

#### **ASX ANNOUNCEMENT**

3 June 2022

# Presentation by MRG's Chairman at The Junior Indaba Conference, Johannesburg, for Explorers, Developers & Investors in Junior Mining

MRG Metal Ltd (ASX:MRQ) wishes to advise that its Chairman, Andrew Van Der Zwan presented overnight at The Junior Indaba Conference, Johannesburg, for Explorers, Developers & Investors in Junior Mining.

The presentation is attached and can be viewed on the Company's website at <a href="https://www.mrgmetals.com.au/investor-info">https://www.mrgmetals.com.au/investor-info</a>

Authorised by the Board of MRG Metals Ltd.

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An investment in MRG should be considered highly speculative. Investors should consider consulting their professional advisers before deciding whether to invest in MRG.

Exploration priorities change with increased data and knowledge. As such, targets and concepts outlined in this presentation may or may not be tested or be tested by different means.

Exploration targets are conceptual in nature and drilling may not convert these targets to mineral resources.

# WHAT ARE HEAVY MINERAL SANDS (HMS)?

- HMS deposits are found in shoreline environments mostly exploited for titanium minerals and zircon
- The Valuable Heavy minerals fall into two categories: **Titanium minerals** (ilmenite, leucoxene and rutile) and **Zircon**
- Titanium minerals are processed to TiO2 feedstocks concentrate (titania slag, synthetic rutile)
- Zircon, a very valuable part of the HMS suite, is processed as a separate concentrate
- Known to contain Iron/titanium oxides that have significant potential value in high Iron ore price environments

# **HEAVY MINERAL SANDS USES**

- Titanium is used as TiO2 pigment in paint, welding electrode fluxes, alloying agent with Al, Fe, Mo and Mn
- The alloys are used in aerospace and aircraft applications including engines, where strong, lightweight, temperatureresistant materials are needed
- TiO2 is considered a "quality of life" product consumption increases as disposable income rises
- Zircon is a high value mineral used in many industrial and chemical applications

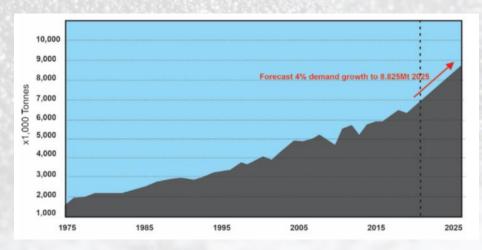


# **HEAVY MINERAL SANDS – MARKET UPSIDE**

- Outlook is improving market has bottomed and is on the rise
- Titanium Oxide and Titanium metal demand increasing
- Titanomagnetite has potential value in high Iron Ore price environment
- Improvement in Ilmenite concentrate a key driver for MRG, with recent improvement and prices now ranging from USD\$350-\$500/T depending on TiO2 content.
- MRG is an Ilmenite play with significant Zircon and Rutile and potential iron ore credits
- Ilmenite price will increase with TiO2 demand. Recent substantial price increase predicted to be maintained over minimum 5 year period until supply increases.

# ILMENITE US\$ 400\*/T RUTILE US\$ 1200\*/T ZIRCON US\$ 1500\*/T

# **TiO2 Long Term Demand Growth Chart**



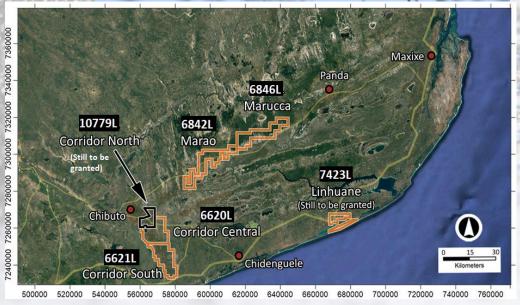
Source: Artikol at Mineral Sands Conference Perth, 2019

## WHO IS MRG METALS?

MRG Metals is a junior ASX explorer, with a world class JORC classified
HMS discovery in the bag - now working on Scoping Study and
Preliminary Economic Analysis .... towards production.

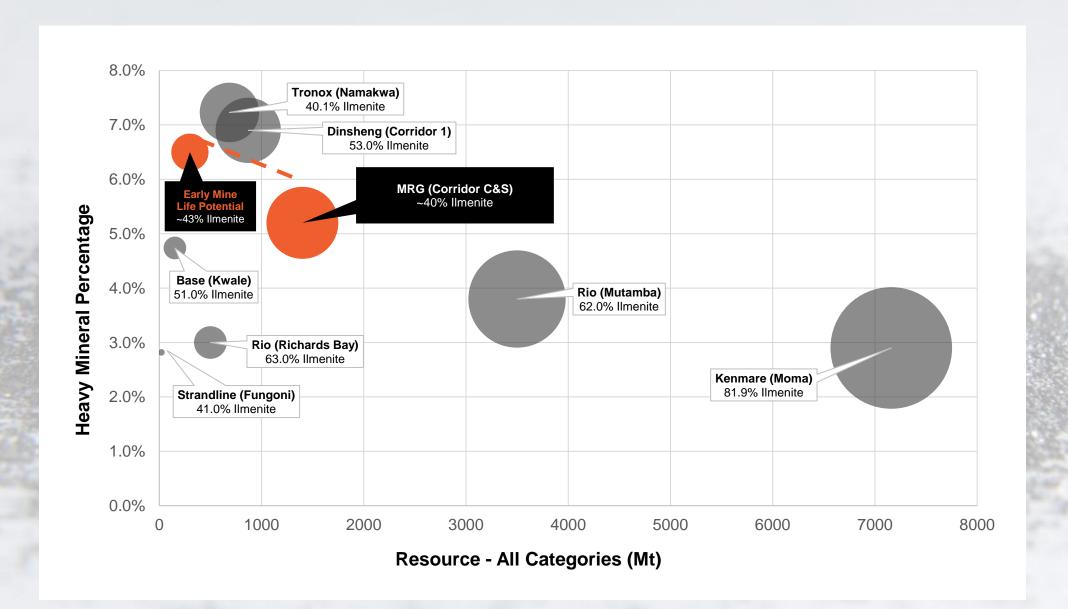
- 6 high calibre 100 % owned HMS projects (746km²) and 1 further project under application in Mozambique – a world prolific HMS province
- Corridor Central and South Portfolio 3 contiguous tenements discoveries by MRG already produced 3MREs, with further upside exploration.
- Over 300 MT @ 6.0% Total Heavy Mineral (THM) JORC Resource identified to date
  - Progressive Infill drilling continues to expand the portfolio of very high grade (>6%) from surface
- Targeting early mine life feed across multiple targets. Pit optimisation being driven by early mine life optimisation with no strip and high average grade throughput.
- Ongoing exploration programs levering off skills and efficiencies developed at Koko Massava. Recent discovery of higher Valuable Heavy Mineral (VHM).
- Dual speed approach: exploring across multiple tenements whilst progressing to mine development at Corridor Central and South. Prospects delivering the best 100-200MT MRE likely to feed into scoping study which is currently underway. (Completion July/Aug 2022)
- Exploration discovery costs (to Inferred Resource) lowest in industry with discovery/tonne running at under AUD 2 cents / tonne
- Also leveraging in country resources on other potential projects.







# CORRIDOR ILMENITE RESOURCE EVOLUTION



# VALUE PROPOSITION OF CORRIDOR CENTAL AND CORRIDOR SOUTH SANDS



**VHM ASSEMBLAGE** 

43-66% Valuable Heavy Minerals

15-34%

Non-Traditional VHM Containing >57% Iron

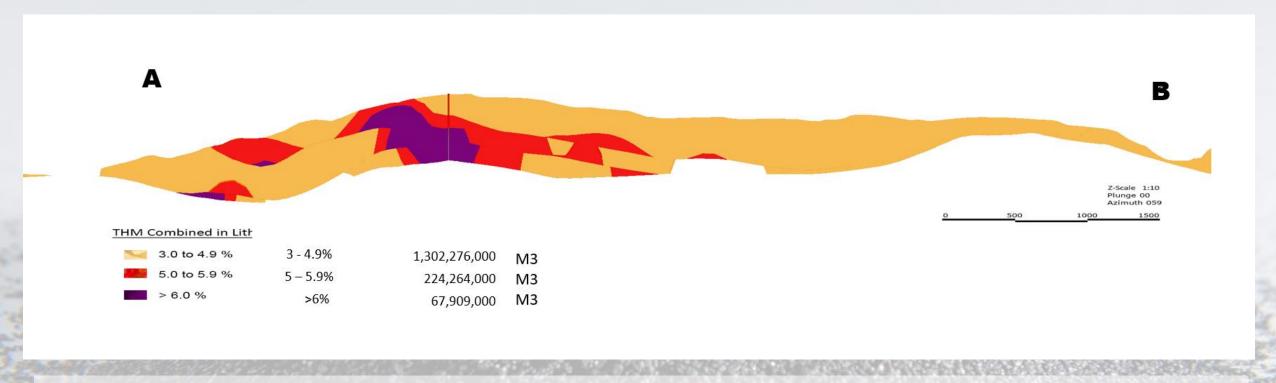
	VHM (%)	MINERAL	DESCRIPTION	CONCENTRATE PRICE (US\$/t)
	1-2	Rutile	Naturally occurring very high-grade titanium dioxide feedstock, typically with TiO2 content of 92-95%	+\$1,200
	2-4	Zircon	High value mineral used in many industrial and chemical applications	+\$1,500
	2-4*	Leucoxene	Naturally occurring altered ilmenite titanium dioxide feedstock, typically with TiO2 content up to 90%	+\$700
_	37-55	Ilmenite	Naturally occurring titanium dioxide feedstock, typically with TiO2 content of 46-52%	+\$400+
	0-6	Monazite- Andalusite	High value mineral with rare earth elements including Neodymium and Praseodymium	+Market?
	15-32	Titanomagnetite	High grade iron ore with contained titanium. Bulk metallurgy results delivered a >57% iron product	Iron Ore
	11-33	Other minerals	Non valuable waste products (Sands/Clays Other)	

Source: Current market prices at Mozambique Wharf

Inground value can improve by over \$1.25 / tonne for every 1% improvement in Base THM and further \$1.25+ / tonne for every 10% increase in ilmenite component of VHM



# SCHEMATIC CROSS SECTION – KOKO MASSAVA High Grade



We utilised Leapfrog modelling of assay and visually estimated grade from previous MRE plus recent infill drilling shows:

- It validated what we have now confirmed in the MRE's
- This is a good example of what we believe the ongoing pit optimization will show ....multiple 20-50 MT pits with high grade from surface with no strip required.
- Including a potential very high grade zones at a cut-off grade of >6% THM

We now have multiple pits to become a mine start-up opportunity for MRG



# **KOKO MASSAVA UPDATED MRE**

#### **KOKO MASSAVA UPDATED GLOBAL MRE**

Refer ASX Announcement: 16 December 2021

S	SUMMARY OF MINERAL RESOURCE(1)									THM ASSEMBLAGE (2)										
MINERAL RESOURCE CATEGORY	MATERIAL (Mt)	IN-SITU THM (Mt)	BD (gcm3)	THM (%)	SLIMES (%)	os (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	HEMA (%)	CHROM (%)	MOTH (%)	ANDA (%)	NMOTH (%)					
Indicated	557	28	1.74	5.1	17	1	38	1	1	32	9	4	4	8	3					
Inferred	977	49	1.74	5.1	16	1	38	1	1	32	9	4	4	8	3					
GRAND TOTAL	1,531	77	1.74	5.1	17	1	38	1	1	32	9	4	4	8	3					

#### Notes:

#### **KOKO MASSAVA HIGH GRADE AREA MRE**

Refer ASX Announcement: 16 December 2021

s	SUMMARY OF MINERAL RESOURCE(1)									THM ASSEMBLAGE (2)										
MINERAL RESOURCE CATEGORY	MATERIAL (Mt)	IN-SITU THM (Mt)	BD (gcm3)	THM (%)	SLIMES (%)	os (%)	ILM (%)	RUT (%)	ZIR (%)	TIMAG (%)	HEMA (%)	CHROM (%)	MOTH (%)	ANDA (%)	NMOTH (%)					
Indicated	58	4	1.8	6.4	15	1	39	1	1	33	9	4	3	7	3					
Inferred	45	3	1.8	6.8	12	1	38	1	1	34	10	4	4	5	2					
GRAND TOTAL	103	7	1.8	6.6	14	1	39	1	1	33	9	4	3	6	3					

#### Notes:

<sup>(1)</sup> Mineral resources reported at a cut-off grade of 4% THM.

<sup>(2)</sup> Mineral assemblage is reported as a percentage of in-situ THM content.

<sup>(1)</sup> Mineral resources reported at a cut-off grade of 5.5% THM.

<sup>(2)</sup> Mineral assemblage is reported as a percentage of in-situ THM content.

# NHACUTSE AND POIOMBO UPDATED MRES

#### **NHACUTSE + POIOMBO GLOBAL MRE**

Refer ASX Announcement: 8 April 2022

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Refer ASX Announcement: 8 April 2022

Global Minera	al Resources Estimati	4% COG													
SUMMARY O	F MINERAL RESOUR	CES(1)													
DEPOSIT	MINERAL RESOURCE CATEGORY	MATERI AL (Mt)	IN-SITU THM (Mt)	BD (gcm 3)	THM (%)	SLIM ES (%)	os (%)	ILM (%)	RUT (%)	ZIR (%)	TIM AG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOT H (%)
GLOBAL	Indicated	524	26	1.74	5.0	22	1	44	1	1	27	3	2	8	4
GLOBAL	Inferred	337	16	1.74	4.7	17	1	41	1	1	27	4	5	10	3
GRAND TOTA	AL.	860	42	1.74	4.9	20	1	43	1	1	27	3	3	9	3

#### Notes:

- (1) Mineral resources reported at a cut-off grade of 4% THM.
- (2) Mineral assemblage is reported as a percentage of in-situ THM content.

Nhacutse Minera	al Resources Estim	ation		5% COG	5% COG													
SUMMARY OF M	IINERAL RESOUR	CES <sup>(1)</sup>																
DEPOSIT	MINERAL RESOURCE CATEGORY	MATERI AL (Mt)	IN-SITU THM (Mt)	BD (gcm 3)	THM (%)	SLIM ES (%)	os (%)	ILM (%)	RUT (%)	ZIR (%)	TIM AG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOT H (%)			
NHACUTSE	Indicated	142	8	1.75	5.8	22	1	43	1	1	27	3	2	9	4			
NHACU I SE	Inferred	31	2	1.76	6.8	17	1	45	1	1	27	3	2	8	3			
GRAND TOTAL		173	10	1.75	6.0	21	1	44	1	1	27	3	2	9	4			

#### Notes:

- (1) Mineral resources reported at a cut-off grade of 5% THM.
- (2) Mineral assemblage is reported as a percentage of in-situ THM content.

#### Poiombo Mineral Resources Estimation

5% COG

#### SUMMARY OF MINERAL RESOURCES(1)

DEPOSIT	MINERAL RESOURCE CATEGORY	MATERI AL (Mt)	IN-SITU THM (Mt)	BD (gcm 3)	THM (%)	SLIM ES (%)	os (%)	ILM (%)	RUT (%)	ZIR (%)	TIM AG (%)	CHRM (%)	MOTH (%)	ANDA (%)	NMOT H (%)
POIOMBO	Indicated	44	3	1.75	6.3	19	1	44	1	1	26	4	3	8	5
POIOWBO	Inferred	40	2	1.75	5.8	19	1	38	1	2	27	4	8	11	2
GRAND TOTAL		84	5	1.75	6.1	19	1	41	1	1	26	4	6	9	4

#### Notes

- (1) Mineral resources reported at a cut-off grade of 5% THM.
- (2) Mineral assemblage is reported as a percentage of in-situ THM content.

## **SCOPING STUDY PARAMETERS**

- Most likely scenario focused on optimising Ilmenite recovery and TiO2 quality
- Base scenario looking at approx. 20 MT/Annum
- Anticipate multiple early mine life pits of high grade sands in excess of 6% THM, with no strip (process all sand)
- Dozer pit operation with hydraulic pumping to plant and return of waste
- Optimise Rotary separation prior to Magnetic separation circuits.
- Metallurgical analysis in parallel to Scoping study and feed in results as they become available
  - Anticipate improved recoveries from initial small bench top study last year
  - Circa 80+% recoveries possible
  - TiO2 levels in concentrate circa 50%
  - Easy Slime separation with waste products returned back to mine pit
  - Excellent recoveries for Non Mag circuit, whilst low in relative volume
  - Low temperature roast remains viable operation to effectively remove Chrome
- Ilmenite pricing likely to reflect current pricing dynamics for first 5 years, with longer term values reflecting historical levels adjusted for inflation in the outer years.
- Operating costs facilitated with access to labor/power and infrastructure with future infrastructure development potentially providing significant reductions in early mine operation (refer next page). Reviewing several port options.
- Likely Titano-magnetite product containing 57% Fe and 14.5% TiO2 (new marketing opportunity)

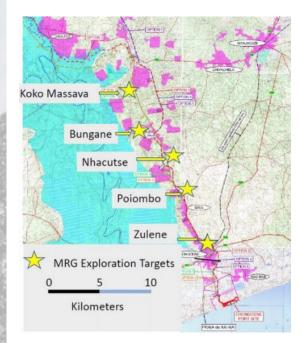
# CORRIDOR PROJECTS POTENTIAL INFRASTRUCTURE BOOST

Proposed Multibillion-dollar **Chongoene Development Corridor Project** (CDC) – deep water seaport with proposed mineral processing zone (ASX Announcement 6 August 2020)

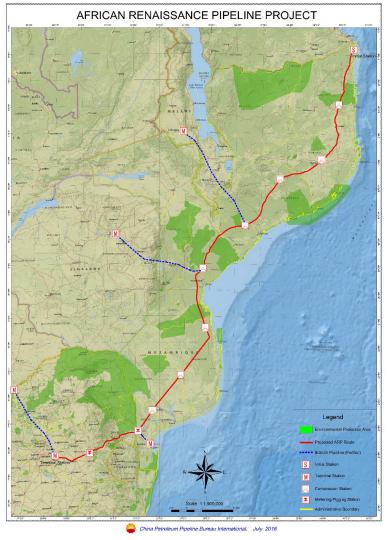
- Phase 1 of the CDC Development expected to commence in 2023 at an investment cost of approx. USD\$3.78 billion
  - A 2-berth jetty at the Chongoene Port with capacity for 10Mtpa
  - Railway line (221km) from Chongoene to Macaratane, proposed to run through/adjacent to Corridor Projects

Proposed **African Renaissance Pipeline Project** (ARP) to deliver natural gas within Mozambique, South Africa and surrounds (ASX Announcement 16 February 2021)

- 2,600km line running through Mozambique and South Africa with annual capacity of 18 billion cubic metres - equivalent to 13.2 million tons of LNG – ~USD\$8 billion
- A key component of the project is the construction of an airport which has already commenced within MRG Metal's Tenements
- MRG has formally submitted its expression of interest to utilise the ARP for the supply of natural gas feedstock to the MRG asset









# **ONGOING WORK PROGRAMS**

# CORRIDOR CENTRAL & SOUTH

# **PROGRESS – NEXT STEPS**

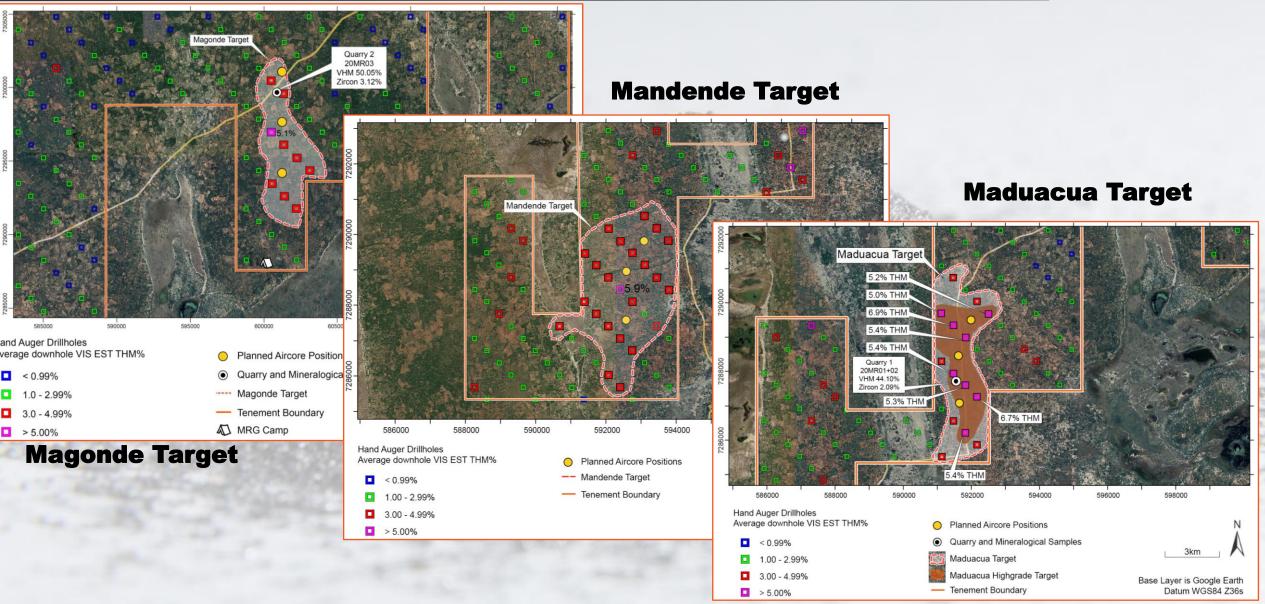
Koko Massava Bulk Sample Metallurgical Study	<ul> <li>To be completed in June</li> </ul>
Scoping Study / PEA Preliminary Economic Assessment	<ul> <li>Based on MRE's and pit optimisation from Koko Massava, Nhacutse and Poiombo deposits</li> <li>Applying only Koko Massava bulk metallurgy results</li> </ul>
Aircore drilling of new targets where High THM grade meets high VHM	<ul> <li>Drilling completed, samples being prepped and then sent off to mineralogy (VHM) and assay (THM) laboratories</li> <li>Further bulk metallurgy sampling, including of Nhacutse / Poiombo material is planned to better understand the economic potential of higher VHM targets</li> </ul>
Infill Aircore drilling / MRE / Pit Optimisation of High THM/VHM targets	Conditional upon the results of the above work

# **ONGOING WORK PROGRAMS**

# **OTHER PROJECTS PROGRESS** Drilling completed, samples prepped and sent to **Marao Targets Aircore Drilling** mineralogy (VHM) and assay (THM) laboratories New project - ELA's recently submitted. Project generated from a historical exploration report REE (Rare Earth Elements) + identifying high monazite occurrences, anomalous **Uranium (U) ELA's** Thorium anomalism in airborne radiometric data over grantic metamorphic terrain and drainages off it. **Corridor North** ELA's under review Linhuane

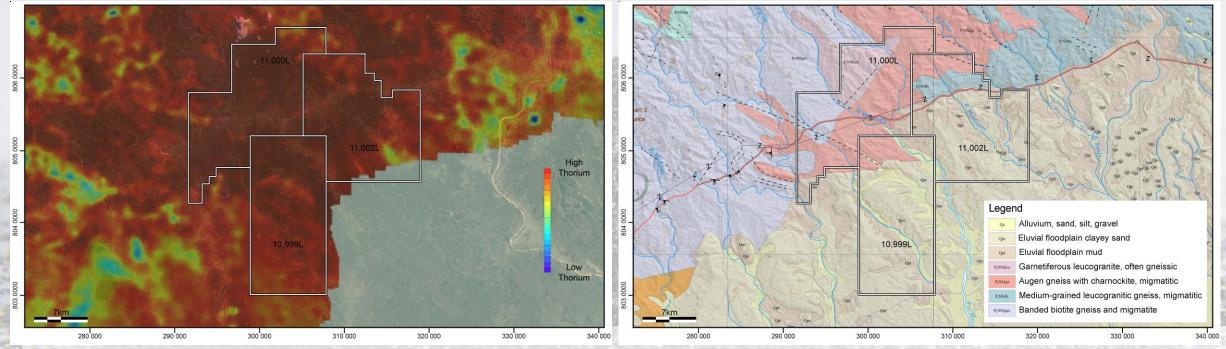


# MARAO – 3 high priority targets recently drilled



## NEW RARE EARTH ELA'S - MORE REASONS TO INVEST

Maps showing MRG's Rare Earth Element and Uranium ELA's plotted on (left) airborne radiometric spectrometer data from regional national airborne geophysical survey. (red = Thorium); and (right) the regional geology map.



- 3 Exploration Licence Applications (ELA's) over a high potential Rare Earth Element (REE) and Uranium (U) project in Mozambique. Location 230 km NNE of port city of Beira
- 2014 historical report highlighted the presence of Monazite in samples with Thorium (Th) grades as high as >1,000 ppm Th in a soil and heavy mineral panned concentrate; 559 ppm Th in a rock sample from within the ELA's
- The project will explore both hard-rock and sedimentary REE and U targets in primary granitic sources in high-grade metamorphic gneiss terrain as well as the modern alluvial and ancient sedimentary sequences that drain off it

## THE OPPORTUNITY TO INVEST

- Over 2 Billion Tonnes of JORC resource + JORC Exploration Target at preliminary economic grades already confirmed
- Scoping study and Preliminary Economic Analysis completion within next 2 months.
- Continuing exploration and analysis to identify multiple very high-grade resources to turbo charge economics into Feasibility phase within existing and new targets
- Possibly the largest HMS discovery of the last decade
  - Ore amenable to primary concentration and magnetic separation techniques on site
  - Metallurgy analysis confirms near 50% TiO2 concentrate achievable with Ultra Low-Cost Roasting
- Multi Billion Dollar value of contained resource, emphasis now on early mine life mill feed to ensure economic viability
- Market cycle appears to be on the up-tick
- High calibre team with in-country experience and broader development capabilities
- If Scoping study warrants **MRG will progress to Feasibilty** while continuing upside exploration
- Country infrastructure developments could add substantially to project economics via significant reduction to energy and transport costs inherently a difficulty of junior exploration companies moving to development.

Current Market Cap of ~\$14 million does not reflect near term scoping study potential, HMS exploration upside and new exploration projects



### **CORPORATE SNAPSHOT**

FINANCIALS	
Share price @ 30/05/22	0.008c
Shares on Issue	1.75 billion
Market Cap	\$14.0m
Cash @ 31/3/2022	\$1.7m
Debt @ 31/3/2022	Nil

SHAREHOLDING	i
Board and Management	7%
Top 20	28%
Top 50	43%

#### **BOARD AND MANAGEMENT**

#### Andrew Van Der Zwan // Executive Chairman // BA Chemical Engineering (Honours)

Andrew has over 30 years commercial and engineering experience. He is Non-Executive Director of Argo Exploration Ltd (ASX: AXT) and JV Global Limited (ASX:JVG). Andrew has held various senior positions in the US, Australia, Africa and Europe with Exxon Mobil (1986 to 2003). Since February 2011 until January 2013, Andrew served as MRQ's Managing Director. He became Chairman in October 2013 and maintains his association as a significant shareholder.

#### **Christopher Gregory** // Non-Executive Director // BSc Geology

Chris has extensive global experience in mineral discovery and mine operation, including in developing countries where government and community stakeholder management is critical to successful investment. His career foundation was 22 years with Rio Tinto, holding numerous senior roles around the Asia Pacific Region. He has made or led exploration discoveries in Laos, Chile, Australia, Sweden and other countries. He was VP, Operational Geology and Exploration at Mandalay Resources (TSX:MND). He is a Director and Founding Partner of Sasak Minerals, a major shareholder of SensOre (ASX:S3N), and remains a significant shareholder in SensOre.

#### Shane Turner // Non-Executive Director, CoSec & CFO // BBus Chartered Accountant

Shane has had over 30 years accounting and financial experience and operated his own Chartered Accounting Practice for 10 years until merging with RSM Australia 10 years ago. Director, Company Secretary and Chief Financial Officer of MRQ since incorporation and Company Secretary and Chief Financial Officer of White Rock Minerals Ltd (ASX:WRM) since August 2015.

#### Kobus Badenhorst // Country Manager – Exploration, Mozambique // BSc Geology (Hons) (UFS)

Kobus is a South African based senior geologist and an established expert in Heavy Mineral Sands (HMS) exploration. He was the exploration manager for the 3 years of the original Corridor Sands exploration programs carried out by Southern Mining in the early 2000's. In recent years, Kobus brings with him access to a wider skill set in Resource Geology, Metallurgy and Mineralogy. Kobus is MRG's Qualified Person for reporting of Market Updates to ASX.



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