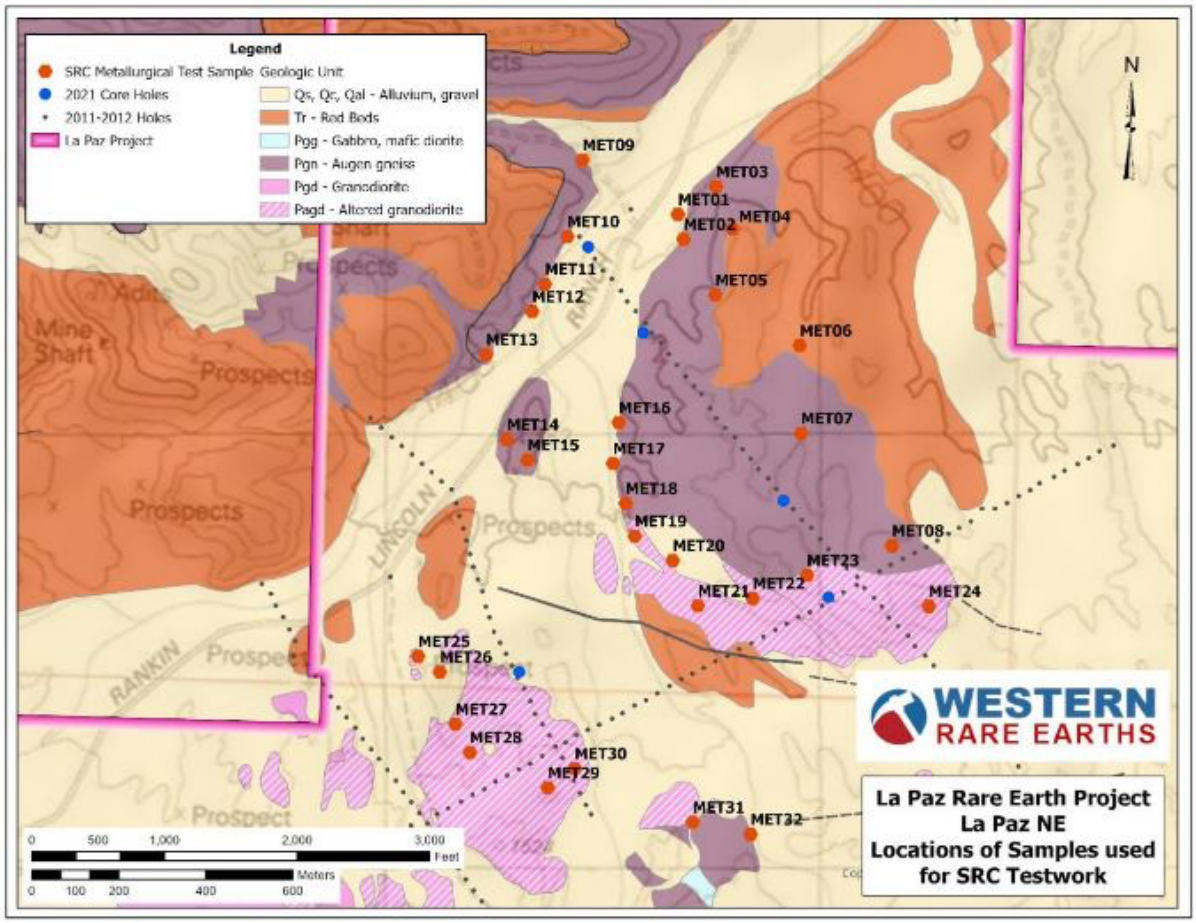


Figure 1: Location of La Paz Testwork Samples

Preliminary metallurgical testing of the surface samples demonstrated that ore from La Paz could be effectively concentrated through magnetic separation, selective grinding, and direct rare earth flotation.

Results from the testwork program announced by ARR on 17 August 2021 showed that magnetic flotation produced a concentrate with 1,744ppm TREE and 30ppm Scandium, recovering 74.7% and 43.8% of the TREE and Scandium mineralisation respectively while reducing the ore mass by 76%. This represents a significant increase in the TREE grade of 216%, concentrated from 552ppm to 1,744ppm and a substantial increase in the Scandium grade of 90%, concentrated from 16ppm to 30.4ppm.

The reduction in ore mass is particularly significant because the reduced volume of material to be leached during processing results in lower operating costs. In addition, the removed material can potentially be returned to fill the open pit during the rehabilitation of the mine site and result in a lower volume of chemically treated tailings material produced from processing the more concentrated rare earth ore. Development of the La Paz ore body in this manner will result in a more responsible mining process consistent with the Company's Environmental, Social and Governance (ESG) values. It should also assist in obtaining regulatory mining approvals for the project.

The success of this preliminary testwork is currently being followed up with a more advanced program of metallurgy and mineral processing that aims to improve the recent magnetic separation results significantly. This follow-up program commenced in August 2021 and was conducted at the Nagrom Laboratories in Perth, Western Australia. The program co-ordinated by Wood PLC uses a selection of mineralised core sourced from the diamond drilling program completed at La Paz in 2021.

Metallurgical testwork technical summary

The results of the metallurgical testwork program conducted by SRC was summarised in a report titled "Concentration of TREE from Surface Chip Samples." Wood PLC was engaged to review the SRC testwork provided a report titled "Review of 2021 SRC Testwork Program Results." The Wood report, which incorporated the SRC report, was published as part of ARR's ASX Release dated 17 August 2021: Magnetic separation was found to increase La Paz TREE grade by 126%.

The SRC program consisted of the following two stages:

- Stage 1: Sighting magnetic separation testing on composite samples; and
- Stage 2: Sighter flotation testing on WHIMS concentrate prepared from the composite samples.

A 5kg composite sample from the 32 surface rock samples was crushed to 100%, passing through a No.100 mesh (<150 microns), and a head sample was analysed for TREE and Scandium. The TREE content of the sub-sample was 552ppm (662ppm TREO), and the Scandium grade was 16ppm (25ppm Sc_2O_3). X-ray diffraction was performed to determine the mineral content of the source rocks.

Under Stage 1 of the testwork program, SRC conducted dry magnetic separation using a Frantz separator for four size fraction batches which saw relatively stable TREE recovery across the tested sizes. However, with a smaller recovery for the finest size fractions (refer to Table 6). The dry magnetic separation process illustrated that finer size fractions increased the TREE grade and indicated that the finer grinding of the ore is beneficial to liberate rare earth mineralisation, mainly allanite.

Size Fraction	Yield			Grade			
microns	Mass %	Fe2O3 %	TREE %	LREE ppm	HREE ppm	TREE ppm	Fe2O3 wt%
106-150	35.4	90.6	82.4	367	74	441	7.1
75-106	17.0	94.6	87.2	688	72	760	8.2
38-75	30.0	88.8	83.0	1020	182	1202	10.5
25-38	17.6	84.5	79.6	1065	192	1257	11.3
Cumulative Total	**100.0**	**89.7**	**82.9**	**740**	**127**	**867**	**9.0**

Table 6: Dry Separation by Size Fraction

A 1.8kg composite sample from Stage 1 milled to 80%, passing 75 microns at 1,000 gauss to remove magnetite and other diamagnetic minerals, was used by SRC to conduct wet low-intensity magnetic separation (LIMS). Subsequently, the sample was processed by wet intensive magnetic separation (WHIMS) at 10,000 gauss (1 Tesla) for rougher magnetic separation followed by regrinding of the concentrate to 80%, passing 38 microns for cleaner WHIMS processing. The wet separation process test results are summarised in Table 7 below.

	Yield	TREE		Scandium	
Separation Process	Mass %	ppm	%Recovered	ppm	%Recovered
Feed	100	552	100.0	16	100.0
LIMS mags	4.0	912	6.6	22	5.5
Rougher WHIMS mags	19.6	1914	68.1	31	38.3
Cleaner WHIMS mags	6.3	2560	29.3	42	16.6
LIMS+Cleaner WHIMS mags	10.3	1921	36.0	34	22.1
LIMS+Rougher WHIMS mags	**23.7**	**1744**	**74.7**	30	43.8

Table 7: Wet Separation Test Results

Good TREE grade increases to 1,914ppm (2,298ppm TREO) and increases in Scandium grade to 31ppm (48ppm Sc_2O_3) with a mass yield of 19.6% was returned by Rougher WHIMS processing.

LIMS+Rougher WHIMS returned the highest mass yield of 23.7%, increasing the TREE grade to 1,744ppm (2,094ppm TREO) while recovering 74.7% of the total TREE. There was also an increase in the Scandium grade from 16ppm to 30ppm (47ppm Sc_2O_3) while recovering 43.8% of the Scandium.

Wood PLC described the results as follows:

"Preliminary work conducted in this study produced a concentrate with 1,774ppm TREEs and 30ppm Sc [Scandium] *for 74.7% and 43.8% recovery respectively, rejecting 76% of feed mass, a very promising outcome."*

Scavenger processing of WHIMS tails material was undertaken to determine whether additional TREE and Scandium could be recovered from tails. An increase in lost TREE grade from 1,547ppm to 1,789ppm (2,149ppm TREO) while recovering an extra 31.2% of TREE at a mass yield of 27% and an increase in lost Scandium grade from 23ppm to 38ppm (58ppm Sc_2O_3) while recovering an additional 43.8% of Scandium, was observed from scavenging of cleaner WHIMS tailings material (refer to Table 8).

Stage Performance	Yield	TREE		Scandium	
	Mass %	ppm	%Recovered	ppm	%Recovered
Cleaner scavenger mags	27	1789	31.2	38.0	43.8
Clean scavenger non-mags	73	1457	68.8	18.0	56.2
Feed (Cleaner WHIMS non-mag)	100	1547	100.0	23.4	100.0

Table 8: Cleaner Scavenger WHIMS Results

Under Stage 2 of the testwork program, SRC conducted flotation for eight different liquid media using a specially prepared sample concentrate of La Paz rock samples. The sample composite was crushed to minus 2mm and milled to 80% through a 75-micron mesh with subsequent rougher WHIMS processing at 10,000 gauss (1 Tesla). This resulted in a feed grade of 1,279ppm (1,535ppm TREO) for the flotation testwork.

A significant increase in grade with high TREE recoveries was shown from the Oleic Acid and Aero 845 collector agents. Oleic Acid increased the effective grade of 571ppm to 1,576ppm or 57% with a TREE recovery of 70.6%, while Aero 845 showed an increase in the effective grade of 229ppm to 1,295ppm or 21% with a TREE recovery of 86.8%. A summary of the eight flotation tests is shown in Table 9.

Test	Collector	Product	Cum. Float Time (min)	Product Mass Yield (%)	Calc Feed TREE Grade (ppm)	Product TREE Grade (ppm)	Product TREE Recovery (%)
F1	Armac T	Sinks	7	81.2	1413	1490	85.6
F2	Flotigam EDA	Sinks	5	42.2	1260	1398	46.8
F3	Flotigam 4343	Sinks	5	78.6	1209	1208	78.5
F4	Aero 3030	Sinks	4	48.1	1098	1163	49.1
F5	Flotigam EDA	Sinks	9	40.3	1070	1580	34.0
F6	**Oleic acid**	**Floats**	**7**	**54.9**	**1005**	**1576**	**70.6**
F7	**Aero 845**	**Floats**	**6**	**71.5**	**1066**	**1295**	**86.8**
F8	Aero 6493	Floats	6	47.4	1039	1491	68.1

Table 9: Summary of Flotation Test Results

Advanced Metallurgical and Mineral Processing Program Commenced

The success of the preliminary metallurgical and magnetic separation testwork resulted in recommendations by the Company's technical team and Wood experts for a more advanced metallurgy and mineral processing program to be undertaken. The advanced program was commenced in August 2021 at Nagrom Laboratories in Perth, Western Australia using 500kg of selected 2021 diamond drill core from the La Paz resource area and is aiming to:

- Significantly improve on the preliminary program results.
- Develop an advanced mineral processing and metallurgy flow sheet; and
- Produce a pre-leaching concentrate of 5,000ppm TREE or greater along with an associated upgrade of Scandium.

The outcome of this program is expected to provide necessary information to undertake a preliminary economic evaluation (PEA) to further progress the La Paz project.

ARR is providing REE Feedstock for critical US Research

ARR recently announced it is supplying REE feedstock to researchers to seek funding from the Defense Advanced Research Projects Agency's (DARPA) new rare earth elements bioengineering research program. The Feedstock has been supplied from La Paz and Searchlight Rare Earth Projects

US research scientists are being encouraged by DARPA to engineer a new REE supply chain using bioengineering or bio-mining methods via the Environmental Microbes as a Bio-Engineering Resource (EMBER) program.

The REE feedstock (i.e. mineralised rocks or ore) has been supplied to three research teams, including researchers from the US National Laboratories and the elite American "Research One" universities applying for involvement in the EMBER program. The program aims to fill a critical Department of Defense gap in the REE supply chain.

Feedstock from the Company's Arizona and Nevada projects is unique; it is non-radioactive and gives access in a single source to nearly all 17 crucial rare earth metals that are critical components to numerous Department of Defense systems. These include magnets for motors, fuel cells, lasers, and precision-guided weapons. Currently, the US is heavily dependent on China for its rare earth requirements. Recent bi-partisan support and multiple US presidential orders designed to rectify the nation's off-shore dependency for these Critical minerals has seen substantial funding being made available by the US Department of Energy and Department of Defense for research. The EMBER program has attracted dozens of world-class researchers keen to work on the important revolutionisation of the 80-year-old industry.

ARR is excited to be contributing to this initiative of securing US domestic rare earth supply chains through the provision of its REE feedstock. The Company is extremely pleased that its US-based team has established and developed relationships with key US REE researchers that support the researcher's involvement in the critical EMBER research program.

The Feedstock of mineral deposits that qualify for use in the program was supplied by the Company's 100% owned subsidiary, Western Rare Earth LLC, which expects potential future benefits involving effective REE extraction methods and new technologies available to the Company.

High-Grade Rare-Earth mineralisation in expanded Halleck Creek surface samples

On 26 August 2021, ARR reported impressive surface sampling results over a substantially expanded Halleck Creek Project area that showed consistently high-grade TREO exceeding 3,000ppm. Analysis of approximately 197 surface samples indicated TREO mineralisation of:

- 3,349ppm average TREO in the Overton Mountain area of the project; and
- 3,002ppm average TREO in the Red Mountain area.

The highest-grade assay observed in samples collected during 2021 was:

- 5,756ppm TREO.
- 552ppm HREO; and
- 1,433ppm Magnetic Mineral Oxides.

Halleck Creek Rare Earths Project is situated in Albany and Platte Counties of Wyoming. The project area is in the southern Laramie Mountain range of south-eastern Wyoming approximately 70km northeast of Laramie and 30km southwest of Wheatland, Wyoming (refer to Figure 7), and has excellent existing road and rail infrastructure access. The Halleck Creek project is 100% owned by ARR

through its wholly-owned USA subsidiary, Wyoming Rare (USA) Inc.

New Claims Staked at Halleck Creek

After analysing available data and additional surface sampling, the Company staked additional areas that expanded the project tenement holding, especially in the Red Mountain Pluton geological anomaly area.

The Red Mountain Pluton comprises the predominant Rare Earth Oxide bearing formation at Halleck Creek and ranges in structure from fayalite monzonite, clinopyroxene quartz monzonite biotite-hornblende quartz syenite to granite (refer to Figure 8). These rock types contain variable quantities of disseminated allanite up to 2% by weight present throughout the Pluton. Rocks are less weathered and fractured in the northern section of the project around Overton Mountain than in the southern part around Red Mountain.

Anderson completed petrographic work, which identified clinopyroxene quartz monzonite and found it contained more allanite than other surrounding rock types. Allanite generally hosts rare earth elements and the more abundant is the allanite, the higher the number of rare earths.

Historic metallurgy conducted on samples from the Red Mountain Pluton project area indicates potential for upgrading ores and simply eliminating non-valuable material. In ASX Release dated 3 March 2020 titled, "Further Metallurgical Testwork – Laramie Rare Earths (REE) Project Wyoming USA", Zenith Minerals Limited reported that mineral separation by magnetic methods recovered 87% of the REE minerals into 27% of the mass whilst rejecting 78% of waste material. Mineral separation using gravity methods recovered 76% of the REE minerals into 22% of the mass whilst rejecting 78% of the waste material. The elimination of a large percentage of waste material early in mineral processing presents opportunities for potential reduction in operating costs. Benefits include fewer chemical treatments being required, thereby reducing raw material costs, reduction in chemically treated tailings, and potential for chemical-free waste material being returned to the open-cut mine during reclamation. This is positive in reducing environmental impact and reclamation costs.

The Halleck Creek project area was increased by 63 new lode claims, which in June and July 2021 added 483 hectares (1,193 acres) to the landholding (refer to Figure 9). This represented a 63% increase in the total tenement area under claim control to that originally acquired from Zenith Minerals Limited.

As a result of the significant expansion of the Halleck Creek holding during June and July 2021, the project's total area comprises approximately 1,257 hectares (3,109 acres).
During the staking of additional claim areas, the Company also collected and assayed approximately 200 extra surface samples.

2021 Technical Report on the Halleck Creek Rare Earths Project

During the quarter, ARR engaged World Industrial Minerals LLC (WIM) in Colorado, USA, to undertake a regional geological review, a surface sampling program, and summarise mineral claims across the Halleck Creek Rare Earths project area. The results from WIM were presented in a report titled, "2021 Technical Report on the Wyoming Halleck Creek Rare Earths Project" (refer to Appendix B in ASX Release: 26 August 2021, High-Grade Surface Sampling – Halleck Creek Project).

High-Grade Rare-Earth Oxide Samples

The Technical Report identified that 259 surface samples were collected across the Halleck Creek project area since 2010, including approximately 200 samples in 2021. Surface sample TREO values

across the Overton Mountain and Red Mountain study areas.

The 2021 sampling program was undertaken over three days and all samples were sent to ALS Laboratory in Reno, Nevada, USA for analysis. The highest observed grade was 5,756ppm TREO with 552ppm HREO and 1,433ppm Magnetic Minerals Oxide. After eliminating Cerium and Lanthanum from the list of elements, the most abundant economic critical and magnetic rare earth element was Neodymium with an average 488ppm REO.

Neodymium and Praseodymium (NdPr) with a combined grade of 616ppm, accounted for approximately 22% of all TREO. Yttrium was the most abundant economic heavy REE which averaged 169ppm REO. Magnetic REO accounted for approximately 26% of all TREO, while Critical REO defined elements accounted for approximately 30%. The average TREO in 197 surface samples in the Overton Mountain and Red Mountain study areas was approximately 3,349ppm and 3,002ppm respectively.

The surface samples also hosted high-value NdPr magnetic REO with average values of 742ppm for Overton Mountain and 661ppm for Red Mountain, representing an overall average of 702ppm. The NdPr content in these samples averaged 22% of TREO at an ideal 4:1 ratio.

Halleck Creek Exploration Drilling

The Company developed an exploration plan for the Halleck Creek project involving diamond core drilling during the quarter. The program currently proposes the drilling of 5 holes on BLM land and claims in the northern Overton Mountain area and additional exploration holes on State land and leases in the Southern Red Mountain area.

Notice of Intent documentation has already been filed with the BLM office in Rawlings, Wyoming, for the planned Overton Mountain area exploration drilling.

Searchlight Rare Earth Elements Project

In 2021, the Company acquired the Searchlight Rare Earths project in Nevada, USA. The project is in the Crescent precious metal mining district in Clark County, southwest Nevada and is sited approximately 119km (74 miles) south of Las Vegas. The Searchlight project is situated close to the USA's only integrated and processing Mountain Pass rare earths mine located approximately 32km (19 miles) to the west.

The project is 100% owned by the Company's USA subsidiary, Western Rare Earths LLC (WRE). It comprises an area covering 656 hectares (1,620 acres) with 80 contiguous unpatented mining claims staked by the Company during 2021 following reviewing historical review that highlighted the previously REE prospected claims were available for acquisition.

Located in the mining-friendly state of Nevada, the mining claims are on public Bureau of Land Management (BLM) land. Terrain and climate are conducive to year-round exploration and is easily accessed by road.

Historic sample data, including assay results, indicate the presence of extraordinarily high-grade rare earths, especially the highly sought after Heavy Rare Earth Elements (HREE).

In December 2020, World Industrial Minerals LLC collected ten rock samples from monazite-apatite bearing veins in biotite granite and hornblende biotite granite sills in the Early Proterozoic granites within the project area.

Rock sample analysis conducted by Hazen Research Inc in Colorado, USA, indicated the presence of

concentrated REE. One sample (TH-01) contained high levels of HREE plus key magnetic elements, including Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy) and Terbium (Tb) (refer to Table 10).

REE Type	REE (ppm)
Total REE	14,800
HREE	940
Magnetic REE*	3,320
** Magnetic REE include: Nd,Pr,Dy,Tb*	

Table 10: REE Summary for Rock Sample TH-01

A phased exploration program is being developed for a systematic geological surface sampling program in the Searchlight Project area. Detailed geological surface mapping and acquisition of high-resolution aerial imagery and LiDAR data are also being planned. This work will aim to locate additional high-grade surface veins and future exploration drilling targets. Tasks to be undertaken under the phased exploration plans involve:

- Geological mapping and sampling to delineate REE-bearing vein and fracture structures to define trenching/drilling targets;
- Ground/drone radiation surveying over alluvial covered areas to identify radiometric trends to define trenching/drilling targets;
- Based on the above results, undertaking a trenching program under the less-than-5-acre NOI permitting process; and
- If trenching is successful, reclaim trenches and lodge a less-than-5-acre NOI drilling program.

Split Rocks Project Scandium Mineral Rights

The Company holds an option granted by Zenith Minerals Limited (Zenith) to acquire the Scandium Mineral Rights over the Split Rocks Project.

This project is in the Forrestania greenstone belt in Western Australia and represents a unique opportunity for the Company to expand its Scandium interests in this under-explored area (refer to Figure 2).

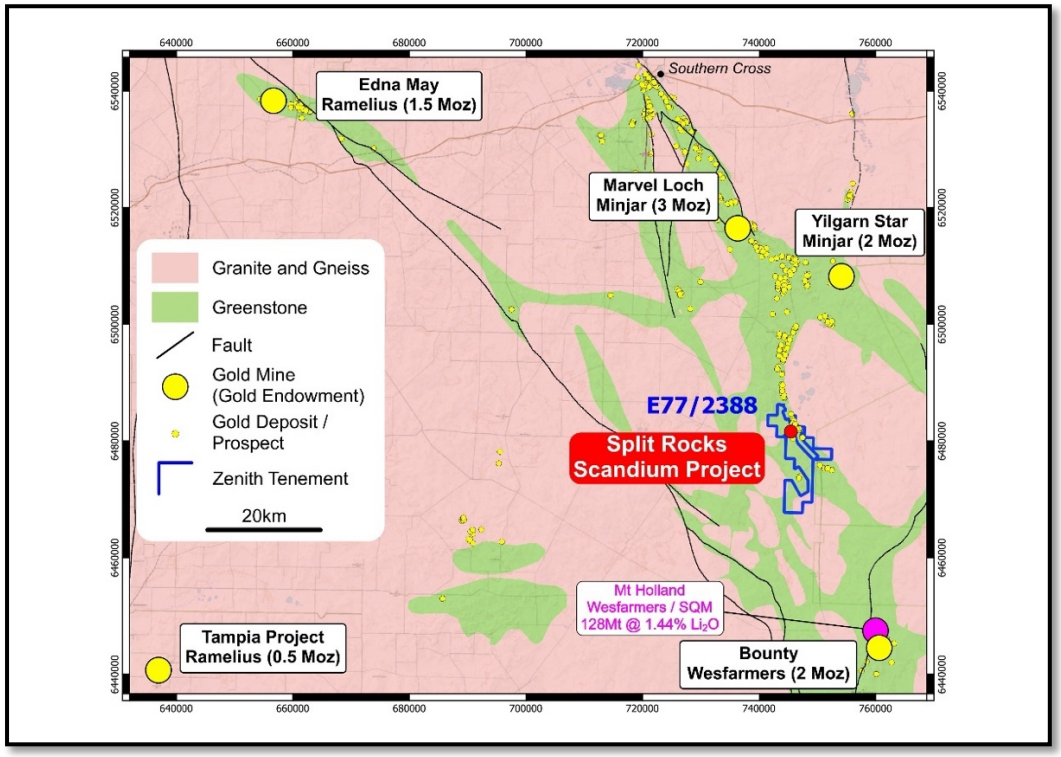


Figure 2: Location of Split Rocks Scandium Project in Western Australia

Under the exclusive option, the Company can acquire the rights to Scandium, Nickel and Cobalt (Scandium Minerals) at the Split Rocks Project up to a maximum depth of 50 metres from the surface within a section of Split Rocks Project tenement E77/2388, which is currently 100% owned by Zenith via its wholly-owned subsidiary, Black Dragon Energy (Aus) Pty Ltd.

The terms of the option agreement require milestone consideration payments to be made by ARR as follows:

- A$400,000 worth of ARR shares within six months of execution of the Option Agreement.
- A$100,000 following an ASX Release by ARR of a JORC Scandium Mineral Resource containing no less than 10m metric tonnes at an average grade of at least 5ppm of Scandium; and
- 5,000,000 ARR shares on the grant of a Scandium Mining Lease.

The option period is two years from June 2021 and there is an exploration related expenditure funding commitment of at least A$10,000 being incurred by ARR during this period. On exercising the option to acquire the Split Rocks Scandium project, ARR will also be required to pay Zenith a 3% royalty on the net smelter generated from any Scandium Minerals or Scandium Mineral Resources.

Historically, elevated Scandium grades have been intercepted at depths less than 52 metres with assays more than 50ppm from 62 samples out of 46 holes drilled at Split Rocks. Near-surface Scandium more than 100ppm was also obtained from 3 drilling samples. In another three samples, the content of Scandium grades was found to be greater than 90ppm.

The high-grade samples were all identified at depths less than 24 metres, as was reported by Zenith in 2018 from a drilling program carried out in an area of approximately 3km^2 (refer to Table 11).

Hole_ID	From (m)	To (m)	Interval (m)	Sc (ppm)
ZDAC073	0	4	4	190
ZDAC074	0	8	8	105
ZDAC067	0	4	4	100
ZDAC071	8	24	16	98
ZDAC060	0	20	20	94
ZDAC087	0	4	4	90

Table 11: High Scandium Samples as reported by Zenith in 2018

In addition, highly anomalous cobalt and nickel mineralisation was intercepted by Zenith in previous exploration drilling with significant results reported as below:

- 30 metres @ 0.06% cobalt (600ppm) and 0.75% nickel (7,500ppm) from 20 metres; and
- 12 metres @ 0.27% cobalt and 1.45% nickel from 20 metres.

ARR is currently developing an exploration program to better define Scandium occurrences at Split Rocks, emphasising areas to the south of the project tenement from where Zenith previously reported based on completed exploration analyses that Scandium mineralisation appeared to be open.

Broken Hill Base and Precious Metals Projects

In July 2021, ARR relinquished its Broken Hill regional tenement holdings (EL 8773, EL 8776 and EL 8775) as part of a strategic plan to focus the Company's resources on the development of its critical minerals projects in North America and Australia.

Relinquishment of the tenements was effective on 9 July 2021.

Tenement Schedule

Listings of tenements held by ARR and its subsidiaries as of 30 September 2021 for each project are shown in Annexures 1 to 4. Several new tenement claims for the La Paz project were lodged and paid for, but the documentation was not yet finalised at the end of the quarter by the BLM Office. Similarly, several new tenement claims lodged and paid for the Halleck Creek project were yet to be finalised by the BLM Office. These new tenement claims are therefore shown as pending in the relevant project Annexures.

Investment in Cobalt Blue Holdings Limited (COB)

At the end of the quarter, ARR held 6,000,448 COB shares worth A$1,950,146, at a COB closing price of A$0.325 on 30 September 2021. The Company also held a A$3M Promissory Note (PN) interest-free for years one to three with interest payable in arrears at 6% per annum for years four and five. The PN is currently in year two and secured over title to tenements.

ARR also holds rights to a Net Smelter Return (NSR) royalty of 2% on all cobalt production from the Thackaringa Project, which was sold to Cobalt Blue Holdings Limited in February 2020.

Corporate

During the September 2021 Quarter:

- A total of 1,000,000 shares were issued due to the exercise of options at $0.15 each, which raised additional capital of $150,000.
- Exploration Expenditure of $322,804 was incurred.
- The Company's cash position as of 30 September 2021 was $2,940,926; and

- The Company continues to hold a substantial holding of 6,000,448 listed shares in Cobalt Blue Holdings Limited (ASX: COB) worth A$1,950,146 on 30 September 2021 and deferred consideration via promissory notes from the sale of ARR's Thackaringa assets in February 2020.

Since the end of the September quarter, a further 1,700,000 shares were issued due to the exercise of options at $0.15, which raised $255,000 in the company's funds.

The Outlook for Company activities during the December 2021 Quarter

Specific to advancing the La Paz project, the metallurgical testwork by Nagrom Laboratories in Perth, under the guidance of REE metallurgy expertise from Wood PLC, will commence with some preliminary data being made available. While the entirety of the extensive work program will carry well into calendar Q2 of 2022, the Company expects to share some data in the coming quarter. Key data will provide insight into optimal grind size for liberation and concentration of the REEs and Scandium from the host rock.

Drill permit applications have been submitted for new drilling at the new southwest target in the La Paz project area. Drilling approvals are expected in this quarter. When approvals are announced, the Company expects to announce a target date for the drill campaign to begin. As the Company is well capitalised, we hope to be able to move quickly. The drilling in the new southwest target area of La Paz is targeting the recently estimated exploration target that ranges 742 to 928 million tonnes with 350 to 400 ppm TREO. The exploration target is additive to the La Paz Resource estimate in the northeast area of the project that is 170 million tonnes with an average grade of 469 ppm TREO.

Drilling permits have also been applied for in Wyoming on the Halleck Creek Project. This drill campaign will be the maiden exploration core drilling program for the project. Drill permit approvals are expected in the coming quarter, with a campaign's start date announced soon after. With average TREO grades well above 3000ppm across hundreds of acres of the target area, the Company is eager to learn about the potential depth of opportunity at Halleck Creek.

The Company expects to complete all requirements for a cross-listing for its shares to be available to trade on the US OTCQB market. OTC is the largest Alternative Trading System in the US, with over 11,000 securities quoted on that market. Cross-listing to the OTCQB offers the Company the opportunity to build visibility, expand liquidity and diversify its shareholder base in the US on an established public market.

The Company expects that the US Department of Defense's research agency known as DARPA will evaluate applications to the EMBER program. The Company is providing feedstocks to research teams who have made applications to the program. It is expected that the teams will receive some initial confidential feedback from program administrators, but awards are not likely in the coming quarter. Announcements of award amounts, if any, and participating teams and their members will not come until 2022. The Company is providing Feedstock to three such teams and remains cautiously optimistic about its funding prospects. Should any of them be successful, it could mean significant processing research work targeting the Company's mineralised ore.

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

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. 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 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 two additional USA rare earth assets, the Searchlight Rare Earths project in Nevada and the Halleck Creek project in Wyoming. In addition, ARR has acquired the Scandium Mineral Rights over the Split Rocks Project located in Western Australia.

Annexure 1
American Rare Earths Limited Tenement Schedule as of 30 September 2021
Australia

Mining tenements at the beginning of the quarter			Mining tenements acquired or disposed of/expired during the quarter		Mining tenements held at the end of the quarter	
Reference	Beneficial Interest %	Location	Reference	Location	Reference	Location
EL8773	100%	Broken Hill Region	Relinquished	Broken Hill Region	-	-
EL8776	100%	Broken Hill Region	Relinquished	Broken Hill Region	-	-
EL8775	100%	Broken Hill Region	Relinquished	Broken Hill Region	-	-

Annexure 2
American Rare Earths Limited Tenement Schedule as of 30 September 2021
La Paz, Arizona, USA

Mining tenements at the beginning of the quarter				Mining tenements acquired or disposed/expired during the quarter		Mining tenements held at the end of the quarter		
Serial Number	Claim Name	Claimant Name	Beneficial Interest %	Reference	Location	Serial Number	Claim Name	Claimant Name
639 Acres	Exploration License 008-120965-00	LA PAZ RARE EARTH LLC	100%	-	-	639 Acres	Exploration License 008-120965-00	LA PAZ RARE EARTH LLC
AZ101556959 - AZ101556965	LA PAZ-1 - LA PAZ-7	LA PAZ RARE EARTH LLC	100%			AZ101556959 - AZ101556965	LA PAZ-1 - LA PAZ-7	LA PAZ RARE EARTH LLC
AZ101558159 - AZ101558165	LA PAZ-8 - LA PAZ-14	LA PAZ RARE EARTH LLC	100%			AZ101558159 - AZ101558165	LA PAZ-8 - LA PAZ-14	LA PAZ RARE EARTH LLC
AZ101558166 - AZ101558178	LA PAZ-33 - LA PAZ-45	LA PAZ RARE EARTH LLC	100%			AZ101558166 - AZ101558178	LA PAZ-33 - LA PAZ-45	LA PAZ RARE EARTH LLC
AZ101559358 - AZ101559378	LA PAZ-46 - LA PAZ-66	LA PAZ RARE EARTH LLC	100%			AZ101559358 - AZ101559378	LA PAZ-46 - LA PAZ-66	LA PAZ RARE EARTH LLC
AZ101560374 - AZ101560379	LA PAZ-67 - LA PAZ-69	LA PAZ RARE EARTH LLC	100%			AZ101560374 - AZ101560379	LA PAZ-67 - LA PAZ-69	LA PAZ RARE EARTH LLC
AZ101560377	LA PAZ-71	LA PAZ RARE EARTH LLC	100%			AZ101560377	LA PAZ-71	LA PAZ RARE EARTH LLC

AZ101560378	LA PAZ-73	LA PAZ RARE EARTH LLC	100%			AZ101560378	LA PAZ-73	LA PAZ RARE EARTH LLC
AZ101560379	LA PAZ-75	LA PAZ RARE EARTH LLC	100%			AZ101560379	LA PAZ-75	LA PAZ RARE EARTH LLC
AZ101560380 - AZ101560389	LA PAZ-92 - LA PAZ-101	LA PAZ RARE EARTH LLC	100%			AZ101560380 - AZ101560389	LA PAZ-92 - LA PAZ-101	LA PAZ RARE EARTH LLC
AZ101859569 - AZ101859589	LA PAZ-108 - LA PAZ-128	LA PAZ RARE EARTH LLC	100%			AZ101859569 - AZ101859589	LA PAZ-108 - LA PAZ-128	LA PAZ RARE EARTH LLC
AZ101735180 - AZ101735200	LA PAZ-129 - LA PAZ-149	LA PAZ RARE EARTH LLC	100%			AZ101735180 - AZ101735200	LA PAZ-129 - LA PAZ-149	LA PAZ RARE EARTH LLC
AZ101736380 - AZ101736400	LA PAZ-150 - LA PAZ-170	LA PAZ RARE EARTH LLC	100%			AZ101736380 - AZ101736400	LA PAZ-150 - LA PAZ-170	LA PAZ RARE EARTH LLC
AZ101737338 - AZ101737358	LA PAZ-171 - LA PAZ-191	LA PAZ RARE EARTH LLC	100%			AZ101737338 - AZ101737358	LA PAZ-171 - LA PAZ-191	LA PAZ RARE EARTH LLC
AZ101738345 - AZ101738365	LA PAZ-192 - LA PAZ-212	LA PAZ RARE EARTH LLC	100%			AZ101738345 - AZ101738365	LA PAZ-192 - LA PAZ-212	LA PAZ RARE EARTH LLC
AZ101739385 - AZ101739391	LA PAZ-213 - LA PAZ-219	LA PAZ RARE EARTH LLC	100%			AZ101739385 - AZ101739391	LA PAZ-213 - LA PAZ-219	LA PAZ RARE EARTH LLC
AZ101924809 - AZ101924821	LA PAZ-220 - LA PAZ-232	LA PAZ RARE EARTH LLC	100%			AZ101924809 - AZ101924821	LA PAZ-220 - LA PAZ-232	LA PAZ RARE EARTH LLC
AZ101957743 - AZ101957763	LA PAZ-233 - LA PAZ-253	LA PAZ RARE EARTH LLC	100%			AZ101957743 - AZ101957763	LA PAZ-233 - LA PAZ-253	LA PAZ RARE EARTH LLC
AZ101958229 - AZ101958236	LA PAZ-254 - LA PAZ-261	LA PAZ RARE EARTH LLC	100%			AZ101958229 - AZ101958236	LA PAZ-254 - LA PAZ-261	LA PAZ RARE EARTH LLC
				AZ105263134 - AZ105263153	LA PAZ-262 - LA PAZ-281	AZ105263134 - AZ105263153	LA PAZ-262 - LA PAZ-281	LA PAZ RARE EARTH LLC

Halleck Creek, Wyoming USA

Mining tenements at the beginning of the quarter				Mining tenements acquired during the quarter		Mining tenements held at the end of the quarter		
Serial Number	Claim Name	Claimant Name	Beneficial Interest %	Reference	Location	Serial Number	Claim Name	Claimant Name
WY101766644 - WY101766648	REX-1 - REX-5	Wyoming Rare (USA) Inc	100%			WY101766644 - WY101766648	REX-1 - REX-5	Wyoming Rare (USA) Inc
WY105250218 - WY105250231	REX 10 - REX 23	Wyoming Rare (USA) Inc	100%			WY105250218 - WY105250231	REX 10 - REX 23	Wyoming Rare (USA) Inc
				REX 25 - REX 43	Wyoming, USA	WY105260482 - WY105260501	REX 25 - REX 43	Wyoming Rare (USA) Inc
WY105250232 - WY105250260	REX 44 - REX 72	Wyoming Rare (USA) Inc	100%			WY105250232 - WY105250260	REX 44 - REX 72	Wyoming Rare (USA) Inc
0-43568 – 0-43571	Halleck Creek	Wyoming Rare (USA) Inc	100%			0-43568 – 0-43571	Halleck Creek	Wyoming Rare (USA) Inc

Annexure 4
American Rare Earths Limited Tenement Schedule as of 30 September 2021
Searchlight, Nevada USA

Mining tenements at the beginning of the quarter				Mining tenements acquired during the quarter		Mining tenements held at the end of the quarter		
Serial Number	Claim Name	Claimant Name	Beneficial Interest %	Reference	Location	Serial Number	Claim Name	Claimant Name
NV105228419 - NV105228498	T-01 - T-80	Western Rare Earth LLC	100%			NV105228419 - NV105228498	T-01 - T-80	Western Rare Earth LLC

Appendix 5B

Mining exploration entity or oil and gas exploration entity a quarterly cash flow report

Name of entity

American Rare Earths Limited

ABN	Quarter ended ("current quarter")
83 003 453 503	30 September 2021

Consolidated statement of cash flows		Current quarter $ A'000	Year to date (3 months) $ A'000
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	2	2
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	-	-
	(e) administration and corporate costs	(563)	(563)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	-
1.5	Interest and other costs of finance paid	(4)	(4)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(565)**	**(565)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation	(323)	(323)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter $ A'000	Year to date (3 months) $ A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material): Lease payment	(17)	(17)
2.6	**Net cash from / (used in) investing activities**	**(340)**	**(340)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	150	150
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(1)	(1)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from / (used in) financing activities**	**149**	**149**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	3,701	3,701
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(565)	(565)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(340)	(340)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	149	149

Consolidated statement of cash flows		Current quarter $ A'000	Year to date (3 months) $ A'000
4.5	Effect of movement in exchange rates on cash held	(4)	(4)
4.6	**Cash and cash equivalents at end of period**	**2,941**	**2,941**

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter $ A'000	Previous quarter $ A'000
5.1	Bank balances	2,898	3,658
5.2	Call deposits	43	43
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**2,941**	**3,701**

6.	Payments to related parties of the entity and their associates	Current quarter $ A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1[1]	193
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

[1]Reimbursement of expenses, payment of fees and consulting fees to current directors

7.	Financing facilities *Note: the term "facility" includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $ A'000**	**Amount drawn at quarter end $ A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	3,000[2]	-
7.4	**Total financing facilities**	3,000	-
7.5	**Unused financing facilities available at quarter end**		3,000

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

8.	Estimated cash available for future operating activities	$ A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(565)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(323)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(888)
8.4	Cash and cash equivalents at quarter end (item 4.6)	2,941
8.5	Unused finance facilities available at quarter end (item 7.5)	3,000
8.6	Total available funding (item 8.4 + item 8.5)	5,941
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	6.69

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A

8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?
Answer: N/A	

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

[2] $3M five-year promissory note maturing 17 January 2025

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: .....

Authorised by: .....
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.

APPENDIX A: JORC TABLE 1

JORC Code, 2012 Edition – Table 1 La Paz Rare Earth Project

Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
Sampling techniques	*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 three parallel section lines across strike and one section line along strike, with holes spaced 100' along section lines.
		March 2021 Core Drilling: WRE drilled nine diamond core holes of HQ size ranging from 168 feet to 403 feet in depth with a total length of 2,238 feet (682 metres); six core holes were twins of select percussion holes drilled in 2011.
	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 pulverised 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 was supplied by Dynamic Rock Solutions LLC, Salome, Arizona to drill 195 3.5" diameter percussion holes. Drilling began on 20 April, 2011 and was completed on 31 May 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.

		March 2021 Core Drilling: Timberline Drilling, Inc. from Elko Nevada used a track mounted core rig to drill HQ diameter core holes. Six holes were in the La Paz Resource area and another three holes were drilled on the remainder of the property. See the Drill Hole Location Map. Drilling commenced on 11 March 2021 and concluded on 31 March 2021. Drill hole depths varied between 168 feet and 403 feet for a total length of 2,238 feet (682 metres).
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	A sampling of ~200g per foot drilled to produce a composite~1kg sample for every 5' drill interval which is considered representative of each interval.
		March 2021 Core Drilling: Core recovery was 98% +. Core material was sent to America Assay Labs, in Spark, Nevada for assay.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	All drilling was carried out above the water table to minimise 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.	
Logging	*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.
	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 logged.	Drill holes were logged in full based on representative samples from every 5' interval.
		March 2021 Core Drilling: All core was geologically logged and photographed on site by qualified geologists.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	No core samples were collected in the 2011 drilling.

		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 pulverising 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 the in situ material collected, including for instance results for field duplicate/second-half sampling.	Sample preparation techniques are considered industry practice and are conducted at accredited external laboratory, all considered appropriate to the style of mineralisation and suitable for determining Mineral Resource Estimates.
		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.	
Quality of assay data and laboratory tests	*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 pulverised 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.
	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 assaying	*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.
	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 is 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
Location of data points	*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.
		March 2021 Core Drilling: Location were determined using Handheld GPS units. Downhole surveys were not performed due to relatively shallow depths.
	Specification of the grid system used.	Historic 2011 Drilling: UTM grid system NAD 1927 Zone 12.
		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 and distribution	*Data spacing for reporting of Exploration Results.*	

	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 mineralised zones. See Drill Hole Location Map.
		March 2021 Core Drilling: Three exploration core holes were drilled in the southwest portion of the claim area to follow-up on surface samples and to explore additional mineralised 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 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	*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 engineers and geologists will evaluation any defined mineral deposit and determine an appropriate royalty.
		The QP is not aware of any environmental liabilities attached to the 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 20 March, 2011, was submitted to the Arizona State Land Department. The survey found no substantial areas of archaeological significance (PAST, 2011). The author is not 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.

Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Rare earths were first recognised 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 conducted a confirmation sampling exercise of 22 samples that returned values between 6 and 588 ppm TREE, followed in February 2011, by a sample grid of 199 samples that returned values between 49 and 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 20 April, 2011 and was completed on 31 May, 2011. One hundred and ninety-five 3.5” diameter holes were completed for the purpose of obtaining samples of the present rock types. 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. Six 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 11 March, 2021 and concluded on 31 March, 2021. Drill hole depths varied between 168 feet and 403 feet for a total length of 2,238 feet (682 metres).
	easting and northing of the drill hole collar	March 2021 Core Drilling: Locations of the March 2021 Core Hole data are in Appendix B of the Press Release.
	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	dip and azimuth of the hole	
	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 methods	*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 summarised in an Appendix at the back of the report
	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 mineralisation widths and	*These relationships are particularly important in the reporting of Exploration Results.*	
	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.
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 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.*	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.
		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.	

JORC Code, 2012 Edition – Table 1 Searchlight Rare Earths Project

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	• Individual grab rock samples and were collected by hand at the surface, from in-situ outcrops. • Grab samples are believed to be representative of the outcrops they came from. • 1-2kg rock samples were collected by a geologist, samples were broken using a hammer from outcrop. Rock samples were crushed in the laboratory and then pulverised before analysis.
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).*	• No drilling
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• No drilling
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Rock samples were geologically described and photographed.

Criteria	JORC Code explanation	Commentary
		• No logging
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No drilling • Samples were analysed at Hazen Laboratories in Golden Colorado, the samples were crushed, pulverised and assayed by ICP-ME MS81 for REE • ~2kg of rock was crushed and pulverised and a subsample was taken in the laboratory and sent for analysis. • Grab sampling was selective based upon geological observations. • Each sample was 1kg to 2kg in weight which is appropriate to test for grain size of material.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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 samples were crushed and assayed for 34 elements by fusion ICP-MS. The procedure will report near total results. • No geophysical tools used in the sampling program. • Internal laboratory standards were analysed with rock samples.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Consulting company personnel have observed and collected the assayed samples. • No drilling • Field data were all recorded in field notebooks and sample record books and then entered into a digital database. • No Adjustments were made.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Sample location is based on GPS co-ordinates +/- 5m accuracy. • The grid system used to compile data was NAD27 Zone 12N.

Criteria	JORC Code explanation	Commentary
		• Topography control is +/- 10m
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Both randomly spaced surface chip sampling • The data alone will not be used to estimate mineral resource or ore reserve • None
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.* • *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.*	• Rock samples were taken of selected outcrops that were considered representative of varying rock types. • No drilling
Sample security	• *The measures taken to ensure sample security.*	• Samples were kept in numbered bags until delivered to the laboratory.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sampling techniques are consistent with industry standards.

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	• *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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Wyoming Rare Earths Project Acquisition –81 Unpatented mining claims on BLM US Federal Land totalling approx 1620 acres were staked in the Searchlight Project Area. • The claims are 100% owned by WRE (100% owned ARR subsidiary). • No impediments to holding the claims exist. To maintain the claims an annual holding fee of $165/claim ($13,365) is payable to The BLM.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Sampling in the region was completed by Elissa Resources Ltd on adjacent mining claims controlled by Red Hill Energy.

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The deposit is within veins/veinlets in pre Cambrian granites/gneisses. REE elements are hosted in monazite, and apatite which is found in veins and veinlets within the granites/gneisses.

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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *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.*
		• No drilling

Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No high-grade cutting • No aggregation used • No metal equivalents used
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• No drilling • No drilling • No drilling

Criteria	JORC Code explanation	Commentary
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 maps in body of this report discussing "claims staked" and "sample locations".
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.*	• Total REE's range in samples: 14,800 – 220ppm; HREE's: 940-20ppm See Figures in the report for sample site locations and assay values.
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.*	• In hand specimen this rock is a red colored, hard and dense granite/gneiss with areas of localised fracturing and crude banding. The rock shows significant iron staining. Microscopic Description: *Major Mineralogy: Quartz 30% Sericite 22% Plagioclase 18% Calcite 12% Goethite/Hematite 12% Monazite 3% Chlorite 3%* *Trace Mineralogy: Rutile, Mn oxide, Leucoxene, Zircon, Calcite,*
Further work	• *The nature and scale of planned further work (eg 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.*	• Further mapping and sampling is planned leading to drill targets.

Note that Sections 3 and 4 are not relevant for any reporting for this early-stage exploration Project

JORC Code, 2012 Edition – Table 1 Wyoming Rare Earths Project

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	• **[note: all work listed is historic and carried out by previous property owner]** • Individual grab rock samples and systematic traverse chip samples along measured lines with samples taken every 1m and composited up to 20m in length, were collected by hand at the surface, from in-situ outcrops. • Grab samples are believed to be representative of the outcrops they came from 1-2kg rock samples were collected by a geologist, samples were broken using a hammer from outcrop. Rock samples were crushed in the laboratory and then pulverised before analysis.
Drilling techniques	• *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).*	• No drilling
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• No drilling
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate*	• Rock samples were geologically described and photographed. • Qualitative logging.

Criteria	JORC Code explanation	Commentary
	Mineral Resource estimation, mining studies and metallurgical studies. • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all cores taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No drilling • Samples were analysed at ALS Laboratories in Reno Nevada, the samples were crushed, pulverised and assayed by ICP-ME MS81 for REE and subsequently the pulps were re-assayed for Scandium. • ~2kg of rock was crushed and pulverised and a subsample was taken in the laboratory and sent for analysis. • Grab sampling was selective based upon geological observations whilst composite traverse chip sampling was systematic in nature. • Each sample was 1kg to 2kg in weight which is appropriate to test for grain size of material.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *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.*	• The samples were crushed and assayed for 38 elements by fusion ICP-MS. The procedure will report near total results. • No geophysical tools used in the sampling program. • Internal laboratory standards were analysed with rock samples.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Two consulting company personnel have observed the assayed samples. • No drilling • Field data were all recorded in field notebooks and sample record books and then entered a digital database. • No adjustments were made.

Criteria	JORC Code explanation	Commentary
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Sample location is based on GPS co-ordinates +/- 5m accuracy. • The grid system used to compile data was NAD27 Zone 13N. • Topography control is +/- 10m.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Both randomly spaced and on 1m long continuous surface chip sampling. • The data alone will not be used to estimate mineral resource or ore reserve. • Systematic traverse chip samples along measured lines with samples taken every 1 m and composited up to 20m in length, individual composites were then combined by length weighted averaging.
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.* • *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.*	• Rock samples were taken of selected outcrops that were considered representative of varying rock types as well as systematic composites. • No drilling
Sample security	• *The measures taken to ensure sample security.*	• Samples were kept in numbered bags until delivered to the laboratory.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sampling techniques are consistent with industry standards.

Section 2 Reporting of Exploration Results

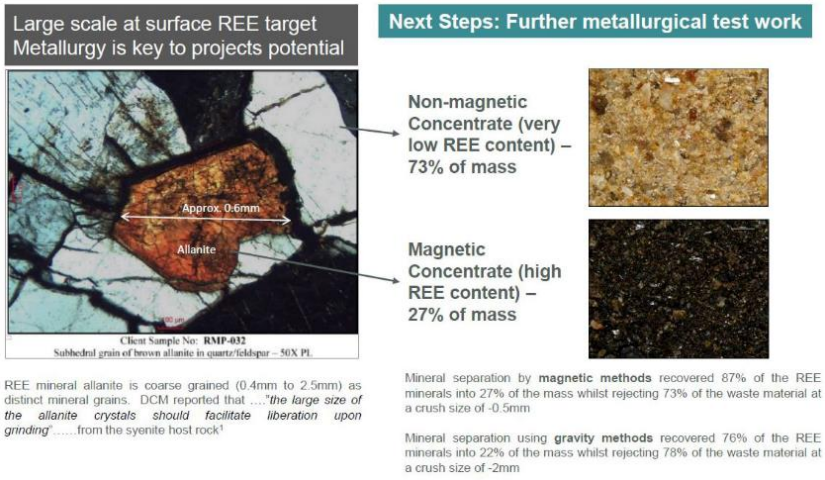
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.*	• Wyoming Rare Earths Project Acquisition - Share Purchase Agreement with Zenith Minerals Limited executed with 5 BLM claims now held by Wyoming Rare (USA) [wholly owned subsidiary of ARR] with amended completion date extended to 30 June 2021 for finalised acquisition of Wyoming State Leases. Exploration on the State leases was

Criteria	JORC Code explanation	Commentary
	• *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.*	historically completed under an exploration permit issued by the State of Wyoming. • As above, the leases are applications with no known impediment to future granting of exploitation rights.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• As previously mentioned, Zenith Minerals (A company from which the property was acquired) completed all of the exploration herein described.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The deposit is within a large scale anorthosite complex. REE elements are hosted in allanite which is contained within syenite that is part of that complex.

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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *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.*
		• No drilling

Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No high-grade cutting. • No aggregation used. • No metal equivalents used.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be 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').*	• No drilling • No drilling • No drilling
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 map in body of the report under "Wyoming Project Acquisition Section"
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.*	• Traverse TREO values as follows: 332m @0.24% ; 80m @0.4%: 60m @ 0.39%, 40M @0.35%; 60m @0.37%; 137m @0.37%; 72m @ 0.33%; 60m @0.34% and 17m@ 0.24%
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.*	 • Magnetic separation resulted in recoveries of REE rich allanite exceeding 85%

Criteria	JORC Code explanation	Commentary
Further work	• *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.*	• Further mapping and sampling are planned leading to drill targets.