

### **Heavy Minerals Limited (ASX:HVY)**



#### **Important Notice:**

This presentation has been prepared by Heavy Minerals Limited and its related entities (the "Company"). It does not purport to contain all the information that a prospective investor may require in connection with any potential investment in the Company. You should not treat the contents of this presentation, or any information provided in connection with it, as financial advice, financial product advice or advice relating to legal, taxation or investment matters.

No representation or warranty (whether express or implied) is made by the Company or any of its officers, advisers, agents or employees as to the accuracy, completeness or reasonableness of the information, statements, opinions or matters (express or implied) arising out of, contained in or derived from this presentation or provided in connection with it, or any omission from this presentation, nor as to the attainability of any estimates, forecasts or projections set out in this presentation.

This presentation is provided expressly on the basis that you will carry out your own independent inquiries into the matters contained in the presentation and make your own independent decisions about the affairs, financial position or prospects of the Company. The Company reserves the right to update, amend or supplement the information at any time in its absolute discretion (without incurring any obligation to do so).

Neither the Company, nor its related bodies corporate, officers, their advisers, agents and employees accept any responsibility or liability to you or to any other person or entity arising out of this presentation including pursuant to the general law (whether for negligence, under statute or otherwise), or under the Australian Securities and Investments Commission Act 2001, Corporations Act 2001, Competition and Consumer Act 2010 or any corresponding provision of any Australian state or territory legislation (or the law of any similar legislation in any other jurisdiction), or similar provision under any applicable law. Any such responsibility or liability is, to the maximum extent permitted by law, expressly disclaimed and excluded.

Nothing in this material should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities. It does not include all available information and should not be used in isolation as a basis to invest in the Company.

Forward looking statements: this Presentation contains reference to certain intentions, expectations, future plans, strategy and prospects of the Company. Those intentions, expectations, future plans, strategy and prospects may or may not be achieved. They are based on certain assumptions, which may not be met or on which views may differ and may be affected by known and unknown risks. The performance and operations of the Company may be influenced by a number of factors, many of which are outside the control of the Company. No representation or warranty, express or implied, is made by the Company, or any of its directors, officers, employees, advisers or agents that any intentions, expectations or plans will be achieved either totally or partially or that any particular rate of return will be achieved. Given the risks and uncertainties that may cause the Company's actual future results, performance or achievements to be materially different from those expected, planned or intended, recipients should not place undue reliance on these intentions, expectations, future plans, strategy and prospects. The Company does not warrant or represent that the actual results, performance or achievements will be as expected, planned or intended.

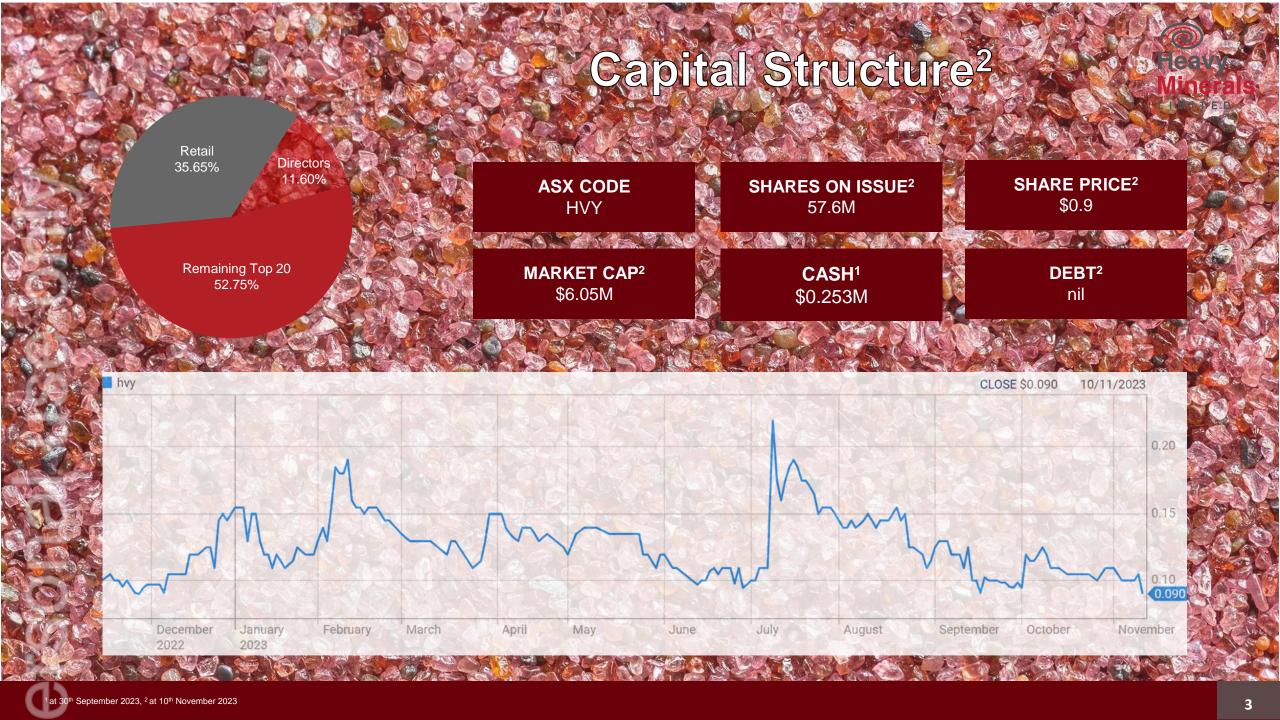
#### Competent Person Statement

The information in this presentation that relates to Exploration Results, Exploration Targets and Mineral Resource estimates is based on and fairly represents information and supporting documentation prepared by Mr. Greg Jones (FAusIMM) who is a Non-Executive Director for Heavy Minerals Limited. Mr. Jones is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being reported on 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". Mr. Jones has reviewed this report and consents to the inclusion in the report of the matters in the form and context with which it appears.

The information in this presentation that relates to the following: Production Targets, Processing, Infrastructure, Capital requirements and Operating Costs as announced 12 September 2022, Metallurgy as announced 15 August 2022, Mineral Resource Estimate (Port Gregory) as announced 10 July 2023, Exploration Results (Redhill) as announced 4 May 2023, Mineral Resource Estimate (Inhambane) as announced 6 December 2021 is available to view at www.heavyminerals.com.

The Company confirms that a) it is not aware of any new information or data that materially affects the information included in these announcements; b) all material assumptions included in these announcements continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this presentation have not been materially changed from the announcements.





#### The Board & Executive

#### **Adam Schofield**

Dip (MechEng)
Chairman

Mr. Schofield is a mining company executive with over 20 years' experience in the resources sector in Australia and Africa. He has significant experience in conducting feasibility studies and taking projects from feasibility stage into operations. He has extensive experience in Mineral Sands, Gold, Copper, and Iron Ore. (ASX:KFM).

#### **Aaron Williams**

B Comm, MBA, AMPP Certified Coatings Inspector Non-Executive Director

Mr. Williams is an international expert in the garnet industry. From 2002 until 2011. he was Perth based senior executive of the GMA Garnet Group. During his tenure he was seconded to Houston to establish the group's American business unit. From 2012. Aaron has co-founded and managed Southeast Asian and Middle East manufacturer/ distributors of abrasive blasting equipment and blast media abrasives. Today Aaron is the CEO of Australian surface preparation equipment manufacturer, Abrasive Blasting Service and Supplies Pty Ltd (ABSS), based in Melbourne. Aaron is a Board Director (Global Centre) for the Association for Material Protection and Performance (AMPP).

#### **Greg Jones**

B App Sc (Geol - Hons), FAusIMM Non-Executive Director

Mr. Jones has over 25 years' experience primarily as a mineral sands Geologist with Iluka Resources in senior resource estimation/management roles and in the capacity of Competent Person for the reporting and management of Mineral Resources and Ore Reserves. Greg has helped develop a number of new discoveries into reportable Mineral Resources including Jacinth-Ambrosia. He is a 20 year member of the AusIMM, holding the grade of Fellow, sitting on review committees and has co-published multiple technical and resource estimation mineral sands papers.

### **Andrew Taplin**

B Eng (Mech), MBA, GAICD **CEO** 

Mr. Taplin has over 30 years resource sector experience developing projects and operating mine, rail, port and infrastructure assets globally, for majors, ASX juniors and an Australian based mining contractor. He has had significant experience in senior government stakeholder engagement in multiple geographies, regulatory and legislative approvals and a demonstrated track record of delivering social consensus to operate successfully. His experience includes operating and developing infrastructure across North & South America-USA, Canada and Peru, Africa, Europe and Australia.



## **Heavy Minerals Limited (ASX:HVY)**

Heavy Minerals Limited (HVY) is an Industrial Minerals Developer and Explorer with Projects adjacent to world class deposits in pro-mining jurisdictions







**Industrial Garnet** 

**Zircon** 

**Titanium Dioxide** 

Western Australia – Port Gregory Project: JORC (2012) Mineral Resource of 166 million tonnes @ 4.0% Total Heavy Minerals. This comprises a Measured Mineral Resource of 126 Mt @ 3.8% THM; an Indicated Mineral Resource of 20 Mt @ 6.5% THM; and an Inferred Mineral Resource of 20 Mt @ 2.9% THM. This includes 5.9 Mt of contained Garnet and 260 thousand tonnes of Imenite <sup>1</sup>. Leases are contiguous with GMA mine which supplies approximately 35% of global Almandine Garnet <sup>2</sup> and adjacent to the recently developed RDG mine also producing Almandine Garnet

Western Australia – Red Hill Project: Exploration Target defined using cut-off grades for reporting of 3% THM and 1% THM and ranging from 90 to 150 Mt of material @ 5.4% to 4.1% THM. The Exploration Target also contains between 5 and 6 Mt of THM and 3.8 and 4.5 Mt of contained Garnet <sup>3</sup>. The potential quality and grade of the Exploration Target is conceptual in nature and there has been insufficient exploration activity to determine a Mineral Resource estimate and it is uncertain if further exploration will result in the estimation of a Mineral Resource. Close proximity to GMA and RDG (<10km)

**Mozambique – Inhambane Project**: JORC Inferred Mineral Resource of 90 Mt @ 3% THM<sup>4</sup> - Adjacent Rio Tinto's mineral sands projects

ASX 10 July 2023 Updated Port Gregory JORC Mineral Resource increase by 23% 2 2021 USGS Mineral Commodity Summary. 3 ASX 4 May 2023 Red Hill Assay Results and Exploration Target



## Why is Almandine Garnet in High Demand?

#### Superior hardness (7.5 Mohs), Density (SG4.1+) and Low Friability

- High quality surface finish means better coating adhesion
- High productivity & low abrasive consumption = lower costs

#### Environmental, social and governance

- Low nuisance dust generated during blasting
- Inert environmentally friendly with no hazardous by-products
- Recyclable (Almandine Garnet can be recycled several times)
- Minimal Health and Safety Risks (preferred abrasive to minimise
- WHS/OH&S risks) no heavy metals/ no free silica
- Responsible mining and rehabilitation practices

#### **Typical Industry Applications**

- Preferred blast media for abrasive blasting in:
  - Military
  - Engineering/ Fabrication Yards servicing the O&G & wind farms industry
  - Maintenance work in O&G, Bridges, Marine
- The only media used in abrasive waterjet cutting for precision cutting of metal & composites





# Preliminary results indicate Heavy's Port Gregory Garnet Project is a globally significant Garnet deposit

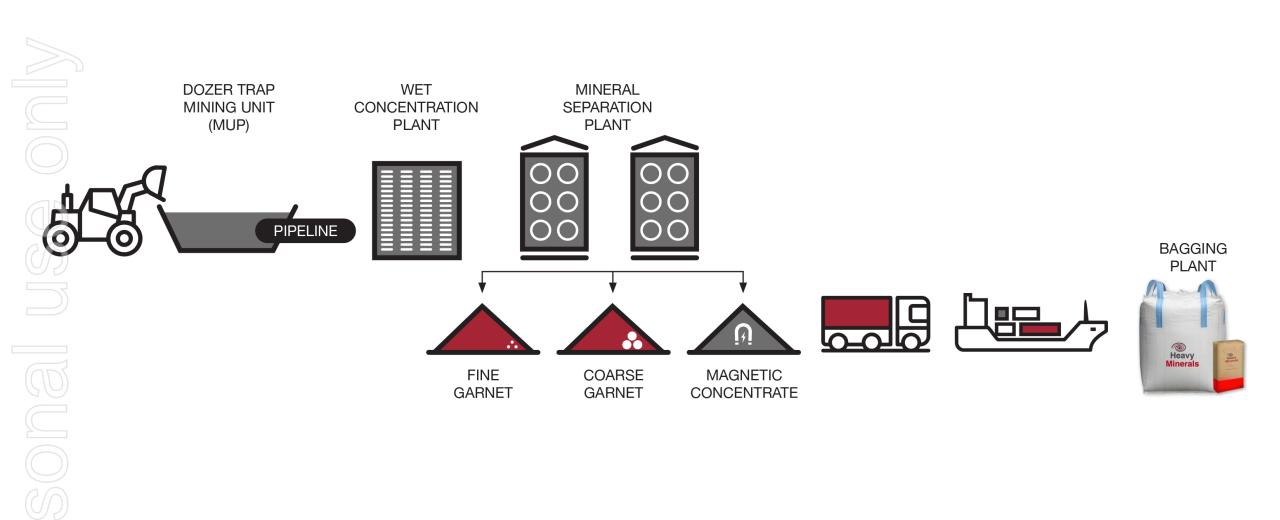
Furthermore, the sieve sizes are expected to result in large annual tonnage of the 'in-demand' 20/40 mesh and 30/60 mesh (as defined by ISO 11126-10) grades

## Port Gregory Garnet Project: Indicative Annual Tonnage & Sieve Analysis Results

		Annual Tonnes	
	Total Saleable		152,500
		Ilmenite	6,500
		Garnet	146,000
	ISO 11126-10	<u></u> %	
	Sieve Range	%	Tonnes
20/40#	350 to 850μ	23%	33,288
30/60#	200 to 600μ	45%	64,970
Waterjet Grades		33%	47,888

## Mining & Processing is as simple as it gets!

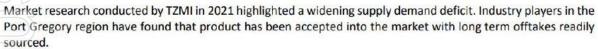


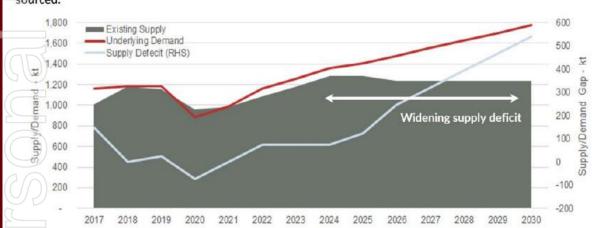


## **Market Opportunities for Almandine Garnet**

#### **Garnet Market Analysis**

- Indian, Australian and USA supply and production challenges have materially impacted global supply
- Geo-political USA-China tensions bode well for Australian suppliers
- Compound Annual Growth Rate for garnet forecast at >7%<sup>1</sup>
- Heavy's planned production level will contribute <1% to the global blast media market and <10% to world garnet production in 2026 (first production scheduled 2027)
- Heightened regulatory pressure to reduce sand and slag consumption





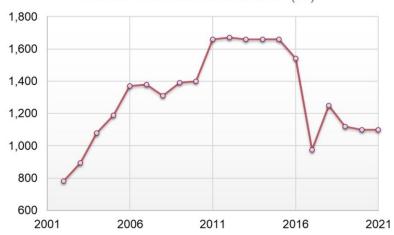
#### Supply and Demand Fundamentals: A story of global garnet supply coming off and prices increasing







World Garnet Production (kt)



<sup>&</sup>lt;sup>1</sup>TZMI Garnet Market Data (Project 11759) Jan 2021



## **The Port Gregory Garnet Project**

**Finance** 

Low Capex – \$110m NPV<sub>8</sub> - \$253m<sup>1</sup> Payback 4.2 years IRR - 33%<sup>2</sup> FCF - \$588m<sup>3</sup>

Funding

Atradius (Dutch Sovereign Wealth Fund) Letter of Support for project funding

Export Finance Australia engagement

Technical

Proven and simple mining & processing Rapid project development & future scale up Pre-Feasibility Study Launched

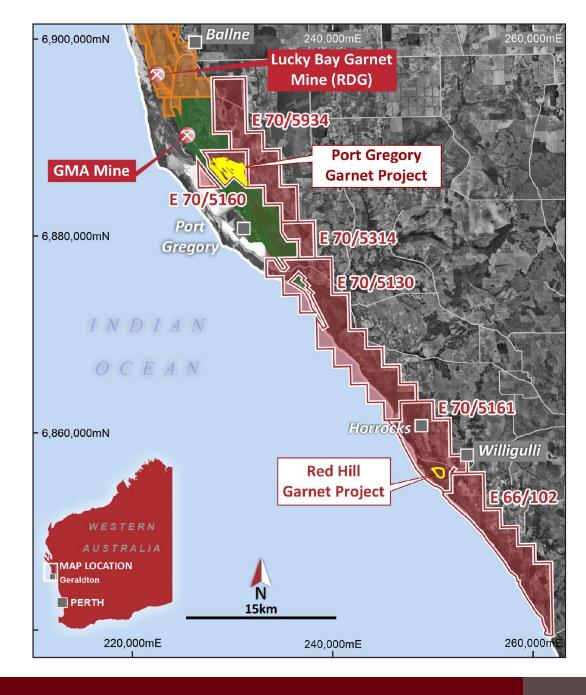
ESG

Established mining locality – GMA & RDG Local and regional social consensus for development

Market

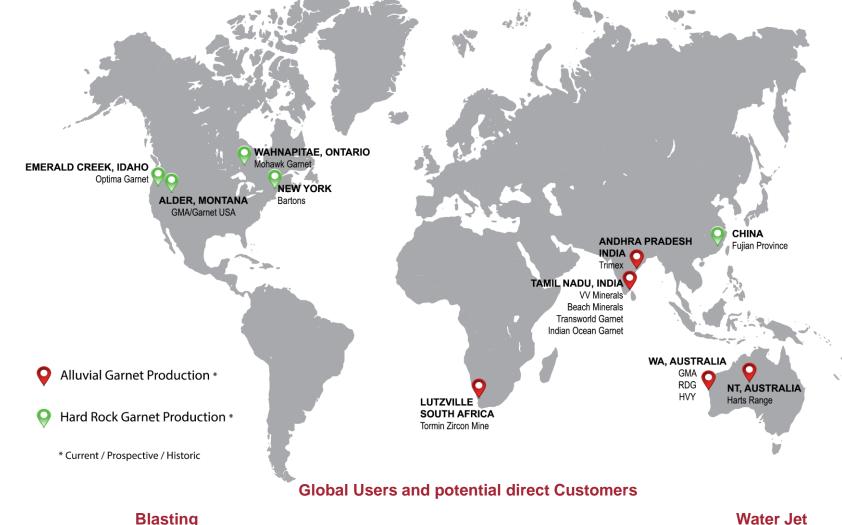
Strong global market demand for Australian garnet – CAGR >7% to 2030. Target markets – USA, Middle East and South East Asia

<sup>1</sup>After tax NPV<sub>8</sub> <sup>2</sup>After tax IRR <sup>3</sup>After tax FCF



## **Competitor Analysis and Garnet End Users – Global Production**





























PETRONAS



