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FOCUSED ON

Industrial Minerals

FEBRUARY 2022 | ASX : HVY

Heavy
Minerals
LIMITED



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Competent Person Statement

The information in this announcement 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 Exploration Results referred to in this announcement were first reported in accordance with ASX Listing Rule 5.7 in the Company’s prospectus dated 27 July 2021 and released on the ASX market announcements platform on 10 September 2021. The Company confirms that it is not aware of any new information or data that materially affects the information included in the prospectus.

The Mineral Resource estimates referred to in this announcement were first reported in accordance with ASX Listing Rule 5.7 in the Company’s prospectus dated 27 July 2021 and released on the ASX market announcements platform on 10 September 2021. The JORC Mineral Resource report that supports this original Mineral Resource estimate is hosted on the company website at the following link:

<https://www.heavyminerals.com/technical-reports/>

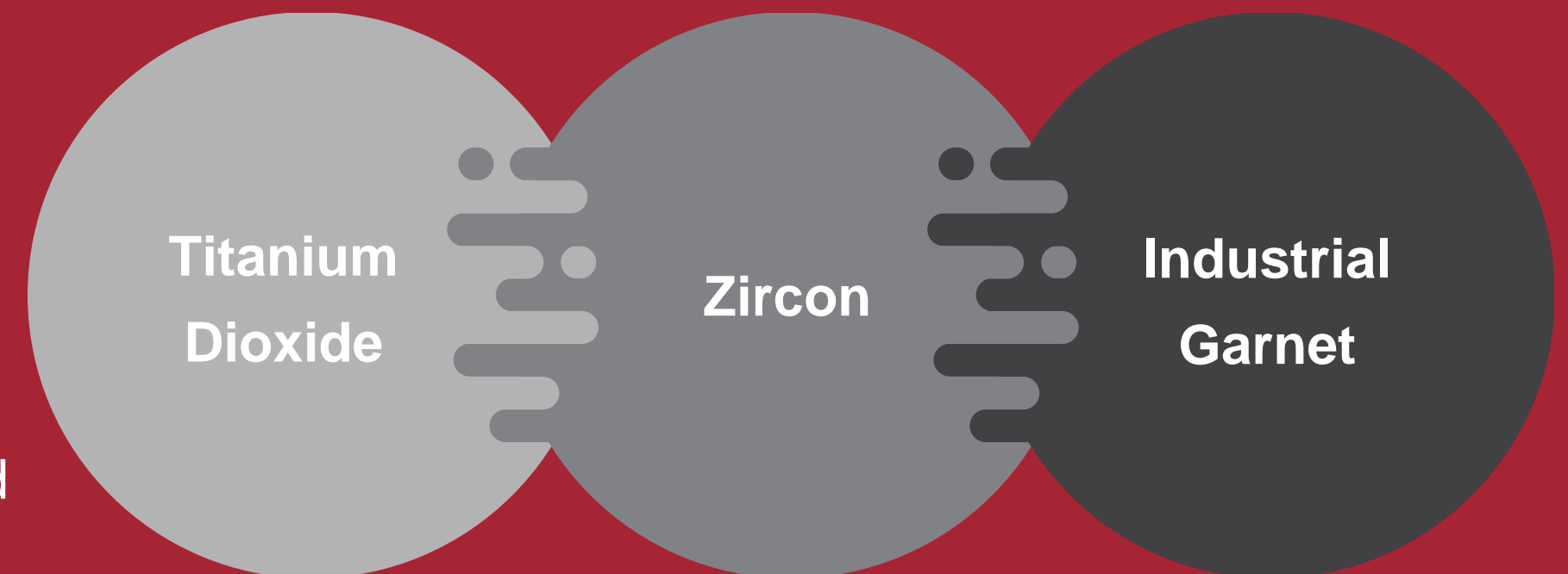
Presentation Outline

- Investment Highlights
- Capital Structure
- Board of Directors
- HVY Project Overview
- Industrial Garnet
- Garnet Market
- Garnet to 2030
- Port Gregory Garnet Project & Timeline
- High Grade Drilling Results
- Port Gregory – Geological Model
- Port Gregory Potential
- Market Outlook – Mineral Sands
- Inhambane – Mineral Sands Project
- JORC Mineral Resource: 90MT @ 3.0% HM

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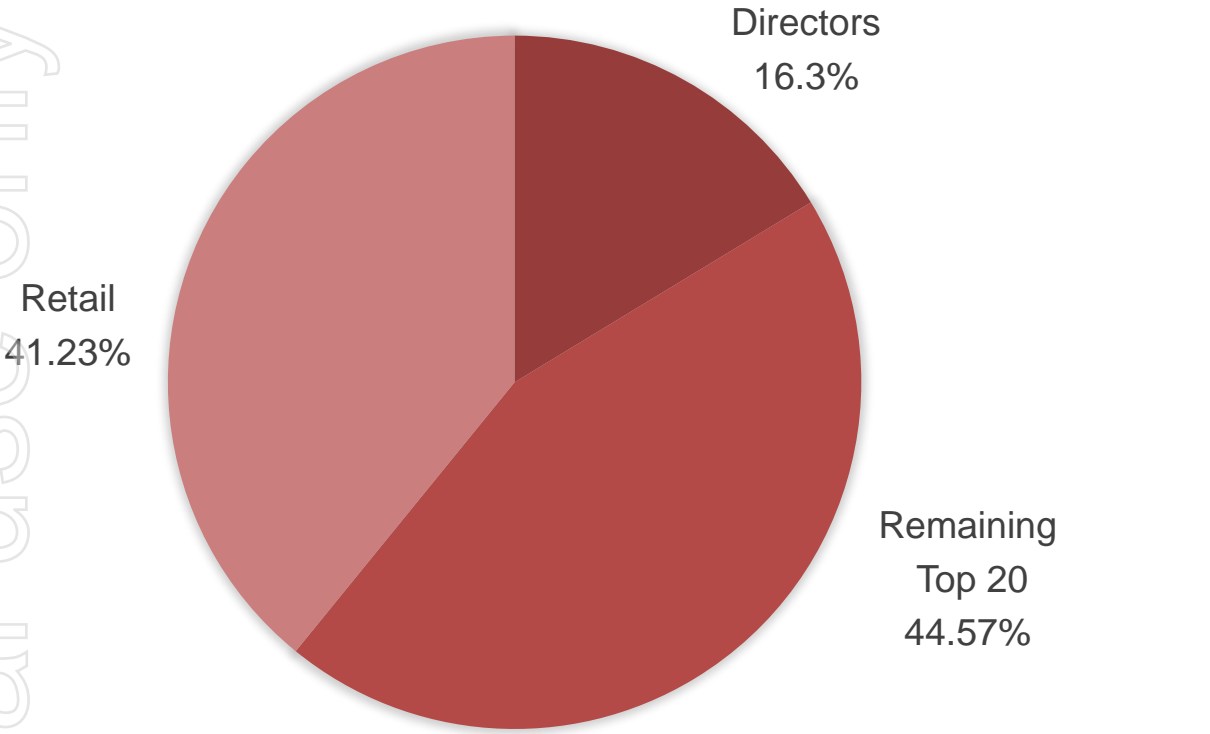
Heavy Minerals Limited (HVY) is an Emerging Industrial Minerals Explorer with Projects adjacent to world class deposits in Pro-Mining jurisdictions

- Western Australia – Port Gregory Project adjacent to GMA Garnet mine, supplying 30% of worlds Almandine Garnet¹
- **HVY targeting Industrial Garnet @ Port Gregory**
- Mozambique – Inhambane Project (JORC Inferred Mineral Resource of 90 Mt @ 3% THM) - Adjacent to Rio Tinto and Savannah Resources Heavy Mineral Sands Projects



¹2021 USGS Mineral Commodity Summary

Capital Structure¹



Position	Holder Name	% IC
1	VALENS INTERNATIONAL PTY LIMITED	6.49%
2	CHRISTOPHER ADAM SCHOFIELD	5.90%
3	HUNTER CAPITAL ADVISORS P/L	5.79%
4	METAL TIGER PLC	5.68%
5	GLENN SIMPSON & KERRY SIMPSON	3.87%
6	GNJ CONSULTING PTY LTD	3.08%
7	CS THIRD NOMINEES PTY LIMITED	3.07%
8	MR PAUL DUREY	2.91%
9	ROBERT ANDREW JEWSON	2.74%
10	AJAVA HOLDINGS PTY LTD	2.73%
Total Top 20		60.87%
Total Issued Capital - selected security class(es)		100.00%

ASX CODE
HVV

SHARES ON ISSUE²
51.3M

MARKET CAP²
\$8.72M

CASH²
\$3.61M

DEBT²
nil

EV²
\$5.11M



¹As at 31st January 2022, ²As at 31st December 2021 (17cps)

Adam Schofield
Non-Executive 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. Adam is an Executive Director and the CEO of Nelson Resources Limited (ASX:NES) and a Non-Executive Director of Kingfisher Mining Limited (ASX:KFM).

Maurice (Nic) Matich
Executive Director and CEO

Mechanical engineer and finance professional, 15+ years of varied experience in the resources sector, including the provision of engineering, risk consulting and insurance services to numerous Tier 1 mining companies with operations in Mineral Sands, Talc, Iron Ore, Gold, Lithium and Zinc. Nic has a Deep understanding of the industrial minerals thematic having covered the sector as an analyst for Patersons Securities. Director of Mobile Crisis Construction Limited, an Australian Charity that operates Internationally.

GLENN SIMPSON
Non-Executive Director

Mr. Simpson has been a Chartered Accountant for over 32 years, with global experience in accounting with a strong mining focus. His experience includes managing the Touché Ross & Co (Deloitte) practice in Bougainville, Papua New Guinea for 3 years and establishing his own large commercial accounting practice in West Perth & Kalgoorlie. Over the last decade, he established a large insurance broking and underwriting business from Perth that operated Nationally. These businesses were sold to a “national brand” underwriting and broking companies. He is a sophisticated investor and has been involved in many commercial ventures including capital raising and business start-ups. He has also mentored many small cap companies.

GREG JONES
Non-Executive Director

Over 25 years’ experience 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. 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-authored multiple technical and resource estimation mineral sands papers. For the past eight years, Greg has held various consulting roles, firstly establishing GNJ Consulting Pty Ltd specialising in geological, metallurgical and resource estimation consulting services to the mineral sands sector, then joining IHC Robbins where he is currently the Commercial and Business Development Manager.

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Port Gregory Project

**Exploration Target
of 170 Mt to 250 Mt
@ 3.5% to 4.5% THM**

**3.5 Mt to 4.5 Mt
contained garnet
(E70/5160)¹**



¹HVY ASX announcement 12th October 2021

Port Gregory Garnet Project

(30km North of Geraldton, Western Australia)

- Exploration Target 3.5 - 4.5 Mt contained Garnet
- Upside potential along 50km of underexplored coastline with 226 km² of contiguous tenure
- Adjacent to world-class GMA operating Garnet mine and the Lucky Bay Mine (under construction)

Inhambane Heavy Mineral Sands Project

(17 km Southeast of Inhambane, Mozambique)

- Inferred JORC Mineral Resource 90 million tonnes @ 3.0% THM (2.7 Mt HM) ¹
- Mining application pending
- Adjacent to Power
- Road Infrastructure and Port

¹HVY.ASX announcement 6th December 2021.

Two projects with the potential to grow into globally significant deposits.
Both Projects adjacent to Tier 1 Assets (GMA & Rio Tinto).



1,000,000 Tonne Worldwide production in 2020¹

ALLUVIAL ALMANDINE GARNET UNIQUE QUALITIES

Superior hardness (7.5 Mohs hardness³)

= **High productivity** (lower abrasive consumption)

= **Low dust** (OH&S requirement)

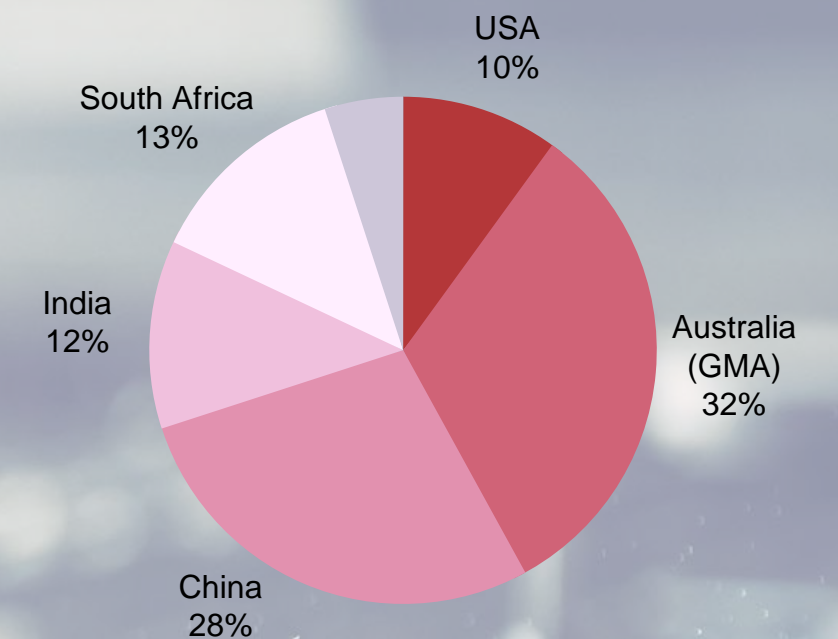
= **Recyclable** (Almandine Garnet can be recycled several times)

Inert

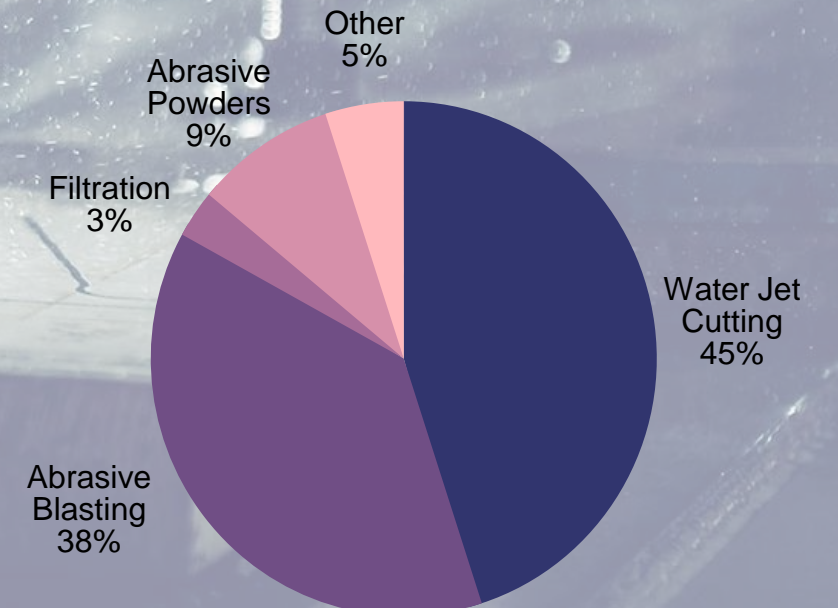
= **Environmentally friendly** (no hazardous by products)

= **Minimal health and Safety Risks** (OH&S requirement)

Garnet Production by Region¹



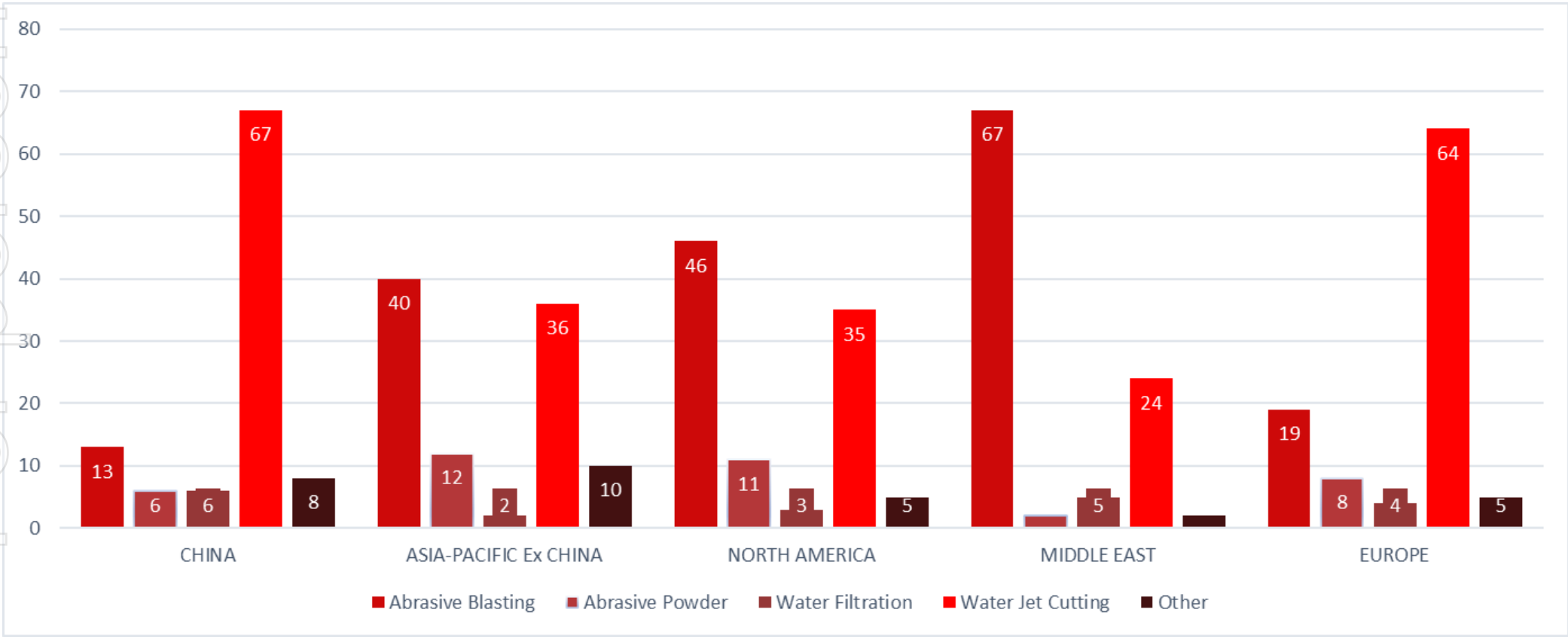
Garnet Use by Category 2019²



Refined garnet commands a premium of up to 100% on unrefined products (US\$300-US\$600+ per tonne)³. To be explored in Scoping study (2022)

8.7% CAGR in pricing 2016-2020⁴

Water Jet cutting drives current demand and is the dominant end-use in advanced manufacturing economies (Europe & China)¹



¹ TZMI Garnet Market Data (Project 11759) Jan 2021 & USGS Minerals Handbook 2021 (Global Average 2015-2019, USA 2020)

² USGS Minerals Handbook 2004 – 2022

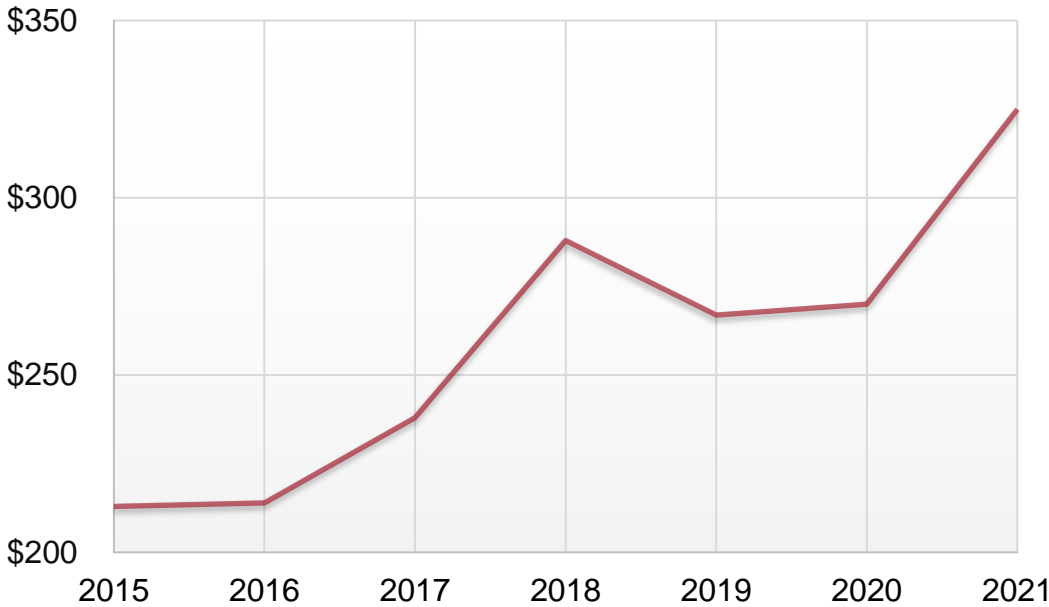
³ 2016 USGS Minerals Yearbook and HVY extrapolations

⁴ HVY calculations

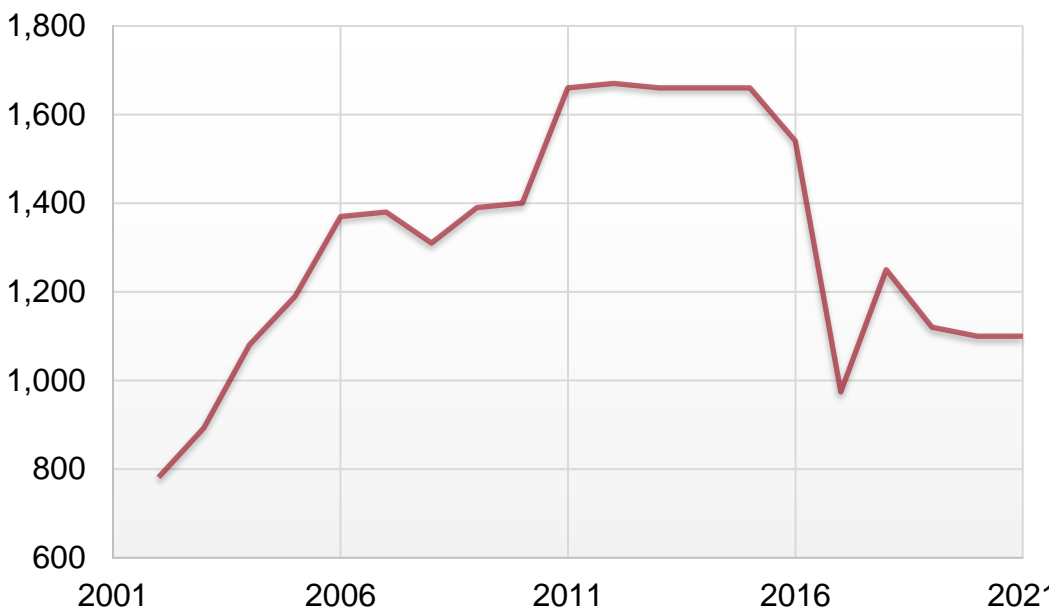
Major Markets

USA, EU, Asia and Middle East

US\$ per tonne (unrefined)²



World Garnet Production (kt)²



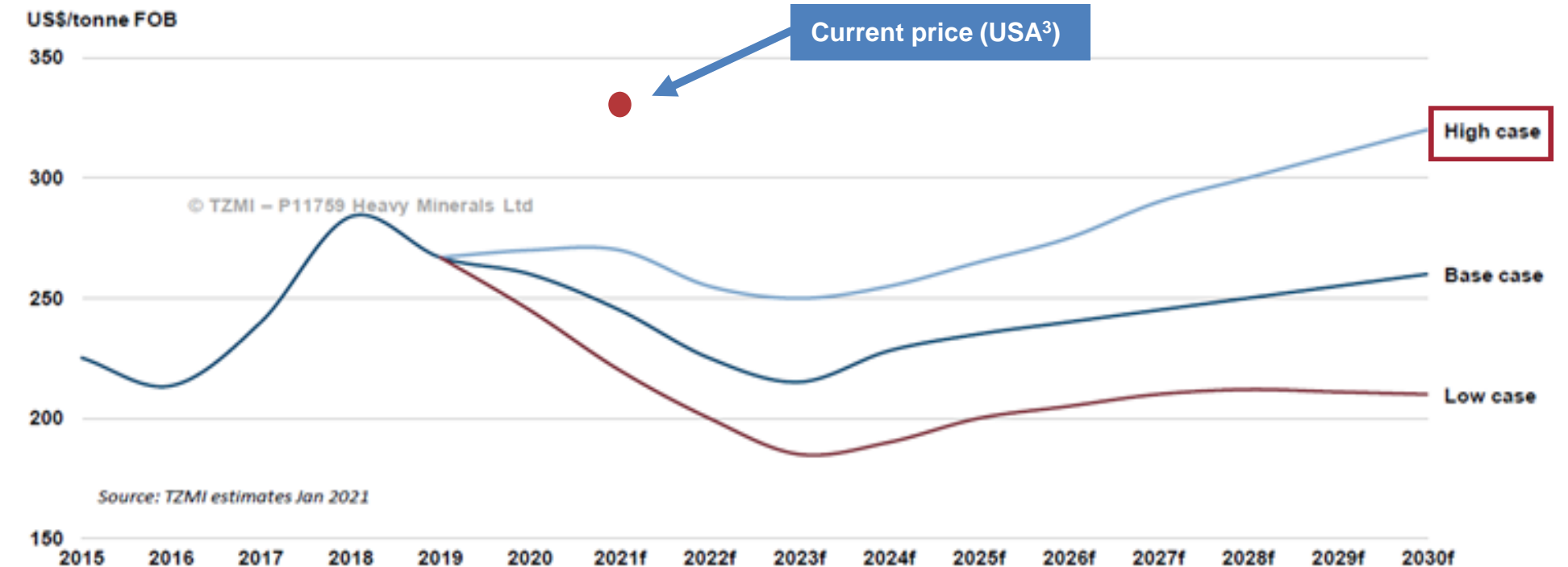
HVY'S Unique Opportunity to significant and widening supply deficit forecast 2022 onwards²

540 kt deficit in 2030 without new sources of supply

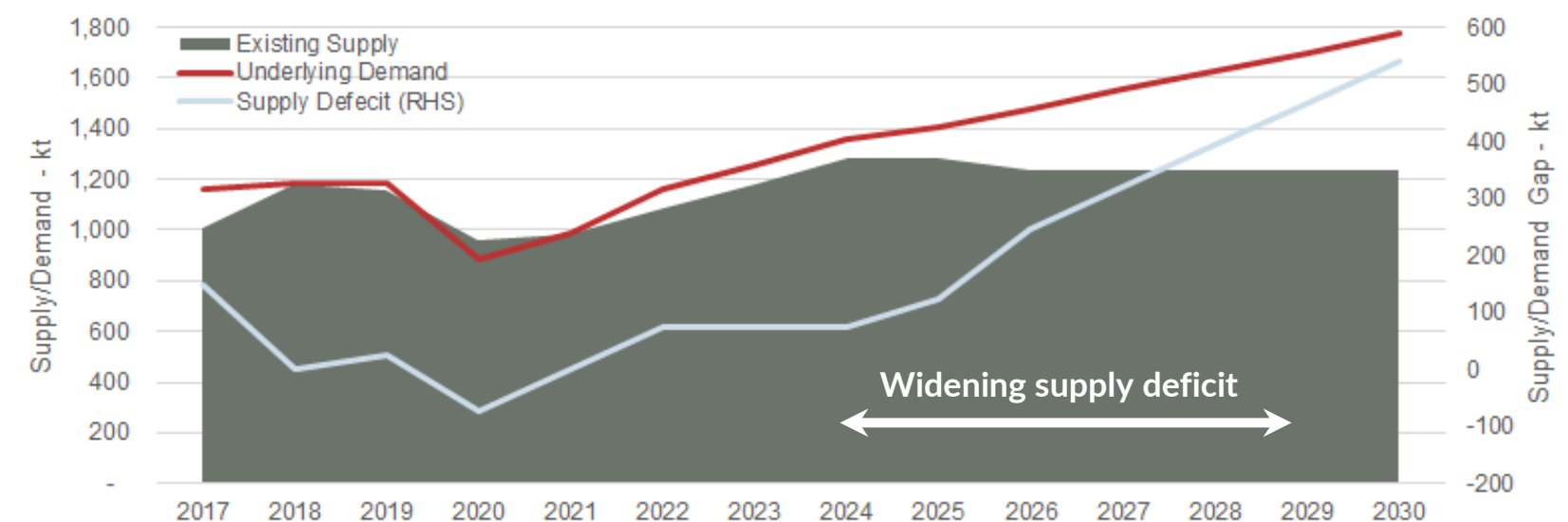
TZMI 2019 forecast long-term price of US\$210 per
tonne (indexed to 2020) for unrefined product

USA 2021 average pricing trending well in excess of
TZMI "High Case"³

Global average (nominal) Garnet price (unrefined)¹



Garnet Supply / Demand Forecast²



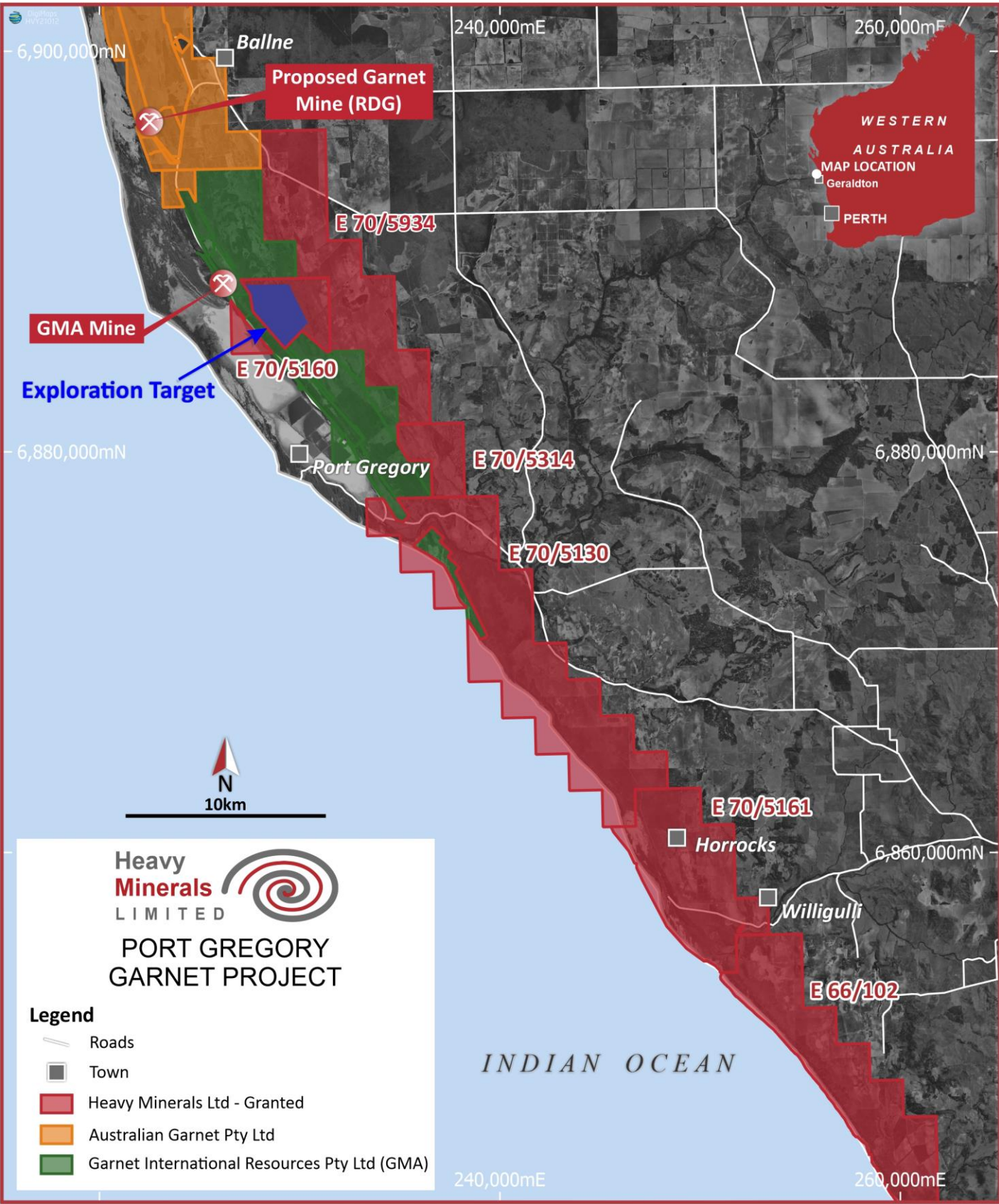
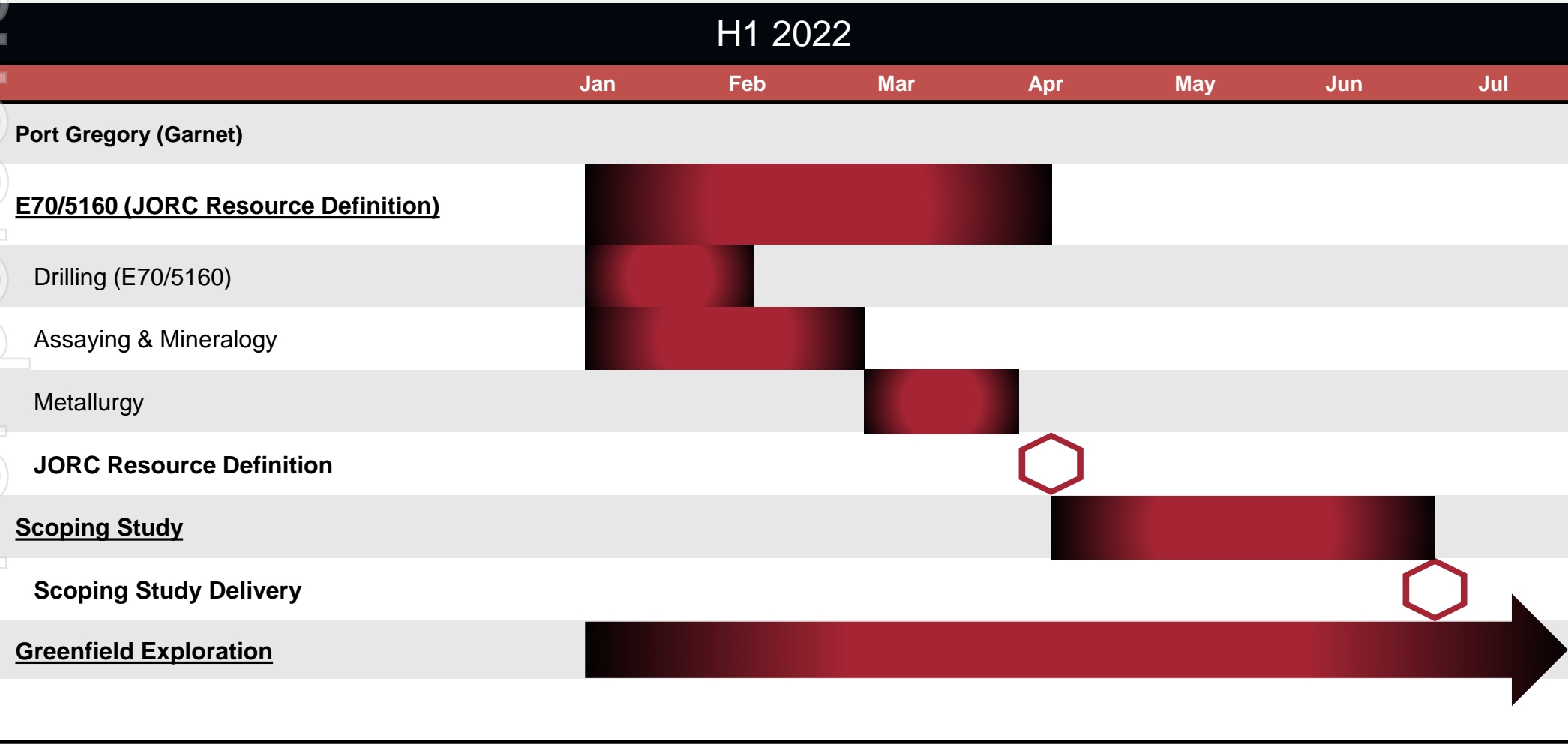
¹TZMI Garnet Market Data (Project 11759) Jan 2021, ²TZMI Garnet Market Data (Project 11759) Jan 2021 & Internal forecasting, ³USGS Minerals Handbook 2021 and HVY internal calculations

Largest tenure holder (226 km²) in the region targeting garnet

Exploration Target 3.5 – 4.5 Mt contained garnet

Adjacent to world's largest Garnet mine (GMA) and the Lucky Bay Garnet Mine (RDG.ASX)

Proposed Timeline (Port Gregory)

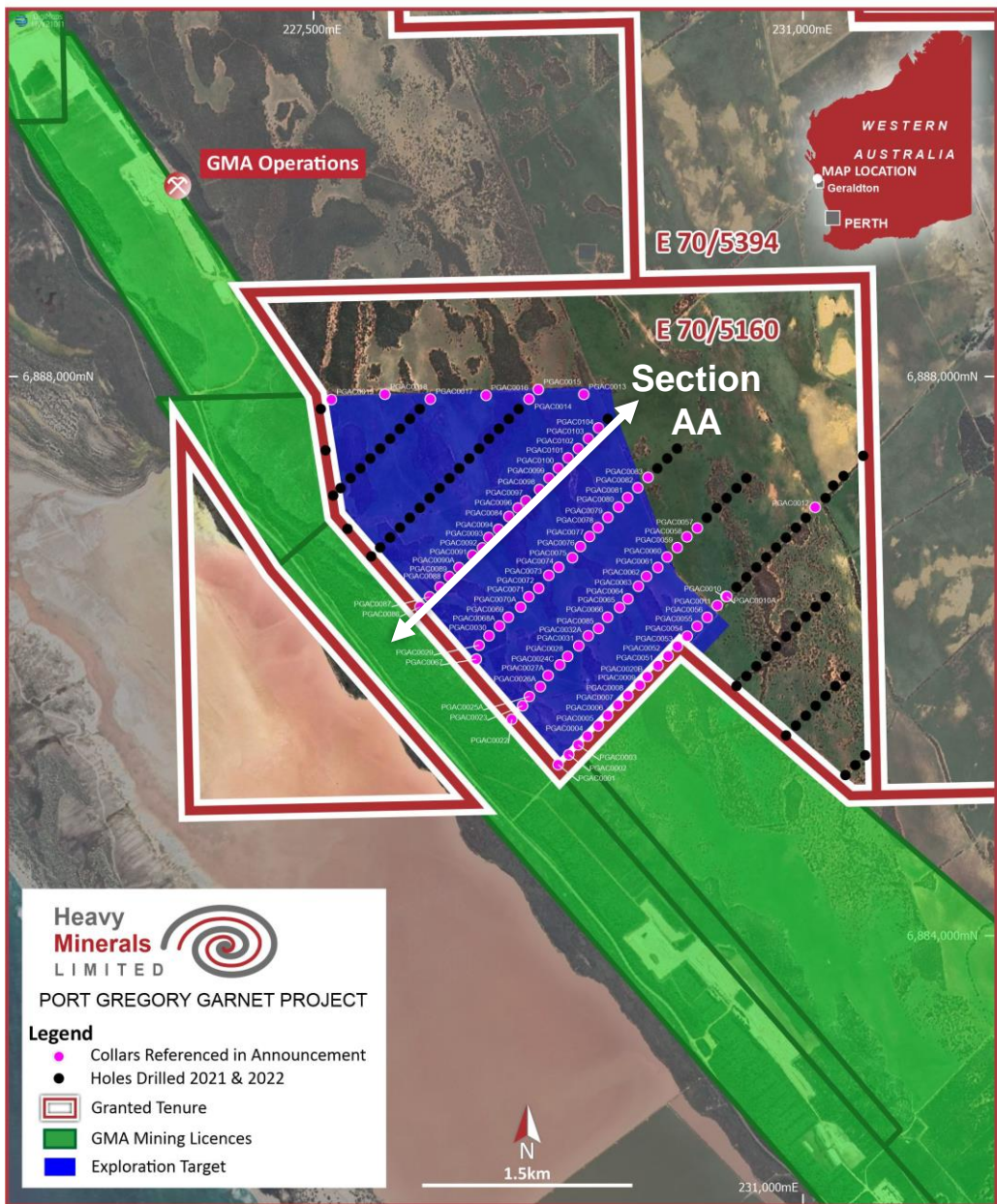


High Grade Drilling Results

187 holes for 5,653.5 metres drilled in maiden drilling campaign

High grade mineralised package trending N/S up to 20 m thick, 200 m wide and in excess of 1.5 km in length

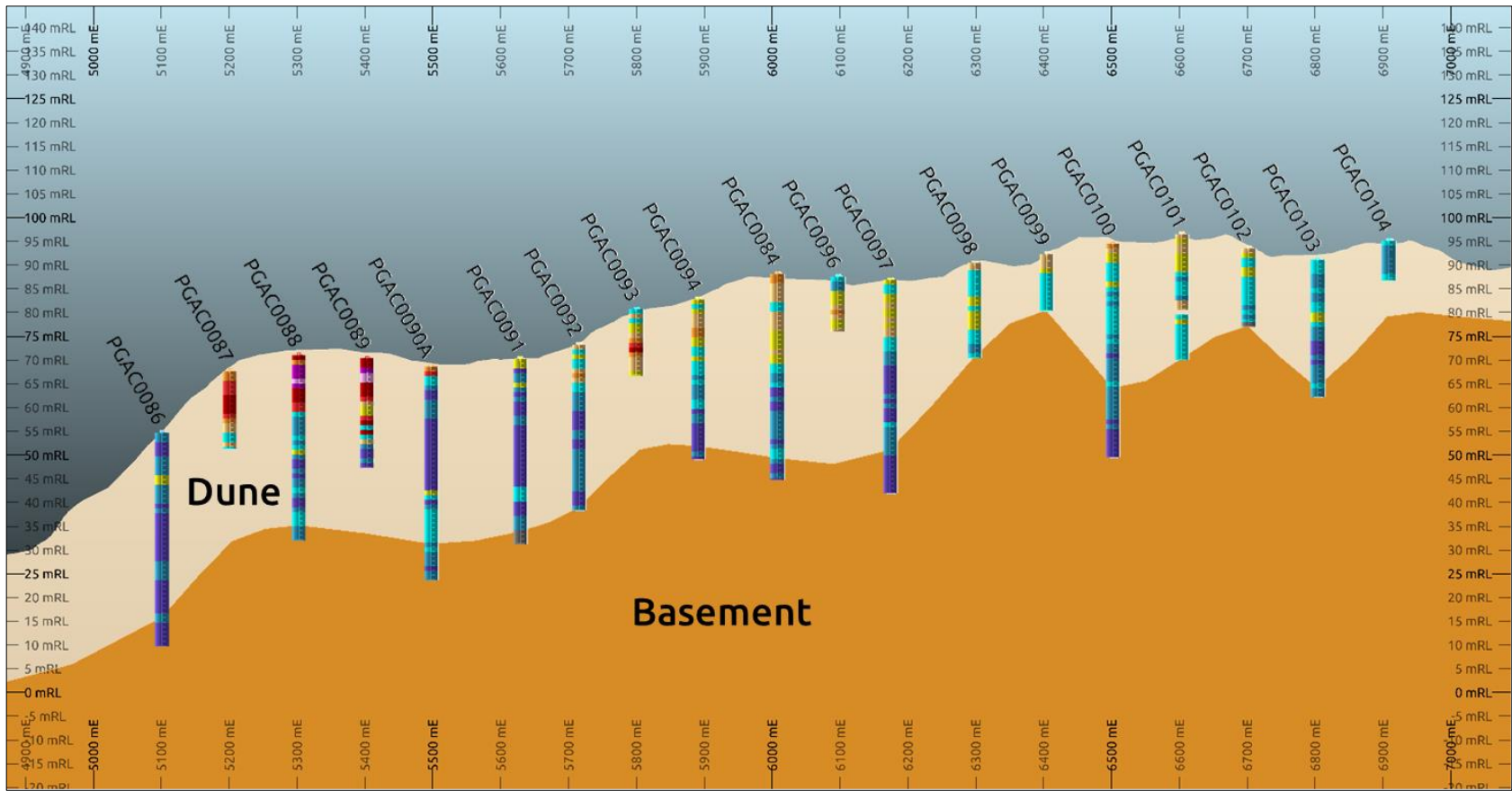
2021 drilling campaign collars



Notable intersections from 2021 campaign¹

Hole ID	GRADE (THM)	Interval (m)	From
PGAC0067	11.3%	22.5 m	12m downhole
PGAC0089	12.9%	14 m	surface
PGAC0088	13.3%	12 m	surface
PGAC0025A	17.9%	13 m	surface
PGAC0026A	39.5%	3 m	surface

Type section AA¹



¹Type section for Port Gregory 2021 exploration campaign (local grid, looking north, 7x vertical exaggeration)

JORC Mineral Resource expected in Q1 2022

Drilling program finalised (January 2022)

Garnet fraction appears significantly higher than reported in GMA’s historical results. Reporting between 65% - 75% (visual scanning by microscope analysis)

3.5 – 4.5 Mt contained garnet, with low slimes

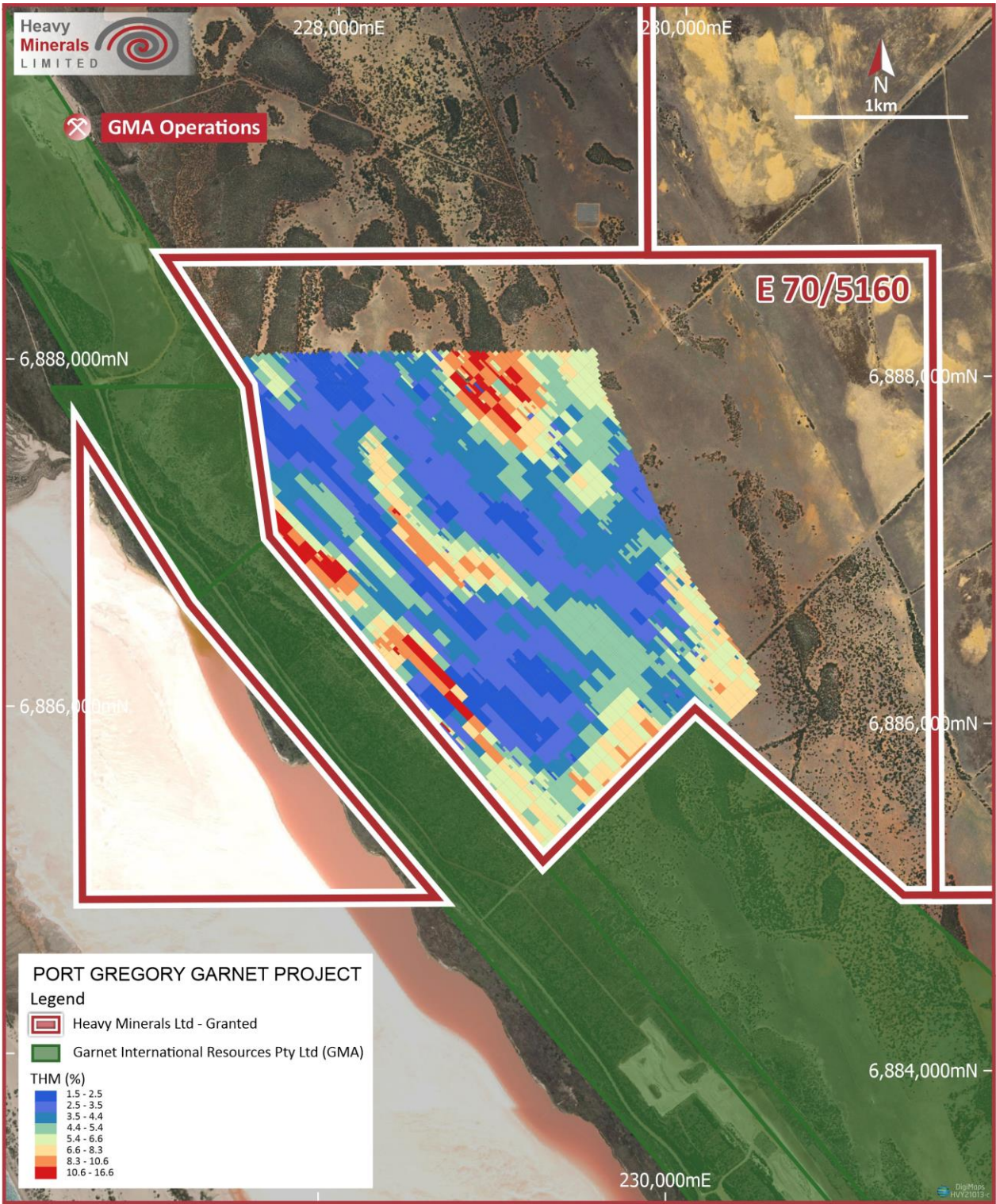
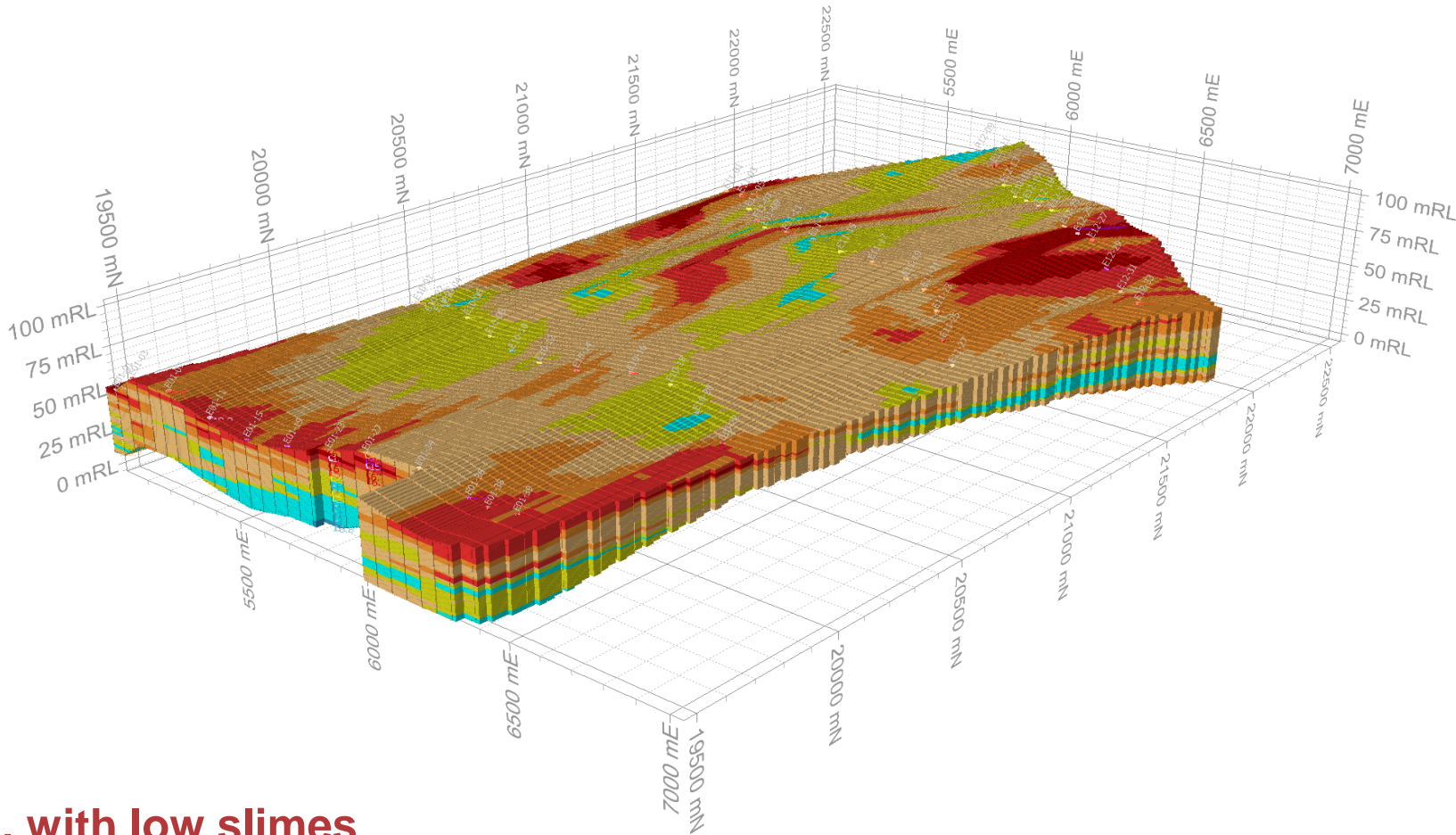
Summary of Exploration Target ⁽¹⁾				HM Assemblage ⁽²⁾					
Classification	Material (Mt)	In Situ HM (Mt)	In Situ Garnet (Mt)	HM (%)	SL (%)	OS (%)	Garnet (%)	Ilmenite (%)	Non Valuable HM (%)
Exploration Target	170 - 250	7 - 9	3.5 - 4.5	3.5 - 4.5	10	20	46	1	53
Grand Total	170 - 250	7 - 9	3.5 - 4.5	3.5 - 4.5	10	20	46	1	53

Notes:

- (1) Exploration Target reported at an upper cut-off-grade of 2.5% HM and a lower cut-off grade of 1.5%.
- (2) Mineral assemblage is reported as a percentage of in situ HM content.

¹https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02420156-6A1049790?access_token=83ff96335c2d45a094df02a206a39ff4

Exploration Target block plan and heat map





Exploration Target located in a fraction of the highly prospective tenement package



Over 50 km of coastal dunes with geology analogous to GMA’s operations



Historic Auger Sampling¹

Q620 - 630: 0-19ft, 5.1% - 19.8% THM, 63-92% Garnet
Q610 - 614: 0-7.5ft, 3.3% - 53.4% THM, 54-78% Garnet
Q605 - 607: 0-5ft, 3% - 4% THM, 19-85% Garnet



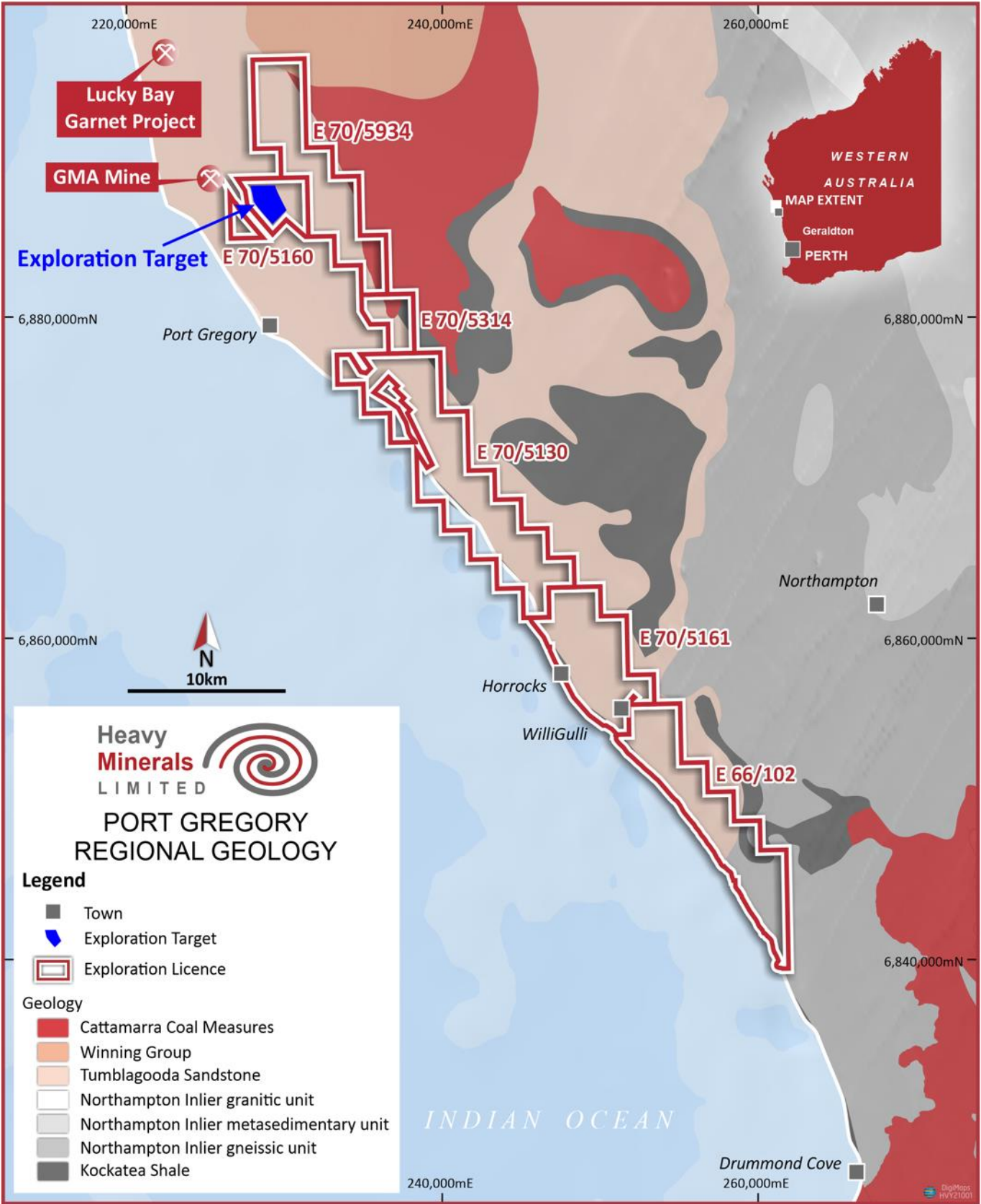
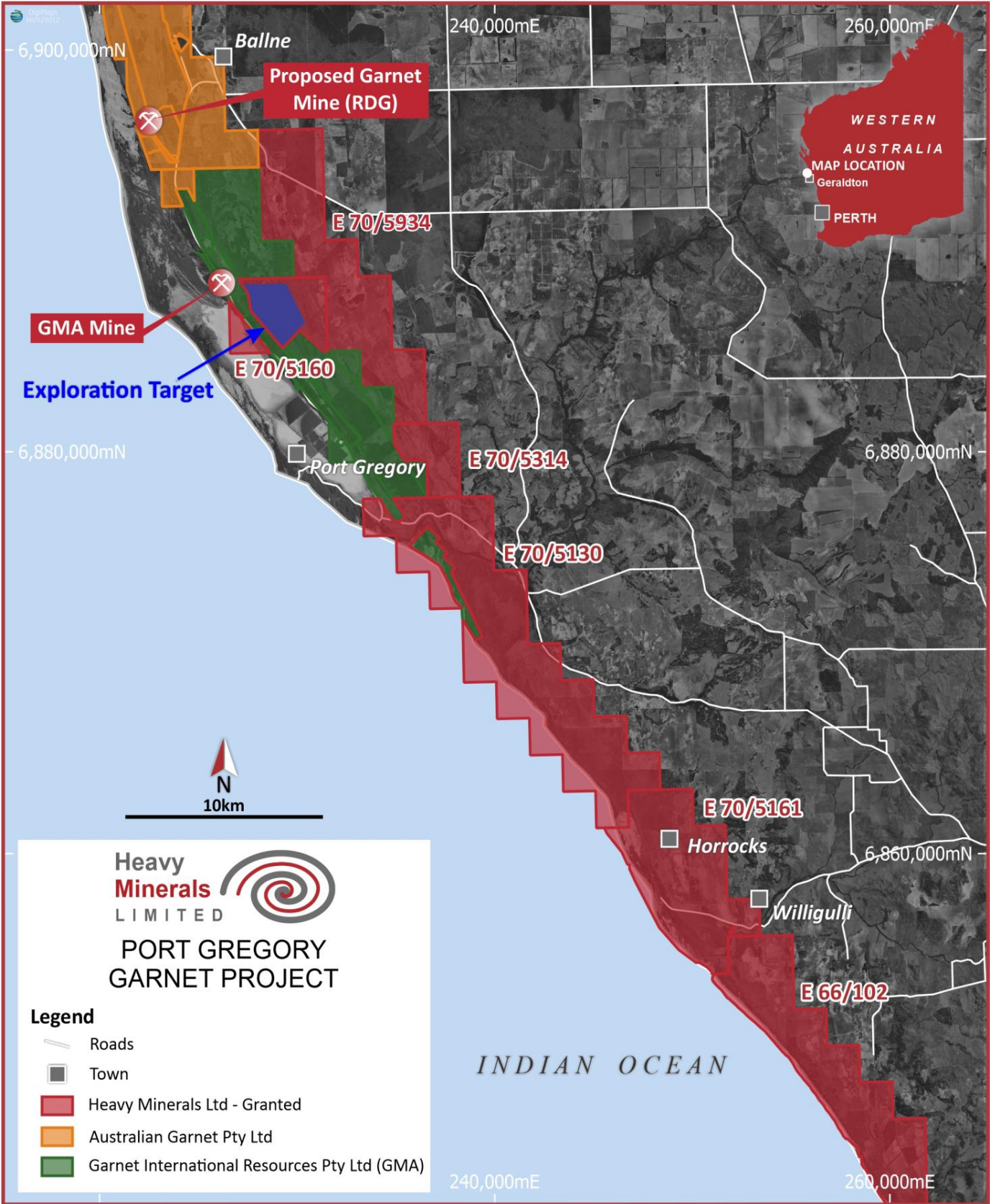
Historical sampling using hand auger highlights the overall tenure prospectivity

¹WAMEX A No.:1660 Title: Geraldton-Hutt Lagoon, WA, Quarterly Report for the period Feb to May 1967, Temporary Reserve No. 4017H. Operator(s): New Consolidated Goldfields (Australasia) Pty Ltd

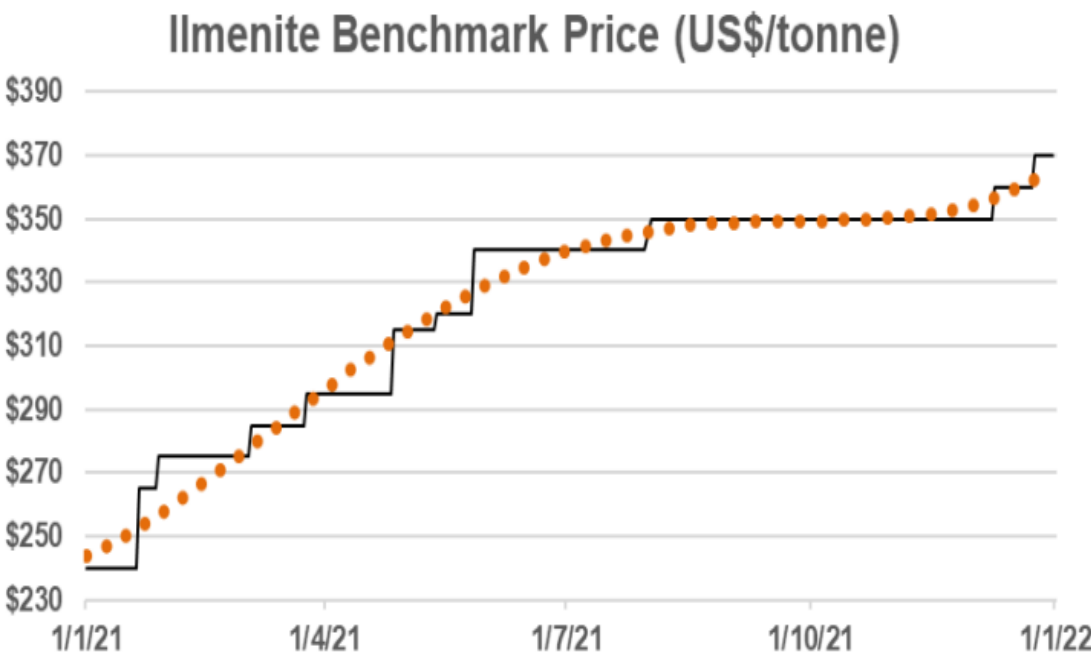
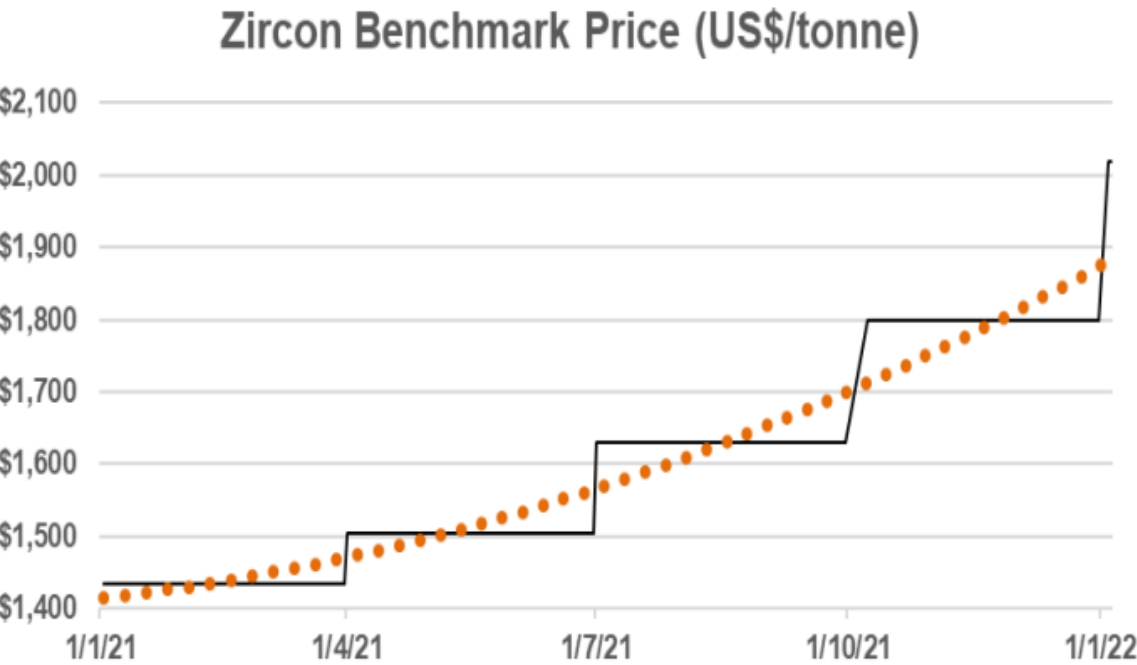
Port Gregory Potential



HVY plans to develop its tenure for garnet and other industrial minerals



Heavy Mineral Sands Market Dynamics – Rapid uplift in pricing over the last 12 – 18 months



Existing producers are seeing an increase in pricing on the full suite of valuable heavy minerals (VHM) with strong gains seen since October 2020¹

Full suite of valuable heavy minerals (VHM) have seen growth over the previous five years highlighting supply side constraints

¹Image Resources (IMA.ASX) ASX release 20/07/2021 and 31/01/22



Titanium dioxide concentrates

Ilmenite accounts for 90% of the world's consumption of titanium minerals¹. Inhambane mineral assemblage contains 60% ilmenite

Chinese imports of titanium concentrates increased by 19% YOY in 2020⁴

Chinas largest TiO₂ pigment producer in Asia added 260kT of TiO₂ capacity in 2019⁵



Zircon

Urbanisation is driving a preference for tiled flooring in Asia

China accounts for 55% Global demand² and has seen GDP growth per capita of > 5% YOY since 1995⁶

Zircon used in Foundry and Refractories for steel manufacture

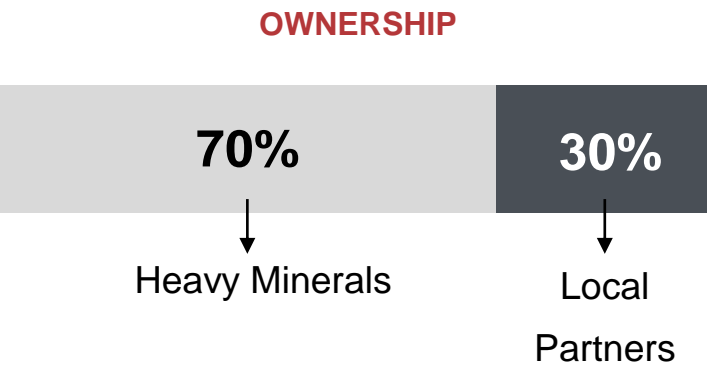
¹Iluka Resources Full Year 2020 Results Presentation, ²Iluka Resources Full Year 2020 Results Presentation, ³Image Resources (IMA.ASX) ASX release 18/10/2021, ⁴USGS Mineral Commodity Summaries 2021, ⁵Lomon Billions website (www.lomonbillions.global/key-facts), ⁶World Bank statistics

Inhambane Mineral Sands Project



213.8 km² of tenure under mining application:

Adjacent to HV power, road and the Port of Inhambane.
Mining Concession application lodged (25-year tenure),
pending regulatory approvals

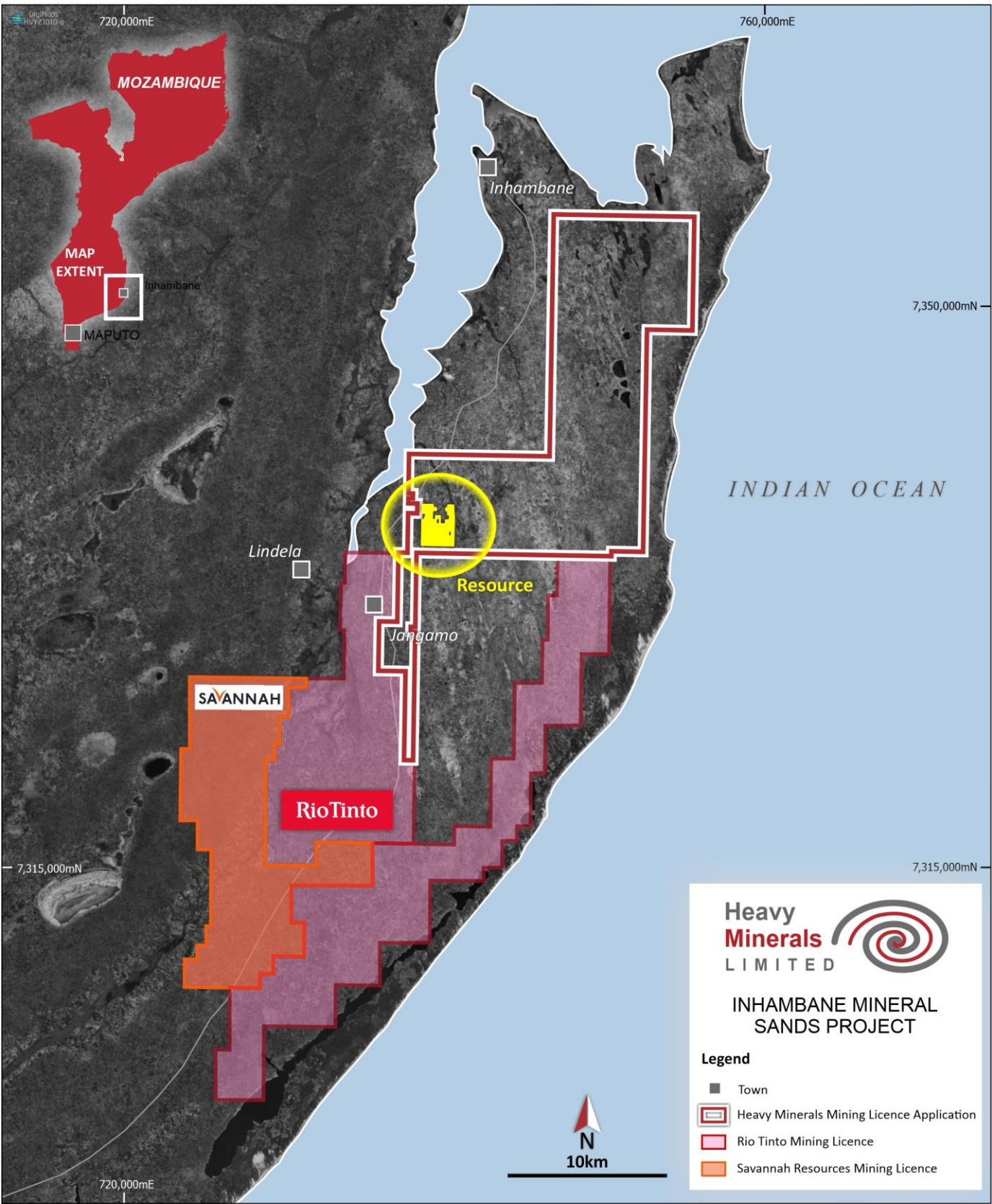


JORC Inferred Mineral Resource of **90 million tonnes @ 3.0% THM** (2.7 Mt contained HM).
Sought after assemblage. Exploration has only scratched the surface!

Ilmenite accounts for **90% of the world's consumption** of **titanium** minerals¹



Adjacent to two Tier 1 Mineral Sands Projects:



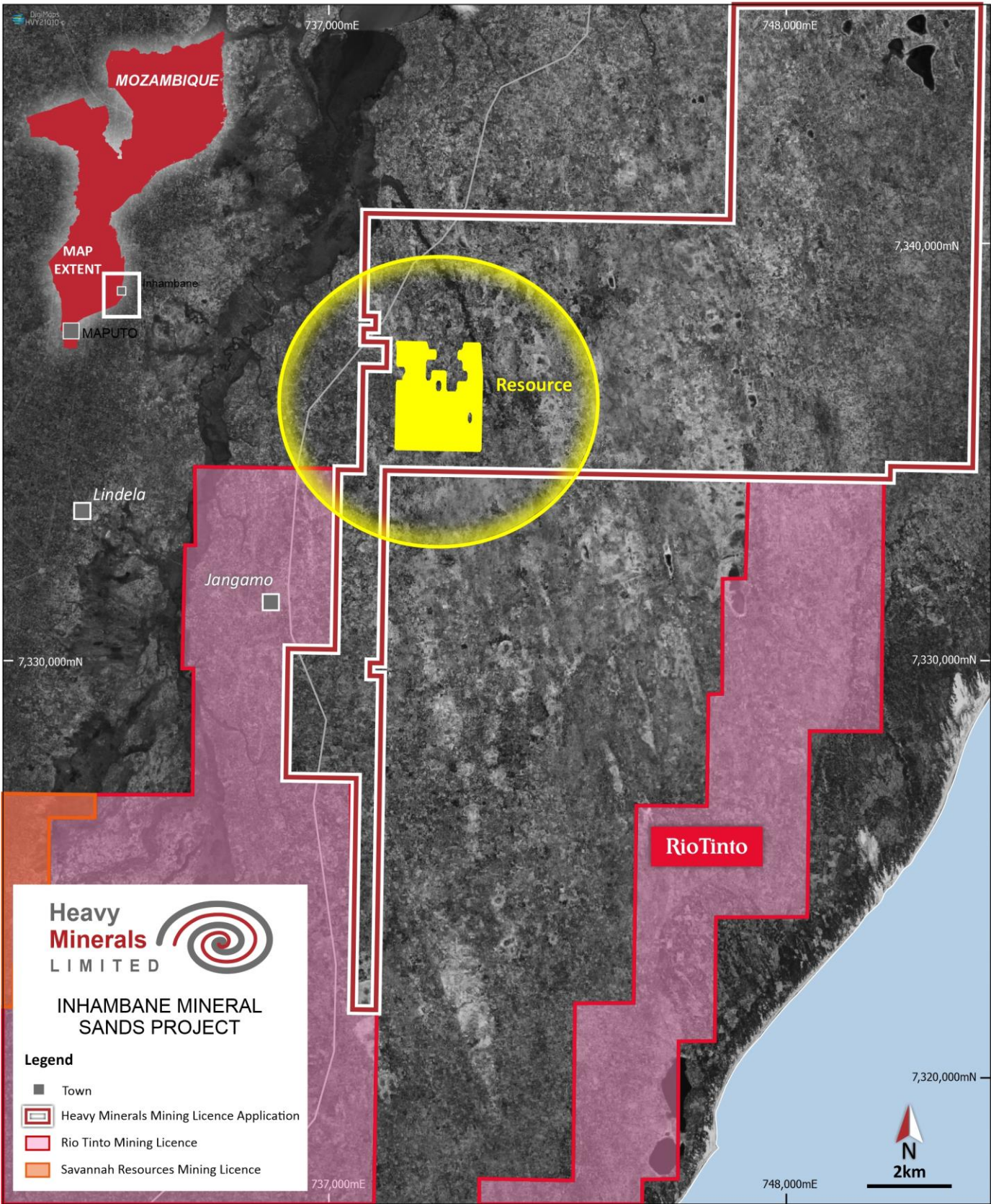
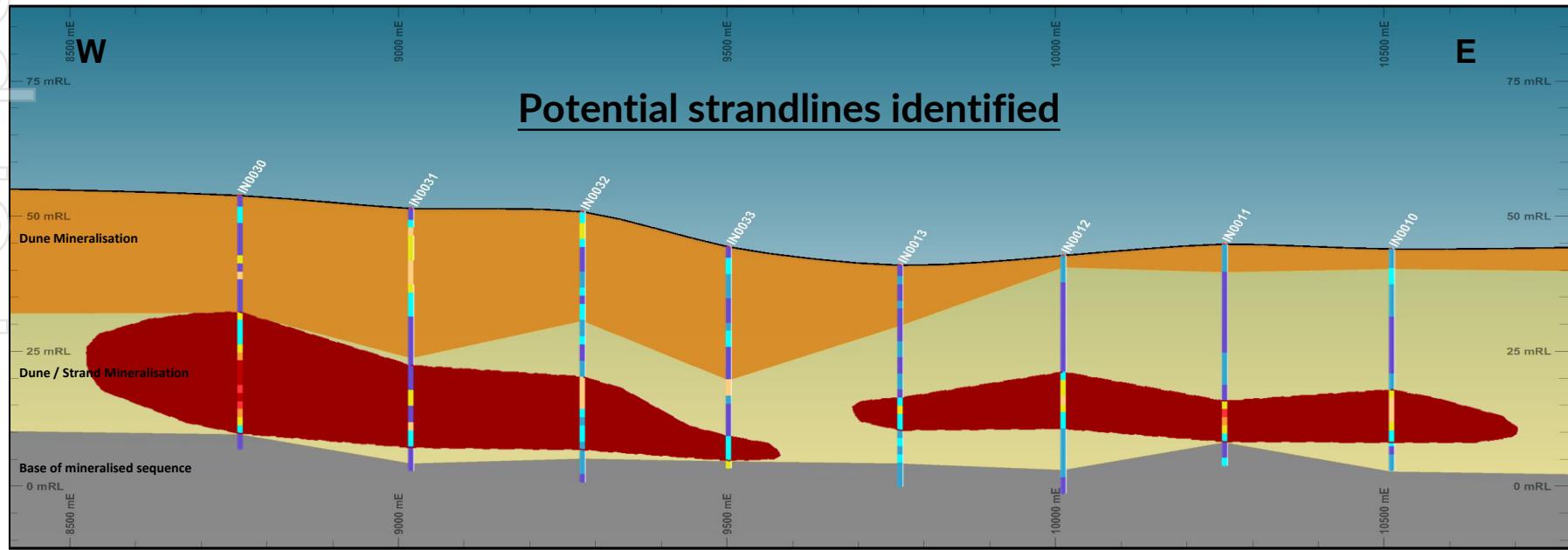
¹Iluka Resources Full Year 2020 Results Presentation

- 5 drill ready targets with a substantial footprint to expand upon existing resource
- Historical auger data and field mapping guiding exploration program
- Potential strandlines identified
- Potential to grow resource into a globally significant deposit

MINERAL RESOURCE SUMMARY FOR INHAMBANE PROJECT AS AT DECEMBER 2021¹

Summary of Mineral Resources ⁽¹⁾						HM Assemblage ⁽²⁾					
Mineral Resource Category	Material (Mt)	In Situ THM (Mt)	THM (%)	SL (%)	OS (%)	Altered Ilmenite (%)	Primary Ilmenite (%)	Rutile (%)	Leucoxene (HiTi) (%)	Zircon (%)	Others (%)
Inferred	90	2.7	3.0	5	0	29	31	2	4	5	29
Grand Total ⁽³⁾	90	2.7	3.0	5	0	29	31	2	4	5	29

- Notes:
- (1) Mineral Resources reported at a cut-off-grade of 1.7% HM.
 - (2) Mineral assemblage is reported as a percentage of in situ HM content.
 - (3) HVY has a 70% interest in the Inhambane heavy mineral sands project



¹https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02462745-6A1067130?access_token=83ff96335c2d45a094df02a206a39ff4

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