For personal use only

ASX RELEASE

1 JULY 2024

WEST ARUNTA PROJECT
MINERAL RESOURCE ESTIMATE FOR LUNI

Highlights

- **Luni is the most significant niobium discovery in more than 70 years and is one of the world's major critical minerals deposits**
- **Inferred Mineral Resource estimate (MRE) contains world-class grade and scale:**

200 Mt at 1.0% Nb_2O_5

- **The MRE contains a significant high-grade subset of:**

53 Mt at 2.1% Nb_2O_5

- **MRE is constrained to shallow, weathered mineralisation, starting from 30m below surface and extending to a maximum depth of 190m, with mineralisation open at depth**
- **Deposit characteristics and recent metallurgical testwork indicates Luni may be amenable to low-cost open pit mining and conventional processing**
- **The MRE is based on drilling completed up to the end of 2023 with ongoing resource activities this year aiming to better define high-grade parts and increase resource confidence in select areas**

WA1 Resources Ltd (ASX: WA1) (**WA1** or **the Company**) is pleased to announce the initial Mineral Resource estimate (**MRE**) for the Luni niobium deposit at the 100%-owned West Arunta Project in Western Australia.

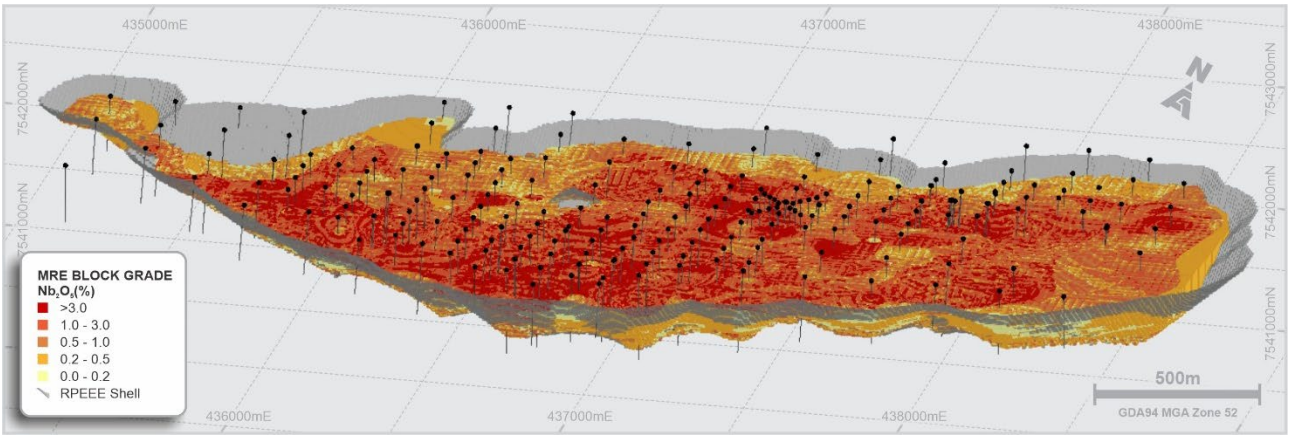

Figure 1: Luni MRE 3D view (looking NNW, all estimated domains) and RPEEE shell

WA1's Managing Director, Paul Savich, commented:

"This Mineral Resource estimate confirms Luni as the most significant niobium discovery globally in over 70 years. This is a remarkable achievement within two years from discovery in an entirely

For personal use only

greenfield belt in the West Arunta. We are grateful for the continued support received from both the Ngururrpa and Kiwirrkurra native title holders in reaching this milestone.

"The shallow, high-grade nature of the deposit, coupled with the recently announced initial metallurgy results, indicates the deposit may be amenable to conventional processing techniques and reinforces Luni as a highly strategic critical mineral asset.

"Drilling at Luni will continue for the remainder of the year with various objectives including the conversion of a portion of the current resource to the Indicated JORC category, targeting additional high-grade potential both laterally and at depth, and providing sample for ongoing metallurgical variability testwork."

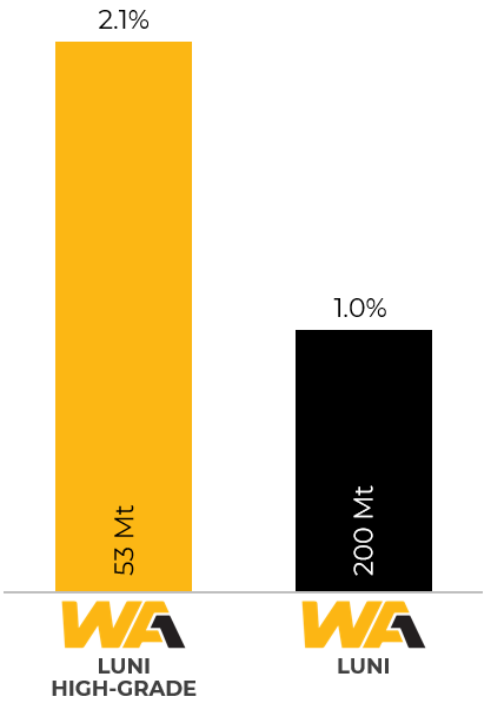

Figure 2: Luni Inferred MRE and high-grade subset (Nb_2O_5%)
Refer to Table 3 for full details

Luni Resource Overview

The initial Inferred MRE contains 200 Mt at 1.0% Nb_2O_5, with a high-grade subset of 53 Mt at 2.1% Nb_2O_5 (at a 0.25% Nb_2O_5 lower cut-off). This confirms the tier-1 scale and grade of the Luni niobium deposit.

This MRE includes drilling completed up to the end of the 2023 drill program and is constrained to the highly, moderately and weakly weathered domains. The MRE does not include any fresh material at depth for which significant potential for mineralisation exists (refer to ASX announcement dated 11 December 2023).

Table 1: Luni Mineral Resource estimate (JORC 2012)

	Tonnes (Mt)	Nb_2O_5 (%)
Inferred	**200**	**1.0**

Refer to Table 3 for full details

This estimate forms the basis for ongoing resource definition drilling which will increase the confidence level of key high-grade zones contained within this MRE, as well as improve the quality of geological domaining which will underpin ongoing metallurgical testwork programs.

The Luni Mineral Resource spans 3.6km east-west and 1.4km north-south. The mineralised units range between 10m to 70m in thickness, with an average of 30m. Isolated areas reach thicknesses up to 130m. Mineralisation included within the Mineral Resource generally commences between 30m and 70m depth below the surface, with mineralisation reaching maximum depths up to 190m below the surface.

WA1 engaged RSC Global Pty Ltd (**RSC**) to prepare this MRE for Luni, effective 30 June 2024, in accordance with the JORC Code 2012. The estimate is shown in full in Table 3.

While RSC has remained independent throughout the engagement, WA1 has worked closely with its specialist team. This included RSC's discussion and input regarding many aspects of

For personal use only

drilling and data capture activities to ensure the data informing the resource conform to the highest standards and best practices.

The Competent Person has also made an initial assessment of factors that are likely to influence the prospects of eventual economic extraction (**RPEEE**) and considers that the Inferred Mineral Resource is a fair and reasonable reflection of the project's potential.

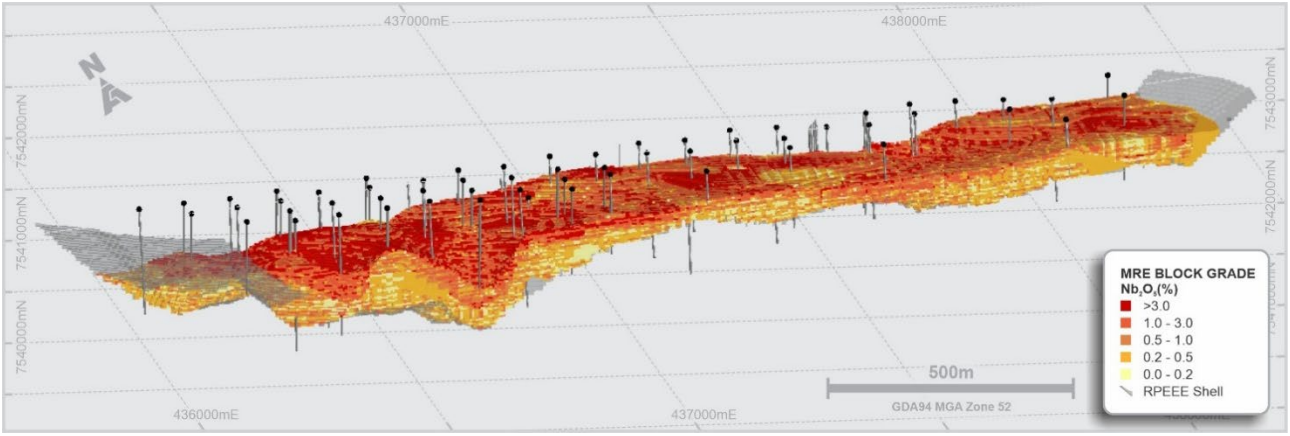

Figure 3: Luni MRE 3D section (looking NNE, all estimated domains) and RPEEE shell

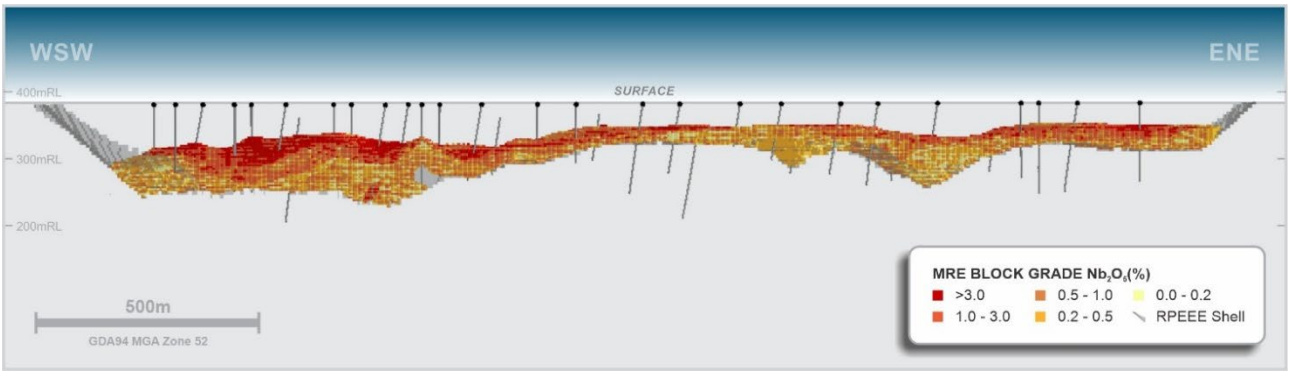

Figure 4: Luni MRE long section (looking NNW, all estimated domains) and RPEEE shell

Forward Plan

Drilling is ongoing at Luni, with two drill rigs continuing to:

- collect additional samples for further metallurgical testwork programs;
- carry out resource definition drilling to increase the confidence within key high-grade zones; and
- undertake extensional drilling targeting additional high-grade mineralisation.

Assay results from this year's drilling will be released regularly and the Company is working toward updating the Luni MRE.

Technical Overview

The following is a material information summary relating to the MRE, consistent with ASX Listing Rule 5.8.1 requirements. Further details are provided in JORC Code Table 1, which is included as Appendix A.

For personal use only

Project Location & History

The Luni carbonatite is situated in the Sambhar prospect area within the Company's West Arunta Project, which is located approximately 490km south of Halls Creek in Western Australia (Figure 5). Access by road can be gained from the regional centres of Port Hedland and Alice Springs to Kiwirrkurra via the Mid State Highway. Luni is then accessed from Kiwirrkurra by utilising the Kiwirrkurra to Balgo road, and local tracks.

Tali Resources Pty Ltd (**Tali**) applied for exploration licence E80/5173 in February 2018 and it was granted in February 2019. Subsequently, 100% ownership was purchased by WA1 in August 2021 as part of its project portfolio for WA1's Initial Public Offering. The very limited historical exploration activities conducted in the area had targeted gold and copper mineralisation related to Iron Oxide Copper Gold deposit styles. Tali completed early-stage exploration activities prior to WA1 purchasing the licence, including airborne and ground geophysical surveys and ground reconnaissance.

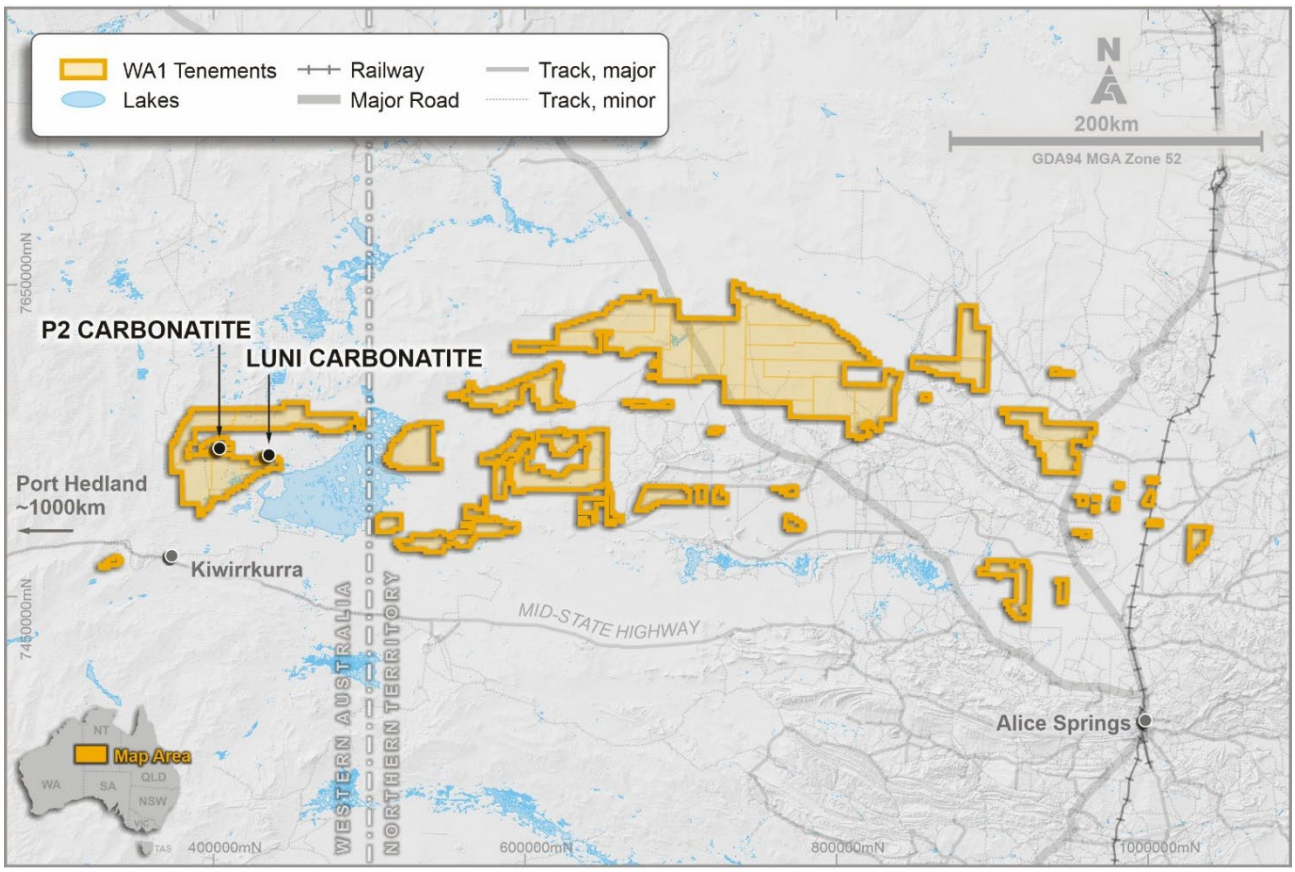

Figure 5: West Arunta Project location

After the acquisition of E80/5173, WA1 systematically conducted new mapping, surface sampling (rock chip and soil sampling), and geophysical surveys (ground gravity, magnetics) over select areas. In July 2022, WA1 embarked on its maiden exploration drilling program at the West Arunta Project, testing a series of gravity (+/- magnetic) anomalies across three targets. This campaign led to the discovery of two mineralised carbonatite complexes, namely the Luni carbonatite in the Sambhar prospect area and the P2 carbonatite in the Pachpadra prospect area. The

For personal use only

exceptionally high-grades encountered at shallow depths at Luni prompted an immediate focus in the Company's exploration efforts toward defining the lateral extent and any zonation within the carbonatite in the 2023 field season.

In 2023, further geophysical surveys were completed (EM, ground gravity, passive seismic) and a systematic program of RC and diamond drilling was carried out to test the extent of the niobium, phosphate and rare earth element mineralisation to gain greater geological information and material for metallurgical testwork. The resulting information was the major input to the MRE reported in this announcement.

Geology & Geological Interpretation

A carbonatite is an igneous rock formed from a deep, mantle-derived magmatic intrusion. They are defined by their composition, being rich in carbonate minerals and often occur as plugs within intrusive complexes, or as dykes, sills, breccias or veins. They may be mineralised with niobium (Nb), rare earth elements (REE), phosphorus (P), tantalum (Ta) and titanium (Ti), among other elements.

The Luni carbonatite plug intruded a paragneiss within the Aileron Province in the western portion of the Arunta Orogen. The Luni carbonatite and immediately surrounding units do not outcrop and are covered by transported regolith units that generally vary between 30m to 70m thickness, but are thicker in isolated parts. There is limited outcrop of the surrounding units approximately 1km south of Luni. Drilling information and geophysical interpretations have been used to develop the geological framework. The zoned carbonatite system includes calcio-carbonatite, magnesio-carbonatite, phoscorite, glimmerite, fenite and syenite units. Fluids from the carbonatite have significantly altered the paragneiss and previous intrusions proximal to it, generating fenitised units as an alteration halo. The Luni carbonatite is strongly enriched in Nb, P and REEs. A simplified interpretation of the bedrock geology at Luni is presented in Figure 6.

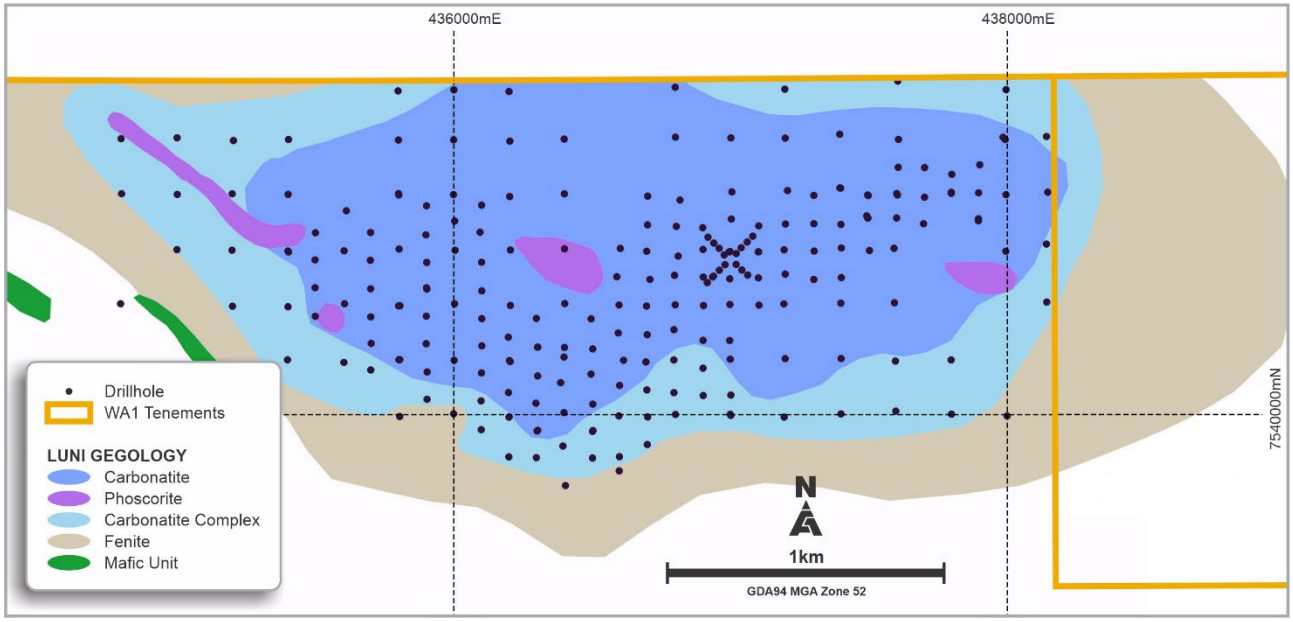

Figure 6: Luni interpretated bedrock geology with drill collars

For personal use only

Subsequent weathering led to volume loss and collapse of the carbonatite to create a topographical depression in the landscape. This formed a local colluvial depocenter where material was transported to and deposited in. Due to the dominance of carbonate mineralogy in the carbonatite, karstic weathering has created cavities and influenced the geometries present, which were later infilled with transported material.

Colluvial and eluvial processes contributed significantly to further enrichment of the resistate Nb, P and REE-bearing minerals. The main Nb, P and REE mineralisation zones in the weathering profile are sub-horizontal and reflect the degree of weathering (mass removal) of less-resistate minerals and generally more mobile elements, as well as primary enrichment. The depth and intensity of weathering are enhanced by permeability including structural features.

A schematic diagram depicting the deposit's evolution, lithology, and weathering in relation to the resource estimation domains is shown in Figure 7.

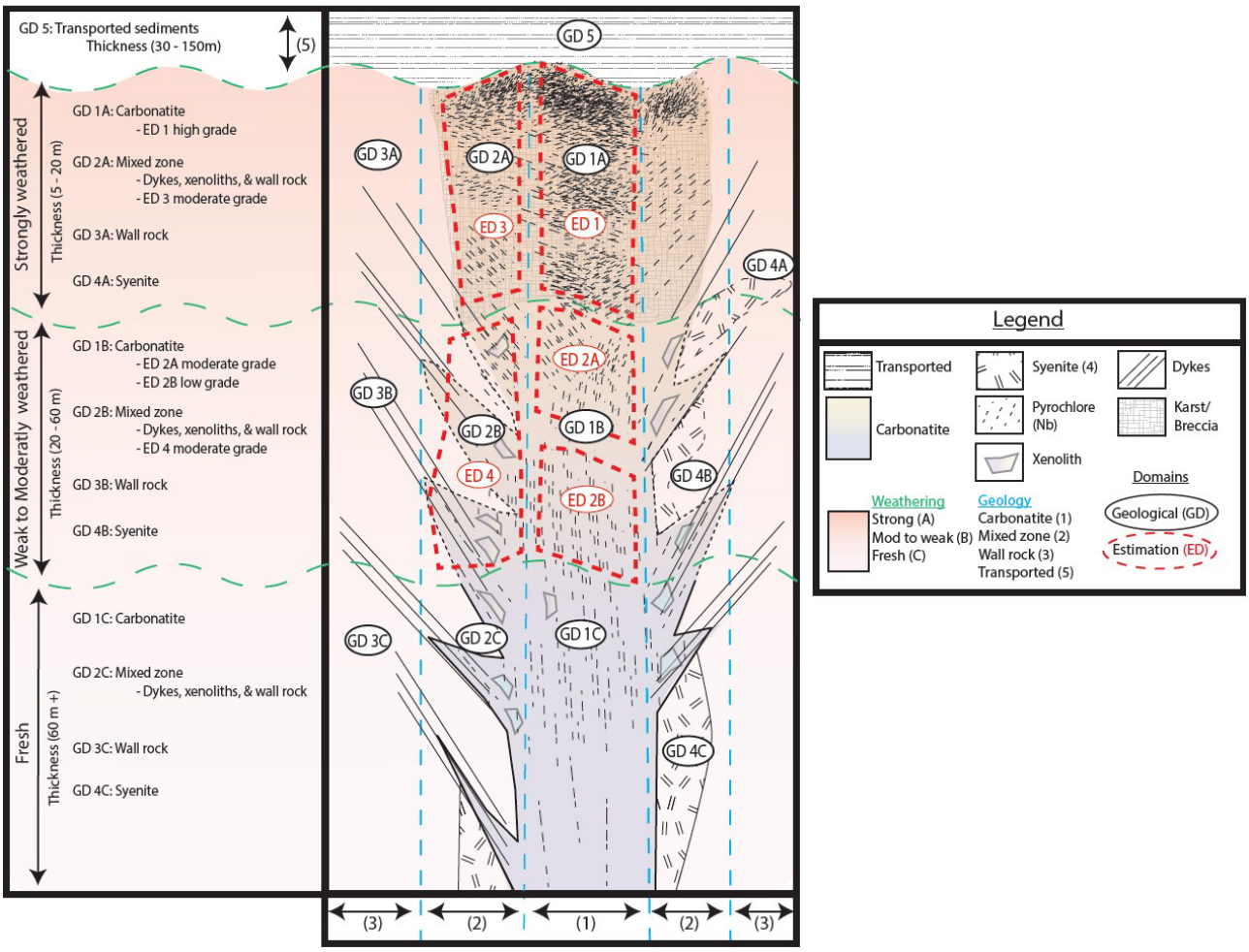

Figure 7: Schematic depicting carbonatite plug deposit evolution, lithology, weathering and estimation domains forming part of this MRE

All RC and diamond drillholes were logged, and detailed geological information was collected. This was complemented further with a full suite of multi-element geochemical data, with analysis supporting a fit-for-purpose subdivision of the geological domains. The geological interpretation

For personal use only

of the controls on mineralisation was supported by specialist advice from Dr Peter Siegfried (a carbonatite system expert) and Dr Scott Halley (a geochemical expert). The Competent Person has relied on their interpretation of the mineralisation, and this forms a critical foundation for the confidence in geological continuity and estimation domains.

Drilling Techniques

The Luni carbonatite and associated Nb, P and REE mineralisation was discovered in 2022 by RC drilling targeting a discrete and high amplitude gravity anomaly. In 2023, RC drilling was initially carried out to test the extent of the niobium mineralisation with the addition of diamond core holes to gain better geological information, material for metallurgical test work and to assess RC sample quality. A total of 235 holes for 29,333m were drilled at Luni prior to 2024 to define niobium mineralisation (Table 2). Diamond twin holes, and holes drilled in 2024 have been excluded from this resource estimate. Drillhole spacing is predominantly at a nominal 200m x 200m with tighter coverage at approximately 100m x 100m spacing, and some closer-spaced drilling in places.

Table 2: Drilling conducted at Luni

Year	Hole Type	Holes	Metres
2022	RC	3	803
2023	DD	30	4,649
2023	RC	197	23,062
2023	RCD	5	819
Total		**235**	**29,333**

RC drilling utilised 146mm or 143mm diameter face-sampling hammers with samples sent through the cyclone prior to being sampled using a rig-mounted cone splitter. Water ingression was managed through a blow-down valve; where water ingression was unavoidable, samples were set apart for separate treatment. Dust loss through the vortex finder was minimised through mist-spray dust suppression. Consistency of sample recovery was monitored on the rig through sample weighing as a proxy for recovery. The average sample recovery in mineralised zones is 74%. There is no correlation between Nb grade and RC sample recovery.

Diamond drilling (30 holes for 4,649m) was undertaken to gain a better understanding of the geological controls, to test the quality of RC drilling and to collect material for metallurgical testwork. To maximise the sample recovery, diamond drilling was completed utilising a triple tube barrel setup. HQ3 holes were drilled for resource definition purposes (density determination and RC quality confirmation) and PQ3 was drilled primarily for metallurgical testwork. A minor amount of NQ2 core was drilled where ground conditions required it. There is no correlation between Nb grade and DD sample recovery. The results of a distance-buffered QQ plot are shown in Figure 8.

Sonic drilling commenced in April 2024, producing a 98mm core sample; however, assays are yet to be received from completed drillholes and therefore have not been included in this initial MRE.

For personal use only

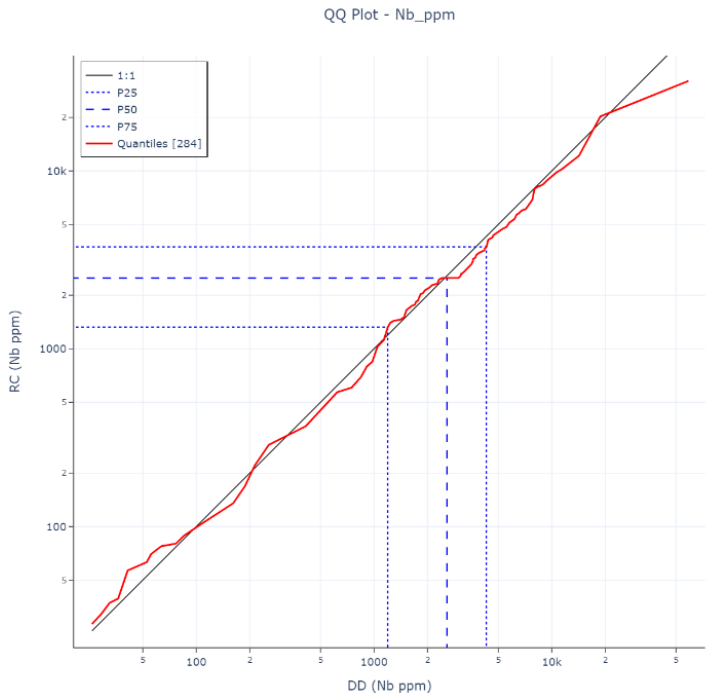

Figure 8: Results of a distance-buffered comparison of 1m RC and DD composites, indicating no statistically significant bias between sample pairs at 2m distance

Sampling & Sub-Sampling

RC Drilling

One-metre split samples weighing ~2kg to 3kg were sampled into a calico bag via the rig-mounted cone splitter. For samples where splitting by cone splitter was not suitable, the entire sample was collected and sent to the lab for later crushing and splitting. This replaced earlier field sampling methods for wet/damp RC samples. Duplicate samples were collected from the cone splitter from mineralised intervals to monitor consistency of splitting quality, as well as to determine the precision for splitting was fit for purpose. No issues were identified.

Samples greater than 3.3kg were split using a riffle splitter at the laboratory to create a sub-sample suitable for pulverisation. All samples were pulverised to a nominal 85% passing 75 microns. Approximately 200g to 300g of this material was retained. A subsample for analytical assaying was obtained using a spatula from the master pulp. Duplicate pulp samples were collected randomly to monitor consistency of pulp splitting quality, as well as to determine the precision for splitting was fit for purpose. No issues were identified.

Diamond Drilling

HQ3-sized core was obtained from most of the diamond coring. PQ3 was used where more material was required for metallurgical purposes. Rare NQ2 drilling occurred when drilling conditions required it for the hole to continue.

Sample intervals were constrained to major geological boundaries and broad mineralised zones were nominally sampled on 1m intervals. Core was not orientated and therefore cut-lines were placed nominally.

For personal use only

Very weathered and friable material was whole-core sampled to avoid bias from grab sampling. The 1m half-core samples were crushed to 90% passing 3.15mm with 25% of the material taken via a rotary splitter directly from the Boyd crusher, roughly generating 1kg sample splits. Duplicate coarse-crush samples were collected randomly to monitor consistency of splitting quality, as well as to determine the precision for splitting was fit for purpose. No issues were identified. All samples for assays were subsequently pulverised to 85% passing 75 microns. Approximately 200g to 300g of this material was retained (master pulp). A subsample for assay was obtained using a spatula from the master pulp. Duplicate pulp samples were collected randomly to monitor consistency of pulp splitting quality, as well as to determine the precision for splitting was fit for purpose. No issues were identified.

Sampling Analysis & Methods

A total of 32 elements (Ba, Ce, Cr, Cs, Dy, Er, Eu, Ga, Gd, Hf, Ho, La, Lu, Nb, Nd, Pr, Rb, Sc, Sm, Sn, Sr, Ta, Tb, Th, Ti, Tm, U, V, W, Y, Yb and Zr) were analysed by fusing a 0.1g pulverised sample with a lithium metaborate flux (ME-MS81). The resultant glass was dissolved in a nitric, hydrochloric and hydrofluoric acid mixture. This solution was then analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).

Over-range values for Nb and REEs (Ce_2O_3, Dy_2O_3, Er_2O_3, Eu_2O_3, Gd_2O_3, Ho_2O_3, La_2O_3, Lu_2O_3, Nb_2O_5, Nd_2O_3, Pr_6O_{11}, Sm_2O_3, Tb_4O_7, ThO_2, Tm_2O_3, Y_2O_3 and Yb_2O_3) from the ME-MS81 analysis were carried out by the ME-XRF30 method. A 0.66g pulverised sample was fused with a lithium borate flux and then poured into a platinum mould. The resultant disk was analysed by XRF spectrometry specifically for rare earth elements. The XRF analysis was determined in conjunction with loss-on-ignition (LOI) at 1,000°C. The resultant data from both determinations are combined to produce a 'total' calculation of grades.

For whole-rock or major elements (Al_2O_3, BaO, CaO, Cr_2O_3, Fe_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SiO_2, SrO and TiO_2) a 0.1g pulverised sample was added to lithium metaborate flux and fused in a furnace (ME-ICP06). The resultant glass was dissolved in a mixture of nitric and hydrochloric acid. This solution was then analysed by inductively coupled plasma atomic emission spectroscopy (ICP-AES) and the results were corrected for spectral inter-element interferences. The whole-rock analysis was determined in conjunction with a loss-on-ignition at 1,000°C.

The consistency of the laboratory process is controlled by the continuous insertion of checks and balances by the ISO-accredited laboratory. The Competent Person has reviewed statistical control plots for the results of these analyses and considers that the laboratory delivered consistent results. There is no statistically significant bias apparent in the analytical data. These observations are also confirmed by a review of the results of checks and balances introduced by WA1.

Bulk Density

In-situ bulk dry density (**ISBD**) was initially measured using the industry-standard water immersion technique on diamond core. However, this technique is known to generate a bias (high) in strongly weathered deposits due to the unavoidable selection bias (Abzalov, 2013; Lipton & Horton, 2014; Lomberg, 2021). Downhole gamma-gamma was inappropriate due to the collapsing nature of the holes, and hence two additional techniques were applied: core scanning (Minalyze) and the Core Tray Method. Both are effectively calliper methods where a total dry weight is divided over a measured volume of core.

For personal use only

For the Core Tray Method, given the known inner tube diameter of the core, and the known core run length, an ISBD for each tray of core can therefore easily be calculated using the dry weight of the core in the tray. However, although simple and reliable in principle, this technique relies on the accuracy of recovery measurements of the core and can lead to biased (low) values if there is unaccounted core loss, which is difficult to measure correctly in highly weathered ground.

The Water Immersion and Core Tray techniques show average density values of 1.84 and 1.50, respectively, for the strongly weathered and most mineralised estimation domains. This effectively provides upper and lower limits to the expected range of 'true' densities.

To establish higher-confidence ISBD data, core was sent to Minalyze for scanning. The volume of core is calculated from the LiDAR data, which establishes a topology of the core in the tray (Artusson et al., 2013), and after dry weighing of the core, the ISBD can be easily determined. This shows an average ISBD of 1.64 for the strongly weathered domain. Even though this technique, too, suffers from the impact of various bias-inducing variables, it is expected to represent the most reliable dataset for ISBD estimation.

Because significantly more data, covering a larger part of the deposit, are available for the Core Tray Method than for the Minalyze data, a correction factor was applied to the Core Tray data based on the regression between the two methods where both data sets are available. Even though the Competent Person considers this a robust process, any residual uncertainty has been represented in the Inferred resource classification for the deposit. It is expected that the sonic drilling that is currently being undertaken will provide more accurate density data, leading to higher-confidence estimates of density.

Resource Estimation Methodology

The Luni MRE was prepared by RSC and is based on RC drilling. DD twin holes were excluded from the estimation in favour of the original RC drill holes and only used to confirm RC sample data quality. The data cut-off for input into the MRE was 9 May 2024, when final assays were returned from holes drilled in 2023.

Geological Domains

Models of the major lithologies and weathering zones were generated and used as key primary constraints on grade populations. They were interpreted from the multi-element geochemistry with support from core and RC chip logging (Figure 6 and Figure 7). Modelled lithologies include the gneiss country rock to the southwest, undifferentiated wall rocks intruded by a complex carbonatite pluton and dyke swarm, and overlain by transported sediments. The morphology of the carbonatite intrusion is complex, with a broad zone of dominantly carbonatite in the south, surrounded by a wide and gradational contact zone with the encompassing co-magmatic silicates and wall rock. This 'mixed zone' is complex and contains silicate xenoliths/fragments and carbonatite dyke swarms on a scale of cm to tens of metres, resulting in complexity of the primary lithology at a scale that is notable in the tightest drillhole spacing and twin hole pairs. Characterisation of the silicate components is ongoing, and recent interpretations include syenite as part of the carbonatite intrusive complex, and intensely fenitised wall rock of unknown protolith. Of key importance is that Nb is present in the carbonatite lithology, and segregating areas of predominantly carbonatite/mixed zone and silicates from the wall rock was an important

For personal use only

first step in establishing the geological architecture in preparation of the generation of estimation domains.

The weathering model segregates strongly weathered, moderately weathered, weakly weathered and fresh zones. The carbonatite has a well-developed chemical weathering profile, commonly ranging from 30m to 60m. Local areas of deep weathering, over 150m in depth, likely represent complex karst geometries in the paleosurface, deeper weathering along structural or contact corridors or combinations of features. The weathering profile is less developed in the wall rock and gneiss areas and is commonly 5m to 10m deep. The weathering profile in the mixed lithology zone is more complex due to variations in primary lithology.

Estimation Domains

The Nb_2O_5 estimation domains were derived from combinations of the lithology and weathering models. No further grade-based sub-domaining was applied, as these domains displayed low coefficients of variation, as well as generally monomodal distributions and semi-stationarity. The highest degree of Nb enrichment is present within the strongly weathered carbonatite, where Nb enrichment forms a relatively consistent lateral blanket 5m to 15m in thickness. Enrichment dissipates towards the base of the moderately weathered zone over a distance of 5m to 20m and is lower grade and sporadic in the weakly weathered zone. In the mixed lithology, similar enrichment trends can be seen where weathered carbonatite dominates; however, this is complicated on a centimetre-to-metre scale due to intermingling with silicate assemblages and wall rock zones.

The P_2O_5 estimation domains were modelled in three-dimensions based on the same geological architecture; however, these were further refined using grade thresholds, and implicit domains that were guided by anisotropy defined by the geology.

Mineralisation at Luni is constrained by drilling to the north, south and west. It remains open to the east and southeast; however, the host carbonatite intrusion and resulting estimation domains are mostly constrained based on results from a geophysical gravity survey to a distance of 150m beyond the lateral extent of drilling except for the eastern bounds of the carbonatite, which is not yet fully constrained by detailed gravity data. A halo of low Nb grade within the silicates surrounding the carbonatite/mixed zone remains open in the north, east, and possibly the west-northwest.

Resource Estimation

Resource estimation was undertaken as follows.

- A block model was built using a block size of 25mX x 25mY x 5mZ, generally honouring the data spacing.
- Hard domain boundaries were used for the estimation of all variables following a review of contact analysis plots.
- Geostatistics-, variography- and kriging neighbourhood- analysis (**KNA**) were undertaken to support the search and estimation parameters used.
- A composite length of 1m was selected based on the dominant sample length. The composite length used in the MRE matches the nominal length of the sample intervals. This offers an acceptable compromise between capturing the desired precision of the

For personal use only

geological and estimation domain modelling and matching the likely selectivity of the open-pit mining operation (2.5m flitches). Given the strong continuity of the Nb grade distributions in certain domains, this generates a negligible proportion of negative weights in the kriging interpolation process.

- Top cuts, used to limit the influence of outliers, ranged from 1.1% to 14% Nb_2O_5. Further restrictions were placed on outliers ranging from 0.7% to 8% Nb_2O_5 by limiting their influence to 5% to 10% of the search radius.
- Variograms displayed satisfactory structure and an acceptable level of confidence for the estimation of Inferred Mineral Resources. Confidence in the quality of the experimental variography is enhanced by the drilling of a close-spaced 'cross-shaped' grid of RC holes, that provides critical information on both short-range grade continuity, as well as confidence in short-range domaining decisions.
- Estimation for Nb_2O_5 was completed using Ordinary Kriging (**OK**) in two passes, with 8 and 40 minimum and maximum samples, and a maximum of 6 samples per drillhole. These selections were made to reduce the amount of conditional bias. Estimation for P_2O_5 was completed using inverse distance (power of 2).
- For Nb_2O_5, the estimate was further optimised with a process of localised uniform conditioning (**LUC**), honouring the expected selectivity of mining and resulting in a more realistic grade-tonnage curve.
- Density was estimated into the blocks using inverse distance (power of 1.5) of the bias-corrected ISBD data within geological domains.
- The resource model was validated visually by comparing input and output means, histograms and swath plots.

A three-dimensional view of the mineral resource block grades is shown in Figure 1, and a representative slice and long section are shown in Figure 3 and Figure 4, respectively.

Initial Assessment of Modifying Factors

Mining Methods & Parameters

The deposit is expected to be mined using conventional open pit mining techniques, with a significant portion expected to be 'free-dig' material. This may include strip mining with progressive backfilling of voids. Mining rates are set to align with reasonably assumed processing rates.

Geotechnical angles are assumed at 30 degrees overall slope, considering the nature of the oxide material.

Considering the location of the project, a FIFO workforce is likely to be required.

Any groundwater is anticipated to be used within the processing plant and dust suppression in mining operations. Excess groundwater is likely to evaporate.

The site would need to be self-sufficient with its own energy as there is no grid power nearby. All consumables would need to be freighted to the site by road, considering the remote location of the site.

For personal use only

Metallurgy

Metallurgical assumptions used to inform the RPEEE constraining optimisation inputs have been determined from a combination of publicly available parameters for existing niobium mines and initial mineralogical and metallurgical testwork on samples from Luni (refer to ASX announcement dated 19 June 2024).

Niobium production typically involves the concentration of niobium ore, to produce a concentrate grading between ~50% to 60% Nb_2O_5[1]. This is then converted to an end-product, typically ferroniobium (FeNb, 66% Nb).

The initial concentration phase is commonly completed via a combination of physical beneficiation (i.e. magnetic separation and desliming) and flotation (one to four stages) to achieve a lower-grade concentrate.

This lower-grade concentrate may then undergo an intermediate hydrometallurgical step (one to two stages of leaching to remove phosphates, sulphides and other impurities), and then pyrometallurgical conversion (via either aluminothermic reaction in a conversion vessel or electric arc furnace), to produce ferroniobium.

Preliminary metallurgical testwork on mineralised material from Luni, undertaken by WA1, has demonstrated that the niobium mineralisation is amenable to processing via two-stage flotation. Metallurgical recovery assumptions are based on preliminary open cycle and locked cycle flotation tests on a composited sample from a single drillhole located in the northeast of Luni, with variability testing on further mineralised samples from across the deposit planned.

Open cycle flotation tests achieved a high-grade concentrate (>50% Nb_2O_5) with recoveries of 62% (2nd cleaner) and 52% (4th cleaner). Subsequent locked cycle testing achieved a recovery of 53% (5th cleaner) (refer to ASX announcement dated 19 June 2024). The resulting niobium concentrates had low impurities that are considered to be suitable for processing to a ferroniobium end-product through subsequent conventional processing steps (subject to confirmation through future testwork programs).

Metallurgical testwork was completed on a composite of oxide mineralisation. No metallurgical testwork has yet been completed on the transitional domain.

Testwork aimed at further optimisation of the beneficiation stages is ongoing, along with plans to progress variability testing across the Luni deposit.

ESG

An environmental pre-feasibility scoping study has been undertaken, which has identified key environmental values for the region and provided a suggested pathway for gaining project approvals.

Environmental baseline surveys have commenced and will provide the data inputs to inform a future environmental impact assessment, alongside project development studies. To date, there have not been any environmental variables identified that would impede or negatively impact the potential for eventual development of the deposit.

Note *1. Gibson. C.E., Kelebek. S, and Aghamirian.M: 'Niobium Oxide Mineral Flotation: A Review of Relevant Literature and the Current State of Industrial Operations' International Journal of Mineral Processing (2015)*

For personal use only

Multiple heritage surveys have been undertaken in the area of Luni and across the broader project area. To date, there have not been any heritage sites or exclusion zones identified, that when considered, would impede or negatively impact the potential for eventual development of the deposit.

No assumptions regarding possible waste and process residue disposal options have been made.

There is no major drainage in the area apart from Lake Mackay and several salt lakes adjacent to Luni.

The Competent Person is not aware of any other environmental constraints, licencing, social factors, landowner issues or otherwise that would negatively impact the potential for economic extraction at Luni.

Niobium Market

Niobium is a critical metal with unique properties that make it essential as the world transitions to a low carbon economy.

The primary niobium product is ferroniobium (FeNb, ~65% Nb), which accounted for 105,000t sold in 2022[2], representing approximately 90% of niobium product sales. Ferroniobium is primarily utilised as a micro alloy in the steel industry to improve the mechanical properties of steel.

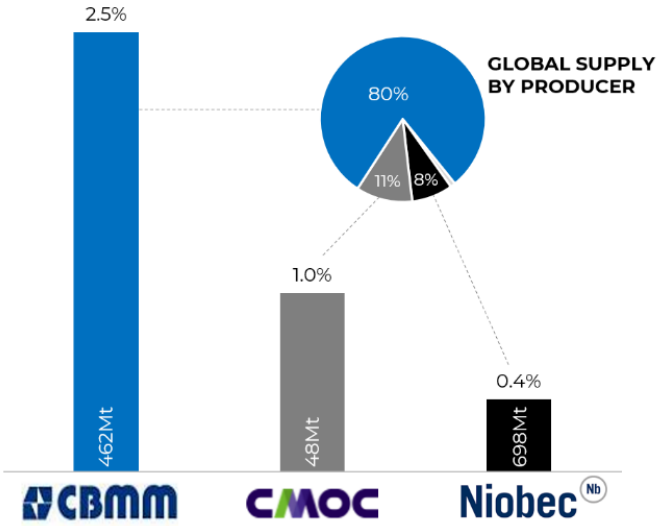

Figure 9: Key niobium producers
See Table 4 for full details

Niobium pentoxide (Nb_2O_5) represents a key growth market, with significant recent developments in lithium-ion battery technology, utilising niobium to substantially reduce charge times while enhancing battery life[3].

Whilst global supply is concentrated in Brazil (90% of global production), global demand for niobium products is not considered to be a modifying factor that would compromise the prospects of potential economic extraction. There are many end users and a growing number of applications.

Resource Classification

Most of the deposit is defined by a drill spacing of approximately 200m x 200m, with selected areas at 100m x 100m, and the maximum extrapolation beyond the lateral extent of drilling is 150m. This approach was supported by a visual review of the kriging efficiencies and slope of regression for the estimate of Nb_2O_5.

An initial assessment of reasonable prospects for eventual economic extraction (RPEEE) was undertaken. In assessing the reasonable prospects for eventual economic extraction, the

Note *2. Internal company estimated production figures compiled from data published by CBMM, USGS, and CMOC*
3. https://www.batterydesign.net/niobium-in-batteries/ accessed on 18 August 2023

Competent Person has evaluated preliminary mining, metallurgical, economic, environmental, social and geotechnical parameters. A pit optimisation process was carried out, using the block model as an input, and with the variables and inputs provided in previous sections in this announcement.

Table 3: Luni Mineral Resource estimate (JORC Code 2012)

	Tonnes (Mt)	Nb_2O_5 (%)	Nb_2O_5 (kt)	P_2O_5 (%)	P_2O_5 (kt)
Inferred	**200**	**1.0**	**1,900**	**8.8**	**17,000**

Notes:
1. Mineral Resources are classified and reported in accordance with JORC Code (2012).
2. The effective date of the Mineral Resource estimate is 30 June 2024.
3. Part of the Mineral Resource that would potentially be extractable by open pit techniques is the portion of the block model that is constrained within an FeNb price of approximately US $30/kg (contained Nb in FeNb payable at a price of US $45/kg) optimised pit shell and above a 0.25% Nb_2O_5 cut-off grade.
4. Estimates are rounded to reflect the level of confidence in the Mineral Resources at the time of reporting. Rounding may cause computational discrepancies.
5. The Mineral Resources (and RPEEE shell that constrained the MRE) are reported within the WA1 licence boundaries.

The Competent Person has classified the Mineral Resource in the Inferred category in accordance with the JORC Code (2012). Geological evidence is sufficient to imply but not verify geological and grade continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from drill holes.

It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued work and studies.

Portions of the deposit that do not have reasonable prospects for eventual economic extraction (RPEEE) are not included in the Mineral Resource. The Mineral Resource reported here is a realistic inventory of mineralisation which, under assumed and justifiable technical, economic and developmental conditions, may become economically extractable.

Cut-Off Grade

A cut-off grade of 0.25% Nb_2O_5 was selected for the reporting of the Mineral Resource within the constraining optimised pit shell, based on a high-level initial assessment of potential modifying factors. The Competent Person completed a high-level initial assessment of various factors solely for the purpose of reasonably assessing the potential for economic extraction of the Mineral Resource. These parameters should not be regarded as assumptions that are at the confidence level which is associated with any project study. Accordingly, and for the sole purpose of this early-stage assessment, this work assumed a FeNb price of approximately US$30/kg (contained Nb in FeNb payable at price of US$45/kg), metallurgical recovery to concentrate of 53%, mining costs of US$2.50/t, processing costs of US$20/t, and G&A costs of US$3/t. A cut-off grade of 0.25% Nb_2O_5 presents a reasonable potential of providing the necessary head grade that would result in reasonable prospects of economic extraction.

For personal use only

For personal use only

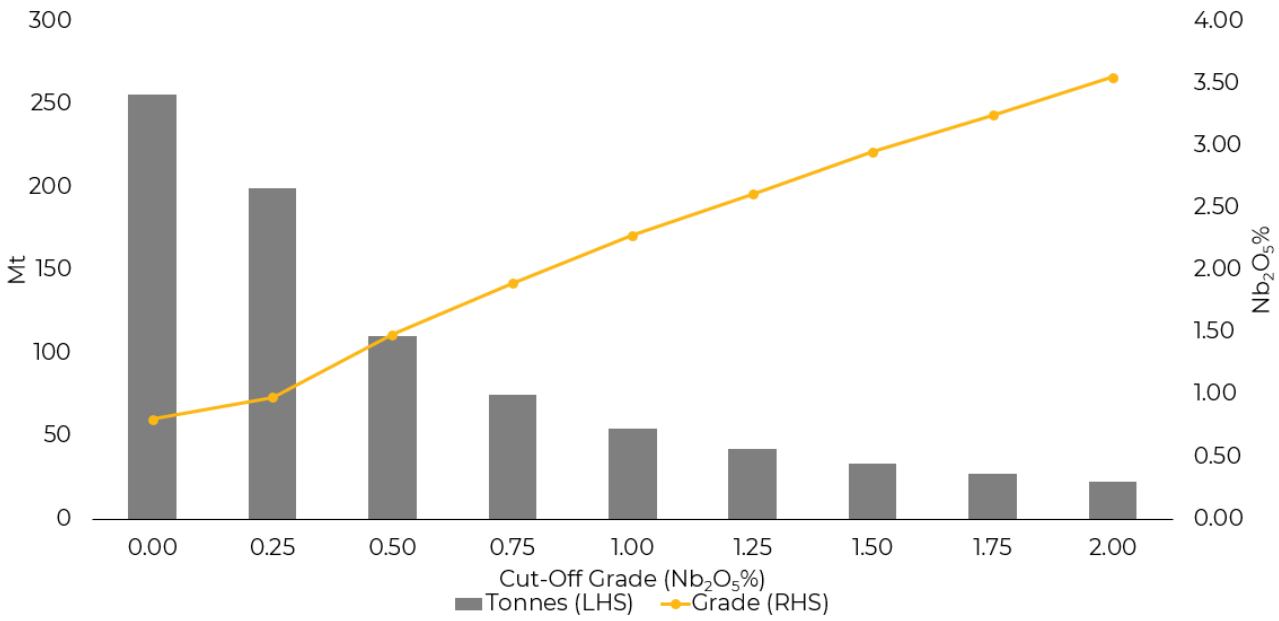

Figure 10: Niobium Grade-Tonnage Curve

Risks and Opportunities

The JORC Code (2012) requires Competent Persons to disclose and discuss the technical risks in resource estimation studies. This announcement provides a transparent summary of these risks and, in the opinion of the Competent Person, the balance of these risks warrants the Mineral Resource to be classified in the Inferred category.

As with most mineral resource studies, the key risks include the drill hole spacing and the quality and integrity of the domains used for estimation. The drill spacing captures the uncertainty in geological interpretation adequately for the purpose of classification in the Inferred category; however, the localised close-spaced grid drilling and the twin drilling have identified isolated pockets of significant geological and grade variability, likely related to the complex geometry of karstic weathering of the carbonatite and the inclusion of wall rock xenoliths within the carbonatite intrusion. Further drilling is being undertaken to infill the current grid and mitigate these risks, and bring the resource to the Indicated classification.

A minor risk is the quality of the RC drilling, in particular the known issues related to wet drilling and poor recovery in broken and strongly weathered ground. Sufficient work has been undertaken to validate the quality of the drilling for the purpose of an Inferred classification, and the current drilling using the sonic technique is expected to add further confidence to the quality of the data underpinning the resource estimate.

A minor residual risk lies in the lack of accurate density data, a risk which is adequately captured in the Inferred classification. The current sonic drilling is expected to add further confidence to bulk density calculations. The Competent Person has erred on the side of caution and considers that additional density data presents opportunities to potentially increase the tonnage within the current MRE envelope further.

Last, more metallurgical information is required from appropriately selected geo-metallurgical domains to more confidently demonstrate the potential for economic extractability. There is

some risk that yet-to-be-identified geo-metallurgical domains will achieve sub-optimal recovery. However, in applying the initial assessment of modifying factors, the Competent Person has been conservative, and there is equally potential for significant upside and opportunity that the testwork that WA1 is currently undertaking will demonstrate pathways to more efficient recovery of metal.

ENDS

This Announcement has been authorised for market release by the Board of WA1 Resources Ltd. For further information, please contact:

Investors
Paul Savich
Managing Director
T: +61 8 6478 7866
E: psavich@wa1.com.au

Media
Michael Vaughan
Fivemark Partners
T: +61 422 602 720
E: michael.vaughan@fivemark.com.au

Or visit our website at www.wa1.com.au

Competent Person Statement
The information in this announcement that relates to Exploration Results is based on information compiled by Ms. Stephanie Wray who is a Member of the Australian Institute of Geoscientists. Ms. Wray is a full-time employee of WA1 Resources Ltd and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Ms. Wray consents to the inclusion in the announcement of the matters based on her information in the form and context in which it appears.

The information in this announcement that relates to Mineral Resources is based on information and supporting documentation compiled under the supervision of Mr René Sterk, a Competent Person, who is a Fellow and Chartered Professional of The Australasian Institute of Mining and Metallurgy (AusIMM) and member of the Australian Institute of Geoscientists (AIG). Mr Sterk is Managing Director of RSC, a global resource development consultancy. WA1 Resources Ltd has also contracted RSC to provide limited contracting and other advisory services. The full nature of the relationship between Mr Sterk, RSC, and WA1 Resources Ltd, including any issue that could be perceived by investors as a conflict of interest, has been disclosed. Mr Sterk has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Disclaimer: No representation or warranty, express or implied, is made by the Company that the material contained in this announcement will be achieved or proved correct. Except for statutory liability which cannot be excluded, each of the Company, its directors, officers, employees, advisors and agents expressly disclaims any responsibility for the accuracy, fairness, sufficiency or completeness of the material contained in this presentation and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this presentation or any effort or omission therefrom. The Company will not update or keep current the information contained in this presentation or to correct any inaccuracy or omission which may become apparent, or to furnish any person with any further information. Any opinions expressed in the presentation are subject to change without notice.

For personal use only

For personal use only

About WA1

WA1 Resources Ltd is based in Perth, Western Australia and was admitted to the official list of the Australian Securities Exchange (ASX) in February 2022. WA1's shares are traded under the code WA1.

WA1's objective is to discover and develop Tier 1 deposits in Western Australia's underexplored regions and create value for all stakeholders. We believe we can have a positive impact on the remote communities within the lands on which we operate. We will execute our exploration using a proven leadership team which has a successful track record of exploring in WA's most remote regions.

Forward-Looking Statements

This ASX Release may contain certain "forward-looking statements" which may be based on forward-looking information that are subject to a number of known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. For a more detailed discussion of such risks and other factors, see the Company's Prospectus and Annual Reports, as well as the Company's other ASX Releases. Readers should not place undue reliance on forward-looking information. The Company does not undertake any obligation to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this ASX Release, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

For personal use only

Table 4: Grade of key niobium producers

	Deposit Size	Nb_2O_5	Contained Nb_2O_5
CBMM (Araxa)	**(Mt)**	**(%)**	**(kt)**
Measured	Unknown*	Unknown*	Unknown*
Indicated	Unknown*	Unknown*	Unknown*
Inferred	Unknown*	Unknown*	Unknown*
Total	**462**	**2.48%**	**11,458**
Source: US Geological Survey published 2017 available at <https://pubs.usgs.gov/pp/1802/m/pp1802m.pdf> **Measured, Indicated and Inferred resource not publicly available to due CBMM private ownership*			
Magris Resources (Niobec)	**(Mt)**	**(%)**	**(kt)**
Measured	286	0.44%	1,252
Indicated	344	0.40%	1,379
Inferred	68	0.37%	252
Total	**698**	**0.41%**	**2,883**
Source: IAMGOLD NI 43-101 Report available at <https://www.miningdataonline.com/reports/Niobec_12102013_TR.pdf> *Resource as at 31 December 2012 (NI 43-101 Compliant)*			
CMOC (Catalao II)	**(Mt)**	**(%)**	**(kt)**
Oxide			
Measured	0.3	0.86%	2
Indicated	0.1	0.74%	1
Inferred	1.3	0.83%	11
Total	**1.7**	**0.83%**	**14**
Fresh Rock (Open Pit)			
Measured	0	0.00%	0
Indicated	27	0.95%	258
Inferred	13	1.06%	138
Total	**40**	**0.99%**	**396**
Fresh Rock (Underground)			
Measured	0.0	0.00%	0
Indicated	0.2	0.89%	2
Inferred	6.3	1.24%	78
Total	**6.5**	**1.23%**	**80**
Total (All)	**48.4**	**1.01%**	**490**
Source: China Molybdenum Co. Ltd: Major Transaction Acquisition of Anglo American PLC's Niobium and Phosphate Businesses available at <https://www1.hkexnews.hk/listedco/listconews/sehk/2016/0908/ltn20160908840.pdf> *Resource as at 30 June 2016 (JORC 2012 Compliant)*			

For personal use only

Appendix A: JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

CRITERIA	COMMENTARY
Sampling techniques	▪ Information and data referred to in this ASX announcement were derived from Reverse Circulation (RC) and Diamond (DD) drilling programs. ▪ For most RC metres drilled, a 2kg to 3kg sample (split) was sampled into a calico bag via a rig-mounted cone splitter. For samples where splitting by cone splitter was not suitable, the entire sample was collected and sent to the lab for later crushing and splitting. This replaced earlier field sampling methods for wet/damp RC samples. ▪ RC samples were collected over 1m intervals. ▪ Core samples were collected with a diamond drill rig and were mainly HQ3, PQ3 or NQ2 core diameter. ▪ The core was logged and photographed onsite and then transported to ALS Perth for sampling and assaying. ▪ Sample intervals for the DD drillholes were constrained to major geological boundaries. Broad zones of sampling were nominally 1m in length, where possible.
Drilling techniques	▪ RC holes were drilled with a diameter of 146mm or 143mm. ▪ Blow-down valves were used to keep the hole dry and dust-suppression was applied to limit loss of sample through the vortex finder. ▪ Shroud tolerance was minimised to prevent excessive loss to outside return. ▪ DD holes were drilled using HQ3 (61mm), PQ3 (85mm) or NQ2 (51mm) equipment. HQ and PQ core were drilled with the triple tube method to enable increased core recovery.
Drill sample recovery	▪ RC sample recoveries were visually estimated for each metre and recorded as dry, moist or wet in the sample table. ▪ RC sample recoveries were also determined by weighing the total sample for each metre and comparing the weights with the total theoretical weight of each metre, based on the bulk densities. ▪ Recoveries for dry samples were generally good (74% in mineralised zones). Where RC drillholes encountered water, samples were recorded as moist, with some intervals having less optimal recovery through the mineralised zone. These samples are considered to be representative based on a review of the DD twin holes, as well as the fact that there is no relationship between RC recovery and grade. ▪ Core loss could be a combination of naturally occurring cavities and/or material that has not been recovered by drilling. DD core recovery was generally moderate to good through the mineralised zone (average of 86%) and the holes were triple tubed from surface to aid the preservation of the core integrity, see table below.
Logging	▪ The RC drill chips were logged for geology, alteration, and mineralisation by the Company's geological personnel. Drill logs were recorded digitally and have been verified. ▪ Logging of drill chips is qualitative and based on the presentation of representative chips retained for all 1m sample intervals in the chip trays.

For personal use only

CRITERIA	COMMENTARY
	▪ The metre interval samples were analysed on the drill pad by handheld pXRF to assist with logging and the identification of mineralisation. ▪ Detailed logging of the DD core was completed on site. ▪ The logging is of a quality suitable for the estimation of mineral resources and classification in the inferred category.
Sub-sampling techniques and sample preparation	▪ The majority of RC samples were collected from the rig-mounted static cone splitter into calico bags. ▪ In all holes, the 1m samples within the cover sequence were composited by the site geologist into 4m intervals from spoil piles using a scoop. ▪ Single metre samples were collected and assayed from ~16m depth or as determined by the site geologist. ▪ During the program, the procedure was updated so that RC samples in the mineralised zone that the site geologist deemed were not adequately sub-sampled through the cone splitter had the entire material submitted to the laboratory for crushing (-2mm) and sub-sampling through a riffle splitter. Coarse crushed sampled duplicates were taken to monitor splitting performance. ▪ At ALS, core was cut and sampled by two methods being either: a) competent HQ3 core was quarter sampled, with one quarter sent for assay and the remainder retained, or; b) friable core was whole or half core sampled. ▪ Where friable DD core was whole-core sampled, it was single-pass crushed to 3.15mm and rotary split, 25% was submitted for assay and 75% retained for future metallurgical testwork. Coarse crush duplicates were taken to monitor splitting performance. Performance of coarse crush duplicates indicate that the splitting of the material in the laboratory was consistent. ▪ Sub-sampling techniques and sample preparation are considered by the Competent Person to be appropriate for use in resource estimation.
Quality of assay data and laboratory tests	▪ All samples were submitted to ALS Laboratories in Perth for 32 element analyses via Lithium Borate Fusion (ME-MS81D) and major elements determined by ME-ICP06 method. Overlimit determination of Nb and REEs occurred via ME-XRF30 or ME-XRF15b method. ▪ Laboratory QC was undertaken and monitored by the laboratory and then by WA1 geologists upon receipt of assay results. No issues were noted. ▪ Certified Reference Materials (CRMs) were inserted by WA1 at a rate of one for every 20 samples. ▪ Blanks were also inserted to identify any contamination. Some minor contamination has been noted with ongoing investigation by the Company and the laboratory to identify and mitigate any potential issues or sources. Quartz flushes are being inserted into the high-grade zones to minimise any potential material carry over. ▪ The WA1 CRMs and blanks showed that the laboratory was providing consistent results and that the analytical results are accurate and precise, and fit for purpose for the estimation and

For personal use only

CRITERIA	COMMENTARY
	reporting in suitable resource classifications.
Verification of sampling and assaying	▪ Results have been uploaded into the Company database by external consultants, checked and verified. ▪ 13 DD twin holes were drilled to verify key intervals and confirm the quality of RC drilling. This confirmed and verified the intervals, grades and geology for these holes. For two holes, the geology was significantly different at short range, which led to an improved understanding of the geological variability. ▪ Mineralised intersections have been verified against the downhole geology. ▪ Selected samples have been sent to Intertek Perth for umpire laboratory analysis with results showing no statistically significant difference compared to the primary laboratory.
Location of data points	▪ Drillhole collars were initially surveyed and recorded using a handheld GPS. Drill collars are then surveyed with a DGPS system at appropriate stages of the program. ▪ All co-ordinates are provided in the MGA94 UTM Zone 52 co-ordinate system with an estimated horizontal accuracy of ±0.008m and an estimated vertical accuracy of ±0.015m for the DGPS system. ▪ Azimuth and dip of the drillholes is recorded after completion of the hole using a gyro. A reading is taken at least every 30m with an assumed accuracy of ±1 degree azimuth and ±0.3 degree dip. ▪ A digital elevation model was compiled from first-order geodetic coordinates collected during a gravity survey with 0.1m accuracy.
Data spacing and distribution	▪ See drillhole table for hole position and details. ▪ Data spacing is suitable for mineral resource estimation and classification in the Inferred category. ▪ Drillhole spacing is mostly in the range of 200m x 200m to 100m x 100m spacing east-west and north-south. ▪ Closer spaced drilling to test variability was done at nominal 30m spacings on 240m long traverses in northwest and southwest directions.
Orientation of data in relation to geological structure	▪ The orientation of the oxide-enriched mineralisation is interpreted to be sub-horizontal and derived from eluvial processes upgrading mineralisation. The orientation of primary mineralisation is poorly constrained due to the limited number of drillholes that have sufficiently tested this position. ▪ Vertical holes should approximate the true width of the mineralisation with angled holes returning longer intersections. ▪ See drillhole table for hole details and the text of this announcement for discussion regarding the orientation of holes.
Sample security	▪ Sample security is not considered a significant risk with WA1 staff present during collection. ▪ All geochemical samples were collected and logged by WA1 staff, and delivered to ALS Laboratories in Perth or Adelaide. ▪ Sample tracking is carried out by connotes, submission forms and the laboratory tracking system.
Audits or reviews	▪ The data has been reviewed on an ongoing basis by senior WA1 personnel as well as external consultants.

For personal use only

Section 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section.)

CRITERIA	COMMENTARY
Mineral tenement and land tenure status	▪ All work completed and reported in this ASX Announcement was completed on E80/5173 which is 100% owned by WA1 Resources Ltd. ▪ The Company also currently holds four further granted Exploration Licences and 48 Exploration Licence Applications within the province.
Exploration done by other parties	▪ The West Arunta Project has had limited historic work completed within the Project area, with the broader area having exploration focused on gold, base metals, diamonds and potash. ▪ Significant previous explorers of the Project area include Beadell Resources and Meteoric Resources. Only one drill hole (RDD01) had been completed within the tenement area by Meteoric in 2009 (located approximately 17km southwest of the Luni deposit), and more recently additional drilling nearby the Project has been completed by Encounter Resources Ltd. ▪ Most of the historic work was focused on the Urmia and Sambhar Prospects with historic exploration (other than RDD01) being limited to geophysical surveys and surface sampling. ▪ Historical exploration reports are referenced within the WA1 Resources Ltd Prospectus dated 29 November 2021 which was released by ASX on 4 February 2022. ▪ Encounter Resources are actively exploring on neighbouring tenements and have reported intersecting similar geology, including carbonatite rocks.
Geology	▪ The West Arunta Project is located within the West Arunta Orogen, representing the western-most part of the Arunta Orogen which straddles the Western Australia-Northern Territory border. ▪ Outcrop in the area is generally poor, with bedrock largely covered by Tertiary sand dunes and spinifex country of the Gibson Desert. As a result, geological studies in the area have been limited, and a broader understanding of the geological setting is interpreted from early mapping as presented on the MacDonald (Wells, 1968) and Webb (Blake, 1977 (First Edition) and Spaggiari et al., 2016 (Second Edition)) 1:250k scale geological map sheets. ▪ The West Arunta Orogen is considered to be the portion of the Arunta Orogen commencing at, and west of, the Western Australia-Northern Territory border. It is characterised by the dominant west-north-west trending Central Australian Suture, which defines the boundary between the Aileron Province to the north and the Warumpi Province to the south. ▪ The broader Arunta Orogen itself includes both basement and overlying basin sequences, with a complex stratigraphic, structural and metamorphic history extending from the Paleoproterozoic to the Paleozoic (Joly et al., 2013). ▪ Luni carbonatite was intruded into a paragneiss unit. Fluids from the carbonatite have significantly altered the paragneiss and previous intrusions. ▪ Subsequent weathering led to volume loss and collapse to create a depression in the landscape. This formed a local depocenter where

For personal use only

CRITERIA	COMMENTARY
	material was transported to and deposited. ▪ The carbonatite is enriched in Nb and REEs and has undergone further enrichment through eluvial processes.
Drill hole Information	▪ No new drill holes are being reported.
Data aggregation methods	▪ Raw composited sample intervals have been reported and aggregated where appropriate in WA1's previous announcements. ▪ No metal equivalents have been reported.
Relationship between mineralisation widths and intercept lengths	▪ The oxide mineralisation intersected is sub-horizontal therefore the majority of vertical drilling intercepts are interpreted be at or close-to true thickness. The orientation of the transitional and primary mineralisation remains poorly constrained and true thickness of the intercepts remain unknown.
Diagrams	▪ Refer to figures provided within this ASX announcement that display the sample results in a geological context.
Balanced reporting	▪ In the Competent Person's opinion, all material results are transparently reported, or have previously been transparently reported.
Other substantive exploration data	▪ There is no other exploration data that is considered material to the results reported in the announcement.
Further work	▪ Planning and implementation of further drilling is in progress and analysis of drill samples is ongoing. ▪ Ongoing drilling is targeting further high-grade mineralisation, increasing the confidence of the initial MRE and to provide sample for further metallurgical testwork programs. ▪ Further geochemical, petrographic and mineralogical analyses are being conducted. ▪ Metallurgical, geotechnical, hydrogeological, engineering, environmental, heritage and permitting activities and studies are under consideration and in progress. ▪ Work on the project is ongoing on multiple fronts.

Section 3 Estimation and Reporting of Mineral Resources
(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

CRITERIA	COMMENTARY
Database integrity	▪ All relevant drill data has been entered into an Access database by Rock Solid database consultants, where various validation checks were performed including duplicate entries, sample overlap and missing sample intervals. ▪ RSC has undertaken an independent review of the drill data, including examination of original drilling logs and sampling data, original assay data and chip-tray photographs. ▪ Assessment of the data confirms that they are fit for the purpose of resource estimation and classification as an Inferred Mineral Resource.
Site visits	▪ RSC's Principal Geologist and Competent Person, René Sterk, conducted a site visit from 6 to 8 July 2023 to review the deposit

For personal use only

CRITERIA	COMMENTARY
	area, geology, and RC chips and advise on the quality of the data collection processes with regard to the mineral resource estimation. No major issues were encountered.
Geological interpretation	▪ Models of the major lithologies and weathering profile were generated and used as key primary constraints on grade populations. They were interpreted from the multi-element geochemistry with support from core and RC chip logging. ▪ Modelled lithologies include the gneiss country rock to the southwest, undifferentiated wall rocks intruded by a complex carbonatite pluton and dyke swarm and all overlain by transported sediments. The morphology of the carbonatite intrusion is complex, with a broad zone of dominantly carbonatite in the south, surrounded by a wide and gradational contact zone with the encompassing wall rock. This 'mixed zone' is complex and contains comagmatic silicates and/or wall rock xenoliths and carbonatite dyke swarms on a scale of cm to 10s of meters, resulting in complexity in the primary lithology at a scale that is notable in the tightest drillhole spacing (i.e. 25m) and twin hole pairs. Characterisation of the undifferentiated silicates is ongoing, and recent interpretations include syenite as part of the carbonatite intrusive complex, and intensely fenitised wall rock of unknown protolith. Of key importance is that Nb is present in the carbonatite lithology, and segregating areas of predominantly carbonatite/mixed zone and wall rock, from the wall rock was an important first step towards establishing the geological architecture in preparation of the generation of estimation domains. ▪ The weathering model segregates strongly weathered, moderately weathered, weakly weathered and fresh zones. The carbonatite has a well-developed chemical weathering profile, commonly ranging from 30m to 70m. Local areas of deep weathering, over 150m in depth, likely represent complex karst geometries in the paleosurface. The weathering profile is less developed in the wall rock and gneiss and is commonly 5m to 10m deep. The weathering profile in the mixed lithology is more complex due to variation in primary lithology. ▪ The Nb_2O_5 estimation domains were derived from combinations of the lithology and weathering models. No further grade-based sub-domaining was applied, as these domains displayed low coefficients of variation, as well as generally monomodal distributions and semi-stationarity. The highest degree of Nb enrichment is present within the strongly weathered carbonatite, where Nb enrichment forms a relatively consistent lateral blanket 5m to 15m in thickness. Enrichment dissipates towards the base of the moderately weathered zone over a distance of 5m to 20m and is lower grade and sporadic in the weakly weathered zone. In the mixed lithology, similar enrichment trends can be seen where weathered carbonatite dominates, however, this is complicated on a centimetre-to-metre scale due to intermingling with silicate rock zones. ▪ The P_2O_5 estimation domains were modelled in 3-D based on the

For personal use only

CRITERIA	COMMENTARY
	same geological architecture; however, these were further refined using grade thresholds, and implicit domains that were guided by anisotropy defined by the geology. ▪ Mineralisation at Luni is constrained by drilling to the north, south and west. It remains open to the east and south-east. The host carbonatite intrusion and resulting estimation domains are constrained based on results from a geophysical gravity survey to a distance of 150m beyond the lateral extent of drilling except to the east, where detailed gravity data is not yet collected. A halo of low Nb grade within the wall rock surrounding the carbonatite/mixed zone remains open in the north and east. ▪ Confidence in the geological interpretation is considered to be high, due to the coverage of multi-element geochemistry available for interpretation. There is lower confidence in the volume and grade of the mixed lithology due to the complexity of the contact zone between the carbonatite and silicate rock.
Dimensions	▪ The Luni Mineral Resource spans 3.6km east-west and 1.4km north-south. ▪ The mineralised units range between 10m and 70m in thickness, with an average 30m. Isolated areas reach thickness up to 130m. ▪ Mineralisation commences between 30m and 70m depth below the surface, with mineralisation reaching maximum depths up to 180m below the surface.
Estimation and modelling techniques	▪ Resource estimation was undertaken as follows. ▪ A block model was built using a parent cell of 25m x 25m x 5m (x,y,z), generally honouring the data spacing. ▪ The Nb_2O_5 domains were derived from combinations of the lithology and weathering models. No further grade-based sub-domaining was used. The P_2O_5 estimation domains were modelled in 3-D based on geological domains and grade thresholds. Fresh material was excluded from estimation. ▪ Hard domain boundaries were utilised for the estimation of all variables following the review of contact analysis plots. ▪ Geostatistics, variography and KNA were undertaken in various geostatistical software to support the search and estimation parameters used. ▪ A composite length of 1m was selected based on the dominant sample length. The composite length used in the MRE matches the nominal length of the sample intervals. This offers an acceptable compromise between capturing the desired precision of the geological and estimation domain modelling and matching the likely selectivity of the open-pit mining operation (2.5m flitches). Given the strong continuity of the Nb grade distributions in certain domains, this generates a negligible proportion of negative weights in the kriging interpolation process. ▪ Top cuts, used to limit the influence of outliers, ranged from 1.1% to 14% Nb_2O_5. Further restrictions were placed on outliers ranging from 0.7% to 8% Nb_2O_5 by limiting their influence to 5% to 10% of the search radius. ▪ Variograms display satisfactory structure and an acceptable level of

For personal use only

CRITERIA	COMMENTARY
	confidence for the estimation of Inferred Mineral Resources. Confidence in the quality of the experimental variography is enhanced by the drilling of a close-spaced 'cross-shaped' grid of RC holes, that provides critical information on both short-range grade continuity, as well as confidence in short-range domaining decisions. ▪ Estimation for Nb_2O_5 was completed using OK in two passes, with 8 and 40 minimum and maximum samples and a maximum of 6 samples per drillhole. These selections were made to reduce the amount of conditional bias. The search radius in the first pass was 750m x 400m x 50m (x-y-z). Estimation for P_2O_5 was completed using inverse distance (power of 2). ▪ For Nb_2O_5, the estimate was further optimised with a process of LUC, honouring the expected selectivity of mining (5m x 5m x 2.5m) and resulting in a more realistic grade-tonnage curve. ▪ Density was estimated into the blocks using inverse distance (power of 1.5) of the bias-corrected ISBD data within geological domains. ▪ The resource model was validated visually by comparing input and output means, histograms and swath plots. ▪ It is assumed that phosphate would be a natural by-product of the current flowsheet envisaged for the extraction of niobium as discussed in the metallurgical section. ▪ Initial flotation testwork yielded a niobium concentrate that was low in impurities, such as lead, tin, uranium and thorium.
Moisture	▪ Tonnages are estimated on an in-situ dry-weight basis. ▪ No moisture data has been reviewed.

Cut-off parameters	▪ A cut-off of 0.25% Nb_2O_5 was selected within the constraining optimised pit shell, based on a high-level initial assessment of the potential modifying factors. The Competent Person completed a high-level initial assessment of various factors solely for the purpose of reasonably assessing the potential for economic extraction of the Mineral Resource. These parameters should not be regarded as assumptions that are at the confidence level which is associated with any project study. Accordingly, and for the sole purpose of this early-stage assessment, this work assumed the following factors:
	  ○ Approximate FeNb price of US$30/kg (contained Nb in FeNb payable at price of US$45/kg).
	  ○ Metallurgical recovery to concentrate of 53%.
	  ○ Mining costs of US$2.50/t.
	  ○ Processing costs of US$20/t.
	  ○ G&A costs of US$3/t.

Mining factors or assumptions	▪ While formal analyses of mining options have not been completed at this early stage, an initial analysis based on assumed factors indicates that the most likely development scenario for the deposit is an open-cut (pit) mine. No mining dilution has been applied to the reported MRE. ▪ The deposit is expected to be mined using conventional open pit mining techniques, with a significant portion expected to be 'free-dig' material. This may include strip mining geometry with progressive backfilling of voids. Mining rates are set to align with

For personal use only

CRITERIA	COMMENTARY
	reasonably assumed processing rates. ▪ Geotechnical angles are assumed at 30 degrees overall slope, considering the nature of the oxide material. ▪ Considering the location of the project, a FIFO workforce is likely to be required. ▪ Any groundwater is anticipated to be used within the processing plant and dust suppression in mining operations. Excess groundwater is likely to be evaporated. ▪ The site would be expected to be self-sufficient with its own energy as there is no grid power nearby. All consumables would need to be freighted to the site by road, considering the remote location of the site. ▪ The Competent Person is not aware of any major topographical, geotechnical or hydrological constraints that would impact the potential for eventual economic extraction.
Metallurgical factors or assumptions	▪ Metallurgical assumptions used to inform the RPEEE constraining optimisation inputs have been determined from a combination of publicly available parameters for existing niobium mines and preliminary mineralogical and metallurgical testwork on samples from Luni. ▪ Niobium production typically involves the concentration of niobium ore, to produce a concentrate grading between ~50% to 60% Nb_2O_5. This is then converted to an end-product, typically ferroniobium (FeNb, 65% Nb). ▪ The initial concentration phase is commonly completed via a combination of physical beneficiation (i.e. magnetic separation and desliming) and flotation (one to four stages) to achieve a lower-grade concentrate. ▪ This lower-grade concentrate may then undergo an intermediate hydrometallurgical step (one to two stages of leaching to remove phosphates, sulphides and other impurities), and then pyrometallurgical conversion (via either aluminothermic reaction in a conversion vessel or electric arc furnace), to produce FeNb. ▪ Preliminary metallurgical test work on mineralised material from Luni, undertaken by WA1, has demonstrated that the niobium mineralisation is amenable to processing via two-stage flotation. Metallurgical recovery assumptions are based on preliminary open cycle and locked cycle flotation tests on a composited sample from a single drillhole located in the northeast of Luni, with variability testing on further mineralised samples from across the deposit planned. ▪ Open cycle flotation tests achieved a high-grade concentrate (>50% Nb_2O_5) with recoveries of 62% (2nd cleaner step) and 52% (4th cleaner step). Subsequent locked cycle testing achieved a recovery of 53% (5th cleaner). The resulting niobium concentrates had low impurities that are considered to be suitable for processing to a ferroniobium end-product through subsequent conventional processing steps (subject to confirmation through future testwork programs). A high-grade phosphate concentrate was also created as a by-product of the testwork.

For personal use only

CRITERIA	COMMENTARY
	▪ Metallurgical testwork was completed on a composite of oxide mineralisation. No metallurgical testwork has yet been completed on the transitional domain. ▪ Testwork aimed at further optimisation of the beneficiation stages is ongoing, along with plans to progress variability testing across the Luni deposit.
Environmental factors or assumptions	▪ An environmental scoping study has been undertaken, which identified key environmental characteristics for the region and provided a suggested strategy for obtaining project approvals. ▪ Environmental baseline surveys have commenced and will provide the data inputs to inform a future environmental impact assessment, alongside project development studies. To date, there have not been any environmental characteristics identified that would impede or negatively impact the potential for eventual development of the deposit. ▪ Multiple heritage surveys have been undertaken in the area of Luni and across the broader project area. To date, there have not been any heritage sites or exclusion zones identified, that when considered, would impede or negatively impact the potential for eventual development of the deposit. ▪ No assumptions regarding possible waste and process residue disposal options have been made. ▪ There is no major drainage in the area apart from Lake Mackay and several salt lakes nearby Luni. ▪ The Competent Person is not aware of any other environmental constraints, licencing, social factors, landowner issues or otherwise that would negatively impact the potential for economic extraction at Luni.
Bulk density	▪ In-situ bulk dry density (ISBD) was initially measured using the industry-standard water immersion technique on diamond core. However, this technique is known to generate a bias (high) in strongly weathered deposits due to the unavoidable selection bias (Lipton & Horton, 2014; Lomberg, 2021). Downhole gamma-gamma was inappropriate due to the collapsing nature of the holes, and hence two additional techniques were applied: core scanning (Minalyze) and the Core Tray Method. Both are effectively calliper methods where a total dry weight is divided over a measured volume of core. ▪ For the Core Tray Method, given the known inner tube diameter of the core, and the known core run length, an ISBD for each tray of core can therefore easily be calculated using the dry weight of the core in the tray. However, although simple and reliable in principle, this technique relies on the accuracy of recovery measurements of the core and can lead to biased (low) values if there is unaccounted core loss, which is difficult to measure accurately in highly weathered ground. ▪ The Water Immersion and Core Tray techniques show average density values of 1.84 and 1.50, respectively, for the strongly weathered and most mineralised estimation domains. This effectively provides upper and lower limits to the expected range of

For personal use only

CRITERIA	COMMENTARY
	'true' densities. ▪ In order to establish higher-confidence ISBD data, core was sent to Minalyze for scanning. The volume of core is calculated from the LiDAR data, which establishes a topology of the core in the tray (Artusson et al., 2013), and after dry weighing of the core, the ISBD can be easily determined. This shows an average ISBD of 1.64 for the strongly weathered domain. Even though this technique, too, suffers from the impact of various bias-inducing variables, it is expected to represent the most reliable dataset for ISBD. ▪ Because significantly more data, covering a larger part of the deposit, are available for the Core Tray Method than for the Minalyze data, a correction factor was applied to the Core Tray data based on the regression between the two methods where both data sets are available. Even though the Competent Person considers this a robust process, any residual uncertainty has been represented in the Inferred resource classification for the deposit. It is expected that the sonic drilling that is currently being undertaken will provide more accurate density data, leading to higher-confidence estimates of density.
Classification	▪ Most of the deposit is defined by a drill spacing of approximately 200m x 200m, with selected areas at 100 x 100m, and the maximum extrapolation beyond the lateral extent of drilling is 150m. This approach was supported by a review of the kriging efficiencies and slope of regression for the estimate of Nb_2O_5. ▪ The Competent Person has classified the Mineral Resource in the Inferred category in accordance with the JORC Code (2012). Geological evidence is sufficient to imply but not verify geological and grade continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from drill holes. ▪ It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued work and studies. ▪ The drill spacing, indications of low-level contamination at the laboratory in QC blank samples, and limited bulk density data have limited the Mineral Resource from being classified as a higher level of confidence at the time of reporting. ▪ In the Competent Person's opinion, appropriate account has been taken of all relevant factors that affect resource classification. ▪ An initial assessment of reasonable prospects for eventual economic extraction (RPEEE) was undertaken. In assessing the reasonable prospects for eventual economic extraction, the Competent Person has evaluated preliminary mining, metallurgical, economic, environmental, social and geotechnical parameters. A pit optimisation process was carried out, using the block model as an input, and with the variables and inputs provided in previous sections in this announcement.
Audits or reviews	▪ The Mineral Resource has been internally peer-reviewed.

CRITERIA	COMMENTARY
Discussion of relative accuracy/ confidence	▪ A risk and opportunity review has been provided in the main body of this announcement. ▪ The expected accuracy of the Mineral Resource is appropriately reflected in the Inferred classification. ▪ The Competent Person considers the block model to be appropriately estimated based on the validation of input and estimated grades through visual assessment, domain grade mean comparisons and a review of swath plots. ▪ The Mineral Resource statement is related to a global estimate of in-situ tonnes and grade. There is potential for uncertainty in the local estimation of block grades due to potential subtle variations in the deposit that are not captured in the density of available data. ▪ There is a high degree of geological variation inherent within the mixed lithology domain, which is expected to impact local estimates. ▪ No production data are available for comparison.

For personal use only