

December 18, 2024

# Verde Announces 1.35 Billion Tons of Maiden Mineral Resource Estimate at the Man of War Rare Earths Project

**The Resource Estimate Is One of the World's Largest And Highest Grade Ionic Absorption Clay Projects with TREO Grade of 3,437 ppm and 793 ppm MREO**

**Singapore. Verde AgriTech Ltd** (TSX: “**NPK**”) (OTCQX: “**VNPKF**”) (“**Verde**” or the “**Company**”) is pleased to announce a maiden mineral resource estimate of 1.35 billion tons at 3,437 ppm of Total Rare Earth Oxides (“**TREO**”)<sup>1</sup> and with 793 ppm of Magnet Rare Earth Oxides (“**MREO**”)<sup>2</sup> for the Man of War Rare Earths Project (“**Man of War**”) in accordance with NI 43-101 standards, the Reasonable Prospects for Eventual Economic Extraction (“**RPEE**”), calculated with a 1,000 ppm TREO cut-off. This estimate includes three of Man of War’s targets: Nau de Guerra, Bálamo and Alto da Serra located in São Gotardo, Brazil. The JORC and NI 43-101 compliant resource estimate establishes Man of War as one of the world’s largest rare earths projects.

This comprehensive analysis underpins the robust economic potential of Man of War as a world-class rare earths project.

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<sup>1</sup> Total Rare Earth Oxides (TREO) refers to the sum of the oxides of rare earth elements, which include: Lanthanum Oxide (La<sub>2</sub>O<sub>3</sub>), Cerium Oxide (CeO<sub>2</sub>), Praseodymium Oxide (Pr<sub>6</sub>O<sub>11</sub>), Neodymium Oxide (Nd<sub>2</sub>O<sub>3</sub>), Samarium Oxide (Sm<sub>2</sub>O<sub>3</sub>), Europium Oxide (Eu<sub>2</sub>O<sub>3</sub>), Gadolinium Oxide (Gd<sub>2</sub>O<sub>3</sub>), Terbium Oxide (Tb<sub>4</sub>O<sub>7</sub>), Dysprosium Oxide (Dy<sub>2</sub>O<sub>3</sub>), Holmium Oxide (Ho<sub>2</sub>O<sub>3</sub>), Erbium Oxide (Er<sub>2</sub>O<sub>3</sub>), Thulium Oxide (Tm<sub>2</sub>O<sub>3</sub>), Ytterbium Oxide (Yb<sub>2</sub>O<sub>3</sub>), Lutetium Oxide (Lu<sub>2</sub>O<sub>3</sub>), and Yttrium Oxide (Y<sub>2</sub>O<sub>3</sub>).

<sup>2</sup> Magnetic Rare Earth Oxides (MREO) refers to the sum of the oxides of rare earth elements with magnetic properties, which include: Praseodymium Oxide (Pr<sub>6</sub>O<sub>11</sub>), Neodymium Oxide (Nd<sub>2</sub>O<sub>3</sub>), Terbium Oxide (Tb<sub>4</sub>O<sub>7</sub>), and Dysprosium Oxide (Dy<sub>2</sub>O<sub>3</sub>).

RPEE RESOURCE	TREO	MREO	Pr <sub>6</sub> O <sub>11</sub>	Nd <sub>2</sub> O <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	Dy <sub>2</sub> O <sub>3</sub>
<i>t</i>	<i>ppm</i>	<i>ppm</i>	<i>Ppm</i>	<i>ppm</i>	<i>ppm</i>	<i>ppm</i>
1,349,820,872	3,437	793	173	594	5	22

This is based on 1,50 billion tons in-situ resources with 3,430 ppm of TREO and with 791 ppm of MREO, calculated with a 1,000 ppm TREO cut-off, from three currently studied targets, Alto da Serra, B alsamo and Nau de Guerra.

The difference between the RPEE resource of 1.35 billion and the in-situ resource of 1.50 billion is attributable to the fact that the former is confined within the optimized mathematical pits generated for the RPEE demonstration.

Below are the highlights of the in-situ resource.

**Highlights by Target:**

- Nau de Guerra: 120.09 Mt @ 3,628 ppm TREO, with 846 ppm MREO,
- Alto da Serra: 230.21 Mt @ 3,684 ppm TREO, with 875 ppm MREO,
- Balsamo: 1,145.62 Mt @ 3,358 ppm TREO, with 769 ppm MREO,

Man of War presents significant potential and demands substantial investment for its advancement. The spin-off of Oby Rare Earths Pty. Ltd. (“Oby”) will enable the focused development and progress of the project, while Verde continue to concentrate exclusively on its core business. Shareholders will have the opportunity to vote on Oby’s spin-off and the distribution of Oby shares to Verde shareholders at the Special General Meeting scheduled for December 20<sup>th</sup>.<sup>3</sup> In Q1 2025, Oby plans to raise funds to advance the development of its world-class Man of War project. Funds raised will primarily be allocated to completing a scoping study and advancing environmental impact assessment. Verde shareholders who are accredited investors and interested in participating in this opportunity are encouraged to contact Verde directly at [investor@verde.ag](mailto:investor@verde.ag).

“The discovery of such a significant rare earth resource in Brazil has the potential to redefine the global supply chain for critical minerals like praseodymium, neodymium, terbium, and dysprosium. The Man of

<sup>3</sup> See: <https://investor.verde.ag/verde-announces-man-of-war-rare-earths-project-spin-off/>

War Project is poised to become a key contributor to the technologies that drive our modern economy”, celebrated Cristiano Veloso, Verde’s Founder and CEO.

### Resource Estimate Summary:

The following table summarizes the in-situ mineral resource estimates at a cut-off grade of 1,000 ppm TREO for each target and the combined total:

Target	Tons	TREO ppm	MREO ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm
Nau de Guerra	120,093,635	3,628	846	183	634	5	24
Alto da Serra	230,213,682	3,684	875	188	656	6	26
Balsamo	1,145,624,209	3,358	769	168	575	5	21
<b>TOTAL</b>	<b>1,495,931,526</b>	<b>3,430</b>	<b>791</b>	<b>172</b>	<b>592</b>	<b>5</b>	<b>22</b>

The resource estimates were prepared in compliance with the JORC 2012 Edition and NI 43-101 standards, under the supervision of Dr. Volodymyr Myadzel, PhD, MAIG, who acts as the Qualified Person (QP) for this report.

BNA Mining Solutions is responsible for preparing the final report in compliance with NI 43-101 standards, which is expected to be released in approximately 45 days.

### Drilling and Sampling:

The exploration campaign employed diamond drilling to ensure the reliability and precision of the resource estimation process. Sampling was conducted at consistent intervals of 1 meter, with drill cores carefully stored in labeled plastic bags containing unique identification tags. These bags were sealed, double-bagged, and systematically recorded in a digital database to maintain traceability.

The drilling campaign, carried out between April and September 2011, used MACH 1200 and DIAKOR II rigs, executed by Rede Engenharia e Sondagens S/A (a subsidiary of SGS) and Isoágua Perfurações Especiais Ltda. Together, these campaigns drilled 3,539.3 meters across the Nau de Guerra (742.95 meters), Alto da Serra (1,313.85 meters), and Balsamo (1,582.5 meters) targets. The core recovery was calculated for each interval, achieving reliable recovery rates that formed the foundation of the geological interpretation and resource modeling. The diamond drill cores enabled bulk density measurements and were carefully preserved for future reference.

During both the historical exploration in 2011 and the ongoing 2024 campaigns, geologists logged core details, including weathering profiles, regolith characteristics, lithology, and petrographic features. Key

geotechnical parameters such as Rock Quality Designation (RQD) and degrees of weathering were also recorded. These observations were systematically entered into a centralized digital database, ensuring consistency and facilitating seamless integration with subsequent analyses.

### **Laboratory Analysis and QA/QC Protocols:**

Sample preparation followed a rigorous protocol to ensure the integrity and reliability of assay data. Drill cores were photographed, and geologists revised descriptions before sampling. A longitudinal cut was made in the cores, and a quarter was sampled while preserving the remainder for reference. Samples were crushed, sieved to 1mm, homogenized, and split using a Jones riffle splitter. Pulverization to 95% passing 150# mesh preceded the extraction of a 10g aliquot for ICP95A/IMS95A analysis of REEs and oxides.

The project implemented a robust QA/QC program in collaboration with SGS, incorporating blanks, reference materials, and duplicates into sample batches of 50. Inter-laboratory checks were conducted with ALS Laboratories, cross-verifying assay results with deviations consistently within  $\pm 10\%$  of original grades.

Independent verification included two site visits by Dr. Volodymyr Myadzel, PhD, MAIG, who evaluated drilling and sampling procedures, QA/QC protocols, and the geological model. These inspections confirmed the reliability of sampling techniques, laboratory practices, and data management, ensuring compliance with JORC 2012 and NI 43-101 standards.

### **Estimation and Reporting of Mineral Resources:**

The mineral resource estimation for the project was carried out using a systematic and robust methodology, incorporating historical data and results from the 2011–2012 drilling campaigns conducted by the Verde team. Site visits by Volodymyr Myadzel, representing BNA Mining Solutions, were conducted in July and August 2024 to assess site conditions, verify geological documentation, and provide an overall geological overview of the area.

A block model was developed using Ordinary Kriging (OK) for grade interpolation, implemented via Micromine software. This approach was chosen due to the log-normal distribution of the sample data. To validate and cross-check the results, Inverse Distance Weighting (IDW3) was applied as a secondary estimation method. The estimation employed a sequential search ellipse methodology across four passes, with adjustments to the size of the ellipsoid and the number of composite samples and drill holes required for interpolation. Block discretization utilized sub-blocking, dividing initial 50x50x10-meter blocks into subunits (5x5x2 meters) near mineralized wireframes. Variography guided the determination of search ellipse parameters and orientations, with radii and azimuth orientations customized for each REE.



Validation of the block model included statistical comparisons between interpolated grades and composite datasets. Histograms and probability plots demonstrated consistency and reliability, confirming the robustness of the model.

A cut-off grade of 1,000 ppm TREO was applied, informed by comparable projects and the Qualified Person's experience. Dry bulk density values were calculated from 452 diamond drill core samples, analyzed using Archimedes' principle with equipment certified by INMETRO. All estimates are reported on a dry tonnage basis.

All mineral resources have been classified as Inferred, reflecting the current state of geological continuity, drill hole spacing, variography, and density data. This classification aligns with industry standards and the Qualified Person's assessment of data reliability.

For further technical details, the link below provides comprehensive information on the project's location, geology, and full assay results for all rare earths elements: <https://investor.verde.ag/events/investor-presentation-man-of-war-project/>.

## QUALIFIED PERSON

The information in this announcement that relates to exploration results is based on information reviewed, recommended data collection methodologies, and overseen by QP Volodymyr Myadzel. Dr. Myadzel, PhD in Geology and a Member of the Australian Institute of Geoscientists (MAIG), brings over 25 years of experience in mineral exploration, resource modeling, and estimation of mineral deposits. His expertise spans the origin of mineralization and ore precipitation mechanisms across various geological environments. Dr. Myadzel has extensive experience in fieldwork, exploration, mineralogy, and petrography of metamorphic rocks and mineral deposits. He is also skilled in the preparation of core samples for analysis, sedimentology of alluvial and talus sediments, and the investigation of primary and secondary lithochemical dispersion patterns. His laboratory capabilities include transmitted-light microscopy and ore microscopy for petrography and ore mineralogy. Dr. Myadzel is a recognized Competent Person (CP) under the JORC Code and a Qualified Person (QP) under Canada's NI 43-101 standards. He will serve as the Qualified Person for Mineral Resource estimation.

## ABOUT VERDE AGRITECH

Verde AgriTech is dedicated to advancing sustainable agriculture through the innovation of specialty multi-nutrient potassium fertilizers. Our mission is to increase agricultural productivity, enhance soil health, and significantly contribute to environmental sustainability. Utilizing our unique position in Brazil, we harness



proprietary technologies to develop solutions that not only meet the immediate needs of farmers but also address global challenges such as food security and climate change. Our commitment to carbon capture and the production of eco-friendly fertilizers underscores our vision for a future where agriculture contributes positively to the health of our planet.

For more information on how we are leading the way towards sustainable agriculture and climate change mitigation in Brazil, visit our website at <https://verde.ag/en/home/>.

## COMPANY UPDATES

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## CAUTIONARY LANGUAGE AND FORWARD-LOOKING STATEMENTS

All Mineral Reserve and Mineral Resources estimates reported by the Company were estimated in accordance with the Canadian National Instrument 43-101 and the Canadian Institute of Mining, Metallurgy, and Petroleum Definition Standards (May 10, 2014). These standards differ significantly from the requirements of the U.S. Securities and Exchange Commission. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability.

This document contains "forward-looking information" within the meaning of Canadian securities legislation and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995. This information and these statements, referred to herein as "forward-looking statements," are made as of the date of this document. Forward-looking statements relate to future events or future performance and reflect current estimates, predictions, expectations, or beliefs regarding future events. These statements include, but are not limited to:

- (i) The potential for economic extraction of rare earth elements identified within the Man of War Project;
- (ii) The potential for further exploration to identify expanded zones of mineralization;
- (iii) The completion of a mineral resource report in compliance with both NI 43-101 and JORC standards to validate the Man of War project results obtained;

- (iv) The ability to secure financing to support ongoing exploration and development activities;
- (v) The anticipated costs, timelines, and logistics associated with the development of the project.

It is important to note that the Man of War project, remains in the initial phase. These preliminary results are not definitive indicators of economic viability, and further exploration work is required to establish the presence of commercially viable mineral reserves.

All forward-looking statements are based on the Company's or its consultants' current beliefs, as well as assumptions made and information currently available to them. The most significant assumptions include, but are not limited to:

- (i) The presence and continuity of rare earth mineralization within the identified zones;
- (ii) The successful completion of planned exploratory and analytical work;
- (iii) The availability of necessary financing to support continued exploration activities.

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that estimates, forecasts, projections, and other forward-looking statements will not be achieved or that assumptions do not reflect future experience. We caution readers not to place undue reliance on these forward-looking statements as a number of important factors could cause the actual outcomes to differ materially from the beliefs, plans, objectives, expectations, anticipations, estimates, assumptions, and intentions expressed in such forward-looking statements. These risk factors may be generally stated as the risk that the assumptions and estimates expressed above do not occur as forecast, but specifically include, without limitation: risks relating to variations in the mineral content within the material identified as Mineral Resources and Mineral Reserves from that predicted; variations in rates of recovery and extraction; the geotechnical characteristics of the rock mined or through which infrastructure is built differing from that predicted; developments in world metals markets; risks relating to fluctuations in the Brazilian Real relative to the Canadian dollar; increases in the estimated capital and operating costs or unanticipated costs; difficulties attracting the necessary workforce; increases in financing costs or adverse changes to the terms of available financing, if any; tax rates or royalties being greater than assumed; changes in development or mining plans due to changes in logistical, technical, or other factors; changes in project parameters as plans continue to be refined; risks relating to receipt of regulatory approvals; delays in stakeholder negotiations; changes in regulations applying to the development, operation, and closure of mining operations from what currently exists; the effects of competition in the markets in which Verde operates; operational and infrastructure risks; and the additional risks described in Verde's Annual



Information Form filed with SEDAR in Canada (available at [www.sedar.com](http://www.sedar.com)) for the year ended December 31, 2021. Verde cautions that the foregoing list of factors that may affect future results is not exhaustive.

When relying on our forward-looking statements to make decisions with respect to Verde, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Verde does not undertake to update any forward-looking statement, whether written or oral, that may be made from time to time by Verde or on our behalf, except as required by law.

For additional information please contact:

**Cristiano Veloso**, Chief Executive Officer and Founder

Tel: +55 (31) 3245 0205; Email: [investor@verde.ag](mailto:investor@verde.ag)

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