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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 Leeduorn 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 2019 financial year.
Bushveld Minerals overview

**A low cost, vertically integrated primary vanadium producer**

**MINING**
- Large, high-grade, primary vanadium assets and resource base ~550 Mt grading 1.58% – 2.0% V₂O₅ in magnetite
- 3 deposits, well serviced with logistics infrastructure

**PROCESSING**
- Low cost, flexible and scalable primary vanadium processing facilities
- Owns 2 of the world’s 4 existing primary vanadium production processing facilities
- Aiming to be the leading primary vanadium producer with production

**An energy storage solutions provider, exclusively focused on vanadium based energy storage systems**

**ELECTROLYTE**
- Developing electrolyte manufacturing with 200MWh capacity
- Leverages own primary processing capacity and knowledge for low cost production
- Create a business model for electrolyte supply

**MANUFACTURING**
- Investment into original equipment manufacturers (“OEMs”) of VRFBs via the VRFB Investment Platform (“VIP”)
- Support of local VRFB assembly in South Africa

**DEPLOYMENT**
- MW scale energy storage project development including core solar PV and long duration mini-grid IPP offering
- Direct sales into large mandates/tenders in Africa

Through its vertical integration business strategy, Bushveld Minerals can deliver across the upstream and downstream vanadium value chain.
Bushveld Vanadium overview

<table>
<thead>
<tr>
<th>1. Vametco&lt;sup&gt;1&lt;/sup&gt;</th>
<th>2. Brits&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Primary vanadium mine and plant</td>
<td>• Outcropping, strike extension of the Vametco mine</td>
</tr>
<tr>
<td>• 186.7 Mt Resource, 48.4 Mt reserve grade of 1.98% V₂O₅ in magnetite</td>
<td>• 66.8 Mt JORC resource of 1.58% V₂O₅ in magnetite</td>
</tr>
<tr>
<td>• Life of Mine of 27 years (ore reserves)</td>
<td>• Provides the potential for additional ore feed for Vametco and Vanchem</td>
</tr>
<tr>
<td>• 2019 production of 2,833mtV and production cash cost of US$18.10/KgV</td>
<td></td>
</tr>
<tr>
<td>• 2020e production of 3,000 mtV – 3,200 mtV and cost of US$17.20/kgV – US$17.70/kgV</td>
<td></td>
</tr>
<tr>
<td>• Currently has sufficient third party ore</td>
<td>• Optionality to supply magnetite concentrates from Vametco mine to Vanchem</td>
</tr>
<tr>
<td>• Progress the refurbishment programme and finalise capital expenditure plan and ramp up profile</td>
<td>• Current product: Nitrovan&lt;sup&gt;TM&lt;/sup&gt;, Modified Vanadium Oxide (“MVO”) and Ammonium Metavanadate (“AMV”)</td>
</tr>
<tr>
<td>• Future product: Ferrovanadium (“FeV”)</td>
<td>• Future product: Vanadium Trioxide (“V₂O₃”), Vanadium Pentoxide (“V₂O₅”), FeV, Chemicals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Vanchem&lt;sup&gt;1&lt;/sup&gt;</th>
<th>4. Mokopane&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Low cost primary vanadium processing facility</td>
<td>• 298 Mt JORC resource, with vanadium in-magnetite grades of 1.75% V₂O₅</td>
</tr>
<tr>
<td>• 2020e production of 960 mtV – 1,100 mtV</td>
<td>• 30 year Mining Right executed in January 2020</td>
</tr>
<tr>
<td>• Currently has sufficient third party ore</td>
<td>• Mokopane to become a primary source of feedstock for Vanchem and supply dry magnetic separated ore</td>
</tr>
<tr>
<td>• Progress the refurbishment programme and finalise capital expenditure plan and ramp up profile</td>
<td>• A definitive feasibility study expected in H2 2020</td>
</tr>
<tr>
<td>• Current product: Vanadium Trioxide (“V₂O₃”), Vanadium Pentoxide (“V₂O₅”), FeV, Chemicals</td>
<td></td>
</tr>
</tbody>
</table>

1. 100% basis
Source: Roskill

Map of operations

2018 cost curve US$/KgV
Vametco – our flagship asset: solid operational and financial performance despite a weaker vanadium price

Operational and financial highlights for Vametco (on a 100% basis)\(^1\)

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit</th>
<th>CY20 Guidance</th>
<th>CY19(^2)</th>
<th>CY18</th>
<th>CY17</th>
<th>CY16</th>
<th>CY19 Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vanadium produced</td>
<td>(mtV)</td>
<td>3,000 - 3,200</td>
<td>2,833</td>
<td>2,560</td>
<td>2,649</td>
<td>2,856</td>
<td>• Transformation programme successfully delivering productivity initiatives</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Record production form magnetite only</td>
</tr>
<tr>
<td>Vanadium sold</td>
<td>(mtV)</td>
<td>-</td>
<td>2,392</td>
<td>2,573</td>
<td>2,721</td>
<td>2,810</td>
<td>• Average delivery period of 8 to 12 weeks to the final customer</td>
</tr>
<tr>
<td>LMB Prices w.a.(^3)</td>
<td>US$/kgV</td>
<td>-</td>
<td>41.6</td>
<td>81.2</td>
<td>32.6</td>
<td>18.5</td>
<td>• Realised price is based on the prior month's mid average price</td>
</tr>
<tr>
<td>Unaudited Revenue</td>
<td>US$ million</td>
<td>-</td>
<td>111.1</td>
<td>183.0</td>
<td>79.1</td>
<td>51.7</td>
<td>• Lower revenue due to weaker vanadium price</td>
</tr>
<tr>
<td>Unaudited underlying EBITDA</td>
<td>US$ million</td>
<td>-</td>
<td>42.4</td>
<td>108.3</td>
<td>23.9</td>
<td>3.3</td>
<td>• US$42.4 million underlying EBITDA despite a 35% reduction in the average realised price</td>
</tr>
<tr>
<td>Underlying Production cash costs(^4)</td>
<td>US$/kgV</td>
<td>17.20 - 17.70</td>
<td>18.10</td>
<td>19.11</td>
<td>16.6</td>
<td>12.9</td>
<td>• Weaker ZAR relative to USD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Higher volumes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Cost reduction initiatives</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Partly offset by a higher inflation</td>
</tr>
</tbody>
</table>

1. Bushveld’s net attributable interest in Vametco is 74%
2. Based on provisional, unaudited estimates
3. The vanadium price is based on the FeV mid weighted average price ("w.a") for the period, published by London Metal Bulletin("LMB") Vametco realised price is based on the prior month's mid average price
4. Excludes depreciation, royalties selling, general & administrative expenses
The acquisition of Vanchem is consistent with Bushveld’s growth strategy

• Acquisition was completed on 7 November 2019 for a total consideration of US$53.5 million
• Vanchem consists of integrated vanadium extraction and production facilities which can produce ferrovanadium, vanadium pentoxide, vanadium trioxide and vanadium chemicals. The plant comprises:
  ➢ A core salt-roast processing plant, including 3 roasting kilns (currently 1 kiln in operation)
  ➢ An electric smelting ferrovanadium converter, located at the Highveld Steel & Vanadium site, situated approximately 10 km from the Vanchem Plant
  ➢ An alumino-thermic smelting facility, also located at Highveld
  ➢ A vanadium chemical plant
  ➢ A rail siding linking the plant with Bushveld deposits and additional potential supply sources through the national rail network
• 2020e production of 960 mtV – 1,100 mtV using a single kiln
• Currently refining plans for the US$45 million refurbishment programme to achieve a production of 4,200 mtV in the next 5 years
• Acquisition is consistent with Bushveld’s vertical integration business strategy
  ➢ Currently has sufficient third-party ore supply
  ➢ Future ore supply optionality from Brits and Mokopane and magnetite concentrate from Vametco
Our vertical integration strategy and synergies across the operations provide flexibility for:

- **Sourcing feedstock** - to mitigate capital requirements in a volatile pricing environment
- **Final products** - to maximise sales depending on product demand dynamics

The Group is positioned to deliver on the entire vanadium value chain.

1. Purchased pre-completion of the transaction
Bushveld Energy’s business model

**Electrolyte**
Developing the production and sales of the highest value component of VRFBs
- Developing a 200 MWh vanadium electrolyte production facility to supply to local and international VRFB projects, together with the Industrial Development Corporation
  - Expected capital expenditure of US$10 million
  - Received Environmental Authorisation in September 2019; EPC contract expected in Q1 2020;
- Implemented the first vanadium electrolyte rental contract in 2019 together with Avalon
- Creating a financial structure to own vanadium and rent electrolyte

**Manufacturing**
Investment into global VRFB manufacturers and local assembly of VRFBs
- Establishment of a VIP for investment into VRFB companies with attractive upside potential
  - Existing investments include a US$5 million strategic interest in the announced AIM-listed redT-Avalon merger, and as part of a consortium, acquired a minority stake in the Austrian VRFB OEM, Enerox GmbH (“Enerox”)

**Deployment**
Megawatt scale energy storage project development, with direct sales into a large scale mandates
- Preparing for the 2,000 MW energy storage allocation in South Africa’s 2019 Integrated Resource Plan, and other African projects within the World Bank’s 17.5 GWh energy storage roll-out programme
- Developing a commercial 1 MW mini-grid at the Vametco mine, including 2.5 MW of solar PV and a 1 MW / 4 MWh VRFB as a funded independent power producer
  - The project has completed grid connection and geotechnical studies, commenced an Environmental Assessment and started procurement

All Energy-related initiatives require much lower capital needs compared to mining and processing
Steadily achieving our strategic objectives at Bushveld Vanadium

1. Vametco
   - Bushveld acquired 27% interest in Vametco

2. Vametco
   - Increased interest to 74%
   - Execution of optimisation initiatives resulted in increased crusher, kiln and mill availability as well as plant recoveries

3. Vametco
   - Mining Right granted
   - DFS focused on Mokopane as the primary feedstock supplier to Vanchem

4. Vametco
   - Implementation of operational initiative. Vametco achieved a record monthly production of >300mtV in September 2019

5. Mokopane
   - 2019 production of 2,833mtV and production cash cost of US$18.10/kgV
   - 30 year Mining Right executed

6. Vanchem
   - Completed the acquisition of Vanchem
     - Consideration of US$53.5 million
     - Target production to 4,200 mtVp.a. post completion of refurbishment

7. Vametco
   - Effective interest increased to 59%
Significant progress across Bushveld Energy’s segments

**Deployment**
1. Delivered its first VRFB project, a 120kW peak power (450kWh of peak energy) at the Eskom Research and Testing Facility (Q2 2018)
2. Started development of first commercial Photovoltaic and Vanadium redox flow battery mini-grid (Q4 2018)

**Electrolyte**
3. Received Environmental Authorisation for electrolyte plant (Q3 2019)
4. Implementation of first rental contract with Avalon (Q2 2019)

**Manufacturing**
5. Initial investment into redT-Avalon merger (Q4 2019)
6. Announced a minority investment into Enerox, as part of a consortium (Q4 2019)

**Deployment**
7. Deployed its first VRFB project, a 120kW peak power (450kWh of peak energy) at the Eskom Research and Testing Facility (Q2 2018)
8. Started development of first commercial Photovoltaic and Vanadium redox flow battery mini-grid (Q4 2018)

**Electrolyte**
9. Received Environmental Authorisation for electrolyte plant (Q3 2019)
10. Implementation of first rental contract with Avalon (Q2 2019)

**Manufacturing**
11. Initial investment into redT-Avalon merger (Q4 2019)
12. Announced a minority investment into Enerox, as part of a consortium (Q4 2019)
Solid Group results, underpinned by Vametco’s strong performance

<table>
<thead>
<tr>
<th></th>
<th>Group’s H1 2019</th>
<th>Vametco’s H1 2019</th>
<th>Vametco’s CY19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production (mtV)</td>
<td>-</td>
<td>1,392</td>
<td>2,833</td>
</tr>
<tr>
<td>Sales (mtV)</td>
<td>-</td>
<td>1,115</td>
<td>2,392</td>
</tr>
<tr>
<td>Unaudited Revenue (US$ million)</td>
<td>78.0</td>
<td>78.0</td>
<td>111.1</td>
</tr>
<tr>
<td>LMB average price (US$kg/V)</td>
<td>56.3</td>
<td>56.3</td>
<td>41.6</td>
</tr>
<tr>
<td>Unaudited EBITDA (US$ million)</td>
<td>41.0</td>
<td>42.3</td>
<td>42.4</td>
</tr>
<tr>
<td>Operating Profit (US$ million)</td>
<td>37.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Profit After Tax (US$ million)</td>
<td>30.8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Free Cash Flow¹ (US$ million)</td>
<td>23.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net Cash Balance (US$ million)</td>
<td>66.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Underlying Production cash cost (US$/kgV)</td>
<td>-</td>
<td>19.2</td>
<td>18.1</td>
</tr>
<tr>
<td>Attrib. Earnings Per Share (cents)</td>
<td>1.92</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Secured R375 million (US$25 million) of debt facilities in October 2019

1. Free cashflow: comprises net operating cash flows less net investing cash flows
Priorities for 2020

**Bushveld Vanadium**

**Vametco**
- Achieve target production of 3,000 mtV to 3,200 mtV
- Production cash cost guidance of US$17.20/kgV to US$17.70/kgV

**Vanchem**
- Achieve a production target of 960 mtV to 1,100 mtV
- Provide 2020 production cash cost in Q1 2020 Operational Update
- Progress the refurbishment programme at Vanchem
- Finalise the expected capital expenditure plans together with ramp up profile

**Mokopane**
- Complete the Mokopane definitive feasibility study in H2 2020

**Bushveld Energy**

**Electrolyte**
- Advance construction of the vanadium electrolyte plant
- Implement additional, larger electrolyte rental contracts

**VRFB manufacturing**
- Advance VIP and identify further VRFB companies for investment
- Investigate business case for South African based VRFB assembly

**Deployments**
- Demonstrate business case for VRFB deployments, including delivery of the Vametco mini-grid as a funded independent power producer ("IPP")
- Participate in the 2,000 MW South Africa IRP energy storage allocation and other African projects within the World Bank’s 17.5 GWh energy storage roll-out programme, including Eskom
- Secure partial self-supply of electricity at all Bushveld operations in South Africa to de-risk potential deterioration of Eskom and the power system
Bushveld Minerals: delivering on its commitments

A low cost, vertically integrated primary vanadium producer

MINING
✓ Resource upgrade at Vametco
✓ Transformation programme at Vametco implemented
✓ Mining Right executed for Mokopane

PROCESSING
✓ Acquisition of Vametco
✓ Transformation programme at Vametco implemented
✓ Vametco record production in 2019 from magnetite only
✓ Stable operations with no disruptions in 2019
✓ Acquisition of Vanchem

An energy storage solutions provider, exclusively focused on vanadium based energy storage systems

ELECTROLYTE
✓ Received Environmental Authorisation
✓ The first batch of electrolyte was produced using Vametco’s feedstock, with the samples sent to VRFB companies
✓ Implementation of the first rental contract was announced with Avalon
✓ Commenced work towards a VRFB Rental Fund

MANUFACTURING
✓ Establishment of a VIP for investments into VRFB OEMs
✓ US$5 million strategic interest in the possible redT-Avalon merged entity
✓ Minority investment into Enerox, as part of a consortium

DEPLOYMENT
✓ The VRFB installed with Eskom was commissioned and is operating
✓ Commenced an Environmental Assessment
✓ Completed a grid connection and geotechnical studies
✓ Procurement for the project commenced in Q3 2019
Vanadium is a compelling commodity anchored to steel with burgeoning demand from energy storage.

Large, high-grade, primary resource with a base of ~550 Mt grading 1.58% – 2.02% V₂O₅.

Owns 2 of the world’s 4 existing primary vanadium production processing facilities with capacity to scale up production significantly.

Aims to strengthen its position as one of the leading primary vanadium producers with target production of 8,400 mtVp.a. in the medium term.

One of the leading players in VRFB energy storage systems, through its subsidiary, Bushveld Energy.

Offers a diversified revenue stream through its vanadium product offering to the steel, chemicals and energy storage markets.

Increased sustainability participation in the circular economy through full re-usability of vanadium contained in VRFBs.

Bushveld Minerals’ vertical integration strategy provides a natural hedge against the vanadium price volatility, and ensures the Group is in a solid position throughout the cycle.
Bushveld Minerals: share ownership and performance

**Bushveld Minerals Share Price (19 February 2020)**

<table>
<thead>
<tr>
<th>Shares</th>
<th>23.90p (31.09c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary Shares</td>
<td>1,153,642,682</td>
</tr>
<tr>
<td>Market Capitalisation</td>
<td>£280 million</td>
</tr>
<tr>
<td>Market Capitalisation</td>
<td>US$358 million</td>
</tr>
</tbody>
</table>

**Bushveld Minerals Top Shareholders**

<table>
<thead>
<tr>
<th>#</th>
<th>Shares</th>
<th>% Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hargreaves Lansdown Asset Mgt</td>
<td>204,371,995</td>
</tr>
<tr>
<td>2</td>
<td>Interactive Investor</td>
<td>118,110,401</td>
</tr>
<tr>
<td>3</td>
<td>Halifax Share Dealing</td>
<td>117,440,172</td>
</tr>
<tr>
<td>4</td>
<td>Orange Trust</td>
<td>69,011,966</td>
</tr>
<tr>
<td>5</td>
<td>Acacia Resources Limited</td>
<td>63,598,644</td>
</tr>
</tbody>
</table>

**Bushveld Minerals Top Institutional Shareholders**

<table>
<thead>
<tr>
<th>#</th>
<th>Shares</th>
<th>% Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Invesco Perpetual Asset Mgt</td>
<td>27,511,892</td>
</tr>
<tr>
<td>2</td>
<td>Jarvis Investment Mgt</td>
<td>20,714,530</td>
</tr>
<tr>
<td>3</td>
<td>Oppenheimer Funds</td>
<td>7,400,000</td>
</tr>
<tr>
<td>4</td>
<td>Canaccord Genuity Wealth Mgt</td>
<td>3,750,587</td>
</tr>
<tr>
<td>5</td>
<td>Raymond James Investment Services</td>
<td>1,667,199</td>
</tr>
<tr>
<td>6</td>
<td>FIL Investment International</td>
<td>988,198</td>
</tr>
</tbody>
</table>

**Bushveld Minerals Ownership**

<table>
<thead>
<tr>
<th>#</th>
<th>Shares</th>
<th>% Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bushveld Minerals Ltd Director &amp; Related Holding(s)</td>
<td>31,731,667</td>
</tr>
</tbody>
</table>

**Source:** Bloomberg - 19 February 2020, Orient Capital as at 31 January 2020, Metal Bulletin - 14 February 2020
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  
• Previously worked at Deutsche Bank, Barclays Capital in London and Loita Capital Partners

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 the dual listed Lonmin Plc where, as Executive Vice President of Corporate Strategy, Investor Relations and Corporate Communication, she helped steer Lonmin’s return to profitability in 2018 and led the recent all-share offer transaction with Sibanye-Stillwater  
• Prior to Lonmin, she was Executive Director at Smith’s Corporate Advisory in London and Vice-President Corporate Finance at JP Morgan Cazenove

Ian 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

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Michael Kirkwood  
Senior Independent Non-Executive Director  
• Currently chairman of corporate advisory firm Ondra LLP and serves on the Board of AngloGold Ashanti Limited  
• 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, most recently as UK chairman

Jeremy Friedlander  
Independent Non-Executive Director  
• Established McCready Friedlander in 1993, which became one of the premier property agencies in South Africa which then listed in 1998 on the JSE  
• Recently a director of Onslow Resources (oil and gas in Namibia and Yemen)  
• He is a development director of a number of Avana companies involved in uranium, coal, gold, oil and gas and industrial minerals  
• Has a BA LLB from the University of Cape Town and practiced as an attorney after completing his Articles in Cape Town

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• Previously worked at Deutsche Bank, Barclays Capital in London and Loita Capital Partners

Bushveld Minerals: board of directors
Bushveld Minerals: management

Fortune Mojapelo
Chief Executive Officer

- Co-founder and Chief Executive Officer (CEO) of Bushveld Minerals since 2012
- 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

Mikhail Nikomarov
Chief Executive Officer, Bushveld Energy

- Co-founder and CEO of Bushveld Energy since 2015
- Spent 6.5 years with McKinsey & Company in Moscow and Johannesburg, advising national governments, utilities and manufacturers on growth strategy and policy and leading operational turnarounds in the energy sector
- Chairman of the Board, South African Energy Storage Association (“SAESA”)
- Chairman of Energy Storage Committee, Vanitec, the global association of vanadium producers

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 the dual listed Lonmin Plc where, as Executive Vice President of Corporate Strategy, Investor Relations and Corporate Communication, helped steer Lonmin’s return to profitability in 2018 and led the recent all-share offer transaction with Sibanye-Stillwater
- Prior to Lonmin, was Executive Director at Smith’s Corporate Advisory in London and Vice-President Corporate Finance at JP Morgan Cazenove

Bertina Symonds
Vametco General Manager

- Has over 20 years’ experience in mining and beneficiation
- A former General Manager of the Nkomati Nickel Mine owned by Johannesburg Stock Exchange listed African Rainbow Minerals Ltd
- Held a range of other senior positions within Nkomati including Head of Department of Concentrate Production and Concentrate Production Manager

Andre Strydom
Vanchem General Manager

- A qualified Chemical Engineer with experience in project development, construction and commissioning
- Over 18 years of mining and beneficiation experience
- Previously General Manager at Sadiola and Yatela mines operated by AngloGold Ashanti, a role he held since 2012

Sihle Mduli
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

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, particularly in the resource industry
- Held senior corporate finance and investment banking roles at Gold Fields of South Africa, JPMorgan, Kumba Resources and BHP Billiton where he was Vice President of Strategy & Business Development

Viki Rapelas
Director of Legal and Compliance

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

- A Maiden Mineral Resource Competent Person’s Report Brits was published in January 2020
- Indicated and Inferred Resource of 66.8 Mt (100% Basis) with 41.8 Mt (62.5% Net Attributable Basis)
- Average grade of Indicated and Inferred Resource of 1.58% $V_2O_5$ in magnetite for 175,400 tonnes of contained vanadium across the 3 seams
- Scope for additional ore feed for the Vametco plant and, if required, concentrate feed for the Vanchem plant

Brits geological map showing boreholes drilled and the ore body
Mokopane: integrated development model

• Mokopane is intended to become a primary source of feedstock for Vanchem

• The Mokopane-Vanchem business model will create a fully-integrated business in a shorter time and at a lower cost than developing Mokopane as a standalone operation

• A definitive feasibility study has commenced for the development of the Mokopane mine as the primary feedstock supplier to Vanchem

• A 30 year mining right was executed in January 2020

• The options continue to be:
  - Supplying ore to other primary or secondary producers worldwide; and/or
  - Developing Mokopane into a standalone mine and processing plant
Vametco Mineral Resource at a cut-off grade of 20% magnetite, 29 March 2019 – Gross Basis (Bushveld Minerals ownership is 74%)

<table>
<thead>
<tr>
<th>Class</th>
<th>Seam Name</th>
<th>Tonnes (Millions)</th>
<th>V₂O₅ grade of whole rock %</th>
<th>Magnetite grade of whole rock %</th>
<th>V₂O₅ grade of magnetite %</th>
<th>Tonnes V₂O₅ in magnetite (Thousands)</th>
<th>Tonnes V in magnetite (Thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicated</td>
<td>Upper</td>
<td>5.7</td>
<td>1.44</td>
<td>65.9</td>
<td>1.78</td>
<td>67.0</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>Intermediate</td>
<td>28.7</td>
<td>0.68</td>
<td>32.7</td>
<td>1.91</td>
<td>179.2</td>
<td>100.4</td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td>109.4</td>
<td>0.72</td>
<td>32.4</td>
<td>2.03</td>
<td>719.7</td>
<td>403.1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>143.8</td>
<td>0.74</td>
<td>33.8</td>
<td>2.00</td>
<td>965.9</td>
<td>541.1</td>
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<tr>
<td>Inferred</td>
<td>Upper</td>
<td>10.5</td>
<td>1.46</td>
<td>63.5</td>
<td>1.75</td>
<td>116.3</td>
<td>65.1</td>
</tr>
<tr>
<td></td>
<td>Intermediate</td>
<td>7.0</td>
<td>0.67</td>
<td>32.1</td>
<td>1.92</td>
<td>43.4</td>
<td>24.3</td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td>25.4</td>
<td>0.74</td>
<td>31.3</td>
<td>2.00</td>
<td>158.5</td>
<td>88.8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>42.9</td>
<td>0.90</td>
<td>39.3</td>
<td>1.92</td>
<td>318.2</td>
<td>178.2</td>
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<tr>
<td>Indicated and Inferred</td>
<td>Upper</td>
<td>16.2</td>
<td>1.45</td>
<td>64.3</td>
<td>1.76</td>
<td>183.3</td>
<td>102.7</td>
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<td></td>
<td>Intermediate</td>
<td>35.7</td>
<td>0.67</td>
<td>32.6</td>
<td>1.91</td>
<td>222.6</td>
<td>124.7</td>
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<tr>
<td></td>
<td>Lower</td>
<td>134.8</td>
<td>0.72</td>
<td>32.1</td>
<td>2.03</td>
<td>878.2</td>
<td>491.9</td>
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<tr>
<td></td>
<td>Total</td>
<td>186.7</td>
<td>0.78</td>
<td>35.0</td>
<td>1.98</td>
<td>1,284.1</td>
<td>719.3</td>
</tr>
</tbody>
</table>

Vametco Ore Reserves, 29 March 2019 – Gross Basis (Bushveld Minerals ownership is 74%)

<table>
<thead>
<tr>
<th>Class</th>
<th>Seam Name</th>
<th>Tonnes (Millions)</th>
<th>V₂O₅ grade of whole rock %</th>
<th>Magnetite grade of whole rock %</th>
<th>V₂O₅ grade of magnetite %</th>
<th>Tonnes V₂O₅ in magnetite (Thousands)</th>
<th>Tonnes V in magnetite (Thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probable</td>
<td>Upper</td>
<td>0.96</td>
<td>0.58</td>
<td>27.3</td>
<td>1.78</td>
<td>4.6</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>Intermediate</td>
<td>7.23</td>
<td>0.53</td>
<td>23.7</td>
<td>1.89</td>
<td>32.3</td>
<td>18.1</td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td>40.23</td>
<td>0.63</td>
<td>29.4</td>
<td>2.05</td>
<td>242.1</td>
<td>135.6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>48.43</td>
<td>0.62</td>
<td>28.5</td>
<td>2.02</td>
<td>279.1</td>
<td>156.3</td>
</tr>
</tbody>
</table>
## Brits: mineral resource

### Brits Vanadium Mineral Resource at a cut-off grade of 20% magnetite, 18 June 2019 – Gross Basis (Bushveld Minerals ownership is 62.5%)

<table>
<thead>
<tr>
<th>Class</th>
<th>Seam Name</th>
<th>Tonnes (Millions)</th>
<th>V₂O₅ grade of whole rock %</th>
<th>Magnetite grade of whole rock %</th>
<th>V₂O₅ grade of magnetite %</th>
<th>Tonnes V₂O₅ in magnetite (Thousands)</th>
<th>Tonnes V in magnetite (Thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indicated</strong></td>
<td>Upper</td>
<td>2.0</td>
<td>0.66</td>
<td>43.64</td>
<td>1.51</td>
<td>13.4</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Intermediate</td>
<td>1.9</td>
<td>0.47</td>
<td>21.52</td>
<td>1.75</td>
<td>7.0</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td>41.0</td>
<td>0.56</td>
<td>28.54</td>
<td>1.59</td>
<td>185.9</td>
<td>104.2</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>44.9</strong></td>
<td><strong>0.56</strong></td>
<td><strong>28.94</strong></td>
<td><strong>1.59</strong></td>
<td><strong>206.3</strong></td>
<td><strong>115.6</strong></td>
</tr>
<tr>
<td><strong>Inferred</strong></td>
<td>Upper</td>
<td>7.1</td>
<td>0.65</td>
<td>43.89</td>
<td>1.50</td>
<td>46.7</td>
<td>26.2</td>
</tr>
<tr>
<td></td>
<td>Intermediate</td>
<td>0.4</td>
<td>0.44</td>
<td>21.13</td>
<td>1.85</td>
<td>1.4</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td>14.5</td>
<td>0.50</td>
<td>26.09</td>
<td>1.55</td>
<td>58.8</td>
<td>32.9</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>22.0</strong></td>
<td><strong>0.55</strong></td>
<td><strong>31.78</strong></td>
<td><strong>1.54</strong></td>
<td><strong>106.9</strong></td>
<td><strong>59.9</strong></td>
</tr>
<tr>
<td><strong>Indicated and Inferred</strong></td>
<td>Upper</td>
<td>9.2</td>
<td>0.65</td>
<td>43.84</td>
<td>1.50</td>
<td>60.1</td>
<td>33.7</td>
</tr>
<tr>
<td></td>
<td>Intermediate</td>
<td>2.2</td>
<td>0.46</td>
<td>21.46</td>
<td>1.76</td>
<td>8.4</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>Lower</td>
<td>55.5</td>
<td>0.54</td>
<td>27.90</td>
<td>1.58</td>
<td>244.6</td>
<td>137.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>66.8</strong></td>
<td><strong>0.56</strong></td>
<td><strong>29.87</strong></td>
<td><strong>1.58</strong></td>
<td><strong>313.2</strong></td>
<td><strong>175.4</strong></td>
</tr>
</tbody>
</table>

### Mokopane: reserves and resources

- The Mokopane project has a 298 Mt JORC-compliant Resource, including 28.5 Mt Reserves and a weighted average V₂O₅ grade of 1.41% in-situ and 1.75% in magnetite. Bushveld Minerals ownership is 64%
Russia’s vanadium material disappeared, the market price moved up and thereafter Russia restarted production.

Advent of grade 3 rebar in China. The new standard forced Chinese rebar producers to start using vanadium (grade 3) for high-strength rebar applications.

In preparation of the new high-strength rebar standard, mills in China were building up their inventories. Standard came into effect in November 2018.

Highveld Steel & Vanadium stops production.

Problems with production of electrical power and resulting load shedding in South Africa negatively impacted vanadium production leading to the 2008 price spike.

Reduction due to: slower than anticipated implementation of Rebar standard; substitution with ferro-niobium; and opportunistic production (stone coal).

Real average FeV price over 40 years of ~ US$33/kgV.

Bushveld’s high grade, long-life, low cost assets and vertical integration strategy sets the Company in a strong position throughout the commodity cycle.

Source: Bushveld Minerals, Metal Bulletin 14 February 2020
Participating in the circular economy

- The VRFB is designed to last for 20 years or more, meaning that fewer batteries need to be deployed than its lithium counterparts.

- The unique technical design of this flow battery allows for full reusability of the chemical electrolyte in the battery once the electrical and mechanical components wear out. That means that even after the 20-year lifetime of the battery is reached, the electrolyte can be redeployed into another battery.

- The electrolyte can be easily reprocessed by existing vanadium processing facilities at minimal cost into products such as ferrovanadium and vanadium-pentoxide for use in high-strength steels and specialty alloys & chemicals.

- Vanadium electrolyte is primarily made of water, allowing for easier processing than from other compound states.

- Only one mineral is extracted from vanadium electrolyte, whereas lithium, nickel, manganate, cobalt, etc. need to be separated out in a lithium battery.

- These opportunities may make vanadium the most circular economy-friendly mineral.

Source: Bushveld Minerals
Vanadium: demand robust, supply constrained

**Demand**
- Robust growing vanadium demand is underpinned by the steel market which is driven mainly by regulations in China and emerging markets developments
  - Current data indicates that China has been a net vanadium importer in recent months, as a result of the increased intensity of vanadium consumption
- Growing demand from VRFB for stationary energy storage applications

**Supply**
- Concentrated and constrained supply
- Dominated by co-production, which is constrained by:
  - A subdued steel market outlook
  - Capped upside capacity
- Reduced supply from stone coal producers as they are uneconomical at current prices
- Limited greenfield supply outlook
- Incentive to substitute vanadium with ferroniobium is significantly diminished at current prices

Market fundamentals remain attractive with existing primary vanadium producers best-suited to deliver new supply

1. Roskill forecasts assume that all announced projects under development will come into production

**Source:** Bushveld Minerals, BMO, Metal Bulletin, Roskill
Temporary contributors to the FeV price retraction: Substitution

- A contributor to the price decrease in 2019 was increased Ferroniobium ("FeNb") imports into China, suggesting greater substitution of Ferrovanadium ("FeV") in grade III rebar at an >US$100/kgV FeV price
  - At a US$100/kgV price, the contribution of FeV to the cost of rebar was ~7%
- China imported 45% more FeNb in 2018 than in 2017 (35,737mt in 2018 compared to 24,644mt in 2017)
- Much of the substitution is price elastic
  - At current FeV prices the incentive to substitute FeNb with FeV is significantly diminished
- FeNb exports from Brazil were down from 1,135mtp.a. in 3Q19 to 957mtp.a. in 4Q19 as FeV prices became more competitive.
  - Brazilian FeNb exports were down 50% yoy to 525mtp.a. in January 2020
- FeV is expected to regain market share lost to FeNb, as FeV offers several advantages over FeNb in steel applications

Source: Bushveld Mineral analysis, Bloomberg, BMO, Metal Bulletin 14 February 2020, Roskill