

Comprehensive exposure to graphite, lithium and advanced materials as the global economy transitions to a lower carbon intensity

NOOSA MINING – UNEARTHED 10-12 November 2021

## **Important Information**

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#### **Forward Looking Statements**

This document may contain certain forward-looking statements. Such statements are only predictions, based on certain assumptions and involve known and unknown risks, uncertainties and other factors, many of which are beyond the Company's control. Actual events or results may differ materially from the events or results expected or implied in any forward-looking statement. The inclusion of such statements should not be regarded as a representation, warranty or prediction with respect to the accuracy of the underlying assumptions or that any forward-looking statements will be or are likely to be fulfilled. The Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date of this document (subject to securities exchange disclosure requirements). The information in this document does not take into account the objectives, financial situation or particular needs of any person. Nothing contained in this document constitutes investment, legal, tax or other advice.

#### **Competent Person Statement**

The information in this document that relates to Exploration Results, Exploration Targets and Mineral Resources is based on information compiled by Tim McManus, a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy and a full-time employee of the Company.

Tim McManus has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken 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. Tim McManus consents to the inclusion of the information in this document in the form and context in which it appears.

#### **Subsequent Public Reporting**

The information for the JORC Mineral Resource Summary is extracted from the ASX Announcement "41% Increase in Graphite Mineral Resource to Advance Plans for Large Scale Mining and Processing Operations" released 16 March 2021, which is available to view on www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.



## Integrated Green Metals Company

En-route to becoming a fully integrated green metals company with a comprehensive exposure to graphite, lithium and advanced materials as the global economy transitions to a lower carbon intensity.



## **Graphite**

- 100% owner operator of the Graphmada Graphite Mining Complex, Madagascar.
- Exploration underway to expand the Mineral Resource.
- Intention to restart large scale mining and processing operations up to 40,000 tpa.





## Advanced Materials

Researching and developing advanced materials with a focus on expandable graphite, graphene and their end-use products.



## Lithium

- Exploring the San Jorge lithium brine project, Argentina.
- Progressing the highgrade spodumene project at Millie's Reward, Madagascar.

## **Corporate Overview**

#### **RICK ANTHON**

## Non-Executive Chairman

30 years experience in commercial law & corporate leadership.

#### **PETER WRIGHT**

#### **Executive Director**

20 years experience in industrial minerals & metals funds management.
Currently Partner at Bizzell Capital Partners.

#### **JEFF MARVIN**

#### **Non-Executive Director**

20 years experience in project financing and development and an active entrepreneur in energy technology.

#### **JAMES BROWN**

#### Non-Executive Director

30 years as a global mining professional and corporate leader in exploration, development and operations.

#### **TIM MCMANUS**

#### **Chief Executive Officer**

30 years as a global mining professional and corporate leader in exploration, development and operations.

#### **ANGUS CRAIG**

#### **Company Secretary**

25 years experience in acquisitions, mergers, equity funding, corporate governance and financial management.

\$50m\*

MARKET CAPITALISATION

\* as of 11 November 2021

\$4.4m

**CASH at 30 Sept 2021** 

\$0.45\*

**SHARE PRICE** 

112m

**SHARES ON ISSUE** 





■ Top 20 ■ Other

0.6

Significant board experience in developing, funding and operating projects from exploration to production.





## Greenwing Resources: International Footprint & Global Opportunities



- Comprehensive exposure to graphite, lithium and advanced materials.
- Board and Management experienced in:
  - exploring, developing and operating industrial mineral projects.
  - exporting and selling industrial mineral concentrates into major global markets.
- Researching and developing advance materials with a focus on expandable graphite, graphene and their end uses.
- Established track record of producing large flake graphite concentrates from a growing resource at Graphmada.

Advanced Materials R&D



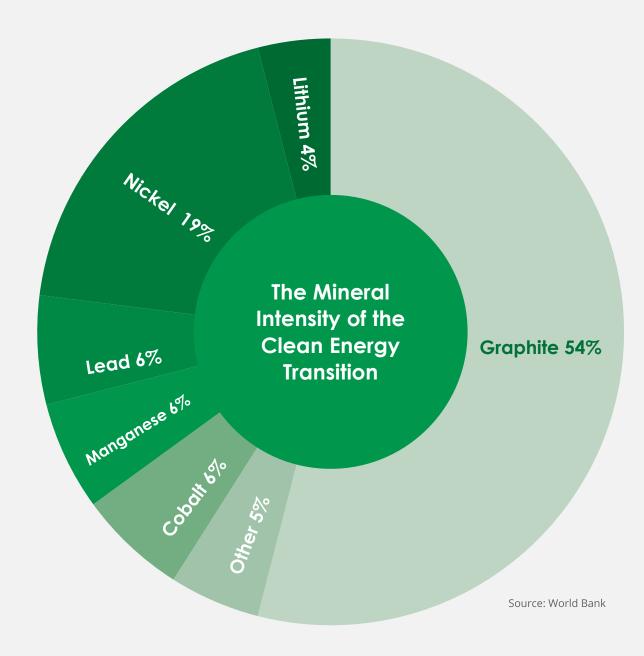
## The Graphite & Lithium Market

## **Compelling Opportunity**

- Emerging consensus of looming and sustained supply side deficits in both Graphite and Lithium.
- Increasing penetration of electronic vehicles (EVs) is a primary driver of demand for Graphite and Lithium concentrates.
- Graphite and Lithium represents 57.8% of a battery and stands to benefit substantially from the global shift to electric vehicles.

### **EV ADOPTION TO DRIVE BATTERY SURGE**

- Global EV sales CAGR forecasts as high as 30% across the next decade.
- Global EV penetration is forecast to reach 17% in 2025, 40% by 2030 and 80% by 2040.
- US\$2b EV stimulus in China extended to 2022, targeting 20% EV penetration by 2025.





## San Jorge Lithium Brine Project

The San Jorge Project is located in Argentina and within the Lithium Triangle which is the world's prominent lithium location.

Several ASX company's have projects in this region including:

- Orocobre (ASX:ORE) market cap \$6.1B
- Galan Lithium (ASX:GLN) market cap \$0.5B
- Lake Resources (ASX:LKE) market cap \$1.2B

The San Jorge Project<sup>13,15</sup> consists of 15 granted Exploration Licenses covering 36,000 hectares inclusive of the San Francisco Salar which covers some 2,800 hectares.





## San Jorge Lithium Brine Project

## Key compelling characteristics:

- Option to acquire 100% ownership inclusive of a 2800-hectare Salar (San Francisco Salar) subject only to meeting financial commitments.
- Extensive travertine (carbonate) deposits in the northern inflow part of the Salar.
- Salt crust between areas of volcanic ash on the surface of the Salt Lake.
- Hot springs on the western side of the basin, as a potential source of lithium.
- It is anticipated lithium is present in brine will be most concentrated in the center of the Salar and deeper in the Salar.

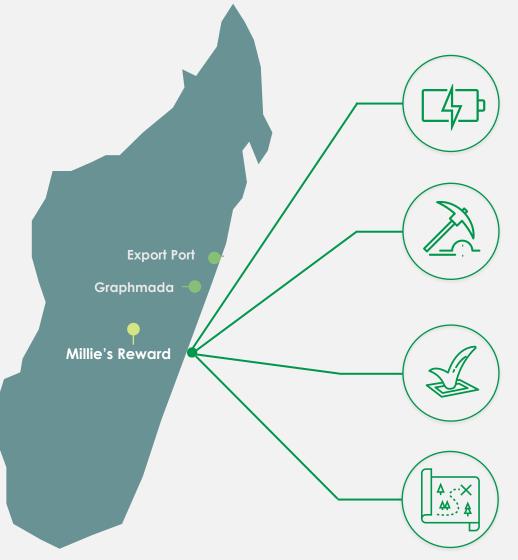
## The proposed exploration program:

- Passive seismic geophysical surveying to define the thickness of Salar sediments.
- Electrical geophysics to map the extent of the brine body.
- Targeted deeper drilling to obtain brine samples for evaluation of brine chemistry.





## Millie's Reward Lithium-in-Spodumene Project



A virgin discovery of potentially high-grade pegmatitehosted lithium located in central Madagascar.

Over 200 multiple pegmatite surface occurrences along a strike length of 10 km which to date have returned rock-chip grades of up to 7.08% Li<sub>2</sub>O<sup>16</sup>.

2018 exploration works completed including: prospecting, geological mapping, rock-chip sampling, geochemical soil sampling, pitting and trenching programs and small drilling program

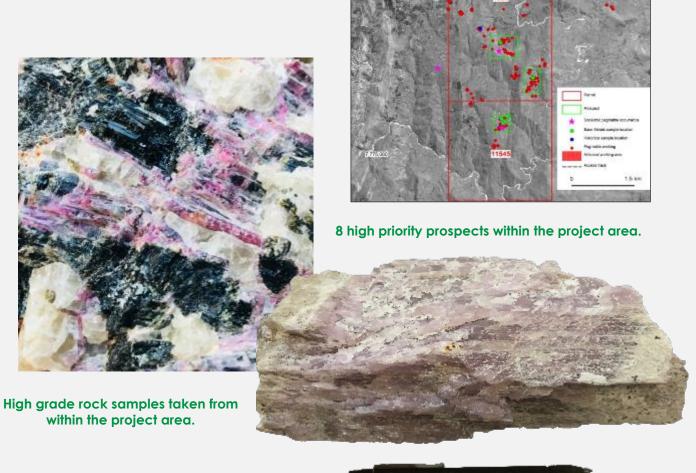
Eight high priority prospects within the Project area



## Millie's Reward Lithium-in-Spodumene Project

## Highlights from the initial field program include:

- ✓ Ampatsikahitra: pegmatite at surface over approx. 500 m, with Li2O grades up to 7.1%¹6.
- ✓ Ilapa: pegmatite at surface over approx. 700 m, with Li2O grades up to 1.8%<sup>16</sup>.
- ✓ Manjaka: pegmatite at surface over approx. 300 m, with Li2O grades up to 6.9%¹6.
- ✓ Vietnam: pegmatite at surface over approx.
   100 m, with Li2O grades up to 6.9%¹6.
- ✓ Tsarafara: pegmatite at surface over approx.
  500 m, with Li2O grades up to 4.1%¹6.



## **Graphite Project Overview**

### Graphmada Mining Complex, Madagascar

- Expanded Mineral Resource from 5.7 Mt to 20.2 Mt at 4% TGC, defined within a wider Exploration Target of 86-146Mt @ 4-6% TGC<sup>1,17.</sup>
- 40 year mining lease permits and 20 year landholder agreements in place.
- Stage 1 processing plant in place with 20 months of premium concentrate production achieved.
- Currently on care and maintenance pending stage 2 expansion.
- Established diversified sales channels with concentrates qualified and sold into international markets; Europe, the USA, India, Japan and China with all production sold without penalty or rejection.

60%

2016

Mt

- Exploration update involving 180 additional auger holes drilled to an average depth of 12m from surface<sup>17.</sup>
- 3,000m drilling program expected to commence late November 2021.

#### Important Notes:

An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade, relates to mineralization for which there has been insufficient exploration to estimate a Mineral Resource. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate an additional Mineral Resource and it is uncertain if further exploration will result in the estimation of an additional Mineral Resource.

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## Low Cost And Rapid Asset Growth

Cumulative growth in Graphmada's Mineral Resources supporting a commercial scale operation





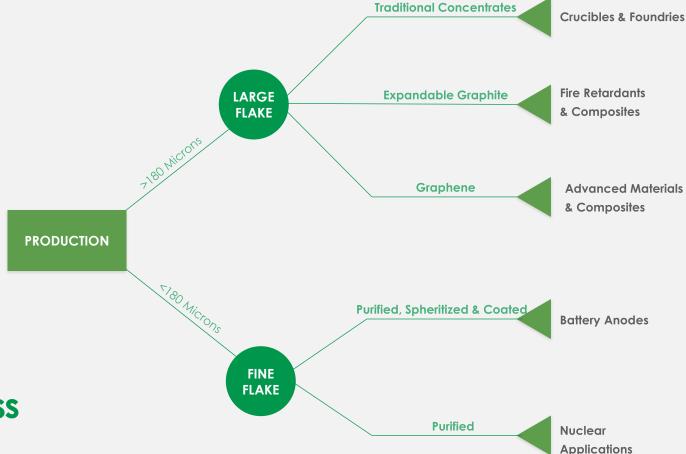
## Graphmada Stage 2 Expansion

#### **DEVELOPMENT STRATEGY**

Stage 2 will **aim to produce up 40,000 tonnes per annum** of premium graphite concentrates.

- 50% large flake production for advanced material end-use.
- 50% targeted to the lithium battery sector.

Highly suitable to the EV sector, with a purity of 99.99 wt.% carbon achieved<sup>10</sup>.



## Ongoing Exploration Success

Exploration underway demonstrating significant intercepts of graphite mineralisation.

An expanded Mineral Resource Estimate is a key component to Greenwing's plans for large-scale graphite production at the Graphmada Mining Complex.

Major hydro-electric grid power being constructed in proximity to the Project.

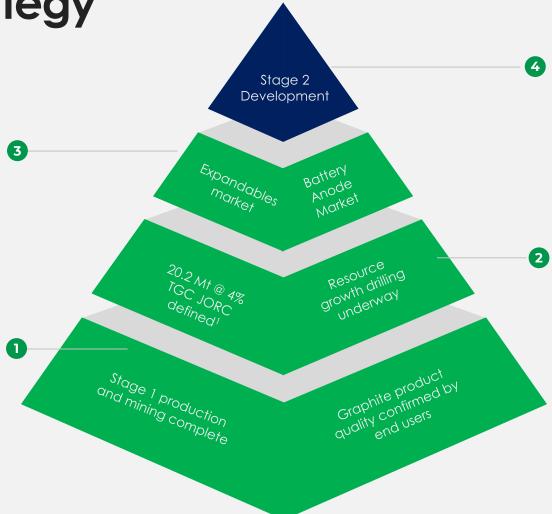
## Graphite Resource Growth Strategy

### Supply high value markets

Uniquely hosted in soft ore, allowing for the preservation of flake size during mining and concentration. >90% of resource is large flake and yields a price premium.

## Stage 1 (Completed)

Over 20 months of continuous production achieved at Graphmada with successful product sales to international customers. Valuable intellectual capital and relationships developed to underpin future development.



## Underpin large scale mining and production

Aggressive exploration, resource expansion and processing expansion studies underway to underpin the commencement of large scale, Stage 2 mining and production.

## **Expand resource (Underway)**

Hard rock mineralisation remains open at depth within the existing resource with over 4.5km of additional near-surface graphite discoveries underpinning substantial resource growth upside.



## **Advanced Materials**

### AIM

To develop Advanced Materials from graphite using premium quality graphite concentrates<sup>3</sup>.

- Advance new generation, sustainable, fire-resistant specialty carbon composites from expandable graphite and graphene.
- Capitalise on the growing Advanced Materials market.

### **ALIGNMENT TO STRATEGY**

- Exploring materials for key industrial and battery applications.
- Taking the opportunity to value-add to its existing concentrates on the re-commencement of production.

Testing is underway with initial results expected before the end of year.





## Advanced Materials Strategy



## Refractories & Metallurgical <sup>5</sup>

- ✓ Large Flake Graphite
- Clean, high purity concentrates
- Industry benchmark qualities



## Expandables & Fire Retardants <sup>6</sup>

- ✓ Large Flake Graphite
- Exceptional Expandability
- Clean, high purity concentrates



### **Graphene & High End Technologies**

- Very high purity of 99.99 wt.% carbon achievable for premium feedstock
- ✓ High order crystalline structure



### Energy: Battery & Fuel Cell 7

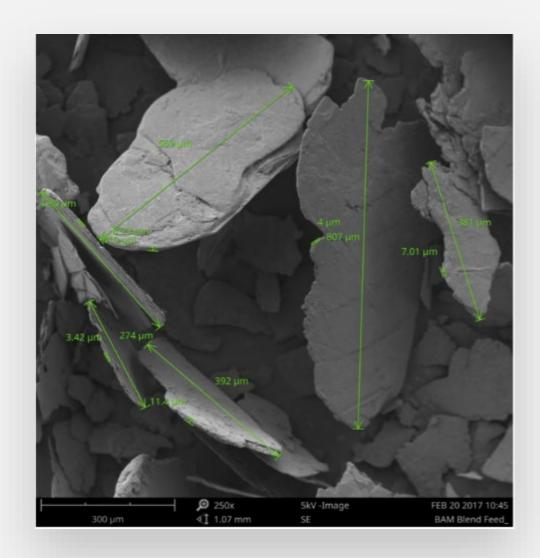
- ✓ Very high purity of 99.99 wt.% carbon achievable
- All parameters meet leading battery anode manufacturer specifications

As a graphite producer and specialty carbon products developer, the Company is building its own capabilities internally as well as seeking high value collaborations such as those previously announced with European Battery Alliance and Swinburne University.

## Research and Development Initiatives

#### SPECIALTY CARBON COMPOSITE TECHNOLOGY

- Greenwing and Swinburne University have signed a Master Research and Development Agreement<sup>4,14.</sup>
- The goal is to develop Advanced Materials using both expandable graphite and graphene.
- Graphmada product is uniquely placed meeting the prerequisites for a majority of advanced materials.
- Greenwing aims to assume a significant share of the global fireretardant market through providing a substitute to Aluminum Composite Panels (ACP's).
- ACP Market was valued at USD 6.40 Billion in 2018 and is projected to reach USD 10.72 Billion by 2026, growing at a CAGR of 6.62% from 2019 to 2026 (source: Verified Market Research).



Graphmada's large flake graphite under magnification.



## Indicative News Flow



## Three distinct areas of development:

- 1. Cathode materials.
- 2. Anode materials.
- 3. Advanced materials sector.



## Graphite

- Further regional exploration and drilling at Graphmada.
- Diamond drilling and Mineral Resource updates.
- Economic assessment and feasibility studies for expansion.



## Lithium

- Exploration, geophysics and drilling at San Jorge, Argentina.
- Exploration at Millie's Reward, Madagascar.



## **Advanced Materials**

- Further trials: purification, expandability and graphene.
- Product development and prototype.
- Strategic alliances and agreements.



## Why Greenwing?

Invest in an integrated battery metals producer as the world economy enters the biggest quantum shift in energy use since the industrial revolution



## EXPOSURE TO GRAPHITE AND LITHIUM

Tightening end markets for both graphite and lithium driven by decarbonisation and the battery revolution.



## **EXPERTISE**

Board and Management with experience taking both lithium and graphite companies from exploration to production.



### **EXPLORATION UPSIDE**

Potential upside from simultaneous exploration across both lithium and graphite projects.



## EMERGING MARKETS AND TECHNOLOGIES

Exposure to the emerging advanced materials market including expandables and fire retardants.

## GREENWING

## **RESOURCES LTD**

Rick Anthon Chairman

**Peter Wright** Executive Director



PO Box 15048, Brisbane Qld 4000



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## **Appendix**

## GRAPHITE MINERAL RESOURCES AND EXPLORATION TARGET 1,3

In 2019 the Company, with an extensive data set of historical exploration, announced a brownfields **Exploration Target estimate of 86-146 Million tonnes between 4-6% Total Graphitic Carbon (TGC)**, in accordance with the JORC Code (2012).

This Exploration Target is in addition to an already substantial regolith hosted large flake graphite Mineral Resource of 20.2 Mt @ at 4% TGC, estimated in accordance with the JORC Code (2012).

Total	Tonnes (Mt)	TGC%	Contained Graphite (kt)
Measured	2.9		
Indicated	3.3	4.3	143
Inferred	14.0	3.9	550
Total	20.2	4.0	815

#### Important Notes:

An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade, relates to mineralization for which there has been insufficient exploration to estimate a Mineral Resource. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate an additional Mineral Resource and it is uncertain if further exploration will result in the estimation of an additional Mineral Resource.

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## **Footnotes**

- 1. Reported in accordance with the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code 2012') as per ASX Announcement '41% Increase in Graphite Mineral Resource to Advance Plans for Large Scale Mining and Processing Operations' released 16/03/21.
- 2. ASX Announcement 'Successful Auger results from Andapa warrants further review' released 27/02/17.
- 3. ASX Announcement 'Significant Exploration Program to commence at Graphmada' released 03/06/19.
- 4. ASX Announcement 'Bass signs MOU with Swinburne University' released 27/4/20.
- 5. ASX Announcement 'Tests confirm Graphite Concentrates as Industry Benchmark' released 23/05/17.
- 6. ASX Announcement 'Tests confirm Industry Leading Expandability for Graphmada' released 24/05/17.
- 7. ASX Announcement 'Excellent Lithium-ion battery feedstock test results' released 29/05/17.
- 8. ASX Announcement 'Bass advances strategic discussions' released 26/11/19.
- 9. ASX Announcements 'Exploration Update' released 18/5/20, 15/9/20 and 8/12/20.
- 10. ASX Announcement 'Update re Advanced Materials' released 17/11/20.
- 11. ASX Announcement 'Clean, low-cost energy for Graphmada' released 26/11/20.
- 12. ASX Announcement 'Efficiencies Identified For Expansion of Production' released 4/12/20
- 13. ASX Announcement 'Bass Metals signs Binding Term Sheet to Acquire the San Jorge Lithium Brine Project in Argentina' released 26/03/2021.
- 14. ASX Announcement 'Bass continues Advanced Materials Strategy with Agreement to Develop Specialty Carbon Composite Technology' released on 07/04/2021.
- 15. ASX Announcement 'Bass to Proceed with San Jorge Lithium Project Acquisition' released 13/07/2021.
- 16. ASX Announcement 'BSM's Outstanding Lithium intersection of 31m at 3.72%' released 11/08/2018.
- 17. ASX Announcement 'Graphite Exploration Update' released 3/11/21.

This presentation was authorised for release by the Company's chairman.



# Environmental, Social, And Corporate Governance Statement

The Board and Management of Greenwing Resources is committed to ensuring that the Company's obligations and responsibilities to its various stakeholders are fulfilled through a strong commitment to achieving Environmental, Social, and Corporate Governance (ESG) best practice.

The Company fosters a culture which values ethical business practices and always acting with the highest degree of respect and integrity. It believes that ensuring a high standard of ESG practices enhances the Company's sustainable long term performance and value creation for all stakeholders.

Greenwing produces and explores minerals essential to the next generation of technologies that requires work in remote locations in both Madagascar and Argentina often occupied by local communities. The approach is simple; Greenwing must work in a way that delivers real, lasting benefits for shareholders as well as the local people.

