







Interim results for the six months ended 30 June 2021



September 2021

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The technical information contained within this presentation has been reviewed and approved by Professor Richard Viljoen. Professor Richard Viljoen has more than 30 years' experience in the mining industry, including 15 years as chief consulting geologist for Gold Fields of South Africa. Notable past experience includes the development of significant mines including Northam Platinum and the Leeudoorn and Tarkwa gold mines, identifying and developing a significant platinum deposit in the Bushveld Complex for Akanani Resources as well as acting as consultant for exploration and mining companies in Canada, Mexico, Venezuela, India and China in the fields of base metals, gold and platinum. Professor Richard Viljoen has extensive experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined under the JORC Code (2012). Professor Richard Viljoen consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

Presentation of data unless specified otherwise: variance analysis relates to the relative performance of Bushveld Minerals and/or its operations during the for the half year to 30 June 2021 and is by reference to the results published by the Company for that period.

### Introduction



# 2021 marks a rebasing for the Company's operations with a focus on operational stability - a necessary platform for production growth

- Production adversely impacted
  - in January and February as a result of plant instability,
  - a planned 35-day maintenance shutdown,
  - a slow post shutdown ramp up, and
  - unprotected industrial action
- Monthly production targets rebased in line with historical performance to create the necessary space to implement the required operational changes
- Increased investment in maintenance and sustaining capital to achieve stability and support volume growth. Volume growth will be the biggest contributing factor to a sustainable cost reduction
- Reduced production levels contributed to increased unit costs due to an unchanged fixed cost base
- Implementation of the funded Kiln-3 refurbishment at Vanchem (underway) to grow its production to 2,600 mtV per annum from current ~1,100 mtV
  - Increase in production will contribute the most to driving overall reduction in unit costs in coming year

Investing to build a stable platform in order to achieve our growth targets



### H1 2021 Group performance, 2021 guidance, 2022 growth outlook



#### Revenue

- Revenue of **US\$47.0 million** ↑9%
  - Sales of 1,608 mtV, ↓9%
  - Realised sales price of US\$29.24/kgV ↑21%

#### Production

- Production of **1,574 mtV √5**%
  - Lower production due to unplanned stoppages, planned 35-day maintenance shutdown and unprotected industrial action
- Q2 2021 production **^29**% on Q1 2021 and **^13**% on Q2 2020
  - Improved operational performance at Vametco was not sufficient to offset the challenging start in Q1

#### **EBITDA**

- EBITDA loss of U\$\$10.8 million (H1 2020: (U\$\$1.0 million))
  - Impact of US\$7.3 million due to a stronger ZAR:USD rate
  - Increased production costs (including maintenance, stripping and organisational restructuring) to ensure stable base for sustainable growth

#### Cash

- Cash and cash equivalents of U\$\$31.6
   million (December 2020: U\$\$50.5 million)
- Net debt of US\$54.4 million (December 2020: US\$33.7 million)
  - Sustaining capital of US\$6.1 million (H1 2020 of US\$0.1 million) to enhance operational stability

#### Mining

#### 2021e

- On track to meet Group production guidance of between 3,400 mtV and 3,600 mtV and cash cost (C1) guidance at the operations
  - Building on the improved operational performance which has continued into July-August. Vametco and Vanchem Unit cash costs (C1) for the full year expected to be in line with guidance

#### 2022 outlook

- The PFA capital ring-fence uplifted and ~US\$18 million reallocated to Vanchem, which is expected to achieve a production run rate of ~2,600 mtVp.a by the end of 2022
  - On the back of the stability of operations at Vanchem and rapid opportunity to scale up
- Group production to increase a steady-state run rate of between 5,000 - 5,400 mtVp.a. by the end of 2022
  - Production growth is key to margin expansion, unit cost reduction and increased profitability

#### **Bushveld Energy**

- Monetised Invinity holding ~US\$13 million (initial investment of US\$5 million)
- 25.25% interest into Cellcube
- Commenced construction of 200 MWh electrolyte plant









# **Bushveld Minerals Operational Results**

2021 INTERIM RESULTS François Naude



### Introduction



- H1 2021 was about stabilising operations to achieve a sustainable production run rate at both plants
  - Rigorous implementation of a proactive maintenance programme as parts of the plants were previously starved of capital required increased maintenance and sustaining capital
  - Implementing the new operating model and organisational restructuring at both plants in order for senior management to be closer to the plant
  - Technical personnel supporting operations in ensuring process control parameters are maintained and improved
  - Leadership and people development interventions
- Cost and spend increases at Vanchem in anticipation of the 2,600 mtV per annum production run rate which is >2x of current production of ~1,100 mtV
- At 2,600 mtV Vanchem costs are expected to be in line with Vametco's costs







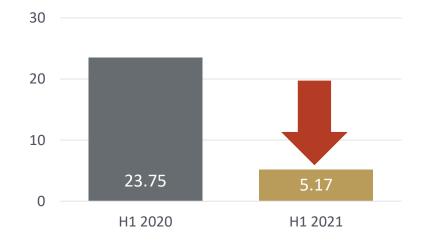
## H1 2021 Health and safety performance



#### **Health and Safety**

- No new occupational health diseases cases
- Zero fatalities and no lost-time injury
- Group Total Recordable Injury Frequency rate ("TIFR") of 5.17

#### Group's H1 2021 vs 2020 TIFR



78%
Improvement in TIFR

#### **Working with COVID-19**

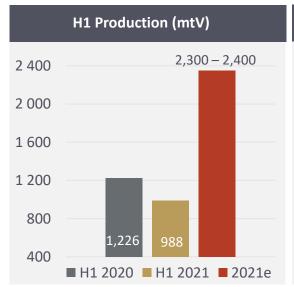
- COVID-19 protocols rapidly developed and implemented at all operations
- Employee and community COVID-19 support
- Commenced vaccination programme in July at both Vametco and Vanchem
- 5 positive cases as at 31 August with 96% recovery rate
  - Reported 2 COVID-19 related deaths among employees

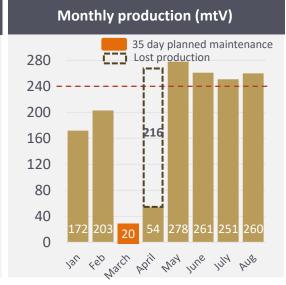


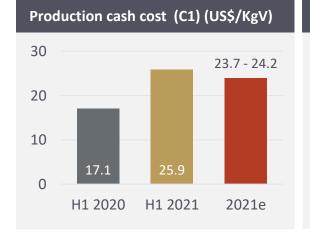
### H1 2021 operational highlights - Vametco



- Production of 988 mtV ↓ 19%, due to plant instability, planned 35-day maintenance and unprotected industrial action
- Increase in cost in H1 2021 due to stronger ZAR:USD rate (H1 2021: 14.54 vs H1 2020: 16.65), lower production volumes, higher sustaining and maintenance costs to achieve operational stability
- Improvements include proactive maintenance practices, process control from the technical team and people development strategy
  - Resulted in May and June production of 278 mtV and 261 mtV
  - Post period, July and August production of 251 mtV and 260 mtV
  - Confident of meeting minimum monthly production run-rate forecast of ~240mtV for H2 2021
- On track to meet production guidance of between 2,300 mtV and 2,400 mtV
- Production cash cost (C1) guidance maintained at between US\$23.70/kgV and US\$24.20/kgV (ZAR339/kgV and ZAR345/kgV)
  - Q2 2021 (C1) cash costs improved by 2.6% in line with the improved operational performance since the maintenance shutdown
  - Lower unit cost expected in H2 2021 bringing costs in line with guidance









### Vametco cost analysis

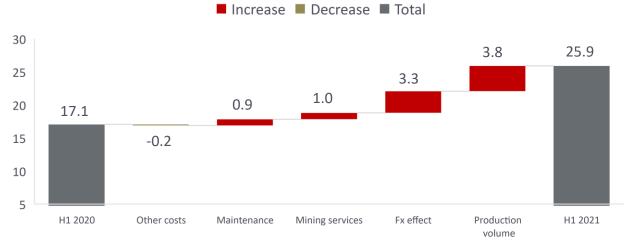


### Cost increase mostly due to:

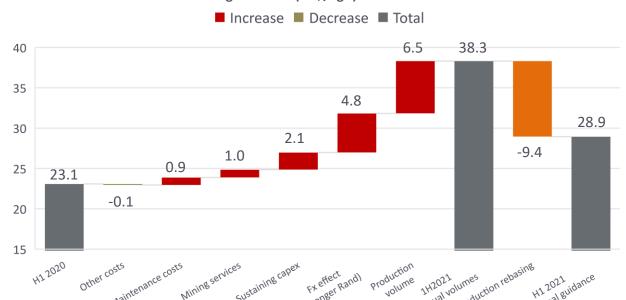
- Lower production volumes (35 day planned maintenance, unplanned stoppages and unprotected industrial action)
- Stronger ZAR:USD exchange rate (H1 2021: 14.54 vs H1 2020: 16.65)
- Increase in sustaining and maintenance spend to improve operational stability
- Increase in mining costs associated with bringing the Upper Seam project online to supply ore to Vanchem
- Production rebasing led to a ~US\$9.4/kgV cost increase, which will unwind as production increases over time

### Volume increase is the main factor to cost reduction

#### Production cash cost (US\$/kgV) H1 2020 vs H1 2021



#### Total sustaining cash cost (US\$/kgV) H1 2020 vs H1 2021

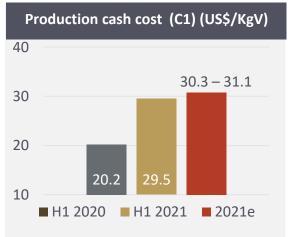


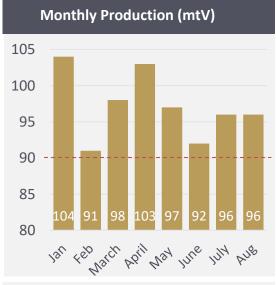
### H1 2021 operational highlights - Vanchem



- Production of 586 mtV ↑ 35% underpinned by consistent plant performance
- On track to meet production guidance of between 1,100 mtV and 1,200 mtV
  - Production of 96mtV during the months of July and August
  - Minimum monthly production run-rate forecast for the year maintained at between 90 -100 mtV
- Increase in costs mostly due to a stronger ZAR:USD exchange rate (H1 2021: 14.54 vs H1 2020: 16.65), increase in raw material costs due to test work and higher sustaining capital in line with Group's initiatives
- Production cash cost (C1) maintained at between US\$30.3/kgV and US\$31.1/kgV (ZAR434/kgV and ZAR444/kgV)
- Secured US\$18 million for the refurbishment and commissioning of Kiln-3, which is now expected to be commissioned in H1 2022
  - 2022 production run rate target of 2,600 mtVp.a. maintained
- Ore Source:
  - Successfully secured third-party ore
  - The Upper Seam at Vametco came online in September and will supply Vanchem with a significant proportion of its ore requirement for 18 months (ability to supply 34 kt of ore per month). Potential to extend supply beyond 18 months









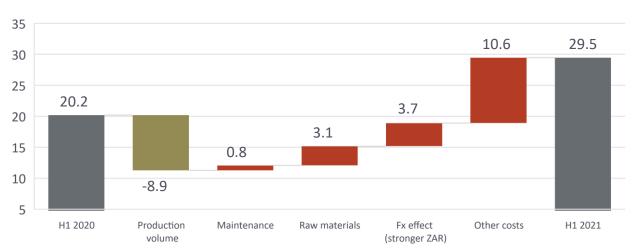
### Vanchem cost analysis



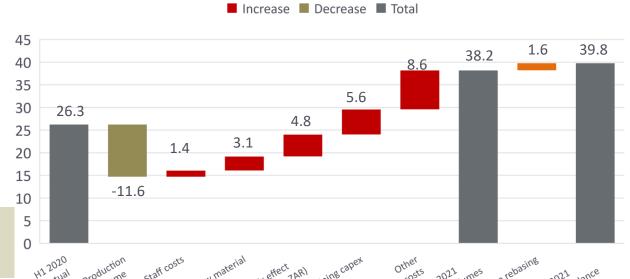
# Production cash cost (US\$/kgV) H1 2020 vs H1 2021 ■ Increase ■ Decrease ■ Total

- Benefit from increase in production volume was partly offset by increase in costs mostly due to:
  - Stronger ZAR:USD exchange rate (H1 2021: 14.54 vs H1 2020: 16.65)
  - Increase in raw material cost due test work performed with different concentrate in order to optimise process parameters
  - The increase in sustaining capital is in line with Group expectations as Vanchem is ramping up
- The full production and cost benefits of kiln-3 will be realised in 2022
- At 2,600 mtV Vanchem costs are expected to be in line with Vametco's costs

Investing to more than double production to 2,600 mtV which will significantly reduce unit costs and be in line with Vametco's costs levels



Total sustaining cash cost (US\$/kgV) H1 2020 vs H1 2021



<sup>\*</sup>Other costs include: work in progress stocks, energy costs, raw material costs, staff costs

## Improved operational stability – setting the foundation for sustainable growth



Shift in the operating philosophies and mindsets to reduce variation and achieve targets using an integrated business process

	Actions	Recent progress
Improve housekeeping	Routine engagements with our workforce	Reduced variability
Planned maintenance system to enable operational stability	Business process Integration	Improved plant conditions
Process and workflow mapping	People development systems	Vametco average production of
Leadership and people development program	Asset integrity and preventative maintenance	260mtV
Stakeholder relations and capacity building	Quality assurance	
supported by Labour relations strategy development	Improved process control	

Achieve continuous productivity and cost improvements through performance management & integration of safety at work









# **Bushveld Minerals Financial Results**

2021 INTERIM RESULTS
Tanya Chikanza

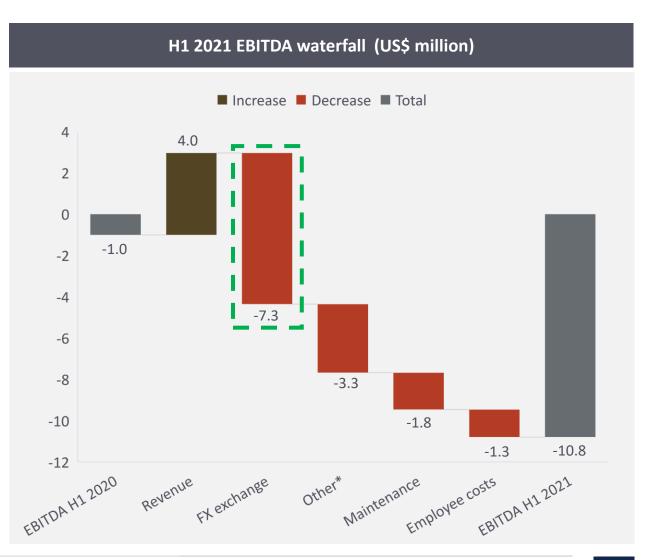


### H1 2021 Income statement



US\$ million	H1 2021	H1 2020
Revenue	47.0	43.0
Cost of sales (excl. depreciation)	(43.4)	(30.2)
Other operating and administrative costs (excl. depreciation)	(14.4)	(13.8)
EBITDA	(10.8)	(1.0)
Depreciation	(8.9)	(8.9)
Operating loss	(19.7)	(9.9)
Net Financing expense	(3.0)	(0.8)
Loss Before Tax	(22.7)	(10.7)
Income tax credit	3.7	0.4
Loss after tax	(19.0)	(10.3)

- Foreign exchange rate and costs accounted for 80% of the EBITDA loss swing
- Increase in maintenance in line with operational stability initiatives
- Employee costs increase associated with ramp-up at Vanchem and organisational restructuring at both plants



<sup>\*</sup>Other includes: royalties, changes in inventory, energy, raw materials, other operating income, selling and distribution costs

### H1 2021 Group total cost



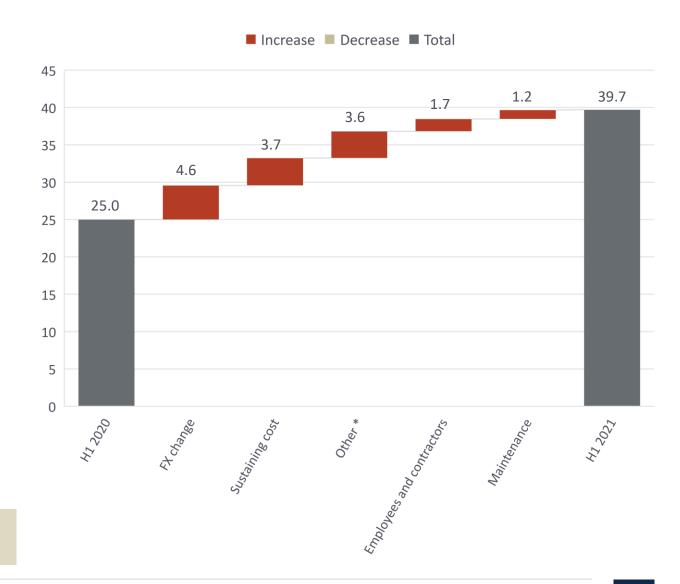
- Direct cost of sales for the period of US\$43.4 million. Increase due to:
  - US\$5.5 million from the stronger ZAR:USD exchange rate on costs
  - US\$7.4 million (H1 2020: US\$5.7 million), in maintenance costs to sustain the plants and improve operational stability
  - US\$18.6 million (H1 2020: US\$16.8 million), in energy and raw material costs
  - US\$2.2 million (H1 2020: US\$1.2 million) in mining costs associated
     with bringing the Upper Seam online to supply ore to Vanchem
- US\$14.4 million (H1:2020 US\$14.0 million) in operating and administrative costs
  - US\$8.8 million administrative expenses were contained on a ZAR basis
- US\$6.1 million (H1 2020: US\$0.1 million) in sustaining capital in line with the Group's maintenance plans

The following table summarises the total cost for the year		
	H1 2021 US\$ million	H1 2020 US\$ million
Cost of sales (direct) (excl. depreciation)	(43.4)	(30.2)
Operating costs and administrative costs	(14.4)	(13.8)
Total income statement cost excl. depreciation	(57.8)	(44.1)
Total units sold (mtV)	1,608	1,765
Income statement cost per unit sold (excl. depreciation) US\$/kgV	36.0	25.0
Sustaining capital	(6.1)	(0.1)
Total cost including sustaining capital	(63.9)	(44.2)
Cost per unit sold (including sustaining capital) US\$/kgV	39.7	25.0
Revenue	47.0	43.1
Average price realised US\$/kgV	29.2	24.2
Average foreign exchange rate (USD:ZAR)	14.54	16.65

# Cost per unit sold (including sustaining capital) US\$/kgV



- US\$4.6/kgV in foreign exchange increase due to a stronger ZAR:USD exchange rate of USD:ZAR14.54 relative to H1 2020 (USD:ZAR16.65)
- US\$3.7/kgV increase in sustaining costs to support the recent operational stability
- US\$1.7/kgV increase in employee and contractors in line with ramp-up at Vanchem as well as organizational restructuring at both plants
- US\$1.2/kgV increase in maintenance costs in order to sustain plant and production volumes
- The Group unit cost of US\$39.7/kgV is in line with the unit cost levels of circa US\$38-39/kgV at Vametco and Vanchem



Volume increase will be most significant contributor to cost reduction

### Balance sheet



#### **H1 2020 Group Balance Sheet activities**

 Net debt of US\$54.4 million, including production financing agreement ("PFA") of US\$29.3 million

#### 2021 developments

- Renegotiated the covenant testing terms under the ZAR125 million Nedbank Revolving Credit Facility
  - waived covenants for June and relaxed December 2021 Group net debt to EBITDA ratio from 2.50x to 4.0x
  - Amortised by ZAR5 million (~US\$0.3 million) for August 2021 and ZAR7 million monthly (~US\$0.5 million) from September 2021
  - Bullet payment of ZAR22 million (US\$1.5 million) due on the maturity date of 6 November 2022
- Positive progress in renegotiations with Duferco Participations Holding
   S.A on the remaining balance US\$11.5 million of the convertible balance:
  - US\$5 million being payable in November 2021 and US\$6.5 million being converted into Bushveld shares

US\$ million	30 June 2021	31 December 2020
Property plant and equipment	172.6	167. 6
Intangible assets	60.3	59.0
Investment properties	2.9	2.8
Cash and cash equivalent	31.6	50.5
Other assets (deferred tax, Current Assets - Inventories, financial assets at fair value, trade and other receivables)	88.4	76.0
Total assets	355.8	355.9
Borrowing (Orion PFA, Nedbank & Convertible Loan)	86.0	84.2
Other liabilities	58.7	57.7
Total liabilities	144.7	141.9
Total equity	211.1	214.0

### H1 2021 Cash flow



- Net cash from financing activities of US\$8.5 million includes:
  - Proceeds from shareholder subscriptions related to Cellcube of US\$9.6 million comprises of Acacia Resources Limited and Mustang Energy PLC of US\$2.2 million and US\$7.4 million respectively, offset by US\$ 1.2 million in finance costs, lease payments and Orion PFA repayment
- Cash from other investing activities of US13.1 million (excluding sustaining capital) includes:
  - Disposal of financial assets held at fair value of US\$12.7 million which represents the sale of Bushveld's initial investment of 8.71% share in Invinity
- Closing cash and cash equivalent position as at 30 June of US\$31.6
   million
- Post period events:
  - Realised US\$3.5 million from the sale of its shareholding in AIMlisted Afritin Mining Limited

#### Cash flow

The following table summarises the main components of the cash flow during the period

	H1 2021	H1 2020
	US\$ million	US\$ million
Operating (loss)/profit	(19.7)	(9.9)
Depreciation and amortisation	8.9	8.9
Changes in working capital and provisions	(3.0)	(2.1)
Taxes paid	-	(0.4)
Cash (outflow) from operations	(13.8)	(2.7)
Sustaining capital	(6.1)	(0.1)
Free cashflow	(19.8)	(2.8)
Cash from other investing activities	(13.1)	(4.8)
Financing activities	8.5	7.1
Cash outflow	(24.4)	(0.6)
Cash at the beginning of the year	50.5	34.0
Foreign exchange movements	5.4	(8.8)
Closing net cash	31.6	24.6









# **Bushveld Minerals Growth Plans**

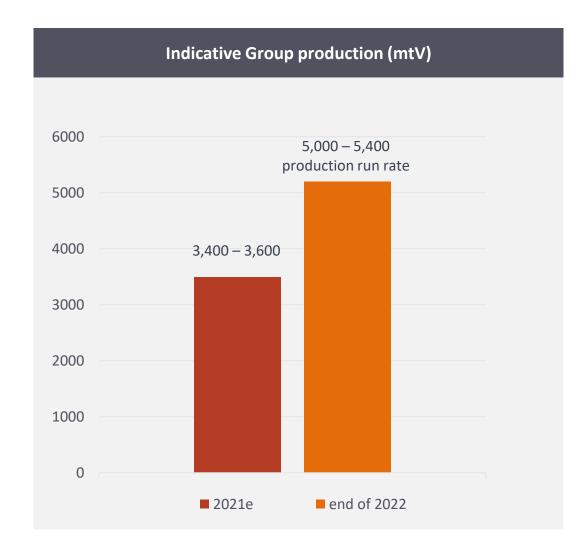
2021 INTERIM RESULTS & 2021 GUIDANCE Fortune Mojapelo



# Bushveld Vanadium – ensuring a solid base to achieve sustainable growth



- The Group is still in an investment and growth phase
- Production growth is key to margin expansion, unit cost reduction and increased profitability
- Prioritising operational stability to achieve annual steady state production run rate of 5,000 -5,400 mtV by the end of 2022:
  - 2,800 mtV at Vametco
  - 2,600 mtV at Vanchem (>2x of current production)
- Volume increase will result in sustainable unit cost reduction
- Successful negotiations with Orion in the uplift of the PFA capital ringfence, allowing reallocating PFA funding towards Vanchem refurbishment and expansion



# Bushveld Energy – 2021 outlook







**Electrolyte** 





**Deployment** 





### 2021 priorities

- Progress construction of the electrolyte plant
- Continue to support Cellcube despite the ongoing litigation
- Scale up the vanadium electrolyte rental product with new contracts
- Attain financial close and commence construction of the Vametco hybrid mini-grid











# **Market Conditions**

2021 INTERIM RESULTS Fortune Mojapelo



### Market conditions



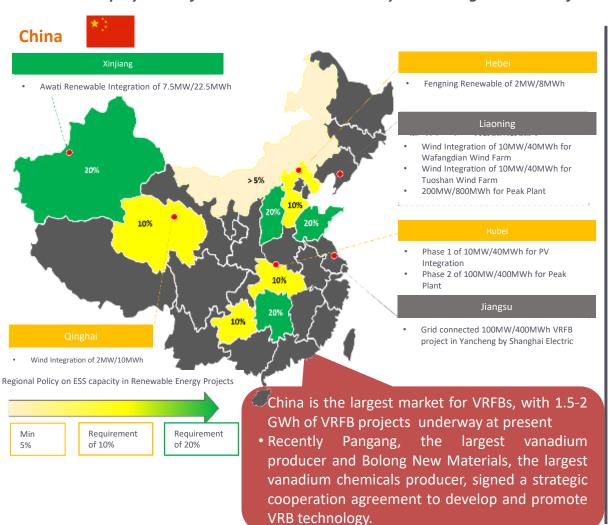
- London Metal Bulletin ("LMB") Ferrovanadium price averaged US\$33.4/kgV, ↑ 30% relative to H1 2020 (H1 2020: US\$25.70/kgV)¹
- Current prices Europe US\$34/kgV, China US\$32.5/kgV and the United States US\$37.8/kgV<sup>1</sup>
  - US prices are ~10% higher than prices in Europe
- Iron ore prices reached their highest levels, exceeding the US\$200/t level during H1 2021 and have since retracted to levels of US\$120/t<sup>3</sup>
- Roskill expects prices to decline further towards the end of the year, due to reduced demand in China as a result of restrictions in steel making volumes<sup>2</sup>
- Prices below US\$100/t would be a disincentive for vanadium co-producers to blend local vanadium bearing magnetite feedstock with seaborne hematite ores
- Medium to long term fundamentals remain attractive
- Strong ZAR due to increased mining exports driven by the rapid growth in commodity prices (ZAR reached a two year high in this period)
- Stronger than expected manufacturing figures post the reopening of the economy and high interest rates relative to the US
- The ZAR is expected to remain at similar levels for rest of the year



## VRFB adoption is growing rapidly, especially in China



Increased deployment of VRFBs and demand is likely to rise as governments focus on accelerating the energy transition to a low-carbon energy



#### Rest of the world



Largo Clean Energy acquired VRFB technology previously owned VionX Energy and announced its target production of 1,400MWh of VRFBs under rentals by 2022





Joint venture established to build a VRFB facility "an annual production capacity of **3 GWh"** 

**51MWh** VRFB system awarded to Sumitomo for a wind farm in Hokkaido, Japan







Siemens Gamesa entered a "battery development deal" with Invinity covering product development, sales and manufacturing

Thai renewable energy company BCPG announced a \$24m investment into VRB Energy





Large, multinational power companies are deploying VRFB technology, **including ENEL in Majorca**, **Spain and EDF in Oxford**, **UK** 

**AMG** announced its venture into batteries with acquisition of an integration company and building its own lithium-vanadium hybrid system for industrial power management applications











# Outlook and 2021 Guidance

2021 INTERIM RESULTS Fortune Mojapelo



## Summary and near-term objectives



#### 2021 and near-term objectives



#### **Financials**

- Strengthen the balance sheet and increase cash flow through margin expansion and debt reduction
- Cash conservation and investing in near-term growth through Vanchem
- Implement Cost Savings Programme to cut costs by between US\$2.5 million to US\$4 million per year from 2022



#### **Bushveld Vanadium**

- On track to achieve 2021 Group production of 3,400 mtV -3,600 mtV
- Continue to progress operational stability and synergies across the operations
- Drive unit cost reduction
- Complete studies at Vametco and Vanchem
- Achieve a steady state production run rate of
   5,000 mtVp.a. 5,400 mtVp.a. by end of 2022



#### **Bushveld Energy**

- Construction of the electrolyte plant with an initial capacity of 200 MWh of electrolyte with capacity to scale up to 800 MWh
- Continue support the growth of CellCube
- Attain financial close and commence construction of the Vametco hybrid mini-grid

## Bushveld aims to be the leading vanadium platform





#### A Green Commodity for the Future

- Vanadium a compelling commodity with demand anchored to steel with upside from energy storage
- Reduces carbon footprint and increases efficiency of the steel supply chain
- VRFB¹ technology supports global transition to clean energy and produces lower life cycle CO₂ emissions than competing storage technologies



#### A Solid Foundation

- Bushveld owns 2 of the world's 4 operating primary vanadium processing facilities
- Large, long mine life, high grade opencast deposits with grades of  $1.6 2.0\% \text{ V}_2\text{O}_5$  inmagnetite



#### **Production Growth**

- Achieve a production run rate of between 5,000 mtVp.a. and 5,400 mtVp.a. by the end of 2022
- Studies under way to increase production in line with the long-term growth plans



#### A Key Player in Energy Storage

- A key player in the VRFB¹ value chain
- Aiming to be the preferred vertically integrated primary vanadium supplier

1. VRFB: Vanadium redox flow battery









# **Supplementary Information**

**2021 INTERIM RESULTS** 



### **Bushveld Minerals overview**



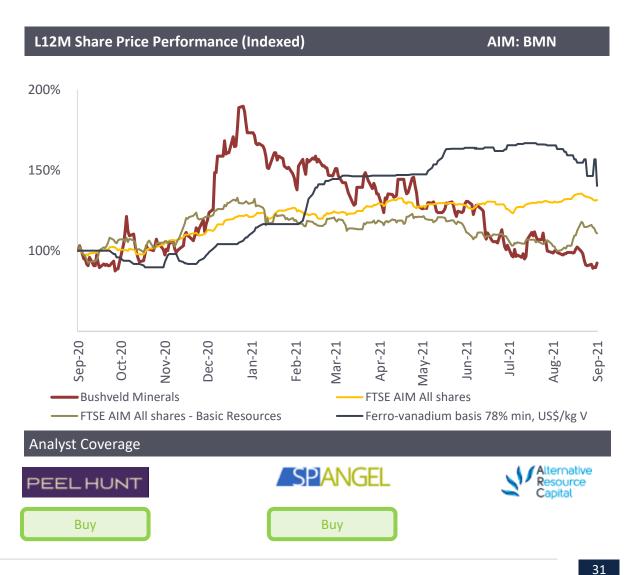


1. Cellcube: Cellcube Energy Storage Systems Inc.

## Bushveld Minerals' shareholders and share price snapshot



BMN Share Price (17 September 2021)		11.20p
Basic Ordinary Shares		1,193,566,820
Market Capitalisation		£134 million
Bushveld Minerals Top Shareholders		% ownership
1 Hargreaves Lansdown Asset Mgt		20.79
2 Interactive Investor		18.77
3 Halifax Share Dealing		10.77
4 Orange Trust		5.28
5 A J Bell Securities		5.24
Bushveld Minerals Top Institutional Shareholders		% ownership
1 Baker Steel Capital Managers		1.73
2 Premier Miton Investors		1.14
3 Invesco		0.60
4 Fidelity Investment International		0.24
Bushveld Minerals Ownership	# shares	% ownership
Bushveld Minerals Ltd Director & Related Holding(s)	26,365,089	2.21



# H1 2021 Net debt



US\$ million	30 June 2021	31 December 2020
Gross Cash and Cash Equivalent	31,565,241	50,540,672
Nedbank Term Loan and Revolving Credit	(8,818,956)	(8,636,535)
Convertible Loan Notes - Duferco	(11,870,192)	(11,585,068)
Production Financing Agreement - Orion Mine Finance	(29,288,227)	(30,105,886)
Convertible Loan Notes Instrument - Orion Mine Finance	(35,172,354)	(33,073,699)
Other Debt	(845,588)	(845,588)
Net Debt	(54,430,077)	(33, 706,104)

## H1 2021 Other operating and administrative costs



- US\$1.6 million other mine operating costs and idle plant costs of US\$3 million are in line with H1 2020 mainly reflect the 35-day planned maintenance shut down and unplanned stoppages at Vametco during H1 2021
- US\$1.2 million increase in administrative expenses (contained on a ZAR basis) relative to H1 2020 (H1 2020: US\$7.6 million) due to foreign exchange translation of US\$1.1 million arising from a stronger ZAR:USD exchange rate relative to H1 2020

	H1 2021 US\$ million	H1 2020 US\$ million
Other operating income	-1.7	-0.8
Selling and distribution costs	2.9	2.5
Other mine operating costs	1.6	1.6
Idle plant costs	3.0	3.1
Administration expenses	8.8	7.6
Other executive and administration costs	44.5	44.0
Other operating and administration costs	14.5	14.0
Other operating and administration costs	H1 2021 US\$ million	H1 2020 US\$ million
Staff costs	H1 2021	H1 2020
	H1 2021 US\$ million	H1 2020 US\$ million
Staff costs	H1 2021 US\$ million 5.0	H1 2020 US\$ million 3.7
Staff costs Depreciation	H1 2021 US\$ million 5.0 0.2	H1 2020 US\$ million 3.7 0.06

8.8

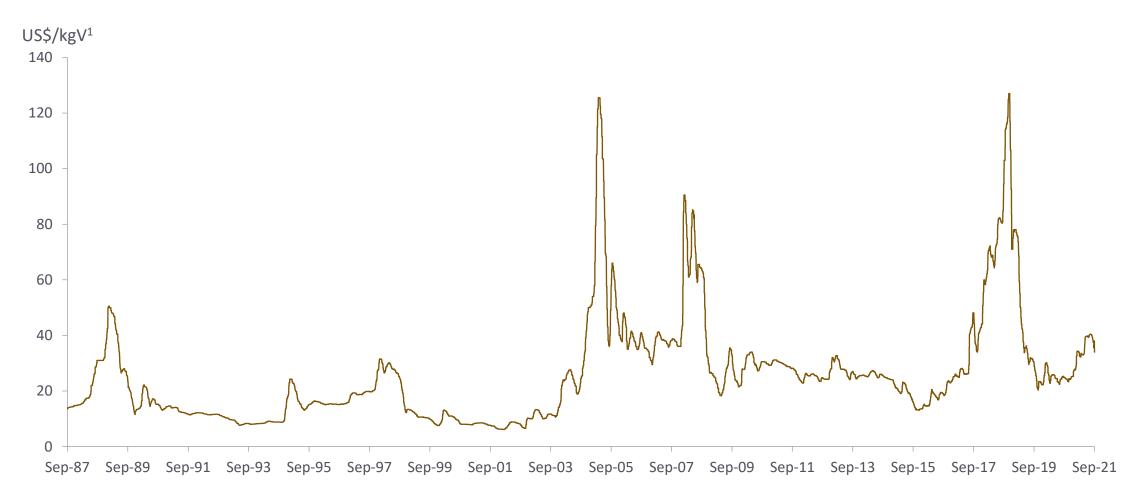
**Administration expenses** 

7.6

## Vanadium price



#### FeV historical LMB price



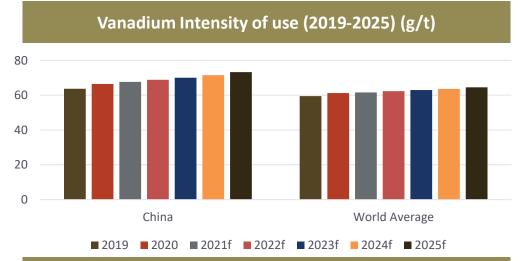
1. London Metal Bulletin , 17 September 2021

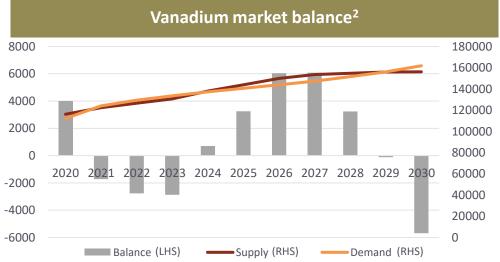
### Demand anchored to steel and increasing deployments of VRFBs



#### **Vanadium Outlook**

- China is expected to reach its steel production peak by the middle of the decade<sup>1</sup>
  - Output may hit another all-time high in 2021, driven by infrastructure and domestic consumption<sup>1</sup>
- Roskill forecasts a 2% y-o-y increase in 2021, with a gradual recovery in the rest of the world
- Demand from steel market expected grow at a CAGR of ~2.7% through to 2030<sup>2</sup>
- Demand for VRFBs rising as governments accelerate the energy transition to a low-carbon energy future
- Demand from VRFB expected to grow at a CAGR of ~ 56.7% through to 2030<sup>2</sup>
- Co-producers operating at full capacity with no hematite-blending incentives implies limited/no capacity to increase supply in the short term<sup>2</sup>



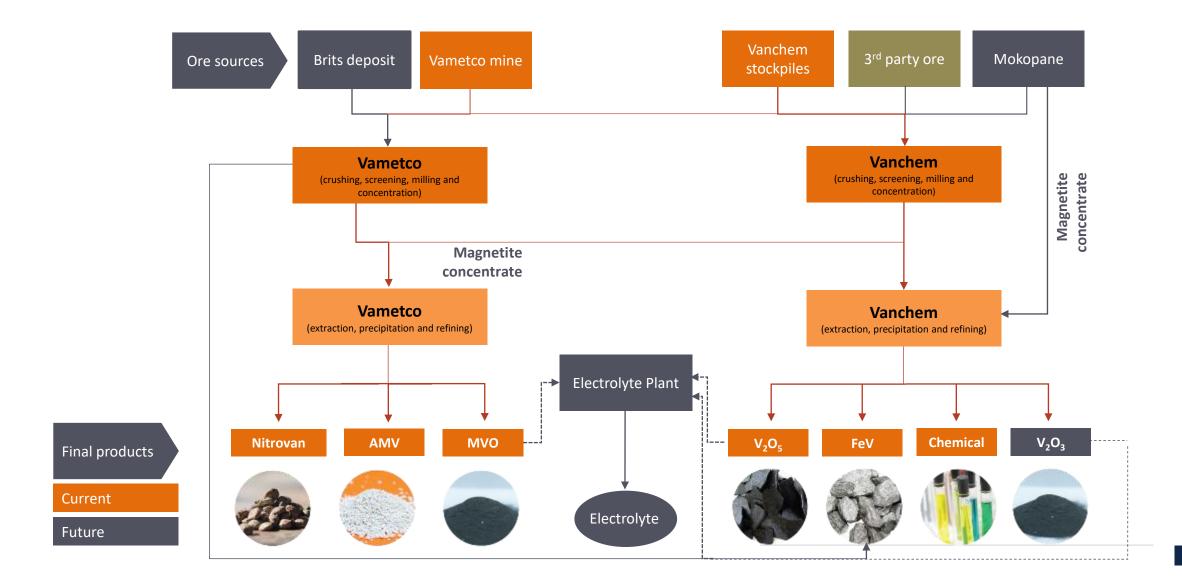


<sup>1.</sup> https://roskill.com/news/steel-alloys-china-hits-new-all-time-high-steel-production-in-2020/

<sup>2.</sup> Roskill Vanadium Outlook to 2030 report, nineteenth edition, June 2021

### Flexible production platform and integrated asset base with a broad range of products





### Bushveld Minerals: board of directors





lan Watson Independent Non-Executive Chairman

- A mining engineer with considerable experience in the South African mining sector
- A member of the Engineering Council of South Africa
- Previous roles include Managing Director of Northam Platinum, CEO of Platmin Limited, CEO of International Ferro Metals (SA) and Consulting Engineer at Gold Fields of South Africa Limited



Fortune Mojapelo Chief Executive Officer

- Co-founder and Chief Executive Officer (CEO) of Bushveld Minerals
- . Co-founder and director of VM Investment (Pty) Ltd, a principal investments and advisory company focusing on developing mining projects in Africa
- Founding CEO of Bushveld Minerals Limited, where he has played a lead role developing and executing the company's vanadium strategy
- · Played a leading role in the origination, establishment and project development of several junior mining companies
- Began his career at McKinsey & Company as a strategy consultant



**Tanya Chikanza** *Finance Director* 

- A qualified Chartered Accountant
- · Has extensive experience in managing publicly listed companies' relationships with financial markets
- Has a global and market facing perspective with 30 years in international equity and debt capital markets, strategy, corporate finance and audit
- Previously spent nine years at Lonmin Plc, the dual listed (London Stock Exchange and JSE Securities Exchange) platinum group metals miner
- Prior to joining Lonmin, she was Executive Director at Smith's Corporate Advisory in London and Vice-President Corporate Finance at JP Morgan Cazenove, London



Michael Kirkwood Senior Independent Non-Executive Director

- Currently chairman of corporate advisory firm Ondra LLP, Non Executive Director of AngloGold Ashanti Holdings plc and Verita Healthcare Group
- Previously chairman of Circle Holdings plc
- Served on the boards of UK Financial Investments, Eros International plc, Kidde plc, and as Deputy Chairman of the PricewaterhouseCoopers Advisory Board
- Retired in 2008 after a distinguished 31-year career with Citigroup, latterly as UK chairman



Jeremy Friedlander Independent Non-Executive Director

- Established McCreedy Friedlander in 1993, which became one of the premier property agencies in South Africa which then listed in 1998 on the JSE
- Recently involved in the establishment of AGNA, a developer of renewable projects in north and sub-Sahara Africa
- · He is a property and legal director of Octevo Housing Solutions, a developer of social and affordable Housing in the UK
- Has a BA LLB from the University of Cape Town and practiced as an attorney after completing his Articles in Cape Town



Anthony Viljoen Non-Executive Director

- Co-founder of Bushveld Minerals
- Co-founder and director of VM Investment (Pty) Ltd, a principal investments and advisory company focusing on developing mining projects in Africa
- · Founding CEO of AfriTin Mining where he has played a lead role developing and executing the company's tin strategy
- Director and CEO of ASX listed Lemur Resources
- Previously worked at Deutsche Bank, Barclays Capital in London and Loita Capital Partners

## Bushveld Minerals: management





Fortune Mojapelo Chief Executive Officer

- Co-founder and Chief Executive Officer (CEO) of Bushveld Minerals
- Co-founder and director of VM Investment (Pty) Ltd
- Founding CEO of Bushveld Minerals Limited where he has played a lead role developing and executing the company's vanadium strategy
- His corporate career started at McKinsey & Company as a strategy consultant



**Ken Greve,** *Director of Corporate Development* 

- A Mining Engineer with extensive experience in project management, project development, business and company valuations, mergers and acquisitions, logistics contracts and specialised financing
- Held senior corporate finance and investment banking roles at Gold Fields, JPMorgan, Kumba Resources and BHP Billiton where he was Vice President of Strategy & Business Development



Tanya Chikanza Finance Director

- A qualified Chartered Accountant
- Has a global and market facing perspective with 30 years in international equity and debt capital markets, strategy, corporate finance and audit
- Previously spent 9 years at Lonmin Plc
- Prior to joining Lonmin, she was Executive Director at Smith's Corporate Advisory in London and Vice-President Corporate Finance at JP Morgan Cazenove



Sihle Mdluli, Director of Strategy and Corporate Services

- Former Director and Operations Transformation leader at Deloitte Africa
- Has extensive experience in building stakeholder value in the mining and public sectors
- Prior to Deloitte Africa, she accumulated over 6 years' experience in mining, plant operations, general management and diamond sales at De Beers



**Francois Naude**Director of Operations

- Has over 27 years' experience in mining and processing experience
- Previously Director of Operations at Vedanta Resources
- A former General Manager at AngloGold Ashanti



Viki Rapelas, Director of Legal, Governance & Compliance

- Admitted Attorney of the High Court of South Africa since 2004
- An admitted Notary and Conveyancer since 2012
- Legal Advisor to the Bushveld Minerals group since 2007
- 19 Years of transactional advisory, mergers and acquisitions and general corporate and commercial law experience



Mikhail Nikomarov Chief Executive Officer, Bushveld Energy

- Co-founder and CEO of Bushveld Energy
- Chairman of the South Africa Energy Storage Association (SAESA)
- Chair of the Energy Storage Committee of Vanitec, the global nonprofit organisation of vanadium producers
- Previously worked for McKinsey & Company in Russia and across Africa