

Building a
Vertically
integrated
primary
vanadium
producer



Bushveld Minerals is a low-cost, vertically integrated primary vanadium producer with a diversified vanadium product portfolio. We own high-grade assets responsible for supplying approximately 3,000 mtVp.a. of the global vanadium market from one processing facility.

Our medium-term plan is to grow production from the two plants, Vametco and Vanchem, to more than 8,400 mtV, while maintaining a low-cost profile and so enhancing our competitive position in the vanadium market. Through Bushveld Energy, our energy storage solutions provider, we continue to play a pivotal role in the development and promotion of Vanadium Redox Flow Battery (“VRFB”) technology within the growing global energy storage market.

Acronyms

ABET	Adult Basic Education and Training
APV	Ammonium poly-vanadate
AGM	Annual General Meeting
Brits	Brits Vanadium Project
BBBEE	Broad Based Black Economic Empowerment
BVA	Bushveld Vametco Alloys (Pty) Limited
BVH	Bushveld Vametco Holdings (Pty) Limited
BVL	Bushveld Vametco Limited
CAGR	Compound Annual Growth Rate
QCA Code	Corporate Governance Code
ELIDZ	East London Industrial Development Zone
ESOP	Employee Share Ownership Participation
ESS	Energy storage systems
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
FeNb	Ferroniobium
FeV	Ferrovandium
HSLA	High-strength low-alloy
IDC	Industrial Development Corporation
IRP	Integrated Resource Plan
IWUL	Integrated Water Use License
JORC	Joint Ore Reserves Committee
LOM	Life of Mine
MML	Main Magnetite Layer
MML-HW	Main Magnetite Layer Hanging Wall
mtV	Metric tonne of Vanadium
MW	Megawatt
MWh	Megawatt hour
Mt	Millions of tonnes
MVO	Modified vanadium oxide
Mokopane	Mokopane Vanadium Project
PV	Photovoltaic
RoM	Run-of-mine
SLP	Social and Labour Plan
SAESA	South African Energy Storage Association
SMC	Strategic Minerals Corporation
UET	UniEnergy Technologies
USTDA	United States Trade and Development Agency
Vametco	Vametco mine & processing plant
VCN	Vanadium Carbon Nitride
V₂O₅	Vanadium Pentoxide
V₂O₃	Vanadium Trioxide
VRFB	Vanadium Redox Flow Battery
Vanchem	Vanchem Vanadium Plant
Sojitz	Sojitz Noble Alloys Corporation
SAJV	South African Japan Vanadium Proprietary Limited

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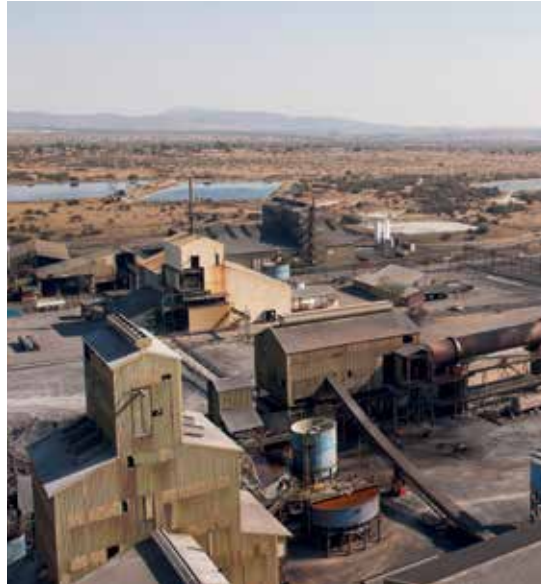
Bushveld Minerals has changed its reporting currency from the British Pound Sterling to United States Dollars.

Throughout this publication, the Boards are referred to collectively as the Board. In this Annual Report, the terms 'Bushveld Minerals Group', 'Bushveld', 'Company', 'Group', 'we', 'us', 'our' and 'ourselves' are used to refer to Bushveld Minerals.

The terms 'Vametco Mine and Processing Plant', 'Vametco Vanadium mine' and 'Vametco' are used to refer to 'Bushveld Vametco Alloys (Proprietary) Ltd'. Cross-references refer to sections of the Annual Report, unless stated otherwise.

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At a Glance



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This report is also available at www.bushveldminerals.com/financial-reports

At a Glance

Bushveld Minerals is a low-cost, vertically integrated primary vanadium producer with a diversified vanadium product portfolio.

Who we Are

We own high-grade assets responsible for supplying approximately 3,000 mtVp.a. of the global vanadium market from one processing facility.

Through Vametco, we are one of only three operational primary vanadium producers in the world, and one of two vanadium-focused pure-play companies. We announced, in May 2019, a conditional agreement to acquire the

primary vanadium processing assets of vanadium production business of Vanchem Vanadium plant, the ferrovanadium production business of SAJV as a going concern, and a 100 per cent of the outstanding shares of Ivanti Resources (Pty) Limited, a subsidiary of Duferco Participations Holding S.A., (collectively "Vanchem"). Vanchem is currently in business rescue and has recently restarted operations. Our intent is to bring back to the market, following a refurbishment programme, Vanchem's historical vanadium production at full capacity.

Our medium-term plan is to grow production from the two plants, Vametco and Vanchem, to more than 8,400 mtV, while maintaining a low-cost profile and so enhancing our competitive position in the vanadium market.

Through Bushveld Energy, our energy storage solutions provider, we continue to play a pivotal role in the development and promotion of Vanadium Redox Flow Battery ("VRFB") technology within the growing global energy storage market.

Our Vision

Bushveld Minerals' vision is to grow into one of the world's most significant, lowest cost and vertically integrated primary vanadium producers with a diversified vanadium product portfolio, recognised for operating efficiency and value creation.

Our Mission

Bushveld Minerals is committed to generating value in a safe and sustainable way for all of our stakeholders throughout the commodity cycle.

Our Strategy

Bushveld Minerals' strategy entails:

- building a sustainable cash-generating, low-cost production platform with a nameplate capacity of 10,000 mtVp.a. comprising:
 - a. a portfolio of high grade, open cast and low-cost primary vanadium mines;
 - b. a portfolio of processing facilities, preferably brownfield assets, with a diversified geographic footprint; a flexible low-cost production capability and a diversified vanadium product portfolio.
- leveraging the low-cost production platform to build a leading stationary energy storage player participating in the vanadium redox flow battery value chain through the supply of electrolyte, project development and ownership of VRFB technology.

Bushveld Minerals Vision

A Vertically Integrated Primary Vanadium Platform

Bushveld Minerals' ambition is to grow into one of the world's most significant, low-cost and vertically integrated primary vanadium producers, while creating long-term value for all its stakeholders. The Company is targeting a production platform of 10,000 mtVp.a. nameplate capacity in the medium term while leveraging its large high-grade resource base. Growing its production footprint will allow the Company to enhance its competitive position in the global vanadium market, whilst providing a diverse product offering.



Bushveld Minerals' competitive strengths include:

A portfolio of high-grade ore for primary vanadium processing facilities, with grades of 1.66-2.0 per cent V_2O_5 , in magnetite which are among the highest vanadium grades in the world.

Over 485 Mt combined resource base, including 77 Mt in reserves across three deposits on the Bushveld Complex.



Two primary vanadium processing facilities, subject to completion of the Vanchem acquisition, located in Brits and Witbank.

Vametco is expected to reach a steady state production of 3,400 mtVp.a. during 2020 (90 per cent of its processing nameplate capacity of 3,750 mtVp.a.), increasing to more than 4,200 mtVp.a. (85 per cent of its processing nameplate capacity of 5,000 mtVp.a.) through the planned expansion programme.

Vanchem is currently producing about 80 mtV per month (approximately 960 mtVp.a.) using one of the three available kilns onsite. After refurbishment and ramp-up, the plant is expected to reach steady state production of 4,200 mtVp.a.

Expansion of the annual group production, post planned Vametco expansion and Vanchem refurbishment, to more than 8,400 mtVp.a. will position Bushveld Minerals as a leading global vanadium producer.



Complementary portfolio of vanadium products:

Vametco produces Nitrovan™ and MVO, which is further converted into FeV and other vanadium products at toll treatment facilities;

Vanchem provides optimal product diversification through its product suite comprising Vanadium Pentoxide (" V_2O_5 ") Vanadium trioxide (" V_2O_3 "), FeV and vanadium chemicals; and

Primary low-cost processing capacity that can be leveraged to establish a strategic role in the energy storage industry.



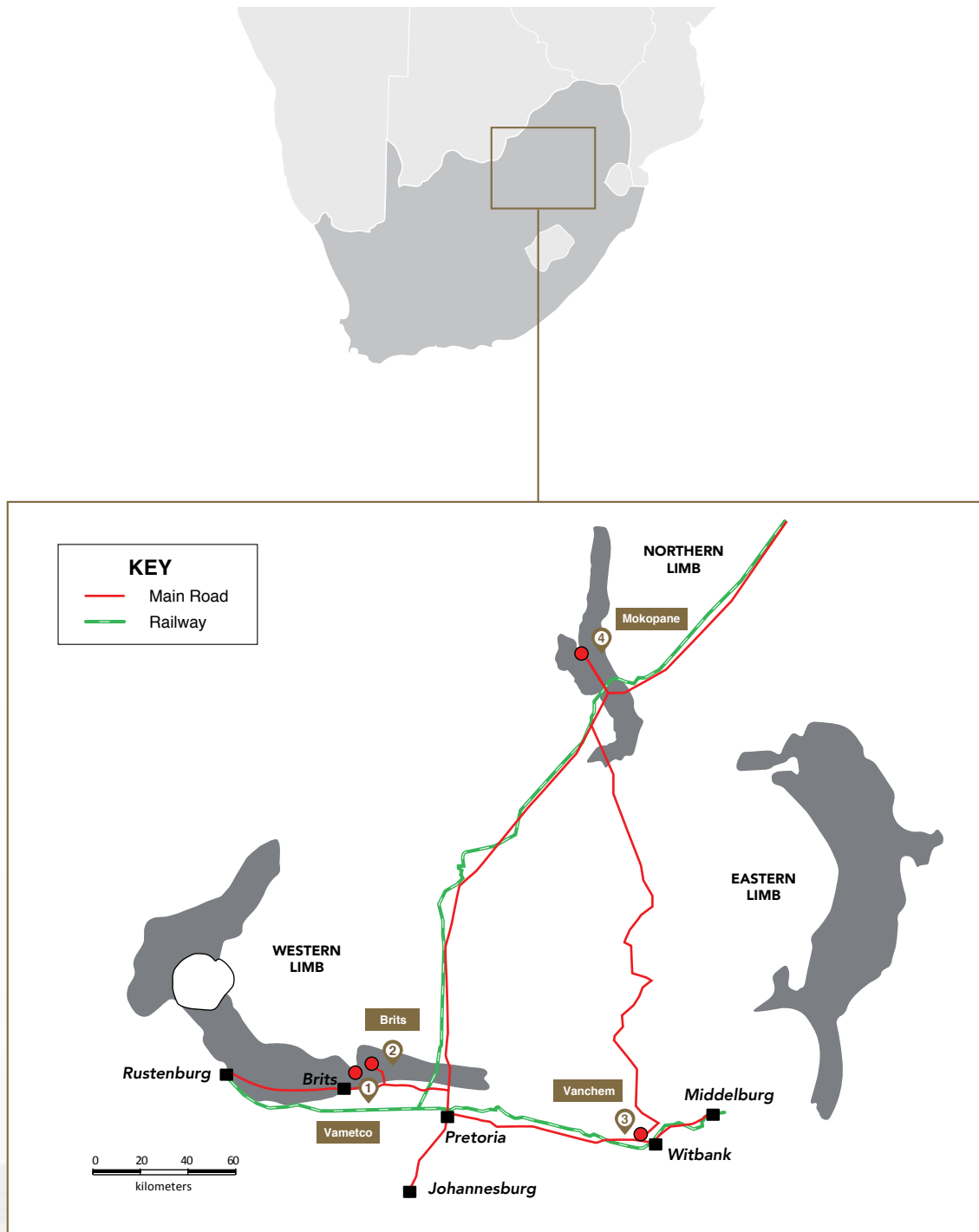
Ownership of processing capacity at Vametco and potentially at Vanchem means Bushveld Minerals can optimise electrolyte production through an in-stream process flow design, providing significant cost advantages.

The Company is targeting VRFB assembly and manufacturing for large-scale energy storage mandates.

With vanadium making up 30 to 50 per cent of the cost structure of a VRFB and given potential to source other components for VRFBs locally, Bushveld Energy will deploy battery systems with the highest local content of any technology in South Africa.

Leveraging proven in-house project development expertise and working with multiple stakeholders places Bushveld Energy in a unique competitive position to secure large-scale energy storage mandates in Africa.

Our Core Assets





A primary vanadium platform with downstream integration in the energy storage market through Vanadium Redox Flow Batteries



The Company's assets are located on the Bushveld Complex in South Africa, which hosts the largest high-grade primary vanadium districts in the world.

1. Vametco

Vametco is a low-cost primary vanadium mining and processing company with a 186.7 Mt JORC compliant resource averaging 1.98 per cent V_2O_5 in magnetite grades (including 48.4 Mt in reserves), and a life of mine of 27 years. Vametco produces a trademark vanadium product, Nitrovan™, as well as Modified vanadium oxide ("MVO"). Vametco is expected to produce between 2,800 mtV and 2,900 mtV in 2019. Bushveld owns an effective controlling interest of 74 per cent in Vametco, the maximum equity ownership amount permitted under the current South African Mining Charter III, which requires 26 per cent to be held by Broad Based Black Economic Empowerment ("BBBEE") shareholders.

Growth potential:

Grow production to a sustainable level of more than 4,200 mtVp.a.

2. Brits

Brits Vanadium Project ("Brits") is an extension, along strike, of the Vametco mine. Recent drilling results have indicated a lower seam weighted average grades of 0.66 per cent V_2O_5 in-situ and 1.66 per cent V_2O_5 in magnetite. A maiden Mineral Resource Estimate will be completed before the end of the June 2019 quarter. The Company's controlling interest in the asset ranges between 51 per cent and 74 per cent, through three different companies.

Growth potential:

Deliver a maiden resource estimate to provide scope for additional ore feed for the Vametco plant and, if required, concentrate feed for the Vanchem plant.

3. Vanchem

After year-end, Bushveld Minerals announced the conditional acquisition of Vanchem to add to its portfolio of vanadium assets.

On 1 May 2019 Bushveld Minerals entered into a conditional business and share purchase agreement to acquire Vanchem in one indivisible transaction. The transaction is expected to complete no sooner than 31 July and no later than 31 October 2019, subject to fulfilment of all conditions precedent, at which time Bushveld Minerals will own 100 per cent of Vanchem. Vanchem is a primary vanadium processing facility capable of producing various vanadium oxides, Ferrovandium ("FeV") and vanadium chemicals. Vanchem is currently producing about 80 mtV per month (approximately 960 mtVp.a.) using one of three available kilns.

Growth potential:

After refurbishment and ramp-up, the plant is expected to reach steady state production of 4,200 mtVp.a.

4. Mokopane Project ("Mokopane")

Mokopane is one of the world's largest primary vanadium resources, with a 298 Mt JORC-compliant resource and a weighted average V_2O_5 grade of 1.41 per cent in-situ and 1.75 per cent in magnetite. Bushveld Minerals currently owns an effective interest of 64 per cent in the project.

Growth potential:

Mokopane is intended to become a primary source of feedstock for Vanchem creating a fully integrated vanadium production business in a shorter time frame and at lower cost than developing Mokopane as a standalone operation. Bushveld Minerals retains the options of supplying ore to other primary or secondary producers worldwide and/or to develop Mokopane into an integrated mine and processing plant.

Bushveld Energy is a leading energy storage solutions provider, exclusively focused on vanadium based energy storage systems ("ESS") called VRFB.

Bushveld Energy's business model covers activities along the VRFB value chain, including:

- the securing of mandates for, and development of, large-scale energy storage projects;
- bringing the energy storage value chain to South Africa by using locally-mined and beneficiated vanadium. This includes the development and operation of a vanadium electrolyte production plant to supply South African and international VRFB projects.

2018 Performance

BUSHVELD IN NUMBERS

BUSHVELD MINERALS

1st Voted Best Mining Company of the year – Africa, by Mines and Money London.

Best performing FTSE-AIM Materials stock. **1st**

3rd 3rd best performer on the FTSE-AIM All Shares Index.

Cash of US\$42 million with no debt. **US\$42m**

74% Raised its effective underlying interest in Vametco to 74% in September 2018, the highest amount permitted under the recently promulgated South African Mining Charter III.

Adjusted EBITDA of US\$101 million.* **US\$101m**

350% Share price appreciation.

*Reported operating profit before depreciation.

BUSHVELD VANADIUM

Zero Vametco achieved zero fatalities.

5,375,848

Vametco achieved a safety record of 5,375,848 man-hours without recording a lost time injury.

2,560 mtV

Total production.

US\$108m

On a 100% basis, Vametco EBITDA of US\$108 million, up 353% from the prior year.

BUSHVELD ENERGY

Commissioned the VRFB project with South African national power utility Eskom, including site acceptance testing.

2 mtV

Purchased the first 2 mtV from Vametco for conversion into electrolyte using a new production process designed specifically for Vametco's vanadium feedstock.

200MWh

Progressed the development of a 200MWh vanadium electrolyte production facility, including allocating the facility's site in the East London Industrial Development Zone ("ELIDZ") and initiating an Environmental Impact Assessment ("EIA") on site.

US\$500,000

Secured a grant from the USDA of US\$500,000 to support the Eskom project and the energy storage industry in South Africa.

IMPROVEMENT TARGETS

Build out

Bushveld Minerals' organisational capacity: human capital, financial resources and business processes and systems.

3,400 mtVp.a.

Achieve sustainable production

of 3,400 mtVp.a. at Vametco (representing 90 per cent of its nameplate capacity of 3,750 mtVp.a.).

Achieve

2019 production guidance of 2,800 mtV – 2,900 mtV and cost guidance of US\$18.90kgV – US\$19.50kgV.

Efficiently

reduce production costs at Vametco.

Foster good relations

with labour and communities through our stakeholder engagement function.

Bushveld Minerals: Strategic Objectives

Our strategy comprises the following two primary components:

1. Establishing a low-cost primary production base with a nameplate capacity of 10,000 mtVp.a. comprising large high-grade deposits and low-cost, cash-generative processing facilities.
2. Building a downstream vanadium-based energy storage platform comprising electrolyte production supporting 200MWh in annual deployments and energy storage mandate opportunities in excess 1,000 MWh.



List on the Main Board of the Johannesburg Stock Exchange during calendar year 2019.

Develop organisational capacity to align with the Company's growth, including:

- Developing a fit-for-purpose operating model, strengthening management capacity and enhancing the board.
- Building depth in financial resources and, business processes and systems.



Target a production platform with a nameplate capacity of 10,000 mtVp.a. within the next 5 years.

Vametco

Enhance Vametco's operational performance to achieve its 2019 production and cost targets.

Consistently achieve sustainable production of 3,400 mtVp.a. which is planned to be expanded to exceed 4,200 mtVp.a. in the next two to three years.

Sustainably reduce cost and maintain its first quartile cost curve position.

Vanchem

Complete the acquisition of Vanchem.

Embark on Vanchem's refurbishment and ramp-up programme.

Achieve steady state production of 4,200 mtVp.a.

Brits

Publish a maiden Mineral Resource estimate during the June 2019 quarter.

Become a future source of raw material for the Vametco plant, and if required, concentrate feed for the Vanchem plant.

Mokopane

Secure a New Order Mining Right for the project.

Develop Mokopane as a primary source of feedstock for Vanchem to create a fully-integrated business in a shorter timeline and at reduced cost.

Pursue additional value-accretive options at Mokopane, including supplying ore to other primary or secondary producers worldwide.

The long-term plan remains to develop Mokopane into a stand-alone, integrated mine and processing plant.



Develop and install a solar-based/VRFB mini-grid at Vametco.

Grow its VRFB project pipeline across Africa.

Bid on upcoming mandate opportunities in South Africa, including the 1400MWh battery programme by Eskom, the South African power utility.

Advance development of an electrolyte manufacturing plant in South Africa, in continued partnership with the IDC.

Supply sample electrolyte to VRFB companies for review and analysis to secure initial orders for the manufacturing plant.

Design and implement an innovative vanadium electrolyte rental product.



Environmental, Social and Governance

ENVIRONMENT

At Bushveld Minerals, we believe we must limit the effects of our operations on the surrounding environment. Our ability to continue to operate these multi-decade-old assets will allow us to make them more efficient and environmentally-friendly. During the course of the year we embarked on the installation of an off-gas scrubber to reduce dust emissions at Vametco, built a new tailing dump to prevent groundwater contamination and rehabilitated our current tailings dams to eliminate fall-out dust.

Bushveld Minerals plans to upgrade Vametco's baghouses (air emissions abatement equipment) to reduce particulate matter and cap its tailings dams to prevent groundwater contamination.

We are also initiating an ISO 14001:2015 certification process to align our Environmental Management System with international standards.

OUR PEOPLE

We see our employees and organised labour as an intrinsic part of our business and are committed to building sustainable, healthy and cooperative relationship with them. Bushveld Minerals employed a total of 503 employees and contractors in 2018, 84 per cent of our employees are members of the local communities in which we operate.

In the spirit of building a platform for shared success we are developing an Employee Share Participation ("ESOP") that will closely align Vametco's workforce to its operational targets. Further updates and progress on the ESOP will be provided as appropriate.

Furthermore, Bushveld Minerals is developing an Employees Financial Wellness Programme that includes personal financial planning, debt consolidation, debt counselling and debt provision. The wellness programme is being implemented through a financial services provider with extensive experience in this sector to improve the financial well-being of our employees.

OUR COMMUNITIES

Bushveld Minerals believes in building and maintaining meaningful partnerships with the communities where our operations are based. We intend to ensure that the local communities enjoy sustainable uplift from our commercial activities. In 2018, in compliance with our SLP commitments, we:

- invested in renovating schools and healthcare clinics in Brits; and
- supported education programmes such as bursaries, internships, learnerships, computer training and portable skills.

In addition, owners of the land on which Vametco is situated, generate an income from Bushveld Minerals in the form of surface lease payments.

Our commitments to our local communities go beyond the SLP obligations contained in our mining right. We have committed to constructing a comprehensive community development strategy, which will target the following key areas:

- a. Education
- b. Enterprise development
- c. Health care

At the heart of this strategy is the Peo Matlafatso Trust, a community development trust established by Bushveld Minerals to house a shareholding of up to 12.5 per cent in the Vametco operations that was allocated as part of BBBEE shareholding, at the time of the purchase of Vametco. A professional team will be assembled to run the Trust and leverage this shareholding to develop a platform for meaningful economic participation by the local communities in Vametco.

GOVERNANCE

Bushveld Minerals is committed to high standards of corporate governance and social responsibility. We continuously evaluate our governance policies and take a rigorous approach to Board and committee planning. Board and committee composition is constantly reviewed to ensure strong corporate governance.

Investment Case



Attractive Commodity Market Fundamentals

The vanadium price has risen by over 700 per cent from the lows of US\$13.50/kgV in December 2015 to a high of US\$127/kgV in November 2018. Despite recent softening in the price, driven by largely temporary factors, vanadium remains a commodity with compelling fundamentals. The vanadium market remains in significant structural deficit, driven by robust and growing demand, while supply remains concentrated and constrained, with limited new production on the horizon.

New rebar standards, introduced in China in November 2018, to limit and eventually eliminate the use of inferior steels are expected, when fully enforced, to increase China's vanadium demand by over 30 per cent, the equivalent of 10 to 15 per cent of global demand. The enforcement of the new standard is expected to accelerate during 2019. The resulting increasing vanadium intensity of use in steel is expected to see a Compound Annual Growth Rate ("CAGR") of demand for vanadium from the steel industry of 2.5 per cent until 2027.

However, demand "upside" from the energy storage applications of vanadium may increase the CAGR of vanadium demand from 2.5 per cent to 8.4 per cent over the same period.

Meanwhile, the supply response has been slow, with production shrinking by as much as six per cent between 2015 and 2018. Supply from co-production pig-iron/steel plants, which accounted for 70 per cent of vanadium feedstock in 2018, driven by steel market dynamics that have been constrained. The majority of projects that have been announced or are under development are high capex plants designed to produce vanadium as a co-product from pig iron/steel plants or hydrometallurgical iron vanadium and titanium plants. These projects will have to overcome a number of constraints, such as high capital intensity, funding availability and the fact that other commodities primarily drive their economics.



Quality Vanadium Assets

Bushveld Minerals' primary vanadium resources consist of large, high-grade opencast deposits, with grades of 1.66-2.0 per cent V_2O_5 in magnetite, which are among the highest grades in the world.

The Company's 485 Mt combined primary resource is among the largest in the world and is complemented by low-cost, scalable processing capacity that is positioned in the lowest quartile of the cost curve.

Upon completion of Vanchem and Vametco's expansion initiatives the Group's production platform will be in excess of 8,400 mtVp.a, increasing Bushveld Minerals market share of the vanadium market.



Brownfield based Growth Strategy

Bushveld Minerals' strategy for growing low cost production capacity targets the unique access to existing brownfield processing infrastructure in relatively close proximity of its high-grade primary vanadium deposits. This allows the Company to develop production and thus cash generation capacity at a fraction of the cost and time it would take to develop on a greenfield basis. Following the refurbishment programme at Vanchem and expansion programme underway at Vametco, the Company will have created a portfolio of processing assets supplying approximately 10 per cent of the global vanadium market at a cost of less than 40 per cent of their replacement costs of >US\$500 million while leveraging cash generated by the same assets for as much as 50 per cent (~US\$100 million) of the cost of creating that capacity.



Vertical Integration

Bushveld Minerals' vertical integration, anchored in a high-quality, low-cost production base, enables the Company to play a critical role in the burgeoning, multi-billion-dollar energy storage industry.

Vertical integration is key not only to strengthen the vanadium demand profile, but it also unlocks significant economic opportunities for the Company along the vanadium value chain.

Bushveld Minerals' vertical integration strategy provides a natural hedge against volatility in the vanadium price.





Leadership Team

Bushveld Minerals' highly-experienced leadership team pools a range of skills and depth of experience that will help to achieve its goals and growth targets.

The team has the necessary vanadium mining and processing experience to ensure operations remain in the lowest cost quartile globally and achieve targets.

The team has a proven track record of value-creating transactions that have generated strong returns for shareholders.

Board composition is constantly reviewed to ensure strong corporate governance.



Sustainability

We are dedicated to maintaining sustainable mining and processing practises across all our operations and projects. This includes ensuring our employees enjoy a healthy and safe working environment, operating in an environmentally and socially responsible manner, and adding value to all stakeholders we work with.

The Company considers corporate social responsibility to be a fundamental part of Bushveld Minerals' business and seeks meaningful and deep partnerships with its multiple stakeholders.



Shareholder Returns

Bushveld Minerals is committed to delivering attractive returns to its shareholders. The Board is supportive for Bushveld Minerals to adopt a consistent and disciplined approach to capital allocation to manage the Group's growth initiatives.

Furthermore, the Board has approved a dividend policy based on a free cash flow pay-out ratio, reflecting Bushveld Mineral's commitment to return cash to shareholders in a sustainable manner while prioritising its stated growth strategy.



Governance

Bushveld Minerals is committed to high standards of corporate governance.

The Company continuously reviews its governance policies and is committed to improving its practices over time.

“Bushveld Minerals is one of only three operational primary vanadium producers, and one of only two vanadium focused pure-play companies in the world.”

Vanadium Market Overview

The Vanadium Proposition

Vanadium is a grey, soft and ductile high-value metal with several unique characteristics that position it strongly in the steel, alloys and chemicals sectors.

More than 80 per cent is recovered from magnetite and titano-magnetite ores, either as the primary product (18 per cent of global supply in 2018) or more commonly as a co-product with iron processed for steel production (70 per cent of 2018 global supply). It can also be recovered as a secondary product from fly ash, petroleum residues, alumina slag, and from the recycling of spent catalysts used in some crude oil refining.

China is the world's leading producer at 57 per cent global output in 2018, mostly through co-production. South Africa produced 8 per cent of the world's vanadium feedstock in 2018, mostly from only two producers, Bushveld Minerals and Glencore.

The two main traded vanadium products are V_2O_5 and FeV. V_2O_5 is commonly produced through the treatment of magnetite iron ores, vanadium-bearing slags and secondary materials. It can be used directly in some non-metallurgical applications and in the production of vanadium chemicals. It is also used as an intermediate product for the production of FeV, the vanadium alloy used as a strengthening agent in manufacturing of high-strength steel.

VANADIUM PRICE

The FeV price has seen a significant surge in the last three years, rising by more than 700 per cent from lows of US\$13.50/kgV in December 2015 to a high of US\$127/kgV in November 2018. This price performance has been driven primarily by a structural market deficit due to:

- Growing demand underwritten by applications in the steel sector where enhanced regulations is driving greater intensity of use of vanadium, while applications in energy storage provide significant step change upside in demand; this is coupled with a concentrated and constrained vanadium supply base that has declined, essentially due to reductions in supply from co-producers with limited upside in new production, the closure of Highveld Steel & Vanadium in 2015 presenting the single biggest supply shock.

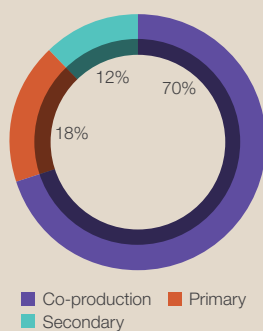
While the above described factors have driven vanadium price increases over the past three years, temporary demand side factors during the second half of 2018 accelerated the price increase. These temporary factors were also responsible for the equally rapid drop in prices experienced in the first quarter of 2019.

They include:

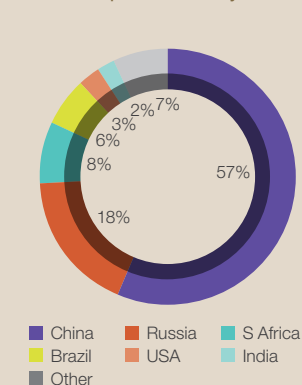
- Seasonality and short-term de-stocking in China at the end 2018 and beginning 2019.
- New rebar standards in China introduced in November 2018 not being immediately enforced, as initially envisaged.
- Significant reduction in VRFB deployments during the second half of 2018 owing to high vanadium prices.
- Increased Ferroniobium ("FeNb") imports into China suggesting greater substitution of vanadium in rebar in an environment of higher than US\$100/kgV vanadium prices. The incentive to substitute vanadium with FeNb is significantly diminished by the recent price reductions, while in the longer term, vanadium continues to have several advantages to FeNb in steel applications.

There have been some opportunistic supply additions in the market in response to the high vanadium prices. However, the sustainability of these supply additions is questionable on account of their high operating costs.

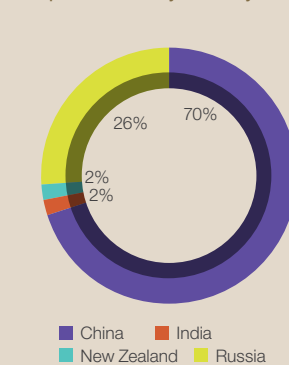
Vanadium 2018 feedstock production by source



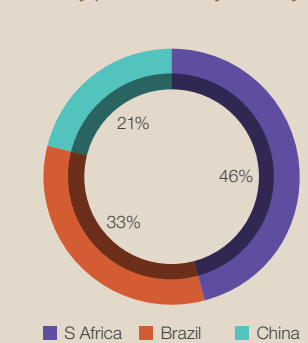
Vanadium production by Country



Co-production by country



Primary production by country



Source: Bushveld Minerals analysis, Roskill 2019 Vanadium Report

Meanwhile, longer-term factors continue to support the structural deficit thesis:

- The incentive to substitute vanadium with FeNb is significantly diminished by the recent price reductions, while in the longer term, vanadium continues to have several advantages to FeNb in steel applications. Reverse substitution is inevitable amid decreasing vanadium prices.
- Increasing enforcement of new rebar standard in China is expected to support demand growth going forward.
- Longer term, supply will continue to be impacted by grade and capital access limitations:
 - Price volatility not helpful to debt capital availability;
 - Reduction in vanadium price not conducive to high cost and low-grade primary production (including stone coal production);
 - Co-production still primarily driven by steel market dynamics rather than vanadium; and

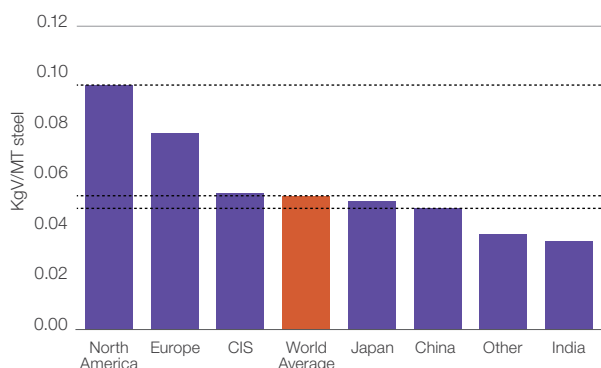
- Significant new supply from existing brownfield primary production expansions expected mainly from 2021 onwards.
- Vanadium consumption in energy storage applications, through VRFBs, is poised to enjoy greater competitiveness at current vanadium prices. Vanadium demand for electrolyte fell significantly in the second half 2018 but it is likely to rebound during the course of 2019, with the restart of temporary delayed projects.

We expect these structural drivers of the vanadium market to remain supportive of healthy prices in the medium to long term.

OUTLOOK

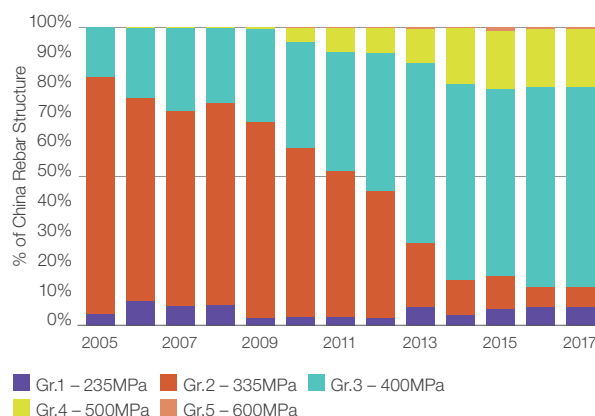
Enforcement of the new rebar standard is expected to accelerate ramp up during 2019. As previously expected, this will increase China's intensity of use of vanadium and drive strong growth in vanadium demand.

2018 vanadium use in steel



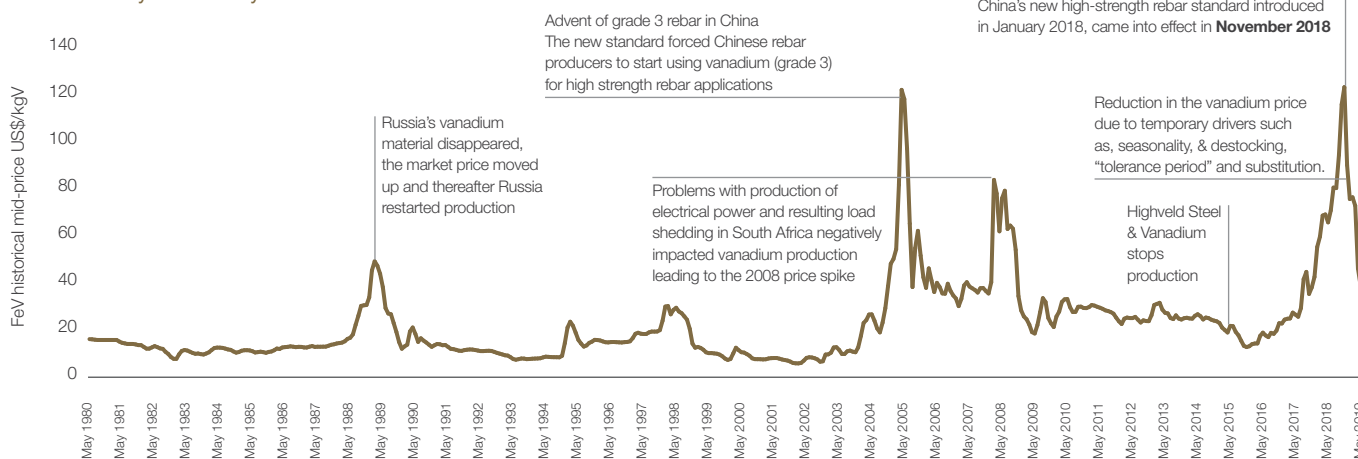
Source: TTP Squared

China rebar product structure



Source: TTP Squared

FeV Price: May 1980 – May 2019



Source: Metal Bulletin; 15 May 2019

The Vanadium Proposition continued

We believe there is limited risk of continued substitution of FeNb for FeV as:

- FeV performs better than ferroniobium in structural steels which are used for high rise buildings;
- Replacing vanadium requires a number of technical adjustments;
- Vanadium generally requires lower rolling pressures and temperatures than FeNb to give equivalent steel properties; and
- Supply of FeNb is more concentrated than vanadium.

In addition, the recent softening of the vanadium price further reduces the incentive to substitute vanadium.

While we note recent price trends, our flagship asset, Vametco, continues to generate healthy cash flows at prevailing prices. Bushveld Minerals is confident that, maintaining its strategy of targeting the lower first quartile of the cost curve down in tandem with ramping up production, it will continue to be one of the lowest-cost primary producers and maintain a competitive position to generate healthy cash flows throughout the commodity cycle.

Furthermore, Bushveld Minerals' vertically integrated business model provides a natural hedge against future vanadium price downswings. Lower vanadium prices make vanadium more attractive for emerging uses, such as energy storage, which remains more sensitive to movements in vanadium prices than steel production.

THE ROLE OF VANADIUM IN THE MODERN WORLD

Vanadium use is dominated by its applications in steelmaking, which was estimated to account for 93 per cent of total consumption in 2018. VRFBs accounted for three per cent while the non-ferrous alloys and chemicals sector accounted for the remainder. The steel market is expected to continue supporting robust vanadium demand, which is expected to grow at a CAGR of approximately 2.5 per cent through to 2027, supported by the increased intensity in use of steel in emerging markets like China. However, the energy storage "upside" may increase the CAGR of vanadium demand from 2.5 per cent to 8.4 per cent over the next 10 years.

CHINESE REBAR STANDARDS REGULATIONS AND ENFORCEMENT

The new production standards for high-strength low-alloy ("HSLA") steel rebar came into force in China in November 2018, mandating the use of higher-strength reinforcing bars. The standard eliminates low-strength Grade 2 rebar and sets out specifications for three different high-strength standards, namely: Grade 3 (400MPa), Grade 4 (500MPa), and Grade 5 (600MPa). These will require 0.03 per cent V, 0.06 per cent V, and more than 0.1 per cent V respectively, which is equivalent to kilograms of vanadium in steel of 0.3kgV, 0.6kgV and 1kgV respectively. Market consensus supports the view that enforcement of the new rebar standard will increase in 2019.

ENERGY STORAGE AND VANADIUM REDOX FLOW BATTERIES

Electricity's share of global energy consumption has been and will continue, to grow at a rapid pace, already doubling from 10 per cent in 1980 to 20 per cent today. By the middle of this century, it is expected to account for 45 per cent of all energy consumption. This has huge implications not only for global energy production but also for all minerals involved in the electricity value chain.

At the same time, the contribution of renewable energy to the electricity generation mix continues to grow, aided in large measure by the falling costs of renewable energy generation and the growing push for clean forms of electricity generation. These changes have led also to the growth of distributed electricity generation, including mini-grids, decreasing the reliance on centralised power systems featuring massive power plants and expansive transmission networks, which has created the opportunity for hundreds of millions of people across the world to obtain access to "green" electrical energy cheaper and faster than before.

Energy storage, a process in which energy generated at one point in time is preserved for use at another time, plays a critical role in this energy transition. While the broader energy storage market, comprising of consumer electronics, mobility (e.g. electric vehicle applications) and stationary applications is expected to grow at a CAGR of 36 per cent

between 2018 and 2027, the fastest growth rate among all three belongs to stationary energy storage. Navigant Research forecasts stationary energy storage to grow at a rate of 58 per cent p.a. exceeding 100GWh and US\$50 billion in market size by 2027.

Stationary energy storage applications include:

- Enhancing grid stability where intermittent renewable energy sources are used;
- Smoothing a power system's load distribution by shifting power demand from high peak areas to low peak areas (load shifting); and
- Storing power generated during off-peak periods when excess electricity is can be generated to supplement peak periods when electricity generation needs to be supplemented with expensive "peaking" generation sources.

Supporting remote electricity users without access to transmission infrastructure to connect to the main grid.

Multiple trends are also impacting the usage of stationary storage:

- Long duration energy storage applications are expected to account for up to 90 per cent of energy storage deployments by 2027 (excluding pumped hydropower). To date, most battery energy storage installations have been of short duration, with sufficient energy to last for 15 to 60 minutes. Long duration storage, requires typically from 3 to 10 hours of daily energy storage capacity;
- Deploying energy storage systems can be utilised for multiple purposes and benefits rather than just one application. Traditionally, batteries have only provided frequency control, due to their ability to respond to power fluctuations near instantaneously. While this use case remains important, it is increasingly coupled with provision of system reserves, peaking capacity, deferral of transmission and distribution expansion and ancillary services;
- Finally, as the industry matures the focus is shifting from pure technical and financial capability to safety. Significant fires in South Korea over the past 18 months and multiple high profile fires in Europe and the United States at large battery sites using

lithium ion technologies from well-established developers and manufacturers, have increased focus on the safety of stationary energy storage. While car and computer batteries have been known to catch fire before, the amount of damage and potential human harm from fire and smoke is significantly greater from larger stationary energy storage installations.

AFRICA OFFERS SIGNIFICANT ENERGY STORAGE OPPORTUNITIES

While the energy storage market opportunity is global, Bushveld Energy has, since inception, focussed its efforts on the African market, which offers the potential to grow faster than most other regions. Sub Saharan Africa features over 600 million people without access to electricity and poorly developed or weak grid infrastructure. At the same time, it possesses some of the best potential for solar and wind generation on Earth, presenting an attractive opportunity for both the energy transition and greater, short term usage of stationary energy storage.

Three important developments reinforce Bushveld Minerals' African focus:

1. WORLD BANK GROUP COMMITMENT OF US\$1 BILLION FOR BATTERY STORAGE

The World Bank Group has announced a US\$1 billion programme to support the deployment of energy storage in low- to

middle-income countries. The programme is expected to mobilise a further US\$4 billion in concessional climate financing and public and private investments to deliver 17,500 MWh of energy storage in these countries by 2025. This is not only positive for energy storage globally, but for Bushveld Energy and its focus on African markets. Since typically over one-third of World Bank funding is directed towards sub-Saharan Africa, the programme could expect to deliver 5,000-6,000 MWh of storage in Africa alone, or an average of 1,000 MWh per year. Similarly, most of the storage deployed for future projects under the programme will be to ensure greater integration of renewable energy, which requires long-duration, daily storage and fits into the technical and commercial superiority of the VRFB technology.

2. ESKOM'S BATTERY ENERGY STORAGE SYSTEMS PROGRAMME

In 2018, Eskom announced a programme to install 1,400 MWh of battery energy storage in South Africa by 2022. The first phase of that programme is expected to start in 2019. Once started, the programme could propel South Africa into one of the top five energy storage markets globally. Although the structure of the programme and its projects are not yet public, the nature of South Africa's peak demand, which lasts for six hours a day and peaks twice a day, makes the economics especially favourable for long-duration, limitless recycling technologies such as VRFBs.

3. DEVELOPMENTS IN SOUTH AFRICA'S ENERGY REGULATION FRAMEWORK

South Africa's Integrated Resource Plan ("IRP"), which outlines the country's future electricity needs and the technologies that will be used to meet that need is expected to be released in mid-2019. The new IRP is broadly expected to support more renewable energy, especially wind and solar, and acknowledge the need to support integration of that variable generation through storage technologies. The recently announced decision by South Africa's Minister of Energy to permit significant "small scale embedded generation" of up to 10 MW, will open up the "behind-the-metre" market for energy storage in South Africa.

Additionally, the South African Renewable Energy Independent Power Producer Procurement Programme ("REIPP") has been restarted to continue to add renewable energy to the grid, creating opportunities for long-duration battery storage, either as standalone facilities or co-located with solar or wind generation.

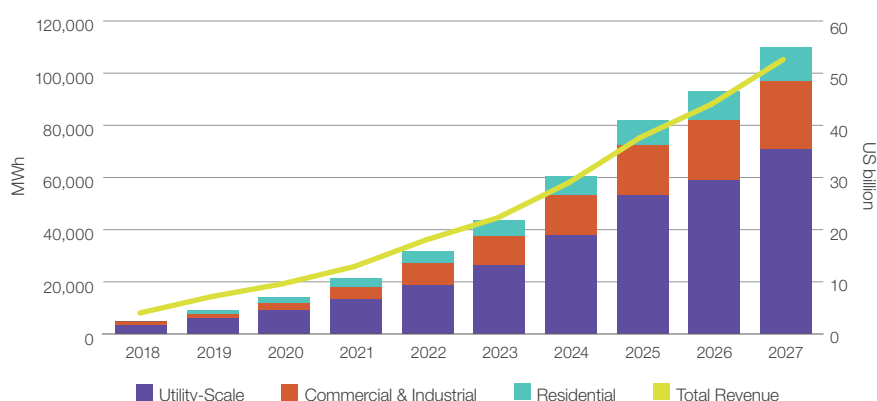
In an environment of a constrained South African power system, including the significant financial constraints facing the national utility, Eskom, the emerging approach by the government will unlock private sector participation, in the form of the REIPP programme, the development of embedded generation solutions and/or partnerships with the utility with significant opportunities for energy storage as a part of the solution mix.

VANADIUM REDOX FLOW BATTERIES

VRFBs are well positioned to take a significant share of the stationary energy storage market, on account of their unique features that give them an edge in large scale, stationary and long-duration energy storage applications. These features include:

- **Long lifespan cycles:** Ability to repeatedly charge/discharge over 35,000 times for a lifespan of over 20 years;
- **100% depth of discharge:** Without material performance degradation is unique to VRFBs;
- **Low cost per kWh** when fully used at least once daily makes VRFBs today cheaper than Li-ion batteries;
- **Safe,** with no fire or smoke risk from thermal runaway;

Annual Installed Stationary Energy Storage Capacity and Deployment Revenue by Market Segment



Source: TTP Squared

Vanadium Market Overview continued

The Vanadium Proposition continued

- **100% of vanadium is re-usable** upon decommissioning of the system, making VRFB's the most sustainable major battery technology;
- **Scalable capacity** to store large quantities of energy;
- **Flexibility** that allows for capturing the multi-stacked values of energy storage in grid applications;
- **Very fast response time** of less than 70ms; and
- **No cross-contamination**, with only one battery element that is unique among flow batteries.

The lack of cross-contamination, combined with the lack of degradation of the vanadium electrolyte over the lifespan and the simple architecture of the VRFB that allows for the removal and re-use of the electrolyte, opens up the technology to innovative financial solutions such as electrolyte rental that could be a significant catalyst for adoption by reducing the upfront capital costs of these systems.

According to Navigant Research, the global stationary energy storage demand is forecast to grow to 100 GWh in annual deployments by 2027. A mere 10 per cent share of this market by VRFBs would see VRFB deployments of 10GWh per annum by 2027. With a 1 GWh VRFB system, requiring approximately 5,500 mtV in electrolyte, more than five per cent of current annual global vanadium consumption (2018 vanadium production of ~96,000 mtV), this would add 55,000 mtV to annual vanadium demand by 2027. Navigant's own forecast calls for an 18 per cent market share for flow batteries, which could increase demand to in excess of 80,000 mtV.

The VRFB market opportunity is attractive, not only for its diversification and strengthening of the vanadium demand profile, but also for its own commercial opportunity. There is significant economic value in the VRFB value chain to justify the downstream integration that would unlock these solutions. For these reasons, Bushveld Minerals initially established Bushveld Energy Limited to exploit the multi-billion dollar commercial opportunity that the energy storage industry presents.

VRFBs – CHALLENGES AND OPPORTUNITIES

The growing adoption of VRFBs must overcome two key hurdles to be sustainable: security of supply and stability of vanadium input costs. Bushveld Minerals believes the key to capturing this opportunity is in a vertically integrated vanadium business model that provides both upstream and downstream enablers for the success of VRFBs in the global energy storage industry.

- **Security of supply:** if VRFBs capture even 18 per cent of the Navigant Research forecast of the stationary annual energy storage deployment of approximately 100 GWh in 2027, it would indicate a vanadium demand of over 80,000 mtV for energy storage alone. Accordingly, the ability to guarantee supply of vanadium for VRFBs will be key to the success of these systems.
- **Stability of vanadium input costs:** vanadium makes up between 30 and 50 per cent of the cost of a VRFB system, depending on the battery size and vanadium price. The adoption of VRFBs thus depends on the relative and absolute vanadium price. Low-cost primary producers with significant production capacity are well positioned to address price volatility by potentially providing long-term, stable pricing. While such solutions could guarantee supply at fixed prices for a longer period, other solutions include the option of never fully selling the vanadium and rather leasing or renting it out over the life of the VRFB or energy storage project.

Bushveld Minerals is uniquely positioned to effectively address the VRFB adoption hurdles through its large high-grade resource base and low-cost processing facilities. The increased deployment of VRFBs will support the diversification and strengthening of the vanadium demand profile while capturing the compelling commercial opportunity.

MEETING THE WORLD'S DEMAND FOR VANADIUM

We expect vanadium market's structural deficit to persist in the near to medium term driven mainly by the growing intensity of use of vanadium in the steel sector, as well as burgeoning demand from the energy

storage market in an environment of limited supply growth.

Vanadium demand in the steel market is expected to grow at a CAGR of approximately 2.5 per cent through to 2027. Although forecasts for VRFBs vary widely, they indicate that VRFB demand could increase vanadium demand from 2.5 per cent up to 8.4 per cent CAGR up to 2027.

While co-production accounted for 70 per cent of global vanadium feedstock supply in 2018, it continues to face significant constraints, including low profitability arising from high input and processing costs where producers have no leverage on steel prices, and environmental-related restrictions that adversely impact producers' competitiveness. Moreover, several efforts by the Chinese government to reshape its steel industry can be expected to impose further constraints on vanadium co-production steel plants. These initiatives include the reduction of excess steelmaking capacity targeting highly pollutive high cost plants, and the conversion of more than 200 Mtpa in blast furnace operations to electric arc furnace technologies which will increase the role of scrap iron in steel making and reduce the overall demand for iron ore.

Secondary production will increase or decrease supply based on both vanadium price and feedstock availability. However, it remains a higher-cost form of production than primary and co-production and thus is unlikely to add significant vanadium units for prolonged periods.

Supply from greenfield projects also faces significant hurdles. Most of the recent greenfield projects that have been announced for development are of a co-production type due to their low in magnetite grades and thus require large capital investments. The primary projects under development also face significant capital constraints made worse by the volatility seen in the vanadium price historically.

It is Bushveld's view that the best opportunity to address the structural deficit in the vanadium market lies with existing primary producers that are economic at both prevailing and the long term forecast vanadium price and are capable of increasing production at their facilities on a lower-cost, brownfield basis.

Chairman's Statement

2018 saw the Company complete its transformation into a producer.



It is with great pleasure that I present you the 2018 Annual Report and Financial Statements for what was yet another year of incredible progress and growth for Bushveld Minerals.

In early 2016, armed with a viable prefeasibility study on its flagship project, Mokopane, the Company, with a market capitalisation of less than US\$25 million, faced a funding requirement of US\$300 million to take this project into production. From this funding challenge and convinced of a structural deficit in the vanadium market, the Company embarked on a strategy of targeting brownfield processing facilities it could acquire cheaply and rapidly bring into production.

Thus, began the Company's accelerated journey from an exploration Company to a meaningful primary vanadium producer, starting with the acquisition in 2017 of a controlling interest in Vametco Alloys, an integrated mining and primary processing plant in Brits, South Africa. In 2018 the Company made significant strides to increase our ownership of Vametco and streamline our corporate structure to allow greater control of the underlying operating asset and its cashflows and to minimise any value leakage during dividend distributions. These efforts saw our shareholding of Vametco increase from 59 per cent shareholding to 74 per cent following the acquisition of Sojitz's 21.2 per cent interest in Strategic Minerals Corporation, the holding company for Vametco.

This was made possible by the strong support of our existing shareholders and the new investors we welcomed as part of the fundraising earlier in the year.

In pursuit of our stated aim of growing Bushveld Minerals into a leading global vanadium producer and VRFB technology Company, we are pursuing an inward-listing on the main board of the Johannesburg Stock Exchange during the course of 2019. The Bushveld proposition has strong resonance with South Africa from several perspectives: (a) our resource base is based on the world-renowned Bushveld Complex in South Africa, the world's largest primary vanadium resource base; (b) our vertical integration aligns with the country's push for in-country beneficiation of its mineral resources; (c) our energy storage proposition with strong local content has a strong proposition for a country whose utilities

Chairman's Statement continued

and government is set to be a big adopter of stationary energy storage and (d) the listing gives us access to significant local capital pools that have an affinity with our story.

It is important, whenever a company issues equity, to make it clear why the funds are being raised and how this will lead to increased shareholder value in future. That has to be followed by the process of effectively deploying this money within a reasonable timeframe. We pride ourselves in efficient deployment of capital.

Our single capital raise of 2018 in March was focussed on redeeming the then existing outstanding convertible bonds, thereby removing any potential share 'overhang', simplifying Bushveld Minerals' organisational and corporate structure to improve its exposure to Vametco's cashflow, and supporting Bushveld Minerals' vanadium expansion programme. I am pleased to note that we achieved all these targets before the year ended. Firstly, we redeemed the outstanding convertible bonds. Soon after, we were able to report that the second phase of the three-phase expansion project at Bushveld Vametco had been completed.

Then, in September, we were able to acquire the 21.22 per cent interest in Strategic Minerals Corporation, an intermediate holding company of Vametco, from Sojitz Noble Alloys Corporation for US\$20 million and, in so doing, increased our indirect beneficial interest in Vametco from 59.1 per cent to 75 per cent. We subsequently sold one per cent to our BBBEE partners, leaving us with the maximum allowable ownership stake in the mine, permitted under the recently promulgated South African Mining Charter III, of 74 per cent.

It would be remiss of me not to discuss the decision by the London Stock Exchange to impose a fine related to the timing of the disclosure of certain details of our initial investment in Vametco.

We regret this breach and have learnt valuable lessons from it. In this regard, Bushveld Minerals has undergone key Board and operational changes. Standards of governance, procedures, controls and communication have significantly improved – in line with the Company's significantly larger operations.

We are committed to reinforcing the Board and Management team and will announce a number of appointments during the course of the coming year.

In 2018, South Africa itself gained new vigour from a series of political changes after years of moribund economic activity. The country's new president, Cyril Ramaphosa, has shown a resolve to restore an investor-friendly environment. One important aspect of this resolve was shown in the promulgation of Mining Charter III on 27 September 2018, which has brought about much needed regulatory certainty to the mining sector, especially on the ownership requirement for prospecting and mining rights. While there may be ongoing litigations in respect of some aspects of the gazetted mining charter, the charter has received broad acceptance by all critical stakeholders and its current implementation is to be welcomed.

In October, Bushveld was privileged to be invited to speak, and share its capital investment plans, in South Africa at the 2018 South Africa Investment Conference at the Sandton International Convention Centre, hosted by the President and attended by over 1,000 local and international investors. I am pleased to note that the Vanchem transaction and Mokopane project supports the Company's R2.5 billion commitment stated at the Investment Conference and represents 70 per cent of funding commitments made at the Presidential Investment Summit, less than one year from announcement.

To reflect Bushveld Minerals' maturity into a producing Company, the Board is aligned with a consistent and disciplined approach to capital allocation to manage the funding of several capital expenditure items in the near and medium-term. In order of priority, the Group's capital will be allocated to:

- Maintaining existing operations and ensuring maintenance of stable and efficient production across all our operations;
- Supporting a strong balance sheet that is resilient through the vanadium price cycle;
- Investing in the Group's growth projects, either through organic growth or brownfield acquisitions, to achieve 10,000 mtVp.a. production nameplate capacity and downstream integration in the medium term; and
- Return cash to shareholders.

This framework provides flexibility to support greater value creation for shareholders as it enhances the Company's ability to invest in growth projects while maintaining a strong balance sheet.

The Company recognises that while the value proposition to shareholders is primarily of a capital growth nature, it will have sufficient

cash generating capacity to pay dividends in the future. On this basis the Company's Board of Directors takes this opportunity to announce the establishment of a dividend policy. The dividend policy reflects Bushveld Minerals' commitment to return cash to shareholders while prioritising its stated growth strategy. The dividend policy is based on a free cash-flow pay-out ratio. The Board believes this distribution approach is the most suitable for the Company as it takes into account both growth and acquisition capital expenditure. The Board will review the free cash flow generated by the business, the outlook for business conditions and priorities for capital allocation on an annual basis. The Board is not recommending a dividend for the year ended 31 December 2018.

The Board takes a structured and rigorous approach to succession planning. We consider the appropriate Board size, experience and attributes required to effectively govern and manage risk within Bushveld Minerals. During the course of 2019, Geoff Sproule will be stepping down from the Board as Finance Director, and a search for his replacement has begun in earnest. We wish Geoff well in his retirement.

The year 2019 promises to be just as eventful as the previous one. The conditional acquisition of Vanchem is an exciting development for our existing, large resource base, and will add significant tonnage to our near- and medium-term production profile. This acquisition is expected to complete between 31 July 2019 and 31 October 2019.

I would like to thank the management team and the Company's employees for all their efforts during a year that has catapulted Bushveld Minerals into the league of globally significant mid-tier mining companies. The Board too, has had to deal with a challenging and exciting period of change and I thank them for their advice and availability.

Here's to another exciting year.



Ian Watson
Non-Executive Chairman

Chief Executive's Review

Executing our Strategy with diligence.



I am pleased to present this report on the progress the Company made in 2018. Our progress is measured against the strategy we have outlined, to develop a large, low-cost and vertically integrated vanadium platform, from which our priorities and activities derive.

We began 2018 on an exceptionally strong footing, having just completed the acquisition of a controlling stake in Vametco in December 2017. The acquisition marked a company-defining moment for Bushveld as it marked the transformation of the Company from a minerals explorer to a producer with a platform to build a truly special integrated vanadium company, with healthy cash flow and a robust growth pipeline.

Following the acquisition, the Company moved swiftly to implement several corporate actions designed to consolidate its interest in Vametco further, clean up its balance sheet and simplify the structure. At the same time, we embarked on an expansion programme designed to maximise production at Vametco and further improve its already low costs of production.

On a total shareholder return basis, Bushveld Minerals was the best-performing FTSE-AIM Materials stock and the third-best performer on the FTSE-AIM All Share Index in 2018, with the share price appreciating by more than 350 per cent during the year, outperforming an impressive vanadium price performance. The Company's performance was recognised in Bushveld Minerals being awarded the best African Mining Company at the Mines & Money Conference London in November 2018. Our share price outperformance occurred against a backdrop of challenging economic conditions in several markets and sectors outside the US, including a US-China trade war, slowing growth in China and other emerging markets (including South Africa) and uncertainty over the UK's decision to exit from the European Union. The performance of many commodities, with the notable exception of battery minerals, remained lacklustre.

Vanadium price performance picked up from where it left 2017 and continued its upward march reaching a 10 year high of US\$127/kgV in November 2018. The general upward move was driven by a structural deficit that has persisted since 2016, even though this was accentuated in late 2018 by temporary factors

Chief Executive's Review continued

relating to the anticipated new Chinese rebar standard which came into effect in November 2018, as well as growing substitution of vanadium by niobium. The new Chinese rebar standard is expected to increase China's vanadium demand by 30 per cent underlying the continued anchor role the steel sector has for vanadium demand.

Meanwhile the growing global adoption of stationary energy storage presents long-term growth opportunities for vanadium and for a company such as Bushveld Minerals. Driving the adoption of stationary energy storage is a confluence of several factors, including the growing share of global energy consumption that is derived from electricity, the move to cleaner renewable forms of energy generation, and the growing need by utilities world-wide to better optimise their generation and transmission infrastructure.

This confluence of factors could not be starker in South Africa. The government is driving an aggressive adoption of renewable energy as it moves away from a centralised, coal-dependent model, incentivising distributed embedded generation by the private sector while its national utility, Eskom, looks to battery energy storage to help it optimise its transmission infrastructure through a 1,400 MWh battery energy storage procurement programme. The World Bank has also announced a US\$1 billion programme to support the deployment of 17,500 MWh in battery energy storage in low-to-middle income countries by 2025. Importantly for vanadium, and Bushveld Minerals, in particular, is that a large share of this energy storage opportunity is of a long duration nature, which suits vanadium-based redox flow batteries.

Following years of developing the energy storage business, Bushveld Minerals, is well prepared and positioned for the emerging energy storage opportunities, whilst continuing supply of vanadium into the steel industry on the back of an expanded production platform.

The US\$68 million conditional acquisition of Vanchem, announced post year end on 1 May 2019, marks another significant step forward for Bushveld Minerals on the journey to becoming a large, low-cost, vertically integrated vanadium platform. This is aligned to our previously communicated and long-stated strategy to acquire brownfield assets to accelerate development and production from our own extensive resource base. This acquisition is conditional upon regulatory approvals and the cessation of certain commercial arrangements. The transaction

is to be completed no sooner than 31 July 2019 and no later than 31 October 2019. Combined with Vametco operating at full capacity, post its Phase 3 expansion, the Company's portfolio will grow to produce at least 8,400 mtVp.a. taking the Company closer to its target nameplate capacity of 10,000 mtVp.a. in the next three to five years.

The Company continues apace with several capacity development initiatives to assist in effectively managing and sustaining the growth achieved to date and to prepare for the significant growth that still lies ahead.

These initiatives are organized around three key themes:

- a. Building organisational capacity – operating model;
- b. Building financial capacity; and
- c. Building processes & systems.

BUSHVELD MINERALS FINANCIALS

Cash generation from operating activities for the year ended 31 December 2018 was positive as a result of a full year's ownership of the Vametco Operations which generated high sales revenue during 2018 due to positive sales prices. This was, however, offset by additional working capital consumed in trade receivables at the end of the year.

The investing activities of the business resulted in an outflow, with the majority relating to the acquisition of a 21.22 per cent interest in Strategic Minerals Corporation, an intermediate holding company of Vametco Alloys Proprietary Limited, from Sojitz, as well as the additional capex spend on the Vametco Phase 1 & 2 expansion programme. The financing activities had a positive impact on cash as a result of the proceeds from a capital raise and additional shares and warrants which were exercised, which brought the year-end 31 December 2018 cash and cash equivalents balance to US\$42 million.

BUSHVELD VANADIUM VAMETCO

Vametco delivered an outstanding financial performance in the 2018 calendar year, underpinned by a strong vanadium price which averaged US\$81.2/kgV, an increase of 148.9 per cent over the previous year. Sales revenue and EBITDA for the 2018 financial year increased by 131 per cent and 353 per cent, respectively, to US\$183 million and US\$108 million.

We are proud that this achievement coincided with Vametco celebrating over five million man-hours worked without a lost-time injury.

The last lost-time injury occurred in 2013. We place considerable emphasis on safe mining practices, with zero tolerance for any disregard for safety, health and environmental rules.

Much of the growth of Bushveld Minerals has been mergers and acquisition-driven, and some of these transactions have been executed in phases. Invariably an important part of this growth is integration of the assets within Bushveld Minerals and ensuring the Group is structured optimally at different levels (operational efficiencies, tax efficiencies, et al). The Company's corporate restructuring has been underway since 2017 and is aimed at simplifying corporate ownership and minimising value leakage. This process has to date included the following:

- Acquiring the Yellow Dragon holding in Bushveld Vametco Limited ("BVL"), thereby increasing Bushveld's shareholding in BVL to 100 per cent ("YDH Transaction");
- Acquiring Sojitz's holding in SMC to increase BVL's shareholding of SMC to 100 per cent and underlying interest in Vametco to 75 per cent;
- The redemption of Bushveld Vametco Alloys (Pty) Limited ("BVA") preference shares held by SMC and the payment of all accumulated coupons and dividends thereon;
- The legal restructuring between Bushveld Vametco Holdings (Pty) Limited ("BVH"), the owner of the mining right at Vametco, and BVA, the owner of the production assets at Vametco; and
- The restructuring SMC into a limited liability company ("LLC") motivated by the need for a simpler organisation with a more efficient tax structure.

The result of the above restructuring exercises is a streamlined corporate structure that will ensure minimal value leakage and positions the Company well for the onset of a dividend policy.

Despite our strong earnings and safety performance, the year was not without the inevitable challenges that come with new ownership of an existing operating mine and processing facility.

In June and September, operations at Vametco were halted due to unprotected strike action, triggered by historic legacy issues and compensation structures that pre-dated Bushveld's acquisition of Vametco. After several rounds of discussions with the Association of Mineworkers and Construction Union, the representative labour union at Vametco, we were able to reach agreement on these issues. The resulting agreement was a positive

outcome for all parties, allowing for resumption of operations while the Company continues its earnest efforts to build towards a sound partnership with all employees. The agreement provided for a settlement of a reward to workers in respect of an employee share ownership participation programme ("ESOP"), which was under negotiation. Following the resumption of operations, the Company has agreed to a framework for an ESOP structure that will allow employees to participate in the economic performance of Vametco. A detailed agreement is now in negotiations and expected to be concluded during 2019.

In June, we completed the second phase of the three-phase expansion project at Vametco intended to increase annual nameplate capacity to 3,750 mtVp.a. However, operational challenges during ramp-up saw the Company fail to realise these production targets. The diagnostic commissioned by the Company identified several operational shortcomings and recommended a transformation programme designed to drive Vametco's operational performance towards its nameplate capacity. This programme ultimately aims to improve vanadium feed grade into the plant, key plant availability and throughput. It combines three key elements: (a) appointment of a new general manager, Ms Bertina Symonds, and improving the management structure to bring more senior operational leadership to key plant sections; (b) set up of a dedicated transformation office under the focused leadership of William Steinberg, the former Works Manager at Vametco; and (c) implementation of a set of initiatives targeting production bottlenecks and operation gaps identified by the diagnostic.

In addition, a core enabling initiative is the improvement of the overall organisational health at Vametco, which we are confident we will achieve by: (a) building an inclusive and diverse environment; (b) promoting a culture of mutual respect; and (c) having a shared value system that prizes performance and recognises the role and contribution of every stakeholder. We want every employee to begin each day with a sense of purpose and to end the day with a sense of accomplishment.

We commenced the transformation programme and are confident that it will set Vametco on its way to realising its production and cost potential. As a result of this transformation programme, we expect Vametco's production to improve over the course of the year and reach a steady state production of 3,400 mtVp.a. during the course of 2020. Given the lower production base we began the year at, we anticipate annual production for this year to be in the range of 2,800 mtV to 2,900 mtV, which is nine to 13 per cent above 2018's production.

We are pleased with the updated Mineral Resource and Ore Reserve which has been declared at Vametco's Open pit mine following a drilling programme and further validation of historical drilling data. The update has been compiled in accordance with JORC (2012).

The Combined Inferred and Indicated Mineral Resource is reported as 186.7 Mt at an average grade of 1.98 per cent V_2O_5 in magnetite, with an average magnetite content of 35.0 per cent (in whole rock) for 719,300 tonnes of vanadium, reflecting a 31 per cent increase in Ore Tonnages from the 2017 estimate. This increase is primarily attributed to reporting the Mineral Resource to a maximum depth of 150 metres below the original land surface, versus 120 metres in 2017.

The Ore Reserves in the Probable Category are reported as 48.4 Mt at an average grade of 2.02 per cent V_2O_5 in magnetite, with an average magnetite content of 28.5 per cent (in whole rock) for 156,300 tonnes of vanadium reflecting an 85 per cent increase in the Ore Tonnages relative to the 2017 estimate. This increase is a result of more mineral resource definition work on the Intermediate and Upper seams.

The improved resource and reserves underpin our production outlook at Vametco and are sufficient to support the growing production profile.

Our priorities at Vametco for 2019 are to:

1. Achieve our production targets and sustainably reduce costs. This will be guided by our strong management team, which has been boosted by the appointment of Bertina Symonds as the new General Manager.
2. Continue to simplify our organisational structure to bring senior management closer to our assets.
3. Execute initiatives identified during the diagnostic review, which has sketched a roadmap for Vametco to achieve steady state production in excess of 4,200 mtVp.a. (approximately 85 per cent of nameplate capacity of 5,000 mtVp.a.).
4. Continue to build on our co-operative partnership with employees and local communities. We are in the process of designing an ESOP to align Vametco's workforce more closely with its operational targets. In addition, we will be appointing a stakeholder engagement manager and, we have contracted a financial services provider specialising in personal financial planning, provision of unsecured loans and debt consolidation and counselling to help improve the financial wellbeing of our employees.

BRITS

In 2018, the Company began an exploration programme at Brits, on the farm adjacent to Vametco, over which a prospecting right is held, with the aim of establishing a maiden Mineral Resource Estimate before the middle of 2019. The results of recent drilling on the lower seam indicated a weighted average V_2O_5 grade of 1.66 per cent in magnetite. While these are marginally lower than the grades at Vametco, they remain among the highest in the world. We are encouraged by these results that support Brits' potential to be an additional source of feed tonnage for the Vametco plant and, if required, supply concentrate feed to Vanchem.

MOKOPANE

Mokopane, one of the premier greenfield primary vanadium projects in the world, is a key element of Bushveld's vanadium strategy. Mokopane has been identified as a primary source of feedstock for Vanchem as a result of its large mineral reserve. The Mokopane-Vanchem model will create a fully-integrated business in a shorter timeline and at lower cost than developing Mokopane as a stand-alone operation. The conditional acquisition of Vanchem also provides product optionality, as Mokopane V_2O_5 can be toll treated into ferrovanadium at Vanchem. Other options include supplying ore to other primary or secondary producers worldwide. The long-term plan remains to develop Mokopane into a stand-alone, integrated mine and processing plant, producing 5,300 mtVp.a. of >99 per cent purity V_2O_5 product.

BUSHVELD ENERGY

The Bushveld Energy business model is anchored in Bushveld Minerals' low-cost production platform and smart partnerships along the VRFB value chain. In 2018, we delivered our first VRFB project in South Africa, a battery with peak power of 120kW and 450kWh of peak energy. It passed a series of manufacturer and Eskom site acceptance tests during January and February 2019.

In August, Bushveld Energy and its technical partner for the Eskom project, UniEnergy Technologies (UET) were awarded a grant from the United States Trade and Development Agency to advance testing at Eskom. The facility also supports developing new modelling capabilities to cover the combination – or "stacking" – of multiple benefits from energy storage supplied by one battery.

A key part of Bushveld Energy's strategy is the creation of an electrolyte production facility under partnership with the Industrial Development Corporation (IDC). Development of this facility advanced in 2018 and included selection of a site for the facility and initiation of the environmental impact assessment for the

Chief Executive's Review continued

proposed new plant. After promising pilot results at laboratory scale of the electrolyte production process, Bushveld Energy procured 2 mtV of vanadium feedstock from Bushveld Vametco for conversion into bulk quantities of vanadium electrolyte. The scaled-up conversion process is currently being executed. If proven successful, samples from the electrolyte produced will be provided to battery companies for suitability assessment. In all, sufficient market demand for vanadium electrolyte supports the installation of an initial 200 MWh capacity facility in South Africa. This exciting project remains on track to produce electrolyte in the near term for South African and international markets.

At the beginning of 2019, Bushveld Energy announced development of a net circa 1 MW mini-grid at the Vametco mining and processing facility in South Africa. The mini-grid combines solar PV generation and energy storage using VRFB technology that are co-located at the Vametco mine and processing facility. While the mini-grid will supply, at most, eight per cent of the mine's energy consumption at any one time, the project will demonstrate the technical and commercial capability of hybrid mini-grids using solar PV and VRFB technology. Bushveld is working together with strategic partners to provide co-investment into the project, bank debt funding and engineering, procurement and construction ("EPC") services. The project could be scaled up further to provide a larger amount of energy in future. It will also use locally-mined and beneficiated vanadium, showing how VRFB energy solutions can create more local value for South Africa than any other battery storage technology.

In 2019 we plan to build on the strong base we created in 2018 for Bushveld Energy. This will include furthering our VRFB project with Eskom, participating in local tenders for energy storage system supply, developing the solar-VRFB mini-grid at Vametco and refining our vanadium electrolyte rental product. As far as electrolyte supply is concerned, we expect to announce some supply agreements with downstream stakeholders in the VRFB supply chain in the year ahead, while we make further significant progress on the manufacturing plant itself.

SUSTAINABILITY

Bushveld considers its corporate social responsibility as a strategic imperative that goes beyond compliance. We strive to: 1) create value in the communities in which we operate; 2) maintain safe operations; and 3) minimise our social and environmental impact.

We see local communities as important stakeholders to build partnerships with. For this reason, when we acquired Vametco, out of our own initiative, we established the Peo Matlafatso Trust, a community development trust to house shareholding of up to 12.5 per cent in the Vametco operations. This trust is at the heart of our commitment to local communities and, through it, we envisage playing a community development role targeting the critical areas of education, health care and entrepreneurship and enterprise development.

In addition, since taking ownership of Vametco, we have ensured that we meet our obligations in respect of settlement of any outstanding obligations such as old royalties, surface lease agreements where we pay regular fees to the owners of the land on which we operate, and implementation of all community development initiatives committed to in our social and labour plan.

More information can be found in the Sustainability section of this report.

LEMUR

While the Company has communicated its pivoting to vanadium as its core business; we are pleased with the progress made in advancing the integrated coal mining and power generation project in Madagascar. Since a technical cooperation agreement was signed with Sinohydro Corporation Limited ("Sinohydro") in 2017, Sinohydro has completed the Bankable Feasibility Study ("BFS") for both the power plant and the transmission line. With a 30-year Independent Power Producer concession from the government of Madagascar, a 30-year Power Purchase Agreement for an initial 25 MW from JIRAMA, the state-owned utility, and ongoing discussions with various private mining and industrial companies for further potential offtake from the power plant, the project is well positioned to attract appropriate value adding partners as it moves towards financing. I am particularly pleased that we have continued to advance the project in a prudent manner without stretching the Company's resources. We also welcome the support shown by the Development Bank of Southern Africa, through a US\$1m project preparation financing.

HUMAN CAPITAL

The Company's human capital resource development efforts have been focused on reviewing and re-designing the compensation model to attract and retain top talent as well as developing a new operating model for the Company. In parallel, we undertook a leadership development initiative aimed at crystallising the leadership competencies required by the Company.

MANAGEMENT CHANGES AND SUCCESSION

We started 2019 with changes in the management team of Vametco, notably with Malcolm Curror stepping down as CEO of Vametco. Malcolm will continue to provide consulting service to Bushveld Minerals. Malcolm has been succeeded by Bertina Symonds who, as Vametco General Manager, combines the roles of CEO and COO. Bertina brings over 20 years of mining and beneficiation experience, most recently as the General Manager of the Nkomati Nickel Mine owned by Johannesburg Stock Exchange-listed African Rainbow Minerals Limited.

Lyndon Williams, former COO, has moved to a new role at Bushveld's Head Office as Group Vanadium Specialist, supporting operational integration and providing technical support to the Group's product marketing initiatives.

William Steinberg, previously Vametco's Works Manager, has been appointed as the new Chief Transformational Officer, responsible for driving the operations improvement programme.

In April, Hiten Ooka joined us as Group Head of Finance, reporting to the Finance Director. Hiten is responsible for the Group's financial management capacity, including but not limited to financial reporting, treasury, tax and consolidation.

I also would like to extend my thanks to outgoing Finance Director Geoff Sproule, who will be leaving us soon. He has been a source of strength and leadership for Bushveld Minerals. We wish Geoff well in his retirement. A search for his replacement has commenced and we will look forward to making a new appointment shortly.

BUSHVELD MINERALS: POST YEAR-END EVENT VANCHEM ACQUISITION

On 1 May 2019 we announced a business and share purchase agreement with Dufenco Vanadium Investment Holdings SA to conditionally acquire the Vanchem businesses in South Africa for US\$68 million.

This acquisition of another brownfield operating asset on South Africa's Bushveld Complex will enable us to cement our position as one of the leading vanadium producers globally and put us well on the path to achieving our 10,000 mtVp.a. production target. It will also allow us to bring the Mokopane project into production quicker and at lower cost.

This highly strategic transaction combines our existing portfolio of high-grade, low-cost primary vanadium resources, including the Mokopane greenfield deposit, with an established production facility. This substantially reduces the capital required to bring Mokopane into production, and in a much shorter timeframe than if we had built a new plant. We consider ourselves the ideal buyer for these businesses and see the timing as opportune, given our sound portfolio of high quality deposits and the strong operating base established at Vametco.

Apart from the benefits generated by adding further brownfield processing capacity to complement the Company's high-grade deposits, there are several features of Vanchem that make it particularly attractive.

Vanchem not only brings immediate scalable processing capacity, but it also has a three-kiln configuration which provides important flexibility for the Company's production processes without compromising its cost efficiencies. Furthermore, Vanchem's attractive suite of vanadium products complements the Nitrovan™ produced at Vametco. These include FeV, V₂O₅, V₂O₃ and vanadium chemicals. The vanadium chemicals capability will be particularly critical as the Company grows its exposure to the emerging stationary energy storage industry through VRFBs.

This acquisition is core to our growth strategy of becoming a leading, low-cost, vertically integrated producer and our ability to adequately supply the burgeoning energy storage sector.

The immediate next steps are:

- a. Completing the Vanchem transaction as soon as possible;
- b. Building a sound team to operate Vanchem; and
- c. Ensuring that the production ramp-up and cost profile envisaged in the due diligence process is achieved.

OUTLOOK

2018 marked our first year as a controlling shareholder of Vametco. With a consolidated set of results, the transition from junior miner to established producer is complete. This transition came at an opportune time, with strong and rising vanadium prices that reached a ten year high of US\$127/kgV by November 2018 and with Vametco achieving a

tremendous result, generating in excess of US\$100 million adjusted EBITDA in its first year under the Company's control. We are mindful, however, that while Vametco generated strong cash flows, operational performance was below expectation. Although we remain one of the lowest cost producers, at 2,560 mtVp.a. we produced 40 per cent less than the potential production capacity of Vametco (albeit with some modest capital spending). The potential to further lower our cost position by maximising throughput is not lost on us and will be a key focus of our future efforts.

Following the refurbishment programme at Vanchem and the expansion programme underway at Vametco, the Company will have created a portfolio of processing assets capable of supplying approximately 10 per cent of the global vanadium market. This was acquired for less than 40 per cent of the estimated US\$500 million replacement cost and used cash generated by the same assets for nearly half (~US\$100 million) of the cost of creating that capacity.

Once the acquisition of Vanchem is completed, we will have a sizeable production platform with an attractive portfolio of complementary vanadium products, in addition to the flexible production profile of our processing plants. To deliver on the potential of this portfolio, we will focus on disciplined execution, featuring:

- execution of the transformation programme at Vametco to increase production first to 3,400 mtVp.a. and then to 4,200 mtVp.a., following further capital expenditure;
- completion of the Vanchem acquisition and undertaking a refurbishment programme to deliver 4,200 mtVp.a.;
- successful integration of Vanchem into the Bushveld Group to maximise synergies between the Vametco and Vanchem processing plants;
- building an exceptional team of leaders to drive the Company's future operational performance; and
- successfully executing Bushveld Energy's strategy to realise several opportunities in front of it, including the mini-grid at Vametco, construction of the electrolyte production plant, successfully launching a vanadium electrolyte rental product, project development of VRFB sites in Africa and securing large mandate opportunities for batteries while continuing our local and global efforts to promote an enabling regulatory environment for VRFBs and storage in general.

I have every confidence in the outstanding and hardworking team that has brought Bushveld Minerals to this stage, and in the expanded team that we are creating to take the Company forward.

We will continue to build strong partnerships with the various stakeholders based on mutual trust. In respect of our workers, we look forward to concluding our ESOP negotiations, laying the foundations for a future of shared responsibility and success of Vametco. In respect of our communities, we look forward to a partnership that goes beyond compliance and is built on a sense of shared ownership (thanks to the shareholding in Vametco that we have established in the interest of the communities).

And to our government in South Africa, we offer a Company deeply committed to growth, to optimising the utilisation of assets and infrastructure already established while pursuing vertical integration and proving that beneficiation has commercial and mutual economic value for us and the country. We are also delighted to be playing our part as meaningful contributors to the social and economic progress of South Africa, through the listing on the Johannesburg Stock Exchange later this year, which will allow South African investors access to our compelling story.

Finally, I want to thank all our shareholders who believed and bought into our vision. Delivering attractive returns to them gives me immense satisfaction. To them we owe the platform we have created today.

I have often said that "the story of Bushveld Minerals is not half-told yet." We have since successfully acquired Vametco and are in the process of acquiring Vanchem. Post the expansion and refurbishment programmes at Vametco and Vanchem, we will have a production platform with an attractive portfolio of vanadium products supplying approximately ten per cent of the global market, while poised to realise our ambition in the energy storage market by playing a leading role along the vanadium redox flow battery value chain. With these achievements, perhaps the story is now half-told. Much remains ahead!

For the opportunity and privilege to continue developing it, I am thankful.



Fortune Mojapelo
CEO, Bushveld Minerals

Details of Operating Assets

Bushveld Vanadium

Bushveld Minerals' large high-grade resources base and processing facilities comprise:

#1

Vametco

(Integrated mine and processing facility): Vametco is a primary low-cost vanadium mining and processing operation, supplying three per cent of the global vanadium market, with a 186.7 Mt JORC-compliant resource, including 48.4 Mt in reserves, with in-magnetite vanadium grades averaging 1.98 per cent V_2O_5 . The Vametco mine is an opencast mine along a strike of approximately 3.5 km.

Vametco is expected to produce 2,800 mtV to 2,900 mtV in 2019 at production cost of US\$18.90 kgV to 19.50 kgV.

#2

Brits

Brits includes prospecting rights and a mining right under application on farms adjacent to Vametco. The mineralisation is outcropping and a continuation of the Vametco deposit. Recent drilling has shown lower seam weighted average grades of 0.66 per cent V_2O_5 in-situ and 1.66 per cent V_2O_5 in magnetite, which are among the highest in the world. A maiden Mineral Resource estimate will be published in the June 2019 quarter. Brits has the potential to supply additional feed tonnage for the Vametco plant, and if required, concentrate feed for Vanchem.

#3

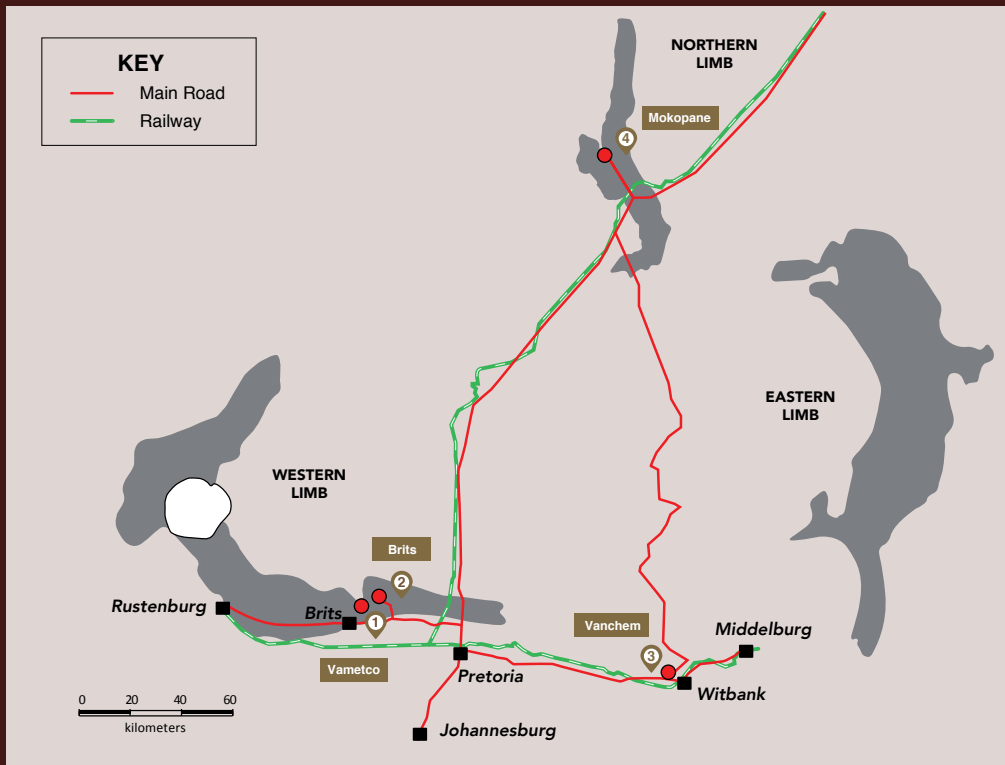
Vanchem

(Processing facility): In May 2019, Bushveld Minerals announced the conditional acquisition of Vanchem which will, subject to completion, materially grow the Bushveld Minerals' Vanadium business once refurbished. Vanchem is a primary low-cost vanadium processing facility. It uses the salt roast beneficiation process and is currently producing about 80 mtV per month (approximately 960 mtVp.a.) using a single kiln. Steady state production of more than 4,200 mtVp.a. from all three kilns will be achieved when a five-year refurbishment programme is completed.

#4

Mokopane

Mokopane is one of the world's largest primary vanadium resources, with a 298 Mt JORC-compliant resource including 28.5 Mt in reserves and a weighted average grade of 1.41 per cent V_2O_5 in-situ and 1.75 per cent V_2O_5 in magnetite. Mokopane is intended to become a primary source of feedstock for Vanchem, the Mokopane-Vanchem model will create a fully integrated business in a shorter timeline and with reduced costs. Other options include supplying ore to other primary or secondary producers worldwide. The long-term plan remains to develop Mokopane into a standalone integrated mine and processing plant.



Together the Vametco mine, Brits and Mokopane provide a minimum total JORC-compliant resource base of 484.7 Mt, including 77 Mt of JORC-compliant reserves, with some of the highest primary grades in the world.

The Vametco plant and Vanchem will support the Company's strategy of attaining a production nameplate capacity of 10,000 mtVp.a. within three to five years.

"Our operations are located on The Bushveld Complex, hosting the world's largest high-grade primary vanadium resources."

#1 Vametco

Vametco is an integrated mining and processing plant located 8 km northeast of Brits in the North West Province of South Africa. The operation owns the new order mining rights for vanadium and other associated minerals over Portion 1 of the farm Uitvalgrond 431 JQ and Portion 1 of the farm Krokodilkraal 426 JQ in Brits. Vametco operates an open pit mine supplying ore to a vanadium processing plant located on the same properties. Vametco employs a total of 472 employees and contractors.

MINE

Vametco's open pit mine is approximately 3.54 km long, extending in a west-east direction. The ore body is well-defined, continuous and dips in a north-northeast direction at approximately 19 to 20 degrees. The mine is based on a JORC compliant resource of 186.7 Mt, including 48.4 Mt reserves with in-magnetite vanadite grades averaging 2.02 per cent V_2O_5 .

PROCESSING

Vametco's processing plant receives ore from the co-located Vametco mine. Vametco employs the standard salt roast and leach process to produce a trademark VCN product called Nitrovan™. The process involves the following stages:

- **Step 1:** crushing, milling and magnetic separation to produce a magnetite concentrate with average grades of approximately two per cent V_2O_5 in magnetite;
- **Step 2:** Salt-roasting of concentrate, involving roasting of the concentrate with sodium salts in a kiln at approximately 1,150°C to form a water-soluble sodium vanadates material;
- **Step 3:** leaching and purification involving dissolution of roasted vanadium concentrate in water, purification and precipitation of vanadium through the addition of ammonium sulphate followed by drying and then processing in a reducing environment to produce an MVO product; and
- **Step 4:** Nitrovan™ production: the MVO is briquetted and fed into a shaft induction furnace in a nitrogen atmosphere to produce Nitrovan™, a trade-mark vanadium product used in the steel industry, and MVO.

PRODUCTION AND EXPANSION PROJECT

In September 2017, Bushveld Minerals commenced an expansion initiative to increase Vametco's production capacity from approximately 2,600 mtVp.a. to a nameplate production nameplate capacity of 5,000 mtVp.a.

The first two phases of the expansion, designed to increase production capacity to 3,750 mtVp.a. were completed in June 2018. However, plant performance, did not meet expectations from the expansion plans. A review highlighted several operational shortcomings: lower mined vanadium grade fed into the crushing and milling plant, inadequate liberation and elimination of silica leading to lower vanadium grade feed into the kilns, lower recoveries and overall plant availability.

As such Bushveld Minerals, with the assistance of external consultants, undertook a detailed diagnostic review of Vametco's performance which was completed in December 2018. While the diagnostic affirmed the expanded production capacity, it identified several operational gaps that hindered Vametco from meeting this production capacity and identified the improvement areas to include:

- Improve mine production scheduling to stabilise vanadium grade in run of mine ore and concentrate;
- Increase crusher and mill availability and throughput rates to increase concentrate production;
- Increase kiln availability, hourly feed rate and recoveries;
- Improve leach plant recoveries; and
- Improve organisational health.

Following the Vametco diagnostic review, the Company has commenced a transformation programme to close these gaps. Key elements of this programme include:

- a. A dedicated implementation delivery office, headed by the Chief Transformational Officer, has been created that is already implementing several quick win improvement initiatives are underway.
- b. Management changes have been implemented at Vametco, including the appointment of Bertina Symonds as the General Manager of Vametco, the appointment of William Steinberg, previously Vametco's Works Manager, as new Chief Transformational Officer, tasked with driving operational excellence and improvements at Vametco, and the appointment of two operational managers to improve operational leadership of key plant sections – mining, concentration, extraction and refinery.
- c. A focused implementation programme with rigorous monitoring of progress across the multiple initiatives identified.



Details of operating assets continued

Vametco continued

The Company continues to review the timing and required investment of Phase 3 of the multi-phase expansion project, to further increase the production nameplate capacity to 5,000 mtV per annum, which we expect to generate a steady state production in excess of 4,200 mtV.

FINANCIALS

Vametco delivered a solid financial performance in 2018, underpinned by a strong vanadium price environment. The FeV market mid price averaged US\$81.2/kgV for the 12 month period, an increase of approximately 150 per cent over the prior year:

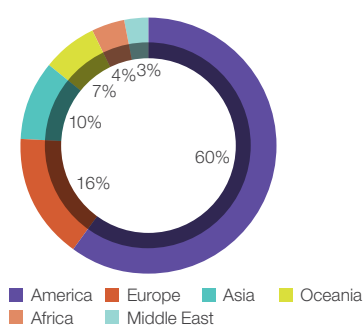
- Revenue increased 131 per cent to US\$183 million; and
- EBITDA increased 353 per cent to US\$108 million.

Vametco's 2018 production costs of US\$19.7/kgV were among the lowest in the world, placing it in the first quartile of the vanadium cost curve.

Unit production cost of US\$18.90/kgV to US\$19.50/kgV is expected for the 2019 calendar year, underpinned by economies of scale. This represents a two to four per cent reduction relative to the 2018 unit cost.

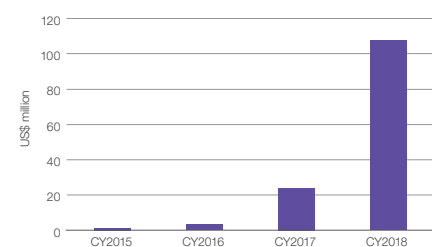
The table below shows a summary of the key figures for the years 2015, 2016, 2017 and 2018.

2018 Vametco sales

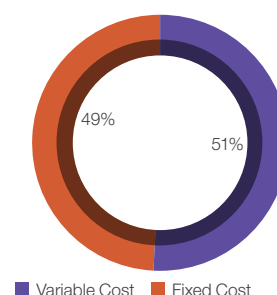


Most of Vametco's product sales in 2018 were to the US, where the price on average traded \$10/kgV higher than in the European and Chinese markets. We intend to continue supplying to higher-priced markets in future.

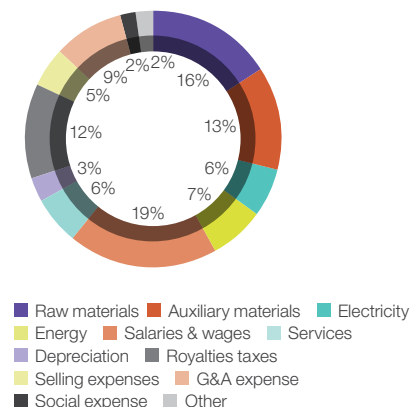
Vametco EBITDA



2018 Vametco fixed cost and variable cost



2018 Vametco cost breakdown by component



Vametco 2018 Results (100% basis)¹

		CY18	CY17	CY16	CY15
Vanadium produced (Nitrovan™ and FeV)	mtV	2,560	2,649	2,856	2,419
Vanadium sold	mtV	2,573	2,721	2,810	2,340
FeV LMB price (weighted average)	US\$/kgV	81.2	32.6	18.5	18.6
Revenue ²	US\$m	183.0	79.1	51.7	49.2
EBITDA	US\$m	108.3	23.9	3.3	1.3
Production costs ³	US\$/kgV	19.7	16.6	12.9	14.6

1. After the completion of the acquisition of the remaining 55 per cent share in BVL in December 2017, Bushveld's indirect controlling interest was 59.1 per cent. This subsequently increased to 74 per cent in September 2018, through a series of transactions.

2. Revenue reported net of all sales commissions.

3. Excludes depreciation, royalties, selling, general and administrative expenses and impact of production stoppages.

SAFETY IS OUR TOP PRIORITY

Vametco has achieved a safety milestone of 5,375,848 man-hours worked without recording a lost-time injury. This translates to a clean safety record with the last lost-time injury occurring in 2013.

This performance was achieved as a result of excellent teamwork among management, supervisors and operators in implementing safety management policies and strategies by ensuring that:

1. The cardinal rules of Safety, Health and the Environment are followed, and applying zero tolerance whenever they are disregarded; and
2. Task observations are conducted regularly, to proactively identify deviations from safe operating procedures, provide coaching when necessary and reinforce good practices.

ENVIRONMENT

Bushveld Minerals believes in limiting the effects of its operations on the surrounding environment. The Company has developed an Environmental Management Plan ("EMP") in which we outline our achievements and plans for water management, air quality management, energy consumption and greenhouse gas emissions. The EMP can be found within the Sustainability section of this report.



Details of Operating Assets continued

Vametco continued

BUSHVELD MINERALS' 74 PER CENT OWNERSHIP OF VAMETCO

In 2017 and 2018, through a series of transactions, Bushveld Minerals raised its effective shareholding in Vametco to 74 per cent, the highest amount achievable under the current South African Mining Charter III, which requires 26 per cent to be held by designated groups. The majority ownership was achieved with a total cash outlay of approximately US\$49 million, which is approximately 0.5 times Vametco's 2018 EBITDA. This outlay will, however, increase following the settlement of the residual deferred consideration payable in 2021 based on a 4.5 multiple applied to 5.9 per cent of Vametco's EBITDA in 2020.

This acquisition demonstrates the value in the Company's growth strategy of targeting brownfields processing infrastructure which can be acquired at a lower price than the cost of building a greenfield operation, providing a lower risk and a quicker path to production.

26.6 PER CENT OWNERSHIP IN VAMETCO

On 6 April 2017, Bushveld Minerals, in partnership with Yellow Dragon, completed the acquisition of a 78.8 per cent interest in SMC, which held a 75 per cent shareholding in the vanadium mining and processing companies Vametco Holdings (Proprietary) Limited and Vametco Alloys (Proprietary) Limited, for a US\$16.47 million consideration.

Bushveld Minerals' effective shareholding in the operating asset was 26.6 per cent.

59.1 PER CENT OWNERSHIP IN VAMETCO

On 21 December 2017, Bushveld Minerals completed the acquisition of 55 per cent of Bushveld Vametco Limited from Yellow Dragon Holdings for:

1. An initial purchase consideration of US\$11.1 million;
2. Two deferred payments of US\$0.6 million, each of which is payable following publication of the Vametco Holdings Limited financial accounts for the years ending 31 December 2018 and 31 December 2019; and
3. Further payment will be made on publication of the Vametco Holdings Limited accounts for the year ending 31 December 2020. It will be calculated by reference to the EBITDA of Vametco Holdings Limited for the period covered by its 2020 accounts.

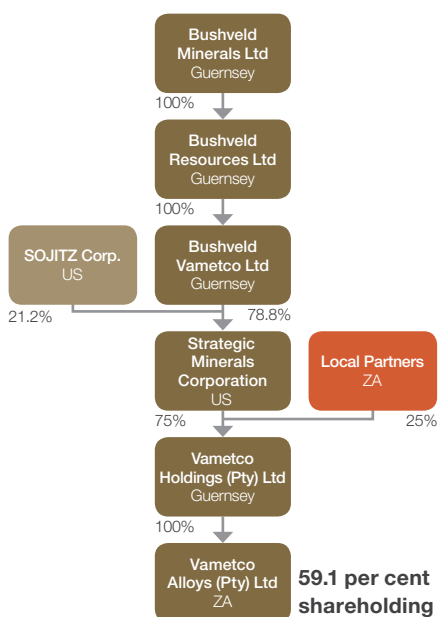
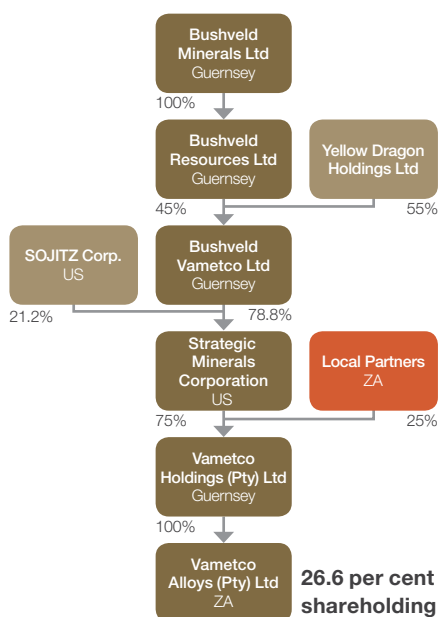
Bushveld Minerals' effective shareholding in the operating asset increased from 26.6 per cent to 59.1 per cent.

74 PER CENT OWNERSHIP IN VAMETCO

On 13 September 2018, Bushveld Minerals completed the acquisition of a 21.22 per cent interest in SMC from Sojitz for a total cash consideration of US\$20 million.

As a result of this transaction, Bushveld Minerals' effective shareholding in the operating asset increased from 59.1 per cent to 75 per cent. Subsequently, on 27 September 2018, Bushveld Minerals sold a one per cent equity interest in Vametco Holdings (Proprietary) Limited to its two BBBEE shareholders for a total cash consideration of US\$135,000. This transaction decreased Bushveld Minerals' effective shareholding in the operating asset from 75 per cent to 74 per cent, the maximum equity ownership amount permitted under the current South African Mining Charter III.

Bushveld Minerals' effective shareholding in the operating asset increased from 59.1 per cent to 74.0 per cent.





#2 Brits

Brits includes prospecting rights and a mining right under application on farms adjacent to Vametco. The Company's interest in the asset ranges between 51 per cent and 74 per cent through three different companies. The project hosts high-grade vanadium mineralisation in several magnetite layers. The mineralisation is outcropping and a continuation of the Vametco deposit strike. The project offers a potential extension of Vametco's life of mine and a cheaper source of near-surface ore for the Vametco plant. Recent drilling has shown lower seam weighted average grades of 0.66 per cent V_2O_5 in-situ and 1.66 per cent V_2O_5 in magnetite, which are among the highest in the world. A maiden Mineral Resource estimate will be published in the June 2019 quarter. Brits has the potential to provide additional feed tonnage for Vametco and, if required, concentrate feed for the Vanchem plant.

Details of Operating Assets continued

#3 Vanchem

Vanchem is a primary vanadium producing facility with a beneficiation plant capable of producing various vanadium oxides, FeV and vanadium chemicals. Vanchem uses the salt roast beneficiation process, similar to the one used at Vametco and is currently producing circa 80 mtV per month using a single kiln. In May 2019, Bushveld Minerals announced the conditional acquisition of Vanchem.

Following a five year refurbishment and ramp-up schedule, which is estimated to require approximately US\$45 million of capital expenditure, Vanchem is expected to reach steady state production of 4,200 mtV per annum utilising all three kilns. The plant consists of the following components:

- Milling and concentrator (magnetic separation) facility for the treatment of magnetite;
- A roast/leach configuration with three kilns;
- An ammonium poly-vanadate precipitation plant;
- A de-ammoniation/ V_2O_5 plant;
- V_2O_5 flake production facilities;
- An electric smelting facility for conversion of V_2O_3 to FeV;

- An aluminothermic smelting facility, called South African Japan Vanadium Proprietary Limited ("SAJV"), for conversion of V_2O_5 into FeV; and
- A vanadium chemical plant producing various vanadium chemical products.

Vanchem is located at Ferrobank Industrial Park in Emalahleni Local Municipality, Mpumalanga Province in the Republic of South Africa. It has been operating since the late 1970s, processing a combination of ore feed from the Mapochs vanadium mine ("Mapochs") and slag from Highveld. Highveld continued to supply ore to Vanchem from its Mapochs mine in Limpopo until it closed in 2015. The closure of the mine saw Vanchem,

without guaranteed ore supply from Mapochs, which eventually resulted in it going into Business Rescue in November 2015. The Vanchem Plant was put into care and maintenance later that year. The plant was partially re-started in the third quarter of 2018, after Vanchem was able to procure magnetite ore from third parties.

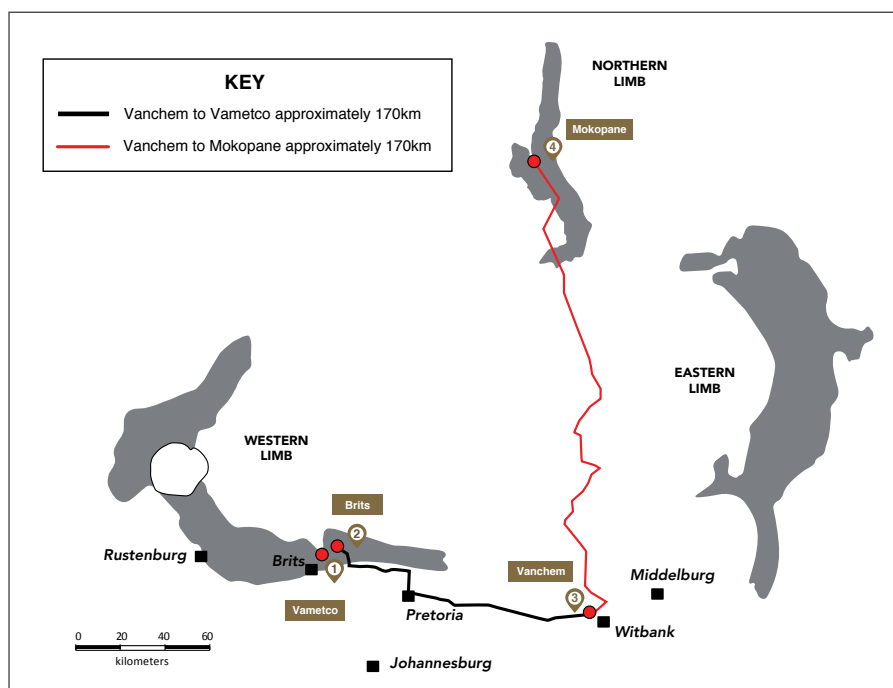
SAJV, is located at the Highveld site and is situated approximately 10 km from the Vanchem Plant. SAJV, comprises of an aluminothermic smelting facility which is adjacent to the Vanchem Plant electric smelting facility.

Vanchem has secured sufficient ore supply from third parties to support current levels of production, until Mokopane's development has been completed. The Company retains the optionality to supply magnetite concentrates from Vametco to the Vanchem Business. Upon receipt of the mining right, Mokopane will become a primary source of feedstock to the Vanchem Business as a result of its large mineral reserve. The Mokopane-Vanchem model will represent a fully integrated business, in line with the Company's strategy for Vametco.

ACQUISITION RATIONALE

The acquisition reinforces the Bushveld Minerals' growth strategy to become one of the world's most significant, lowest-cost and most vertically integrated companies because it:

- Increases exposure to vanadium, a commodity with compelling fundamentals anchored by demand from the steel sector.
- Supports Bushveld Minerals' target production nameplate capacity of 10,000 mtVp.a.
- Diversifies the Company's geographical mining and production footprint within South Africa and adds new vanadium products into our offering.



- Expedites the development of Mokopane – identified as a primary source of feedstock – creating a fully integrated business.
- Enhances the Company’s ambitions in the global energy storage and VRFB space by leveraging Vanchem’s existing chemical plant and high purity oxide production capacity in the manufacture of vanadium electrolyte.

The acquisition represents a low-cost increase in Bushveld Minerals’ existing vanadium production capacity.

- Collectively, the US\$68 million consideration, the US\$45 million refurbishment capital expenditure and US\$20 million capital spend for Mokopane represent approximately 40 per cent of the cost of the greenfield development of Mokopane and on a shorter timeline.
- Total investment is potentially on more favourable terms to Bushveld Minerals than the acquisition of an effective 74 per cent shareholding in Vametco.
- The acquisition will be cash generative and earnings accretive.
- The acquisition will also provide significant NPV uplift to Bushveld.
- Vanadium supply-side increased risk will be limited: Vanchem historically produced more than 4,300 mtVp.a. before it was forced into Business Rescue.

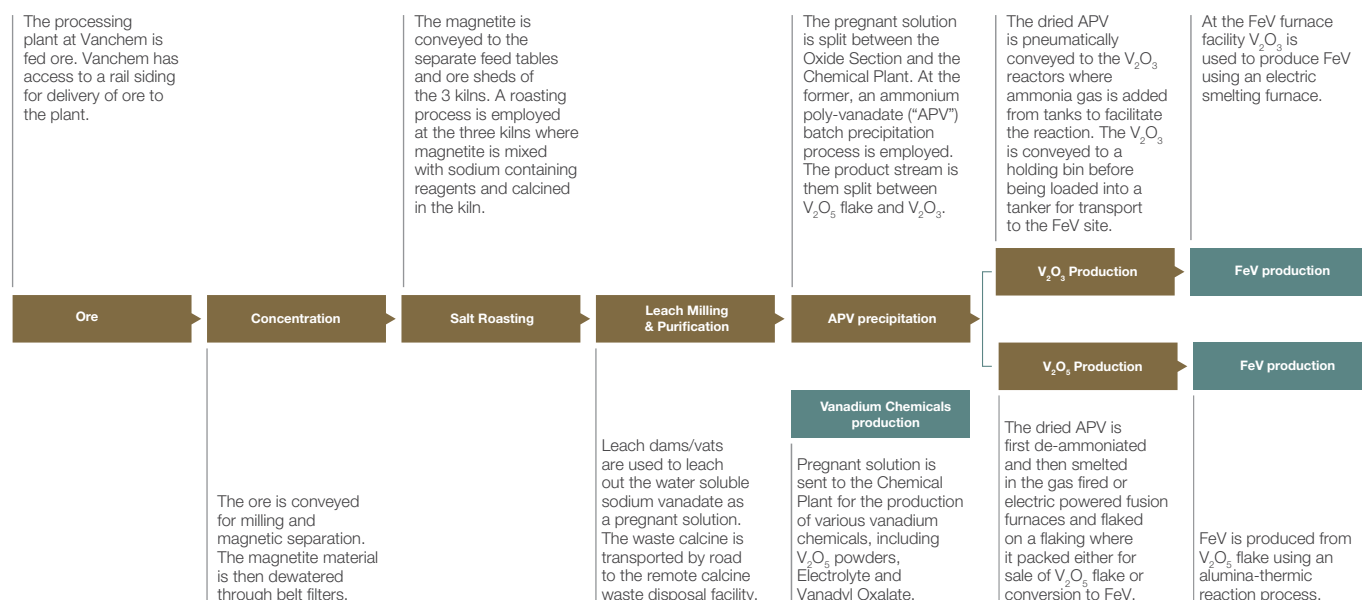
The acquisition will generate multiple synergies between Bushveld Minerals’ assets.

- Bushveld Minerals, with a complementary portfolio of high-grade vanadium deposits, is the natural buyer for this low-cost, scalable and cash generating asset.
- The acquisition enables operational and business case synergies between Vametco, Vanchem and Mokopane.
- A rail siding at Vanchem, linking the plant through the national rail network to the various Bushveld Minerals and other deposits, supports the supply of ore to Vanchem.
- Surplus concentrate production capacity at Vametco could be shipped to Vanchem as kiln feed, providing the opportunity to accelerate the development of the Brits deposit.
- Optimal product diversification as Vanchem can produce various vanadium oxides, FeV and vanadium chemicals.
- Mokopane’s development will allow the Company to sell significant vanadiferous magnetite ore to primary or secondary producers worldwide.
- Vanchem’s three-kiln configuration and multiple downstream plant flexibility allows it to scale production upward or downward without significantly increasing unit production costs.
- Annual Vametco kiln shutdowns can now be optimally managed group-wide.

- Vanchem has significant surplus FeV smelting capacity that will enable surplus MVO at Vametco to be converted to FeV at Vanchem.
- Provides the Group with critical mass in the world-wide marketing of vanadium (with significant product diversification).
- Cross-pollination of in-depth vanadium expertise and experience.



Vanchem can produce various vanadium products, complementing Vametco’s Nitrovan™ offering



Details of Operating Assets continued

#4 Mokopane

Mokopane is located on the central portion of the Northern limb of the Bushveld Complex, which hosts the second-largest vanadium resource in the world. The project is in the Mokopane District of Limpopo Province, approximately 65 km west of the provincial capital, Polokwane. The project includes one of the world's largest primary vanadium resources and a weighted average grade of 1.41 per cent V_2O_5 in-situ and 1.75 per cent V_2O_5 in magnetite.

Upon receipt of the mining right, Mokopane will be a primary source of feedstock to Vanchem as a result of its large mineral reserve, so the Vanchem transaction facilitates the expedited development of Mokopane. The Mokopane-Vanchem model will create a fully-integrated business in a shorter timeline and at lower cost than developing Mokopane as a standalone operation. Other options include supplying ore to other primary or secondary producers worldwide. The long-term plan remains to develop Mokopane into a standalone integrated mine and processing plant, producing 5,300 mtVp.a. of >99 per cent purity V_2O_5 product.

GEOLOGY & RESOURCES

The Mokopane deposit is a layered orebody along a 5.5 km north-south strike at a dip of between 18 degrees and 22 degrees west. The project comprises three adjacent and parallel magnetite layers, namely the MML, the MML-HW layer and the AB Zone. 298 Mt (JORC) resources and reserves run across three parallel overlying magnetite layers with grades ranging from 1.6 per cent to over two per cent V_2O_5 as follows:

- MML: 52 Mt @ 1.48 per cent V_2O_5 (1.6-1.8 per cent V_2O_5 in magnetite);
- MML-HW & Parting: 233 Mt @ 0.8 per cent V_2O_5 (1.5-1.6 per cent V_2O_5 in magnetite); and
- AB Zone: 12 Mt @ 0.7 per cent V_2O_5 (greater than 2 per cent V_2O_5 in magnetite).

LICENSING

The Mokopane property has a prospecting right (LP95PR), which incorporates five farms: Vogelstruisfontein 765 LR; Vriesland 781 LR; Vliegekraal 783 LR; Schoonoord 786 LR; and Bellevue 808 LR. The Project's mineral prospecting right covers several minerals including iron ore, vanadium and titanium. An application for a Mining Right was first lodged in March 2015 with the Department of Mineral Resources' Limpopo region and subsequently updated, after we established a framework for community participation, in line with the recently promulgated Mining Charter III. In September 2016, Bushveld Minerals was granted an Environmental Authorisation for the project by the South African Department of Mineral Resources in terms of Section 24 L of the National Environmental Management Act (Act 107 of 1998).

The Department of Mineral Resources has accepted the Mining Works Programme and Social and Labour Plan, which are part of the Mining Right Application.

With the gazetting of Mining Charter III, Bushveld Minerals has submitted a new proposed ownership structure to the department, which includes a BBBEE Entrepreneur, Employees and Community participation. Bushveld Minerals will continue to engage with the department on this mining right application.



Bushveld Energy

Bushveld Energy is an African energy storage solutions provider, exclusively focused on VRFB technology. Bushveld Energy recognises that the provision of electricity in Africa is essential for social transformation, with immense commercial opportunity.

The Company is focused on developing and promoting the role of vanadium in the growing global energy storage market through its application in VRFBs. Its vision is to become a significant energy storage provider in Africa, meeting demand for large-scale energy storage by leveraging South African-mined and beneficiated vanadium.

BUSINESS MODEL

Bushveld Energy's business model focuses on five types of revenue-generating activities in the mid- and downstream segments of the vanadium value chain. These activities have comparatively low capital requirements compared with the mining business.

These five activities broadly are:

1. Electrolyte manufacturing, which includes:
 - designing a conversion process for vanadium feedstock from Vanetco's existing mining and processing operations;
 - building and operating a chemicals plant to purify vanadium feedstock and mix it into a liquid vanadium electrolyte product; and
 - marketing the electrolyte to VRFB companies or direct users/buyers of VRFB systems;
2. Renting (or leasing) vanadium electrolyte, a new product under development. Whereas historically VRFBs have been purchased with the vanadium electrolyte, rental/leasing would allow Bushveld Energy, or a special purpose company, to retain ownership of electrolyte and rent it to the

VRFB users or buyers. VRFB technology is unique because of the non-degradation of the electrolyte chemistry and the relative ease of extracting vanadium from the electrolyte at the end of the VRFB's operating life. In addition to smoothing vanadium price peaks, electrolyte rental permits a long-term pricing model that reduces the upfront capital cost of a VRFB to make it one of the most commercially competitive energy storage technologies available;

3. Assembly of VRFBs through an investment in the construction of an assembly plant for a VRFB product. Unlike other battery technologies, VRFB assembly does not require the same production scale to achieve competitive economics. This makes regional assembly of domestic and imported sub-components extremely attractive to reduce manufacturing costs and supply times. Such an activity may involve direct investment into a VRFB company or companies that would own the facility, as well as the technology;
4. Direct selling of VRFBs in African markets as a value-adding local distributor. In addition to identifying opportunities suitable for VRFB energy storage, this activity includes developing local logistics chains covering importation, transport, installation and maintenance of the VRFBs and key components. As electricity markets are heavily regulated, significant activity in this

business would require engagement with public and private stakeholders to create an environment that identifies and values the full range of benefits in long-duration energy storage offered by VRFB technology; and

5. Developing and investing in African energy storage projects, an activity that starts with identifying suitable sites and extends to defining the economic business case for VRFB installations. It includes designing the technical and commercial structure of projects that use VRFBs and making direct equity investment into such projects. By creating bankable energy storage projects, either standalone or combined with generation sources such as solar and wind, Bushveld Energy can accelerate the transition to clean energy in Africa while increasing access to quality electricity delivery through distributed mini-grids.

Implementation of these five activities will continue to follow the principles of strategic relationships. Relevant external parties include development agencies, funders, renewable energy developers and energy storage component providers. By design, all activities will rely to a significant degree on capital from outside Bushveld Minerals. Ongoing relationships that support implementation of Bushveld Energy's business model include:



Eskom VRFB Analyst Site visit in January 2019



Details of Operating Assets continued

Bushveld Energy continued

- **IDC:** with whom Bushveld Energy has been co-operating since 2016 to develop a downstream vanadium beneficiation industry in South Africa. This has included the development and design of the vanadium electrolyte production facility and the deployment of a pilot utility-scale VRFB in South Africa;
- **Eskom and UET:** with whom Bushveld Energy and the IDC have deployed a peak 120 kW/peak 450kWh VRFB at Eskom's mini-grid facility in Rosherville, South Africa. UET was the technology provider, with Bushveld Energy integrating the system. Eskom will be running a series of use cases to evaluate and understand VRFB performance;
- **USTDA:** with whose support the VRFB is being deployed with Eskom. In addition, USTDA is supporting Bushveld Energy in the development of a stacked use case for long duration storage, specifically in South Africa;
- **SAESA:** of which Bushveld Energy is a founding member. SAESA is the non-profit voice of energy storage in South Africa, engaging directly with government regulators, public and academic institutions and the private sector to support the use of energy storage in solving the country's electricity challenges; and
- **Vanitec:** the non-profit global association of vanadium producers. Bushveld Energy is a member through the Bushveld Group. Vanitec has a dedicated Energy Storage Committee that works on topics related to global vanadium use in VRFBs.

2018 ACHIEVEMENTS

ESKOM VRFB PROJECT

Bushveld Energy and the IDC received the delivery of the first VRFB from UET, which included the mixed acid vanadium electrolyte. The system is designed to provide peak power of 120 kilowatts and deliver peak energy of 450 kilowatt hours. The system is co-owned by Bushveld Energy and the IDC. It integrates a VRFB, inverter and transformer, all of which are connected into an Eskom site-controller that operates the VRFB.

During the year, USTDA awarded a grant to UET and Bushveld Energy to support this project and the development of future applications for energy storage and VRFBs in South Africa. USTDA's approval process included external technical verification of the technology and the proposed project, indicating confidence in the long-term viability of both UET's technology and expected opportunities for energy storage in South Africa.

ELECTROLYTE PRODUCTION FACILITY

The ELIDZ was selected as the site for the electrolyte facility. The benefits of the location include port proximity, streamlined permitting and favourable economic incentives. An EIA was started on site in mid-2018 and will be finished in 2019. Construction cannot commence until the full EIA process is satisfactorily completed.

In parallel to the physical site, development of the process to convert Vametco's vanadium feedstock into electrolyte continued to advance, with the support of experts from the Vametco laboratory and external consultants. After promising pilot results at laboratory scale, Bushveld Energy procured 2 mtV for conversion into vanadium electrolyte to prove the replicability of the process at scale and produce sample electrolyte batches.

The plant is designed to have initial capacity to produce 200MWh of vanadium electrolyte per annum and is designed with easy scalability in mind. The capital expenditure required to build the electrolyte plant is approximately US\$10 million, which will be financed with a combination of debt and equity. The facility is being co-developed by Bushveld Energy and the IDC.

PIPELINE GROWTH

The plant is designed to have initial capacity to produce 200MWh of vanadium electrolyte per annum and is designed with easy scalability in mind. The capital expenditure required to build the electrolyte plant is approximately US\$10 million, which will be financed with a combination of debt and equity. The facility is being co-developed by Bushveld Energy and the IDC.

The project pipeline is aligned with Bushveld Energy's business model and focuses on four segments that are especially attractive in Africa for VRFB technology:

- Large Power Utilities that generate, transmit and/or distribute electricity. African utilities in particular tend to own and operate expansive radial networks, presenting a significant business case for support or deferral of transmission and distribution line expansion. This specific need, when coupled with typical storage uses of capacity provision and ancillary services, make Africa especially attractive for VRFBs. The Eskom project is an example of this use case;
- Renewable Energy Independent Power Producers ("IPP") that directly sell energy to customers or utilities. Energy storage is needed to cover the variability of renewable energy sources such as wind and solar, and to shift the time of electricity provision from when it is generated to when it is most demanded by consumers;
- Behind-the-metre customers are typically electricity users that have a grid connection but are looking to deploy storage to reduce their electricity costs, mitigate the risk of power supply disruptions and accelerate their transition toward consumption of clean energy. Vametco is an example of such a customer; and
- Remote locations are either isolated urban centres or large industrial facilities located far from the main existing power grid in a country or region. The geographic size and relatively low population density in Africa yield large numbers of such sites, which are currently generating electricity using expensive diesel or heavy fuel oil. Hybrid mini-grids that include renewable energy generation and long-duration storage can significantly reduce both electricity costs and the carbon emissions of such locations.

PRIORITIES IN 2019

Priorities for the coming year include both continuing existing projects and launching new ones.

ADVANCING THE ELECTROLYTE PRODUCTION FACILITY

While continuing to work with the IDC on the electrolyte manufacturing plant, the EIA for the ELIDZ must be completed. In addition, once the scaled-up conversion process proves successful, samples from the produced electrolyte will be provided to VRFB companies for suitability assessment. In parallel, the design of the manufacturing facility will be finalised to allow construction to start once the EIA is completed.

DESIGN AND START CONSTRUCTING OF MINI-GRID PROJECT

Bushveld Energy initiated the development of a mini-grid project at the Vametco mining and processing facility in South Africa. The new mini-grid will be able to deliver roughly 1 MW of power to the facility. This is the largest permissible size without a generation licence, under current regulations. The mini-grid will consist of solar PV generation paired with a 1 MW/4 MWh VRFB and will feed electricity directly into the mine's internal distribution network. The project is structured on an unsubsidised, commercial basis using a

mixture of equity and project finance. It promises to be the first of such projects anywhere in Africa, showcasing the commercial viability of both renewable energy and VRFB energy storage technologies.

The project will provide significant benefits to the mine, including:

- Reducing overall demand from the South African power grid during the day and peak periods in the mornings and evenings. The benefit to the mine is a reduction in its electricity tariffs due to lower consumption at the most expensive times of the day. The benefit to the South African power system will be lower demand during times when the power system is most constrained. VRFB technology is ideally suited for such applications, as it will be charged and discharged, or cycled, twice per day to meet both the multi-hour morning and evening peaks of South Africa's power system;
- Increasing the amount of clean energy consumed by the mine and reducing its and Bushveld Minerals' carbon footprint. By using long-duration VRFB technology,

additional solar energy can be generated and stored during the day for discharge after sundown; and

- Reducing the mine's reliance on grid power and increasing its ability in the future to self-generate during load shedding or other instances of grid interruptions.

While the mini-grid will supply at most eight per cent of the mine's energy consumption at any one time, the project will demonstrate the technical and commercial capability of hybrid mini-grids using solar PV and VRFB technology, which are unmatched in their ability to deliver long-duration storage and cycle multiple times per day. The project could be scaled up further to provide a larger amount of energy in future. It could be replicated at other grid-connected sites. The design can also be used at off-grid sites to replace more expensive and environmentally-unfriendly thermal generation such as diesel and heavy fuel oil.



Other Non-Core Interests

Additional investments in Coal & Power and Tin

COAL-LEMUR HOLDINGS

Lemur is wholly-owned subsidiary of Bushveld Minerals focused on coal projects. Lemur's flagship project is the Imaloto coal project, located in southwest Madagascar. It consists of four exploration permits and one mining and exploitation permit covering a total area of approximately 81.25 km².

The Imaloto coal project is an integrated coal-fired power project consisting of a 136 Mt coal mine, a 60 MW power plant and a new transmission line of over 250 km, developed in parallel as one of Madagascar's leading independent power producers. The power plant is scalable from 60 MW and the transmission line is expandable up to 500 km.

The Imaloto Power Project has a total of 136 Mt JORC-compliant mineral resources, of which 92 Mt is in the measured and indicated category. In addition to a fully executed mining exploitation license, Lemur has two exploration permits covering a combined 87.5 km² in close proximity to the Imaloto Power Project. Since 2008, Lemur has invested in excess of US\$10 million on developing the project.

From a geographical location and development phase perspective, the Imaloto Power Project is perfectly positioned to address the persistent power supply challenges that Madagascar faces as a country, particularly in the least developed but mineral-rich southern region. The southern region currently does not have a power grid and is almost entirely electrified by isolated generators, with a combined capacity of no more than 20 MW.

The Imaloto thermal coal fired power station will be located next to the coal mine, thereby providing a captive market for the Imaloto Power Project RoM coal and unlocking the intrinsic value in the underlying project.

In addition to substantially increasing the generation capacity in Madagascar, the initial 60 MW capacity of the Imaloto Power Project will create the basis for a power grid for the southern region.

Since a technical cooperation agreement was signed Sinohydro in 2017, Sinohydro has completed the BFS for both the power plant and the transmission line. Our studies to date indicate that the Imaloto Power Project tariffs will be more aligned with international benchmark tariffs of newly-built power plants in the sub-Saharan African region. These tariffs are substantially lower than the current electricity supply in Madagascar, which retails at between US\$0.25/kWh and US\$0.50/kWh.

In addition to the development co-operation agreement with Sinohydro, Lemur has secured a 30-year Independent Power Producer concession from the government of Madagascar. Lemur has also concluded a 30-year Power Purchase Agreement for an initial 25 MW from JIRAMA, the state-owned utility.

Apart from JIRAMA, Lemur is concurrently in discussions with various private mining and industrial companies for potential offtake from the power plant.

The Company is in advanced discussions with a number of mining and services companies regarding strategic partnerships in contract mining and coal processing services.

The plant commissioning date is expected in 2022, subject to approvals and financial close on approximately US\$200 million of funding.

THE PQ IRON & TITANIUM PROJECT

The PQ Iron & Titanium Project ("PQ Project") is a multi-commodity project based on the same licence area as Mokopane, located 45 km north-northwest of Mokopane town in Limpopo Province, South Africa. The PQ Project has a JORC-compliant Inferred and Indicated Mineral Resource of 955 Mt with an average grade of 33.7 per cent Fe and significant TiO₂ (over 18 per cent TiO₂ in magnetite concentrates). The project boasts some of the highest in-magnetite grades of titanium in the world and could be developed as a titanium and pig iron project in the long run, depending on the evolution of low capital-intensive methods for processing the ore. To this end, the Company is following with interest advances in metallurgical processing used for similar deposits and exploring

partnerships with technology partners. No further work is planned on the project at this stage. Bushveld Minerals owns an effective controlling interest of 64 per cent.

THE PQ PHOSPHATE PROJECT

The PQ Phosphate Project immediately overlies the iron ore and titanium resource of the PQ Project. The Company reported on 3 June 2014 a maiden phosphate resource statement for the PQ deposit of 442 Mt, with average phosphate grades of 3.6 per cent P₂O₅. Although the grades are low, the PQ Phosphate deposit is in the immediate hanging wall of the PQ Project and would be mined concurrently with the stripping of the latter. Of particular interest is that laboratory-scale test work has shown that 37 per cent P₂O₅ concentrate grades are achievable from this deposit.

Progress to date has been limited to understanding the economic parameters necessary for success and how the project can be configured in line with the Company's approach towards developing projects. No further work is planned on this project while the Company advances its vanadium platform. Bushveld Minerals owns an effective controlling interest of 64 per cent.

AFRITIN MINING LIMITED

The Company holds a 9.50 per cent shareholding in AIM-listed AfriTin Mining Limited, an African Mining company with a portfolio of near-production tin assets in Namibia and South Africa, which was demerged from Bushveld Minerals in November 2017.

Sustainability Report

Creating a Safe and Responsible Operating Environment.

Bushveld Minerals believes in building and maintaining meaningful partnerships with its multiple stakeholders including the communities in which our operations are based. Our interest is to ensure that the local communities see meaningful, sustainable upliftment from our commercial activities.

“Bushveld Minerals is committed to the principles of Sustainability, empowerment, transparency and sustainable practices. Bushveld Minerals has commenced development of a comprehensive Sustainability programme and report to ensure that all key stakeholders contribute to the sustainability plans that the Company plans to adopt.”



At Bushveld Minerals, we recognise that the well-being of our employees and communities is vital for our long-term success, and we intend to build on the foundations already put in place in the operating assets we have acquired over the past two years.

We are determined to make our operations sustainable. This includes ensuring our employees enjoy a healthy and safe working environment, operating in an environmentally and socially responsible manner, and adding value to all stakeholders.

Bushveld Minerals' long-term sustainability is supported by three pillars:

1. Health and Safety;
2. Environmental Management; and
3. Socio-Economic Development.

Bushveld Minerals has developed a Community Stakeholder Engagement Strategy which is the blueprint for building relationships with our host communities and land owners in areas where we operate.

To date, all the community and landowner stakeholders in Bushveld Vametco have been identified. Monthly stakeholder meetings are scheduled to ensure continuous engagement.

Vametco plans to conduct a socio-economic baseline assessment to profile its host communities so as to understand their needs and work towards addressing them in partnership with the relevant authorities.

Vametco is embarking on an EIA for its expansion project. The updated EIA will enable the operation to develop a comprehensive environmental management plan for the future.

Bushveld Vametco plans to start the process of developing and implementing the ISO 14001:2015 Environmental Management System to align the environmental management of its operations with international standards.

Sustainability Report continued

1. HEALTH AND SAFETY

Vametco had zero fatalities in 2018 and achieved a safety milestone of 5, 375, 848 man-hours worked without recording a lost-time injury, the last lost-time injury was recorded in November 2013. We intend to work hard to maintain this record.

The Department of Mineral Resources' Mine Health and Safety inspectors made no major findings against us in 2018 and all action plans were implemented.

Our guiding principle is zero tolerance to deviations from safety regulations, whether by our own employees or contractors. We aim to instil a work culture based on behavioural management that views safety and health as of paramount importance.

Training is directed at making sure our employees not only work responsibly for their own sakes, but to look out for their colleagues' health and safety, too. Our safety drive entails visible leadership and behavioural change coaching, inspections and training programmes which are conducted on site by both management and employees.

We believe that measuring ourselves against industry-leading practices and implementing good safety and health systems and conditions will keep us in the forefront of health and safety in the industry.

No occupational medical cases or claims were recorded in 2018. We conducted a health wellness programme for all contractors and employees, which included voluntary testing for HIV, high blood pressure, sugar diabetes and cholesterol.

2. ENVIRONMENTAL MANAGEMENT

Bushveld Minerals' environment stewardship is guided by the EMPs that it is required to develop before beginning any mining and processing activities. The EMPs identify and address environmental impacts that could occur during the exploration, mining and mine closure phases. Incorporated within the EMP are reports and plans to address water management, land management, waste management (non-hazardous and hazardous materials), air quality management, energy consumption and greenhouse gas emissions.

Our objective is to align our activities with international standards, including those of the International Finance Corporation and ISO 14001:2015, which lays out guidelines and requirements for how an environmental management system should operate to achieve continual improvement. We are targeting ISO 14001 certification by the third quarter of 2020.

Annual environmental performance assessment audits are conducted by an external environmental specialist and by regulatory authorities to assess the level of compliance with the conditions of the EMP,



the mine's Environmental Authorisations and the Environmental Management Programme. Environmental legal compliance audits were also performed by an independent specialist. No major findings were reported from any of these audits and no environmental penalties were imposed by the regulatory authorities.

WATER MANAGEMENT

Vametco conducted internal and external IWUL audits in 2018.

We have an ongoing surface and groundwater monitoring programme. Sampling and analysis of various chemical constituents and groundwater level measurements are conducted on a monthly and quarterly basis, as required by the IWUL and South African National Standards drinking water quality standards, to ensure effective management of the water resources on site and in surrounding areas. We implement best practices for dirty and clean water management in the plant area.

Water quantity abstracted for production purposes was within the authorised quantities for consumption, with actual abstraction of 496,114 m³/p.a. for production purposes, against the water use license limit of 950,000 m³/p.a. One of the key elements of water management at Vametco is its recycling programme, which contributed 110,288 m³/p.a.

WASTE MANAGEMENT

In general, our waste management is centred around separation at source, recycling and reuse.

Vametco conducted internal and external audits for its Waste Management Licence in 2018. We will continue to evaluate and improve how we manage tailings at our operations and monitor our tailings storage facilities. Every year we conduct magnetite dump and slimes dam audits, with our objective being to identify and minimise or eliminate potential health, safety, environmental, social or business risks associated with Tailings Storage Facilities.

AIR QUALITY AND ENVIRONMENTAL DUST FALLOUT

The Bojanala District Municipality has granted Vametco an Atmospheric Emission Licence and we are dedicated to ensuring we comply with it. This include monitoring our stacks emissions and implementing management plans if they exceed the designated limits.

Bushveld Minerals embarked on the project to install an off-gas scrubber system in the plant in order to reduce dust emission.

In 2018, the dust fallout rates recorded at the monitoring sites at the fence boundaries were below the non-residential area standard of 1 200mg/m² per day. That means we comply with the South African National Dust Control Regulations, 2013.



Thickener for the Off Gas Scrubber Unit



Pollution Control Dam



Components of the Off Gas Scrubber Unit

Sustainability Report continued

BIODIVERSITY MANAGEMENT

Vametco conducts annual plant and animal assessments as part of the biodiversity impact assessment. This includes an Invader Species Eradication Programme, in which we employ people from the local community.

MINE REHABILITATION AND ENVIRONMENTAL LIABILITIES

A detailed environmental liability assessment has been conducted for Vametco. An appropriate financial provision for rehabilitation and closure is in place to cover the current and potential environmental impact of the operation, in line with National Environmental Management Act of 1998.

Concurrent rehabilitation is practiced where possible in order to minimize environmental impacts during operation and reduce the final environmental liability.

3. SOCIO-ECONOMIC DEVELOPMENT

Bushveld Minerals' vertically integrated approach to developing its projects ensures the total value proposition across a commodity's value chain is captured and identifies areas where it can develop a competitive edge in the market.

This approach is evident in the development of our vanadium platform, which not only mines and processes vanadium but is further extending this downstream into the production of vanadium electrolyte and the deployment of vanadium electrolyte-based energy storage systems. Consequently, we are developing the deepest downstream vanadium beneficiation capacity in South Africa. Not only does this present compelling commercial opportunity, it also has immense benefits for South Africa with greater levels of capital investment, the creation of more jobs, greater revenues (which translates into foreign exchange earnings), domestic procurement opportunities and greater tax revenues.

In Madagascar the Imaloto project, an integrated coal mine and power generation plant, will see the development of power generation and a 500 km power transmission infrastructure in a region that is power-starved. The project will mobilise over US\$200 million in foreign direct investment into the region, generate over US\$1 billion in revenue for the government over its life and add thousands of local job opportunities during construction and operation of the mine, power station and transmission network.

Our activities in energy storage will play a key role in the development of a significant energy

storage industry in South Africa. Bushveld has played a key role in the establishment of the South African Energy Storage Association which is playing a critical role in an emerging energy regulatory framework in South Africa, helping to shape it in ways that will promote South Africa as a leading player in the fulfilment of its green energy ambitions.

COMMUNITY STAKEHOLDER ENGAGEMENT

Bushveld seeks to maintain channels of communication with its local communities through regular forums in which local community leadership participates with Bushveld management. To further embed this discipline, the appointment of a permanent dedicated community stakeholder executive will be completed in the second quarter of 2019.

Bushveld believes in building and maintaining meaningful partnerships within the communities where our operations are based. We intend to ensure that the local communities enjoy sustainable economic upliftment from our commercial activities. We see our socio-economic role going beyond the creation of jobs and revenues for the country but also as an agent for transforming these communities.

In order to optimise this goal, Bushveld is to commission a Socio-Economic Baseline Assessment in 2019, the results of which will enable the Company to define the greatest needs in our surrounding communities and devise a community development strategy on how we, in partnership with other stakeholders, can play a catalytic role in the meaningful development of our community partners. This will inform our Community Engagement Strategy, in particular to target the following key areas:

- Education;
- Enterprise development; and
- Health care.

In line with our commitment to strengthen relations with local communities, the Company has, since taking over Vametco, sought to settle all outstanding obligations to local land-owners, in terms of legislation. These obligations comprise of historical royalty payments under the old mining laws of South Africa and on-going surface lease payments

In terms of the old mining laws in South Africa, Royalty payments obligations arose under the old mining laws in South Africa, which have since been replaced by the Minerals and Petroleum Resources Development Act of 2002, which replaced the royalty regime with

surface lease based compensation for land-owners on which mining and processing activities occur. Following this agreement, the Company paid a total of US\$765 thousand towards one of two community land-owners during the year 2018. This was in addition to US\$1.8 million paid during 2017. Efforts are underway to conclude agreements with the remaining land-co-owners. In our first year of controlling Vametco, we have managed to clear up approximately 90 per cent of five years' worth of accumulated obligations due to communities. We believe this is reflective of our commitment to building meaningful relationships with the communities.

In addition, the Company has undertaken several community development initiatives, including renovations of schools and health care clinics.

Bushveld already has several initiatives underway, which will be refined following the results of the baseline assessment:

A. THE PEO MATLAFATSO TRUST

The Peo Matlafatso Trust ("PMT Trust"), a development trust to benefit the broader community in proximity to Vametco, was established by Bushveld to house a shareholding of up to 12.5 per cent in the Vametco operations, that was structured as part of the BBBEE shareholding, at the time of the purchase of Vametco. This significant shareholding in Vametco, which represents considerable value, will be leveraged to develop a platform for economic participation by the Vametco's local communities. The appointment of appropriate Trustees and a professional execution team will be assembled to run the PMT Trust to achieve this goal.

B. PROCUREMENT, ENTERPRISE DEVELOPMENT AND SUPPLIER DEVELOPMENT

In 2018 Vametco spent a total of US\$51 million on procurement of goods and services. Of this, US\$27 million or 52.5 per cent was spent on BBBEE compliant companies within South Africa. This amount included spend applied in local community enterprise development projects and programmes established during the financial year.

Vametco maintains a database of empowerment businesses in the local communities to whom requests for quotations are sent out when the mine has need of goods or services. It ensures that a number of local companies are used to ensure the benefits are spread as widely as possible.

Bushveld intends to go beyond the Mining Charter's (associated with the Minerals and Petroleum Resources Development Act) BBBEE procurement requirements to maximise the value of cost-effective and reliable procurement of capital goods, consumables and services from companies owned, managed and controlled by BBBEE's within the communities affected by our operations. To achieve this the PMT Trust will be brought to bear to further develop procurement opportunities by Vametco from local community enterprises developed by the trust.

C. HUMAN RESOURCES DEVELOPMENT

Five main initiatives are under way to provide skills to the local community as follows:

1. Learnerships: This three-year salaried programme is offered to employees (under section 18.1 of the Skills Development Act) and previously unemployed members of the local community (under section 18.2). The section 18.2 opportunities are advertised within the community to young people with a minimum N2 certificate or matric. In 2017 Vametco had 10 learnerships under the 18.2 programme. In 2018 a further 15 youths were accepted for learnerships. A further 15 have been taken on in 2019. Training is being provided to qualify fitters, electricians, boilermakers and diesel mechanics. The students attend the Engineering Skills Training Centre Institute of Excellence, an artisanal college in Randfontein, Gauteng Province, for three months of the year and work at Vametco for the remaining nine months.

- 2. Internships:** This one year salaried programme is offered to people from local communities who have already acquired a qualification and are seeking for work experience. Vametco took on five interns in 2016, six in 2017 and 11 in 2018. This number exceeded the commitment set out in the social and labour plan. Bushveld has, at its head office, provided internships to persons with tertiary qualifications, including mining engineering, geology and environmental management.
- 3. Bursaries:** In 2018 Vametco awarded 26 bursaries (some of which were continuations of funding to bursary holders from 2017), the majority of which were to females, compared with 23 (12 to females) in 2017. Qualifications being pursued varied from medicine to accounting, engineering, IT, geology and pharmacology.
- 4. Portable skills:** Members of the local communities are taught to be dump truck operators, and offered basic welding, basic plumbing, basic bookkeeping and computer skills. In 2018, 100 members of the community attended these courses.
- 5. Adult Basic Education and Training:** Subject to places being available, Vametco has opened up its ABET courses to community members, free of charge.
- 6. Other community initiatives:** As part of poverty alleviation, Vametco has paid unemployed members of the four wards around the mines for useful services like cleaning, graveyard maintenance, fixing

potholes and schooling assistance. The company made general donations and also sponsored community sports events

EMPOWERMENT OF EMPLOYEES

Employees are important stakeholders in Bushveld achieving its operational goals. The following initiatives are being pursued to enhance employee participation and morale:

EMPLOYEE SHARE OWNERSHIP PARTICIPATION

Vametco is negotiating an ESOP with its employees which is aimed at closely aligning the interests of Vametco's workforce to its operational targets and meeting the requirements of the Mining Charter. The ESOP will involve the issuance of new BVH shares to a trust. Further updates and progress on the ESOP will be provided as appropriate.

EMPLOYEE FINANCIAL WELLNESS

Bushveld Minerals has developed an Employees Financial Wellness Programme to assist in improving the financial well-being of employees. A number of engagements with staff have been undertaken, where several common themes were identified:

- The average number of dependents per staff member is high, which is not uncommon in an area with high unemployment;
- The extent of financial stress amongst employees is high;
- Indebtedness begins through formal credit suppliers; and
- Increased indebtedness progressively reduces take-home pay, rendering it inadequate to cover monthly expenses. This forces individuals to resort to unregistered credit providers.

The approach to address these problems includes:

- Ensuring unions are involved and obtain their buy-in and cooperation;
- Undertake training to educate staff in the perils of high levels of indebtedness;
- Providing debt counselling and debt restructuring solutions; and
- Encouraging employees to use the recommended financial services provider to consolidate and reschedule debt, rather than informal unregistered credit providers.

To this end Vametco has contracted a financial services provider which specialises in personal financial planning, debt consolidation, debt counselling and provision of unsecured loans.



Principal Risks

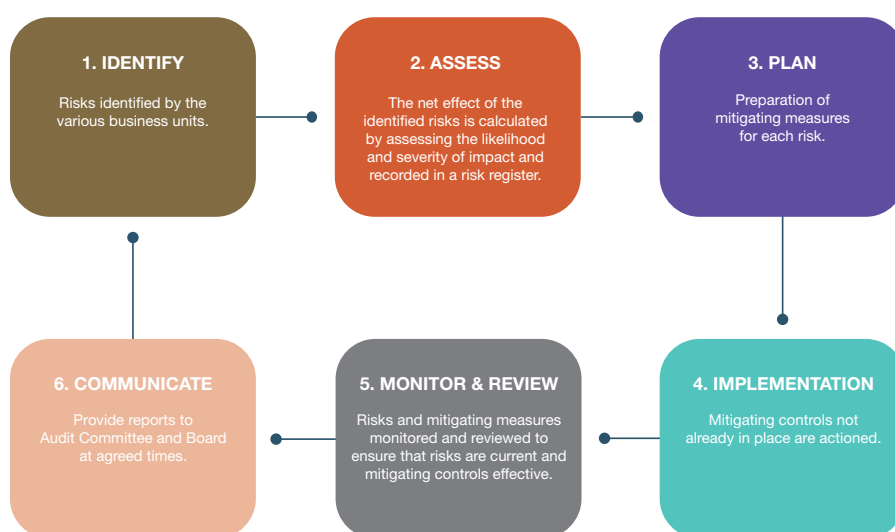
Managing risk is regarded as the responsibility of everyone in the Company, but the risk management philosophy and appetite is set and overseen by the Board and Audit Committee. The Company has a detailed risk register which incorporates mitigation measures, collated in conjunction with all areas of the business to understand the full spectrum of risks across the organisation. Across functions and subsidiaries, management imbues and enforces risk management practices and philosophy in daily operations and functions.

The risk management process is summarised in the illustration below:

The identified risks are classified into four categories – macroeconomic, strategic, financial and operational.

- **Macroeconomic** risks are largely beyond the Company's control but are managed as proactively as possible. They include the management of an evolving regulatory environment, along with volatile commodity prices and fluctuating exchange rates.
- **Strategic** risks are those that affect the Company's ability to deliver its strategic objectives, which include Bushveld's horizontal growth ambitions, its vertical integration strategy providing a natural hedge against vanadium price volatility, ensuring sustainable operations and attracting and retaining an experienced team with the required skills to grow the Company.
- **Financial** risks are managed and monitored proactively through a centralised treasury, capital allocation control, statement of financial position, access to funding and adherence to risk management and internal control policies. Maintaining financial sustainability in a challenging economy is critical.

RISK MANAGEMENT PROCESS



- **Operational** risks are controlled with hands-on management through approved processes and ongoing monitoring of performance against targets. Bushveld recognizes the importance of operating in a safe and healthy environment, supported by continuous, meaningful engagement with stakeholders affecting operations.

PRINCIPAL RISKS AND MITIGATION

Principal risk	Nature of risk	How we mitigate the risk
Macroeconomic		
Regulatory and legal	Mining rights and tenure security	<ul style="list-style-type: none"> – Ensuring compliance with the minimum BBBEE ownership requirements of the current Mining Charter, achieved through the sale of the one per cent equity stake in BVH. The transaction concluded on 27 September 2018 – Continuous monitoring of legislation to ensure compliance with all aspects of the Mining Charter – Regular monitoring of environmental and safety legislation, particularly in relation to reclamation, waste product disposal and other environmental protection issues – Engagement and cultivating good working relationships with regulators and stakeholders
	Not adhering to anti-bribery and anti-corruption legislation	<ul style="list-style-type: none"> – Anti-corruption and bribery policy in place – A culture of zero-tolerance towards corruption – Ongoing training and awareness
Financial	Volatile commodity and currency prices	<ul style="list-style-type: none"> – Adherence to treasury and financial risk management policies to ensure financial risk remains within board-approved limits – Focus on production costs to maximise margins and remain a low-cost producer – Majority of sales are US dollar based while costs are based in the currency of the country within which the group operates. The currency exposure is monitored on a regular basis and there is no intention to enter into a hedge arrangement
	Sovereign credit rating downgrades	<ul style="list-style-type: none"> – Strong financial position with US dollar revenue resulting in a rand hedge in the event of a ratings downgrade – Rand-denominated cost profiles

Principal risk	Nature of risk	How we mitigate the risk
Strategic		
	Declining resource and reserve base	<ul style="list-style-type: none"> – Currently securing a New Order Mining Right for Mokopane, one of the world's largest and high grade primary vanadium resources – Continued investment in exploration and reserve generation at Brits, a continuation of the Vametco resource – Actively identifying new exploration targets
	Geological reporting of quality and quantity of reserves	<ul style="list-style-type: none"> – Conducted an independent geological review and mine optimisation study which is being integrated into long term planning
	Inability to attract and retain staff	<ul style="list-style-type: none"> – Conducted a detailed human resource analysis and put a recruitment strategy in place – Structured retention incentives – current, annual and long-term – Internal growth and career planning opportunities for employees
	Skills shortage	<ul style="list-style-type: none"> – Internships and learnerships in place – Bursary programme in place for tertiary students – Study support and training, to be informed by community baseline study being carried out
	Underperforming market expectations	<ul style="list-style-type: none"> – Regular market communication – Ensuring production guidance is communicated to the shareholders – Monitoring operational performance relative to analyst forecasts
	Stakeholder expectations	<ul style="list-style-type: none"> – Regular communication with unions – Ongoing communication with communities to ensure that local communities enjoy sustainable upliftment from Bushveld's commercial activities
Financial		
	Poor capital allocation decisions	<ul style="list-style-type: none"> – Capital allocation is based on stringent investment criteria and subject to Board oversight – Ensuring the required skills and experience are in place for decision-making
	Weak cash flow generation and excessive debt levels	<ul style="list-style-type: none"> – Continuous focus on improving of operational margins, both from a production improvement perspective and reduce costs – Standby facilities to be introduced in order to bridge any working capital deficits – Ensuring sufficient cash reserves are available
Operational		
Safety	Mine accidents	<ul style="list-style-type: none"> – Safety management policy and strategies in place, with zero tolerance applied if the rules are disregarded – Task observations conducted regularly to proactively identify deviations from safe operating procedures, provide coaching when necessary and reinforce good practices – Behaviour based safety training – Independent oversight by regulators
	Employees working in unhealthy workplace conditions	<ul style="list-style-type: none"> – Medical monitoring of occupational diseases – Regular medical examinations for all employees and contractors – Periodic monitoring of workplace conditions – Appropriate occupational health practices implemented
Operational	Strike actions	<ul style="list-style-type: none"> – Proactive engagement with representative unions – Appropriate remuneration practices and incentivisation through an Employee Share Ownership Programme – Compliance with all relevant South African labour legislation, including the Mining Charter
Environmental	Risk of environmental damage	<ul style="list-style-type: none"> – Environmental management programme in place – Rehabilitation guarantee in place to minimise and mitigate the environmental effects of mining – Pollution control and water catchment dams – Continuous training on and monitoring of environmental damage detection systems – Compliance with water-use license guidelines and requirements

Minerals Resources and Ore Reserves

Mineral Resources are the estimated quantities of material that have potential for eventual economic extraction from the Group's properties. Ore Reserves are a subset of Measured and/or Indicated Mineral Resources that can be demonstrated to be able to be economically and legally extracted.

Ore Reserves are declared for open pits inside the LoM pit design (the optimised pit shell in this instance), including diluting materials and allowances for losses, which may occur when the material is mined or extracted, and are defined by studies at Pre-Feasibility or Feasibility level, as appropriate, that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified (JORC, 2012). Ore Reserves are declared for in-situ tonnes in the pits and exclude any stockpiles. Economic assumptions used to estimate reserves change from period-to-period as additional technical and operational data is generated.

BUSHVELD VANADIUM RESOURCES AND RESERVES

The Resources and Reserves estimates are based on the competent person's statements prepared by an independent consultancy company, MSA Group as at 29th March 2019.

VAMETCO MINE

- Ore Reserves have more than doubled to 279,100 tonnes V_2O_5 in magnetite (previously 137,152 tonnes V_2O_5 in magnetite), notwithstanding production of approximately 5,700 metric tonnes of vanadium (between October 2017 and March 2019) while the grade has increased by 3 per cent to 2.02 per cent V_2O_5 (previously 1.96 per cent V_2O_5).
- Indicated Resources have increased by 187 per cent. to 965,900 tonnes of V_2O_5 in magnetite (previously 336,604 tonnes V_2O_5 in magnetite).
- The recently drilled holes added further confidence to the Mineral Resource resulting in a higher ratio of Indicated Mineral Resource to the Inferred Mineral Resources, constituting 75 per cent. of the Total Mineral Resource.
- Combined Inferred and Indicated Mineral Resource comprises 3 Seams (The Lower, Intermediate and Upper Seams) and is reported as 186.7 Mt at an average grade of 1.98 per cent V_2O_5 (in magnetite), with an average magnetite content of 35.0 per cent (in whole rock) for 719,300 tonnes of contained vanadium.
- Within this, the Ore Reserve in the Probable Category comprise 3 Seams (The Lower, Intermediate and Upper Seams) and is reported as 48.4 Mt at an average grade of 2.02 per cent V_2O_5 (in magnetite), with an average magnetite content of 28.5 per cent (in whole rock) for 156,300 tonnes of vanadium.
- The Lower Seam is the main ore seam and the thickest, ranging from 13.8 to 52 metres in thickness, comprising a Probable Reserve of 40.2 Mt at an average grade of 2.05 per cent V_2O_5 (in magnetite), with an average magnetite content of 29.4 per cent (in whole rock) for 135,600 tonnes of vanadium.
- The increase in the 2019 Mineral Resource by 31 per cent more tonnes than the 2017 estimate is primarily attributed to reporting the Mineral Resource to a maximum depth of 150m below the original land surface, versus 120m in 2017.
- A relatively higher grade in the 2019 estimate resulted from better definition of the mineralised units due to the recent drilling, which allowed the re-scrutinising of historical data. This, together with reporting the Mineral Resource at a cut-off grade of 20 per cent magnetite (previously no cut-off grade was applied), resulted in a higher-grade Mineral Resource than in 2017, particularly for the Upper Seam that is now defined as a layer of massive magnetite.
- The increase in the ore tonnages for the 2019 Ore Reserve estimate from 26.12 Mt to 48.43 Mt is due to the Mineral Resource definition work on the Intermediate and Upper Seams which resulted in reclassification to the Indicated category, resulting in the conversion of an additional 8.19 Mt of Ore Reserves within the selected pit design. The additional 14.11 Mt of Ore Reserves from the Lower Seam is due to the larger pit shell from a Whittle pit optimisation based on the overall improved economics.
- The magnetite content grade increase in the Ore Reserves from 26.8 per cent to 28.5 per cent is a direct result of the increase in magnetite content in the Mineral Resources. The impact of this translates to additional potential ore production and vanadium through the processing plant.

TABLE 1

Vametco Mineral Resource at a cut-off grade of 20% magnetite, 29 March 2019 – Gross Basis

Class	Seam name	Tonnes (Millions)	V ₂ O ₅ grade of whole rock %	Magnetite grade of whole rock %	V ₂ O ₅ grade in magnetite %	Tonnes V ₂ O ₅ in magnetite (Thousands)	Tonnes V in magnetite (Thousands)
Indicated	Upper	5.7	1.44	65.9	1.78	67.0	37.5
	Intermediate	28.7	0.68	32.7	1.91	179.2	100.4
	Lower	109.4	0.72	32.4	2.03	719.7	403.1
	Total	143.8	0.74	33.8	2.00	965.9	541.1
Inferred	Upper	10.5	1.46	63.5	1.75	116.3	65.1
	Intermediate	7.0	0.67	32.1	1.92	43.4	24.3
	Lower	25.4	0.74	31.3	2.00	158.5	88.8
	Total	42.9	0.90	39.3	1.92	318.2	178.2
Indicated and Inferred	Upper	16.2	1.45	64.3	1.76	183.3	102.7
	Intermediate	35.7	0.67	32.6	1.91	222.6	124.7
	Lower	134.8	0.72	32.1	2.03	878.2	491.9
	Total	186.7	0.78	35.0	1.98	1,284.1	719.3

Notes:

1. All tabulated data have been rounded and as a result minor computational errors may occur.
2. Mineral Resources which are not Ore Reserves have no demonstrated economic viability.
3. Mineral Resources are inclusive of Ore Reserves (not indicated in the table).
4. Magnetite content (grade) is determined as the proportion of magnetite concentrate recovered using Davis Tube methodology.
5. Due to the magnetite grade being a recovered grade, differences will occur between whole rock V₂O₅ grades back-calculated from concentrate, versus those derived from whole rock assays.
6. Depleted as at 29 March 2019.
7. Reported on a Gross Basis. Bushveld Minerals shareholding in Vametco Alloys is 74%.

TABLE 2

Vametco Mineral Resource at a cut-off grade of 20% magnetite, 29 March 2019 – Attributable Basis

Class	Seam name	Tonnes (Millions)	V ₂ O ₅ grade of whole rock %	Magnetite grade of whole rock %	V ₂ O ₅ grade in magnetite %	Tonnes V ₂ O ₅ in magnetite (Thousands)	Tonnes V in magnetite (Thousands)
Indicated	Upper	4.2	1.44	65.9	1.78	49.6	27.8
	Intermediate	21.2	0.68	32.7	1.91	132.6	74.3
	Lower	81.0	0.72	32.4	2.03	532.6	298.3
	Total	106.4	0.74	33.8	2.00	714.8	400.4
Inferred	Upper	7.7	1.46	63.5	1.75	86.1	48.2
	Intermediate	5.2	0.67	32.1	1.92	32.1	18.0
	Lower	18.8	0.74	31.3	2.00	117.3	65.7
	Total	31.7	0.90	39.3	1.92	235.4	131.9
Indicated and Inferred	Upper	12.0	1.45	64.3	1.76	135.6	76.0
	Intermediate	26.4	0.67	32.6	1.91	164.7	92.3
	Lower	99.7	0.72	32.1	2.03	649.8	364.0
	Total	138.1	0.78	35.0	1.98	950.2	532.3

Notes:

1. All tabulated data have been rounded and as a result minor computational errors may occur.
2. Mineral Resources which are not Ore Reserves have no demonstrated economic viability.
3. Mineral Resources are inclusive of Ore Reserves (not indicated in the table).
4. Magnetite content (grade) is determined as the proportion of magnetite concentrate recovered using Davis Tube methodology.
5. Due to the magnetite grade being a recovered grade, differences will occur between whole rock V₂O₅ grades back-calculated from concentrate, versus those derived from whole rock assays.
6. Depleted as at 29 March 2019.
7. Reported on an Attributable Basis. Bushveld Minerals shareholding in Vametco Alloys is 74%.

Minerals Resources and Ore Reserves continued

TABLE 3

Vametco Ore Reserves, 29 March 2019 – Gross Basis

Class	Seam Name	Tonnes (Millions)	V ₂ O ₅ grade of whole rock %	Magnetite grade of whole rock %	V ₂ O ₅ grade in magnetite %	Tonnes V ₂ O ₅ in magnetite (Thousands)	Tonnes V in magnetite (Thousands)
Probable	Upper	1.0	0.58	27.3	1.78	4.6	2.6
	Intermediate	7.2	0.53	23.7	1.89	32.3	18.1
	Lower	40.2	0.63	29.4	2.05	242.1	135.6
	Total	48.4	0.62	28.5	2.02	279.1	156.3

Notes:

1. All tabulated data have been rounded and as a result minor computational errors may occur.
2. Ore Reserve tonnes and grades reported on dry ROM (plant feed) basis after mining modifying factors have been applied but before beneficiation down-stream recoveries/ losses have been applied
3. Reporting was prepared on a Mineral Resource model developed by MSA
4. Ore Reserve tonnes depleted as at 29 March 2019.
5. Reported on a Gross Basis. Bushveld Minerals shareholding in Vametco Alloys is 74%.

TABLE 4

Vametco Ore Reserves, 29 March 2019 – Attributable Basis

Class	Seam Name	Tonnes (Millions)	V ₂ O ₅ grade of whole rock %	Magnetite grade of whole rock %	V ₂ O ₅ grade in magnetite %	Tonnes V ₂ O ₅ in magnetite (Thousands)	Tonnes V in magnetite (Thousands)
Probable	Upper	0.7	0.58	27.3	1.78	3.4	1.9
	Intermediate	5.4	0.53	23.7	1.89	23.9	13.4
	Lower	29.8	0.63	29.4	2.05	179.2	100.3
	Total	35.8	0.62	28.5	2.02	206.5	115.6

Notes:

1. All tabulated data have been rounded and as a result minor computational errors may occur.
2. Ore Reserve tonnes and grades reported on dry ROM (plant feed) basis after mining modifying factors have been applied but before beneficiation down-stream recoveries/ losses have been applied
3. Reporting was prepared on a Mineral Resource model developed by MSA
4. Ore Reserve tonnes depleted as at 29 March 2019.
5. Reported on an Attributable Basis. Bushveld Minerals shareholding in Vametco Alloys is 74%.

MOKOPANE RESOURCES AND RESERVES

The Mokopane has a 298 Mt JORC-compliant Resource, including 28.5 Mt Reserves and a weighted average V_2O_5 grade of 1.41 per cent in-situ and 1.75 per cent in magnetite.

TABLE 5

MML and MML HW Mineral Resources at a 0.30% V_2O_5 cut-off, ≤ 120 m depth, as at 15 October 2017

Layer Name	Mineral Resource Category	Width (m)	Tonnes (Mt ¹)	Density (t/m ³)	V_2O_5 (%)	Fe (%)	Fe_2O_3 (%)	TiO_2 (%)	SiO_2^* (%)	$Al_2O_3^*$ (%)	$P_2O_5^*$ (%)	S* (%)	V_2O_5 (%)	Fe (%)
UG-C	Inferred	4.04	31.8	3.48	0.64	25.7	36.7	5.9	30.2	15.4	0.01	0.12	202.8	8.2
UG-A	Inferred	1.64	12.7	3.31	0.59	23.2	33.1	5.3	32.5	17.5	0.01	0.01	75.6	3.0
UMG1	Inferred	3.24	25.5	3.30	0.59	22.9	32.7	5.4	32.6	17.6	0.01	0.01	150.4	5.8
UMG2	Inferred	2.03	15.7	3.40	0.69	25.9	37.0	6.2	29.4	16.7	0.01	0.01	107.7	4.1
MAG1 HW														
GAB**	Inferred	17.53	72.3	3.02	0.31	13.1	18.8	2.9	42.0	21.9	0.01	0.12	223.3	9.5
MAG1	Inferred	1.31	12.0	3.96	1.07	40.0	57.1	9.7	15.6	10.8	0.01	0.06	128.7	4.8
MAG2	Inferred	1.10	9.2	3.57	0.83	30.2	43.1	7.2	25.1	15.1	0.01	0.06	76.3	2.8
MML HW	Inferred	5.89	42.3	3.01	0.32	13.4	19.2	2.5	42.2	21.6	0.02	0.11	136.0	5.7
Total	Inferred	36.77	221.5	3.21	0.50	19.8	28.3	4.4	35.7	18.9	0.01	0.08	1,100.8	43.8
MAG3	Indicated	4.09	27.5	4.08	1.50	45.5	65.1	10.0	10.6	7.8	0.01	0.12	412.5	12.5
PART	Indicated	2.16	11.4	3.16	0.58	20.9	29.9	3.5	34.5	19.0	0.01	0.17	66.3	2.4
MAG4	Indicated	3.59	24.3	4.00	1.46	43.9	62.7	9.3	11.8	8.9	0.01	0.24	354.9	10.7
Total	Indicated	9.84	63.2	3.85	1.32	40.4	57.8	8.6	15.4	10.2	0.01	0.18	833.7	25.6
Total Mineral Resources³		46.61	284.8	3.33	0.68	24.4	34.8	5.4	31.2	17.0	0.01	0.10	1,934.5	69.4

Notes:

1. Mt = million tonnes.

2. kt = thousand tonnes.

3. Rounding may cause computational errors.

* Included for information purposes only, no value will be derived from these materials.

** A 0.30 per cent V_2O_5 cut-off has been applied laterally across this layer, so only material > 0.30 per cent V_2O_5 is included in the tonnage listed in this table.

TABLE 6

MML Probable Ore Reserves as at 19 January 2016

Orebody	True thickness (m)	SG (t/m ³)	Tonnes (million)	V_2O_5 (%)
MML Upper, MAG 3	4.09	4.08	15.3	1.425
MML Lower, MAG 4	3.59	4.00	13.2	1.387
*Total/Average	7.68	4.04	28.5	1.41

TABLE 7

AB Zone Mineral Resource at 0.3% V_2O_5 cut-off, ≤ 120 m vertical depth, as at 15 October 2017

Layer	Category	Tonnes (millions)	Thickness ¹ (metres)	Density t/m ³	V_2O_5 %	Fe_2O_3 %	TiO_2 %	P_2O_5 %	SiO_2 %	Al_2O_3 %	MgO %	CaO %	Cu ppm
Upper AB	Inferred	2.7	1.93	3.29	0.89	34.7	5.41	0.01	30.3	17.1	1.05	6.54	466
AB Parting	Inferred	3.7	2.86	3.07	0.48	20.9	2.98	0.01	40.0	19.7	1.93	9.29	47
Lower AB	Inferred	6.0	4.51	3.21	0.75	29.1	4.32	0.01	34.6	18.6	1.29	7.52	33
Total	Inferred	12.5	9.30	3.18	0.70	27.9	4.16	0.01	35.3	18.6	1.43	7.83	132

Note:

1. Refers to stratigraphic thickness.

Minerals Resources and Ore Reserves continued

LEMUR HOLDINGS RESOURCES

The Resources estimates are based on the competent person's report prepared by Sumsare Consulting Group CC at 30 November 2017.

TABLE 8

Category	Gross			Net attributable (99%)			Operator
	Raw coal quality (ADB)			Raw coal quality (ADB)			
	Tonnes (Mt)	Ash (%)	CV (MJ/Kg)	Tonnes (Mt)	Ash (%)	CV (MJ/Kg)	
Coal resource per asset							
Measured	91.613	32.5	19.62	90.697	32.5	19.62	Lemur Holdings
Indicated	31.497	35.7	18.14	31.182	35.7	18.14	
Inferred	12.627	34.4	18.80	12.501	34.4	18.80	
Sub-total	135.737	33.4	19.20	134.380	33.4	19.20	
Total	135.737	33.4	19.20	134.380	33.4	19.20	

PQ IRON & TITANIUM PROJECT RESOURCES AND RESERVES

The PQ Iron and Titanium Project has total Mineral Resources of 955 Mt at an average grade of 33.7 per cent Fe and 10.8 per cent TiO₂ as per the tables below. The Resources and Reserves estimates are based on the competent person's report prepared by MSA Group as at 15 October 2017.

TABLE 9

N-Q Zone (Weathered+Unweathered) Indicated Mineral Resource <200 m depth, as at 8 March 2013

Layer	Million tonnes	SG (g/cm ³)	Fe (%)	Fe ₂ O ₃ (%)	Fe metal millions tonnes	TiO ₂ (%)	V ₂ O ₅ (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P ₂ O ₅ (%)	S (%)
Q3	138.63	3.61	31.7	45.5	43.99	10.2	0.13	25.2	9.9	0.06	0.40
Q2	81.17	4.01	41.9	59.1	34	15.2	0.28	12.6	6.5	0.02	0.27
Q1	26.36	3.59	32.5	45.6	8.58	10.5	0.28	22.3	9.9	0.02	0.27
PMAG	34.44	3.62	32.4	45.4	11.15	10.1	0.29	21.3	10.5	0.03	0.80
PFWDISS*	67.28	3.38	26.9	38.5	18.13	7.1	0.22	30.1	12.8	0.03	0.33
OMAG*	2.63	4.00	37.2	53.2	0.98	11.1	0.49	18.5	7.9	1.01	0.12
NMAG	4.58	4.41	48.7	69.6	2.23	16.0	0.56	6.9	5.3	0.03	0.11
Total	355.09	3.67	33.51	47.65	119.06	10.85	0.22	22.37	9.66	0.05	0.38

* Layer reported at a 35 per cent Fe₂O₃ cut-off; no geological losses applied.

TABLE 10

N-Q Zone (Unweathered) Inferred Mineral Resource, 200 m to 400 m depth, as at 8 March 2013

Layer	Million Tonnes	SG (g/cm ³)	Fe (%)	Fe ₂ O ₃ (%)	Fe Metal Millions tonnes	TiO ₂ (%)	V ₂ O ₅ (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P ₂ O ₅ (%)	S (%)
Q3	139.03	3.59	30.2	43.3	42.05	8.80	0.09	28.3	10.3	0.13	0.61
Q2	92.64	3.99	40.2	57.5	37.27	14.10	0.23	15.3	7.6	0.02	0.55
Q1	23.42	3.64	32.7	46.8	7.66	10.80	0.27	22.2	10.6	0.02	0.36
PMAG	38.28	3.58	30.6	43.7	11.70	9.80	0.26	23.5	11.5	0.04	0.74
PFWDISS*	76.51	3.37	26.8	38.3	20.49	6.90	0.21	30.2	12.8	0.03	0.43
OMAG*	1.87	3.77	32.4	46.3	0.61	9.5	0.4	23.1	10.4	0.02	0.10
NMAG	7.22	4.32	46.3	66.2	3.34	15.6	0.49	8.3	5.8	0.02	0.14
Total	378.97	3.66	32.47	46.47	123.12	10.07	0.19	24.24	10.20	0.06	0.55

* Layer reported at a 35 per cent Fe₂O₃ cut-off; no geological losses applied.**TABLE 11**PQ Zone Inferred Mineral Resource, <300m vertical depth at a 35% Fe₂O₃ cut-off for the farms Schoonoord 786LR and Bellevue 808LR, as at 28 February 2014

Layer Name	Tonnes million	Density t/m ³	Fe %	Fe ₂ O ₃ %	Fe metal millions tonnes	TiO ₂ %	V ₂ O ₅ %	SiO ₂ %	Al ₂ O ₃ %	P ₂ O ₅ %	S %
Q3	75.3	3.77	34.3	49.1	25.82	10.5	0.10	23.0	9.4	0.28	0.55
Q2	85.5	4.14	42.6	60.9	36.40	14.9	0.26	13.1	6.9	0.03	0.50
Q1	13.1	3.82	36.4	52.1	4.76	12.2	0.30	19.1	9.8	0.03	0.46
PMAG	19.7	3.52	27.6	39.5	5.45	8.3	0.23	29.1	12.4	0.06	1.00
PFWDISS*	27.3	3.45	27.8	39.8	7.60	8.0	0.22	28.3	12.9	0.06	0.55
Total¹	220.8	3.85	36.2	51.9	80.03	11.8	0.2	20.1	9.2	0.12	0.57

Notes:

1. Total = All tabulated data has been rounded and as a result minor computational errors may occur.

* Layer reported at a 35 per cent Fe₂O₃ cut-off; no geological losses applied.**THE PQ PHOSPHATE PROJECT MINERALS RESOURCES**

The PQ Phosphate Project has Inferred Mineral Resources of 442 Mt at 3.6 per cent P₂O₅ as per the table below. Figures are based on the competent person's report prepared by MSA Group as at 15 October 2017.

TABLE 12Summary of the Phosphate Zone Resource at a 3% P₂O₅ cut-off for the farms Vliegekraal 783LR, Malokong 784LR, Schoonoord 786LR and Bellevue 808LR, as at 12 April 2014

Farm	Tonnes millions	P ₂ O ₅ %	Fe ₂ O ₃ %	S %	SiO ₂ %	CaO %	Density g/cm ³
Vliegekraal	330.0	3.6	32.1	0.39	34.0	9.1	3.30
Malokong	1.8	3.2	35.5	0.37	35.4	8.6	3.27
Schoonoord	104.9	3.6	34.1	0.40	33.0	8.8	3.37
Bellevue	5.0	3.6	34.4	0.42	33.3	8.9	3.36
Total¹	441.6	3.6	32.6	0.39	33.7	9.0	3.32

Note:

1. All tabulated data has been rounded and as a result minor computational errors may occur.

Board of Directors



Ian Watson (76)

Non-executive Chairman
since March 2012

Ian trained as a mining engineer and has considerable experience in the South African mining sector. He is a professional engineer and a member of the Engineering Council of South Africa. His 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.

Board Committee Membership

Chairman of the Disclosure and Nomination Committees and a member of the Remuneration Committee.



Fortune Mojapelo (43)

Chief Executive Officer
since March 2012

Fortune is a mining entrepreneur and founding shareholder of VM Investment Company (Proprietary) Ltd, a principal investment and advisory company focusing on mining projects in Africa. He has played a leading role in the origination, establishment and project development of several junior mining companies in Africa. Fortune graduated from the University of Cape Town with a BSc (Actuarial Science). He was previously at McKinsey & Company where he worked as a strategy consultant on corporate strategy and organisational development in several sectors in South Africa and Nigeria.

Board Committee Membership

Member of the Disclosure and Nomination Committee.



Geoff Sproule (77)

Financial Director
since March 2012

Geoff is a chartered accountant with experience spanning over 40 years in numerous financial management roles. Prior to joining Bushveld Minerals, Geoff was a partner at Deloitte and Touche.



Anthony Viljoen (42)

Appointed Non-executive Director
in November 2017

Anthony is a mining entrepreneur and founding shareholder and director of VM Investment Company (Proprietary) Ltd, a principal investment and advisory company focusing on mining. He has been involved in the establishment and project development of a number of junior mining companies across Africa. Anthony graduated from the University of Natal with a Bachelor of Business and Agricultural Economics and a Postgraduate Diploma in Finance Banking and Investment Management. Anthony is currently the CEO of AfriTin Mining Limited and previously worked at Deutsche Bank, Barclays Capital in London and Loita Capital Partners. Board Committee Membership: member of the Audit Committee.

Board Committee Membership

Member of the Audit Committee.



Jeremy Friedlander (64)

Non-executive Director
since March 2012

Jeremy has a BA LLB from the University of Cape Town and practiced as an attorney after completing his articles in Cape Town. He joined Old Mutual as a legal advisor and in 1993 established McCreedy Friedlander, which became one of the premier property agencies in South Africa and negotiated an association with Savills. In 1998 he listed McCreedy Friedlander as part of a financial services group on the Johannesburg Stock Exchange and shortly afterwards relocated to London. In the United Kingdom, Jeremy has been involved in a number of property transactions. More recently Jeremy was a director of Onslow Resources (oil and gas in Namibia and Yemen). He is business development director of a number of Avana companies involved in uranium, coal, gold, oil and gas and industrial minerals. During the past six years, he has been involved in the establishment of a number of natural resource projects, predominantly in Africa and South America.

Board Committee Membership

Member of the Audit, Disclosure and Remuneration Committees.



Michael Kirkwood (72)

Senior Non-executive Director
since April 2018

Michael is currently chairman of corporate advisory firm Ondra LLP and also serves on the Board of AngloGold Ashanti Limited. Previously he was chairman of Circle Holdings plc (2011-2017) and has served on the boards of UK Financial Investments (2009-2014), Eros International plc (2012-2014), Kidde plc (2000-2005) and as Deputy Chairman of the PricewaterhouseCoopers Advisory Board (2008-2011). Michael retired in 2008 after a distinguished 31-year career with Citigroup, latterly as UK chairman. In his early career he worked at HSBC and subsequently in Asia with the Ralli-Bowater Group. During his career Michael has held appointments as president of the Chartered Institute of Bankers, deputy chairman of the British Bankers Association, and as inaugural chairman of British-American Business, among several other honorary appointments in the financial services sector. He was appointed a Companion of the Order of St Michael and St George ("CMG") in the Queen's Birthday Honours in 2003. Michael is a graduate of Stanford University in California.

Board Committee Membership

Chairman of the Audit and Remuneration Committees and a member of the Nomination Committee.

Executive Management Team



Fortune Mojapelo (43)

Chief Executive Officer
since March 2012

(Biography on page 50)

Geoff Sproule (77)

Financial Director
since March 2012

(Biography on page 50)

Bertina Symonds (52)

General Manager of
Vametco since April 2019

Bertina has over 20 years' experience in mining and beneficiation. She is a former General Manager of the Nkomati Nickel Mine owned by Johannesburg Stock Exchange-listed African Rainbow Minerals Ltd, a role she has filled since 2015. Bertina has a strong leadership, production and commercial background and a solid track record in general management, stakeholder engagement and operations improvement. Bertina has held a range of other senior positions within Nkomati including Head of Department of Concentrate Production and Concentrate Production Manager.

She holds a BSc Honours in Chemistry from Rand Afrikaans University (now the University of Johannesburg) and a Master of Business Leadership from the University of South Africa.

Mikhail Nikomarov (38)

Chief Executive Officer
of Bushveld Energy since
April 2015

Mikhail is an entrepreneur and African energy leader committed to resolving the continent's electricity shortage. He co-founded Bushveld Energy to provide large-scale energy storage solutions across the African continent. Working with numerous partners, the company is also localising manufacture of VRFBs in South Africa. Previously, Mikhail spent six and a half 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. He co-authored McKinsey & Company's report "Brighter Africa: the growth potential of the sub-Saharan electricity sector". Mikhail has also worked as commercial banker in the United States. He currently serves as the Chairman of the Board of the South African Energy Storage Association and chairs the Energy Storage Committee for Vanitec, the global association of vanadium producers. He holds an MBA from INSEAD, a diploma in Economics from the London School of Economics and two undergraduate degrees in History and in Economics from the University of Massachusetts.

Technical Advisors



Prince Nyati (41)

Chief Executive Officer of Lemur Holdings since November 2017

Prince has over 15 years' experience in energy and mining, with a particular focus on project development and mergers and acquisitions. He has worked in several countries including Zambia, South Africa, India, Singapore and the US for companies including Shell Oil, Total Petrochemicals, Eskom, Tata Power and Oreport. As group head of Tata Power, Prince evaluated over 100 coal assets and over 50 power opportunities in 30 countries. He served on the Board of Directors at Cennerg and the Tsitsikamma and Amakhala Wind Projects. He has led the development of numerous infrastructure projects in sub-Saharan Africa and facilitated transactions worth approximately US\$1.5 billion in Zambia and South Africa. Prince holds a BA from the University of Zambia and an MBA in Corporate Finance from the University of Houston.



Professor Morris Viljoen (78)

Morris has more than 30 years' experience in the mining industry following a role with JCI in base metals (including nickel, copper antimony, gold and platinum) exploration and mining in southern Africa and as consulting geologist for Rustenburg Platinum Mines (part of Anglo American Platinum Limited). He has held the position of Professor of Mining Geology at the University of Witwatersrand for the last 13 years and established the Centre for Applied Mining and Exploration Geology, which has identified and developed mineral projects including the Amalia and Blaaubank lode gold deposits, the Akanani/Afri Ore Platinum Project and the Uramin Uranium Project.



Professor Richard Viljoen (78)

Richard 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 Leeudoom 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. He has also completed a number of competent person's reports for projects including the Witwatersrand South Reef project, Doornkop mine project and the Uramin uranium project.

Directors' Report

The Directors of Bushveld Minerals Limited hereby present their report together with the consolidated financial statements for the period ended 31 December 2018.

PRINCIPAL ACTIVITIES, BUSINESS REVIEW AND FUTURE DEVELOPMENTS

Bushveld Minerals is a low-cost, vertically integrated primary vanadium producer with a diversified vanadium product portfolio, supplying approximately 3,000 mtVp.a. of the global vanadium market from Vametco.

Through Bushveld Energy, the Company's energy storage solutions provider, the Company plays a pivotal role in the development and promotion of Vanadium Redox Flow Battery ("VRFB") technology within the growing global energy storage market. The Group also has interests in an integrated thermal coal mining and independent power producer project in Madagascar.

Bushveld Minerals is the holding company of several companies and the group structure is described in Note 1 of the financial statements.

Reviews of the Group's financial and operational performance and future developments are provided in the Chairman's Statement and CEO's review on page 17 and 19 respectively.

RESULTS AND DIVIDEND

The Group's results show a profit before tax for the year of US\$86.6m (2017: loss of US\$0.9m). The Company recognises that while its value proposition to shareholders is primarily of a capital growth nature, in 2019 the Board has approved the establishment of a dividend policy based on a free cash flow pay-out ratio, reflecting Bushveld Mineral's commitment to shareholder return in a sustainable manner while prioritising its stated growth strategy.

SHARE CAPITAL AND FUNDING

Full details of the authorised and issued share capital, together with details of the movements in the Company's issued share capital during the year, are shown in note 25. The Company has one class of ordinary shares which carry no right to fixed income. Each share carries the right to one vote at general meetings of the Company.

DIRECTORS

The Directors who served the Company since 1 January 2018 are as follows:

Fortune Mojapelo	Chief Executive Officer
Geoffrey Sproule	Chief Financial Officer
Anthony Viljoen	Non-Executive Director
Ian Watson	Chairman and Non-Executive Director
Jeremy Friedlander	Non-Executive Director
Michael J. Kirkwood	Senior Non-Executive Director (appointed 1 April 2018)

DIRECTORS' INTEREST

The Directors' beneficial interests in the shares of the Company at 31 December 2018 were:

	Ordinary shares of 1p each 31 December 2018	Ordinary shares of 1p each 31 December 2017
Fortune Mojapelo	16,660,000	9,660,000
Geoffrey Sproule	1,500,000	1,500,000
Anthony Viljoen	16,826,667	9,826,667
Ian Watson	3,555,000	540,000
Jeremy Friedlander	1,050,000	–
Michael J. Kirkwood	300,000	300,000

None of the Directors have been awarded share options of the Company since inception to 31 December 2018.

DIRECTORS' INDEMNITY INSURANCE

The Group has maintained insurance throughout the year for its Directors and officers against the consequences of actions brought against them in relation to their duties for the Group.

EMPLOYEE INVOLVEMENT POLICIES

The Group places considerable value on the awareness and involvement of its employees in the Group's exploration and development activities. Within bounds of commercial confidentiality, information is disseminated to all levels of staff about matters that affect the progress of the Group, and that are of interest and concern to them as employees.

CREDITORS' PAYMENT POLICY AND PRACTICE

The group's policy is to ensure that, in the absence of dispute, all suppliers are dealt with in accordance with its standard payment policy to abide by the terms of payment agreed with suppliers when agreeing the terms of each transaction. Suppliers are made aware of the terms of payment.

RELATED PARTY TRANSACTIONS

Details of related party transactions are detailed in note 35 to the financial statements.

EVENTS AFTER THE REPORTING DATE

Events after the reporting date are detailed in note 36 to the financial statements.

STATEMENT AS TO DISCLOSURE OF INFORMATION TO AUDITOR

The Directors who were in office on the date of approval of these financial statements have confirmed that, as far as they are aware, there is no relevant audit information of which the auditor is unaware. Each of the Directors have confirmed that they have taken all the steps that they ought to have taken as Directors in order to make themselves aware of any relevant audit information and to establish that it has been communicated to the auditor.

AUDITOR

The Company's auditor is RSM UK Audit LLP.

ELECTRONIC COMMUNICATIONS

The maintenance and integrity of the Group's website is the responsibility of the Directors, the work carried out by the auditor does not involve consideration of these matters and accordingly, the auditor accepts no responsibility for any changes that may have occurred to the financial statements since they were initially presented on the website.

The Group's website is maintained in compliance with AIM Rule 26.

By order of the Board

G N SPROULE

Director

22 May 2019

Statement of Directors' Responsibilities

The Directors are responsible for preparing the Directors' Report and the financial statements in accordance with applicable law and regulations.

Guernsey company law requires the Directors to prepare group financial statements for each financial year in accordance with generally accepted accounting principles. The Directors are required by the AIM Rules of the London Stock Exchange to prepare group financial statements in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union ("EU").

The financial statements of the Group are required by law to give a true and fair view of the state of the group's affairs at the end of the financial year and of the profit or loss of the Group and are required by IFRS as adopted by the EU to fairly present the financial position and performance of the Group.

The Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and of the profit or loss of the Group for that year.

In preparing the Group financial statements, the Directors are required to:

- i. select suitable accounting policies and then apply them consistently;
- ii. make judgements and accounting estimates that are reasonable and prudent;
- iii. state whether they have been prepared in accordance with IFRS as adopted by the EU; and
- iv. prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Group's transactions, and disclose with reasonable accuracy at any time, the financial position of the Group and enable them to ensure that the financial statements comply with applicable law. They are also responsible for safeguarding the assets of the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Group's website. Legislation in Guernsey governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The Directors confirm they have discharged their responsibilities as noted above.

Corporate Governance Report

The Board collectively recognises and believes that a high standard of corporate governance is of paramount importance to continue to deliver the Company's strategy, create long-term value and maintain our licence to operate. In accordance with the updated AIM Rules requiring all AIM-listed companies to adopt and comply with a recognised corporate governance code with effect from 28 September 2018, the Company elected to adopt and comply with the QCA Corporate Governance Code ("QCA Code"), which is most suited to Bushveld's needs and size.

The Company's website includes a Corporate Governance Statement that explains how the 10 principles of the QCA Code are applied by Bushveld, and, where the Company departs from the QCA Code, an explanation of the reasons for doing so is provided. This can be found at: <http://www.bushveldminerals.com/corporate-governance/>.

This Annual Report further details below how Bushveld is applying the QCA Code and how it supports Bushveld's medium- to long-term success. The QCA Code is clear that companies need to deliver growth in long-term shareholder value and that this requires an efficient, effective and dynamic management framework, which should be accompanied by good communication which helps to promote confidence and trust.

PRINCIPLE 1

ESTABLISH A STRATEGY AND BUSINESS MODEL WHICH PROMOTES LONG-TERM VALUE FOR INVESTORS

Bushveld Minerals is a low-cost, vertically integrated primary vanadium producer, with ownership of high-grade assets, supplying approximately three per cent of the global vanadium market. Bushveld Minerals is also involved in the development and promotion of VRFBs in the growing global energy storage market through Bushveld Energy, the Company's energy storage solutions provider.

Bushveld Minerals' vision is to grow into one of the world's most significant, lowest-cost and most vertically integrated companies, comprising low cost primary vanadium production, electrolyte manufacturing as well as development and deployment of VRFBs in the energy markets.

The overriding objective of the Board is to direct the business to ongoing success and deliver long-term shareholder value. To achieve this, an efficient and effective management framework is required, coupled with clear communication which promotes confidence and trust. Bushveld Minerals' strategy and compelling investment case are outlined on page 10 of this report.

There are inevitable challenges in the execution of a Company's strategy. Bushveld Minerals takes an active approach towards addressing those which have been identified, specifically:

- **Production growth:** the Company's strategy is to grow production nameplate capacity to 10,000 mtVp.a. in the medium term. The challenge is how to achieve this growth while creating the most value and highest returns. The Group will prioritise the options that create the most value;
- **Cost:** part of the Bushveld Minerals strategy is to ensure its assets can generate cash through every phase of the commodity cycle. The Company's flagship asset, Vametco, is one of the lowest-cost primary producers and is positioned in the first quartile of the cost curve. Vanchem shows the potential for first quartile positioning. Our target is to be the lowest-cost producer throughout the cycle, and we are confident that the productivity initiatives we are targeting will help us achieve further cost efficiencies;
- **Human capital:** Bushveld Minerals has over the years attracted a highly experienced team with multi-disciplinary skills which shares the Company's long-term vision. We are aware of the potential impact of losing a key member of the team. The Company's remuneration structure has recently been modified to ensure that management and employees share in the successes of Bushveld Minerals, which management and the Board believe will assist in retaining key skills. In addition to this, the Company recently developed a new operating model for the Group, stemming from which the recruitment drive is premised on. In addition to this, leadership bench strength assessments have been undertaken to inform development plans for company leadership;
- **Financial resources:** key to achieving the Company's stated objectives is understanding the capital requirement implications of its strategy and how that capital will be funded. Bushveld Minerals will continue to be as innovative as possible in raising capital, as the successful acquisition of Vametco showed, with equity, debt, own cash flows and strategic partnerships all being considered; and
- **Stakeholders and the communities:** Bushveld Minerals is committed to building its business and strategy in a way that ensures stakeholders and the communities in which it operates benefit from and are involved in the Company's operations. Our interest is to ensure that the local communities enjoy meaningful, sustainable upliftment from our commercial activities. To mitigate and prevent community and employee unrest the Company constantly engages with local communities and employees to better understand their expectations and build on its existing positive relationship.

While the Company's focus is on the vanadium platform, it has additional investments in an integrated coal mining and power generation project in Madagascar, through its wholly-owned subsidiary Lemur Holdings, and a 9.50 per cent shareholding in AIM-listed AfriTin Mining Limited.

Corporate Governance Report continued

PRINCIPLE 2

SEEK TO UNDERSTAND AND MEET SHAREHOLDER NEEDS AND EXPECTATIONS

The Board is committed to providing effective communication with shareholders and attaches great importance to delivering clear and transparent information on the Company's activities and strategy.

The Bushveld Minerals Investor Relations team is dedicated to communicating the Bushveld Minerals value proposition to both institutional and private investors, as well as the broader market. This is successfully achieved through active engagement with investors, research analysts and journalists via a combination of quarterly investor roadshows, proprietary webinars, attendance at conferences focused on the mining and energy storage sectors and engagement with selective media.

The Board views the Annual General Meeting ("AGM") as the main forum for communicating directly with retail investors. Notice of the AGM is sent to shareholders at least 21 days before the meeting and the event is attended by the directors, either in person or via teleconference, who are available to answer questions raised by shareholders. At the AGM, various resolutions are proposed and voted on by the shareholders, either by attending the meeting or appointing a proxy to vote on their behalf if unable to attend in person. The results of the voting are released as soon as practicable after the AGM has closed.

Significant developments and quarterly operational updates for each of Bushveld's operating divisions are disseminated through stock exchange announcements via RNS and can be found on the Company's website at: <http://www.bushveldminerals.com/regulatory-news-rns/>. The website also has a wealth of information for existing and potential shareholders, including a corporate video, project descriptions, investor presentations, financial and technical reports, analyst research and certain shareholder information.

Any shareholder enquiries can be directed to: info@bushveldminerals.com.

PRINCIPLE 3

TAKE INTO ACCOUNT WIDER STAKEHOLDER AND SOCIAL RESPONSIBILITIES AND THEIR IMPLICATIONS FOR LONG-TERM SUCCESS SUSTAINABILITY

Bushveld Minerals believes in building and maintaining meaningful partnerships with its multiple stakeholders, including the communities in which our operations are based. Our interest is to ensure that the local communities enjoy meaningful, sustainable upliftment from our commercial activities. Our Sustainability Report can be found on page 37.

PRINCIPLE 4

EMBED EFFECTIVE RISK MANAGEMENT, CONSIDERING BOTH OPPORTUNITIES AND THREATS, THROUGHOUT THE ORGANISATION

The Board has primary responsibility for establishing and maintaining the Company's internal controls and risk management systems, which are designed to meet the particular needs of the Company and the risks to which it is exposed. The responsibility of reviewing the adequacy and effectiveness of these controls and risk management systems has been delegated to the Audit Committee. While the Board is aware that no system can provide absolute assurance against material misstatement or loss, in view of increased activity and further development of the Company, continuing reviews of internal controls are undertaken to ensure that they are adequate and effective.

Internal control procedures consist, inter alia, of regulating expenditure through authorisation limits approved by the Board; any transactions requiring detailed proposals having to be submitted to the Board for approval, along with additional controls relating to key stages within transactions, including transaction adviser approvals, signatures to transaction documentation and payment release.

To manage the risks that are inherent in the exploration and development of the Company's natural resource projects, we have conducted a detailed analysis, together with mitigation measures. The risks and uncertainties that are described on page 42 are the material risk factors which could impact the Company's ability to deliver on our long-term strategic objectives. As such, we have put significant effort into analysing these risks and putting in place initiatives to manage them.

The Board considers that the frequency of Board meetings and the level of detail presented to the Board for its consideration in relation to the operations of the Company provide an appropriate process to identify, evaluate and manage significant risks relevant to its operations on a continuous basis. This is coupled with the reports received from the Company's external, independent auditor, via the Audit Committee, on the state of its internal controls and whether any perceived gaps in the control environment require remedial action.

2018 Market Engagement Timeline



Roadshows

London	January
London	March
London	May
London	July
H1 2018 Results, London	October
H1 2018 Results, New York	October
London	November



Industry Expert Call

UBS	June
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Webinars

Vanadium 101	May
Energy Storage 101	November



Reporting

Q1 Operational Updates	April
Q2 Operational Updates	July
H1 2018 Results	September
FY 2017 Results	June
Q3 Operational Updates	October
Q4 Operational Updates	February 2019



AGM

August



Conferences

Mining Indaba, Cape Town	February
121 Mining Investment, Cape Town	February
Africa Energy Indaba, Johannesburg	February
27th BMO Global Metals & Mining – Hollywood, Florida	February
Power & Electricity World Africa, Johannesburg	March
Metal Bulletin Asian Ferroalloys	March
Vanitec, Hong Kong	April
121 Mining Investment, London	May
Ai CEO Infrastructure Project Developers Summit & Awards: Mauritius	June
CRU Ryan's Notes Ferroalloys, Orlando Florida	October
SA Energy Conference, Johannesburg	October
SA Investment Conference, Johannesburg	October
Renewable Metals Connect, London	November
Natural Resources Forum, London	November
Mines & Money London	November
Mello – Private Investor Event, London	November

Corporate Governance Report continued

PRINCIPLE 5

MAINTAINING THE BOARD AS A WELL-BALANCED, FUNCTIONING TEAM LED BY THE CHAIR

The overriding objective of the Bushveld Minerals' Board is to direct the business to ongoing success and deliver long-term shareholder value. In order to achieve this an efficient and effective management framework is required, coupled with clear communication which promotes confidence and trust.

The Board currently consists of a Non-Executive Chairman, two executive directors (the Chief Executive Officer and the Finance Director) and three Non-Executive Directors. The Chairman and two of the non-executive directors are deemed to be independent, with one of the non-executive directors, Mr Michael Kirkwood, having been appointed as Senior Independent Director. The Board is satisfied that it has achieved suitable balance between independence, on the one hand, and knowledge of the Company on the other, enabling it to discharge its duties effectively. Biographies and details of the committees of which each of the directors is a member are on pages 50 and 51.

The Board holds formal quarterly meetings and meets outside those events as and when required. The Executive Directors work full-time for the Company and the expectation is that the Non-executive Directors will spend 30 days per annum on work for the Company. This includes attendance at Board meetings, the AGM, meetings with shareholders, meetings forming part of the Board evaluation process and site visits.

The Board met five times during the year ended 31 December 2018 with the following attendance:

Ian Watson	5
Fortune Mojapelo	5
Geoff Sproule	4
Michael Kirkwood	5
Jeremy Friedlander	5
Anthony Viljoen	4

The Board is supported by Audit, Remuneration, Nomination and Disclosure Committees that include the necessary skills and knowledge to discharge their duties and responsibilities effectively.

PRINCIPLE 6

ENSURE THAT THE DIRECTORS POOL THE NECESSARY UP-TO-DATE EXPERIENCE, SKILLS AND CAPABILITIES

The Directors of Bushveld Minerals have been appointed to the Company because of the skills and experience they offer and their personal qualities and capabilities. Full biographical details of the Directors are included on pages 50 and 51, which gives an indication of their breadth of skills and experience. The Board can also engage independent advisors should the need arise.

The Board is determined to ensure that it continues to have the right balance of directors. This is a continuous process, with the Board and Nomination Committee regularly reviewing the composition of the Board to ensure that it has the necessary breadth and depth of skills to support the ongoing strategy of Bushveld Minerals. In addition to this, at least one third directors retire by rotation and offer themselves for re-election, which is voted on by shareholders at the AGM.

Mr Geoff Sproule will be stepping down from the Board as Finance Director during the course of 2019 and a search for his replacement has begun in earnest. Suitable candidates have been identified and discussions have begun.

PRINCIPLE 7

EVALUATE BOARD PERFORMANCE BASED ON CLEAR AND RELEVANT OBJECTIVES, SEEKING CONTINUOUS IMPROVEMENT

The Board recognises the importance of regularly reviewing the effectiveness of its performance and the ability of the members to work together to achieve the Company's objectives, as well as that of its committees and the individual directors.

Responsibility for assessing and monitoring the performance of the executive directors lies with the independent non-executive directors, using key performance indicators. Agreed personal objectives and targets, including financial and non-financial metrics, are set each year and performance measured against those metrics. Further detail can be found in our Remuneration Report on page 63.

The Chairman and the committees will be evaluated by the non-executive directors, with due consideration given to the views of the executive directors.

The Board as a whole evaluates its own performance and will, via the newly-formed Nomination Committee, consider the need for the periodic refreshing of its membership. Succession planning is being considered by the Nomination Committee.

PRINCIPLE 8**PROMOTE A CORPORATE CULTURE THAT IS BASED ON ETHICAL VALUES AND BEHAVIOURS**

In building a strong governance framework, we have aimed to ensure that ethical values and behaviours are embedded within the culture of Bushveld Minerals.

All directors and employees are bound by a confidentiality agreement that forms part of their service agreements or employment contracts, as the case may be. In addition, the Company has the following policies in place:

ANTI-CORRUPTION AND BRIBERY POLICY

It is the Company's policy to conduct all of its business in an honest and ethical manner. We take a zero-tolerance approach to bribery and corruption and are committed to acting professionally, fairly and with integrity in all business dealings and relationships wherever we operate.

SHARE DEALING POLICY

The Company has adopted a policy for dealing in its shares, which incorporates all obligations under both Rule 21 of the AIM Rules for Companies and article 19 of the Market Abuse Regulations ("MAR").

The policy explains the circumstances in which shares in the Company can be bought or sold by directors and relevant employees, along with the requirements and procedures that have to be followed when dealing in the Company's shares. In addition to this, the Company has a Memorandum on Inside Information providing additional information on applicable laws and possible sanctions, market abuse provisions and communication requirements.

The Company has compiled the applicable registers of insiders, directors, PDMRs, PCAs and applicable employees as required by MAR.

SOCIAL MEDIA POLICY

This policy is in place to minimise the risks to the Company through use of social media and applies for business purposes as well as personal use that may affect the Company's business in any way.

PRINCIPLE 9**MAINTAIN GOVERNANCE STRUCTURES AND PROCESSES THAT ARE FIT FOR PURPOSE AND SUPPORT GOOD DECISION MAKING BY THE BOARD**

The Board's role is to provide strategic leadership to the Company within a framework of prudent and effective controls enabling risk to be assessed and managed.

Matters reserved for the attention of the Board include, inter alia:

- Board membership and powers, including the appointment and removal of Board members, determining the terms of reference of the Board and establishing the overall control framework;
- Management structure and appointments;
- Key commercial matters, including the approval of the budget and financial plans, changes to the Company's capital structure, the Company's business strategy, acquisitions and disposals of businesses and capital expenditure;
- The approval of financial statements, dividends and significant changes in accounting practices; and
- Stock exchange-related issues including the approval of the Company's announcements and communications with both shareholders and the stock exchange.

The Board is supported by committees that have the necessary skills and knowledge to discharge their duties and responsibilities effectively. These committees consist of non-executive directors and descriptions of the various committees are provided below.

AUDIT COMMITTEE

The Audit Committee has responsibility for monitoring the integrity of the financial statements of the Company, including its annual and half yearly reports, interim management statements, preliminary results announcements and any other announcements relating to financial performance before they are presented to the Board for approval. In addition to this, its duties include reviewing and reporting on the Company's internal financial controls and risk management systems.

The Audit Committee is responsible for recommending the appointment of the auditors and reviewing and monitoring their independence and objectivity. The Committee has unrestricted access to the auditors.

Meetings are held at least three times a year at appropriate intervals in the financial reporting and audit cycle, and as otherwise required.

Corporate Governance Report continued

PRINCIPLE 9 CONTINUED

REMUNERATION COMMITTEE

The Remuneration Committee determines the framework for the remuneration of the Company's Chairman and executive directors and as appropriate, other senior management, including pension entitlements, share option schemes and other benefits.

Remuneration of non-executive directors is a matter for the Board. No director or senior manager is involved in any decisions on their own remuneration.

DISCLOSURE COMMITTEE

The purpose of the Disclosure Committee is oversight of the implementation of the governance and procedures associated with the assessment, control, and disclosure of inside information in relation to the Company.

NOMINATION COMMITTEE

The Nomination Committee is responsible for reviewing the structure, size and composition of the Board, making recommendations to the Board with regard to any changes, succession planning for directors and senior management, preparing a description of the role and capabilities required for a particular appointment and nominating candidates to fill Board positions as and when they arise. The Committee also makes recommendations to the Board concerning membership of the Audit and Remuneration Committees, in consultation with the Chairman of each of those committees.

PRINCIPLE 10

COMMUNICATE HOW THE COMPANY IS GOVERNED AND IS PERFORMING BY MAINTAINING A DIALOGUE WITH SHAREHOLDERS AND OTHER RELEVANT STAKEHOLDERS

The Board is committed to providing effective communication with shareholders and attaches great importance to delivering clear and transparent information on the Company's strategy, activities and results.

Results of the AGM, significant developments and quarterly operational updates are disseminated through stock exchange announcements via RNS and can be found on the Company's website at <http://www.bushveldminerals.com/regulatory-news-rns/>.

The Company's website has a wealth of corporate information, including a corporate video, project descriptions, investor presentations, financial and technical reports, analyst research and certain shareholder information.

The Head of Investor Relations is the primary point of contact for shareholders and plays a key part in encouraging shareholder interaction and listening to feedback.

Any shareholder enquiries can be directed to info@bushveldminerals.com.

Remuneration Report

PART 1: BACKGROUND STATEMENT FROM THE CHAIRMAN

The Remuneration Committee (the “Committee”) was established by the Bushveld Minerals Board (“Board”) to act as the Remuneration Committee of the Group and its subsidiaries (the “Group”). The Committee is responsible for and oversees the governance of all Group remuneration matters. It is specifically responsible for determining the individual remuneration of its directors (executive and non-executive) and senior executives. To fulfil its responsibilities, the Committee is required to:

- oversee the establishment of a remuneration policy that will promote the achievement of strategic objectives, encourage individual performance and support Bushveld’s long-term interests. The final approval of the policy rests with the Board;
- determine the remuneration framework applicable to executives of Bushveld Minerals; and
- review the Group’s remuneration strategy and its implementation on an annual basis.

The remuneration committee engaged successfully with management throughout the year. It balanced the goals of retaining and attracting talent across the business with the need to keep a close eye on costs, address the legacy pay gap across the organisation and put in place a remuneration framework to ensure clear line of sight between performance, remuneration and key strategic objectives.

After completing and settling all historical compensation matters, the Committee could lay a foundation for the adequate alignment of Group remuneration practices with the Company’s strategy and market practice. We employed the services of PricewaterhouseCoopers (“PwC”), an independent professional services firm with a global remuneration practice, to assist us to design a comprehensive remuneration framework that is competitive and affordable as well as in line with market best practice. PwC worked with the Committee and completed the design of the Group remuneration framework. The framework includes a remuneration policy and Group short-term and long-term incentive schemes. During this period the Committee delivered the following:

- A new remuneration policy and incentive scheme (for both short- and long-term incentives) were put in place;
- Review of non-executive director fees;
- Market correction and restructuring of all employees’ total guaranteed packages; and
- Enhanced transparency and disclosure in this remuneration report, to align it more closely with best practice reporting.

FAIR AND RESPONSIBLE REMUNERATION

We addressed the issue of fair and responsible remuneration of employees across the Group to ensure that remuneration is externally comparable and internally equitable. In designing all new remuneration structures, we took steps to ensure that executive remuneration is justifiable in the context of overall employee remuneration. It is the Committee’s mandate, on an ongoing basis, to monitor fair and responsible remuneration by:

- investigating and assessing the internal pay disparities within the Group;
- examining the underlying reasons for pay disparities, if any; and
- assessing pay conditions between employees at the same level/doing the same job, in line with the principle of equal pay for work of equal value.

In striving to be a responsible corporate citizen, Bushveld Minerals continuously considers initiatives to enforce the principle of fair and responsible remuneration and improve the employment conditions of all its employees. Bushveld Minerals reserves the right to adopt progressive measures to address identified pay disparities, as it considers necessary from time to time.

PART TWO: REMUNERATION POLICY

1.1. GENERAL REMUNERATION POLICY

The Group remuneration policy is intended to help Bushveld Minerals attract, motivate and retain high-performing individuals. It guides decision-making on all aspects of remuneration and supports the execution of the key strategic deliverables contained in the Group’s performance framework.

The policy applies to Bushveld Minerals’ head office employees, Bushveld Energy and Lemur. Employees of Bushveld Vametco Alloys are excluded at this stage, but the Committee plans to roll out the policy to all subsidiaries where it makes sense, taking into account existing contractual obligations, terms and conditions of employment. The remuneration policy is anchored on the following remuneration **philosophy statements**:

- encourage a culture that supports sustainable and entrepreneurial business growth, by making appropriate individual and Group short- and long-term performance-related rewards that are fair and responsible;
- promote the achievement of strategic objectives within the organisation’s risk appetite;
- promote positive outcomes across the economic, social and environmental context in which the Group operates; and
- promote a culture of responsible corporate citizenship.

The policy conforms to best practice and is based on the following **principles**:

- remuneration practices are aligned with corporate strategy;
- remuneration must be fair and responsible;
- remuneration policy, principles and benchmarking approaches will be transparent;
- total guaranteed remuneration is primarily set between the lower quartile and the median of the relevant market;
- incentive-based rewards will be earned by achieving stretch performance targets consistent with shareholder interests over the short-, medium- and long-term;

Remuneration Report continued

- f. incentive plans, performance measures and targets are structured to operate effectively throughout the business cycle and include an overall cap; and
- g. the design of long-term incentives is prudent and does not expose shareholders to unreasonable financial risk.

The Bushveld Minerals remuneration structure combines fixed and variable pay. The fixed pay component is referred to as the total guaranteed pay (TGP) and the variable component includes the Group's short-term incentives (STI) and long-term incentives (LTI). The main objective of the TGP is to provide individuals with a fixed income, at a level that is in line with the market and aligned with the job that they do.

The variable pay component is performance-related. It is designed to reward superior performance and align the interests of executives and management with those of the shareholders over the medium- and long-term.

Below we summarise the policy as it applies to designated employees in the organisation (*exclusions as explained above*), together with the link to strategy.

Remuneration element	Policy
Total Guaranteed Pay, comprising of fixed cash salary plus benefits	
Policy	Our policy is to set TGP for all levels of staff between the lower quartile and median while the total package opportunity (including incentives) is set at the median or above when stretch targets are achieved.
Policy's link to Company strategy	Since the Group is still in a growth phase, the Committee has decided to set fixed pay for all employees between the lower quartile and the median.
Approach to benchmarking and salary adjustments	<p>For executive management, the benchmark is derived from listed companies with a similar profile to Bushveld Minerals. Other employees (outside bargaining forums) are benchmarked against the mining circle of PwC's REMchannel® Remuneration Survey.</p> <p>The total cost of annual increases for employees below executive management is approved by the Committee and set in accordance with expected market movement and affordability.</p> <p>Increases awarded to employees outside the bargaining forums is based on individual performance, inflation, internal equity, competence and potential. Increases occur annually in September.</p> <p>Annual increases are approved by the Remuneration Committee.</p>
Benefits	Benefits include a Retirement fund, Group Life Cover, Disability Benefit and Death Benefit.
Short-term incentive (STI)	
Purpose	<p>A new STI was designed in 2018 and will be implemented in 2019. The purpose of the STI is to align the interests of employees with those of shareholders over the short and medium-term.</p> <p>The STI is paid in cash and gives employees an incentive to achieve the Group's short and medium-term goals. Payments will be based on both business unit and individual performance, depending on the level of the employee.</p> <p>For certain employees, the STI is partly paid in cash (annual bonus) and partly deferred (deferred bonus). The deferred portion is paid as bonus awards under the LTI (as described below).</p>
Policy's link to Company strategy and performance measures	<p>The STI is designed to encourage and reward superior performance and align the interests of employees as closely as possible with the interests of the shareholders. Annual Group performance targets and measures are set and approved by the Board. After the annual Board strategy review, the Board will approve strategic focus areas for the current year. These will be set out in a Group performance balanced scorecard, showing on-target and stretch deliverables for the year. These would include measures such as:</p> <ul style="list-style-type: none"> - Consolidated Economic Profit - Group Strategic Priorities (As mandated by board) - Production Costs (Mining and Processing) - Production Volumes (Mining and Processing) - Normalised Revenue (Mining and Processing) - LTIFR, Community Development and Environmental Targets <p>Scheme participants with influence on Group financial targets and strategic priorities are allocated a split weighting between the Group performance targets and functional targets.</p>
Eligibility	All employees of BMN head office, Bushveld Energy and Lemur, as well as the General Manager of Vametco.

Remuneration element	Policy																				
Bonus formula	The STI operates as follows: <ul style="list-style-type: none"> – Qualifying Annual TGP x On-Target Incentive Percentage x (Personal Score x Personal Weighting) + (Business Score x Business Weighting) 																				
On-target incentive percentages	The on-target incentive percentages are determined per grade and expressed as a percentage of an employee's qualifying TGP. The on-target incentive percentages will be determined by the Remuneration Committee from time to time, informed by prevailing market trends. The following on-target incentive percentages as a percentage of TGP are received by executive management: <ul style="list-style-type: none"> – Chief Executive Officer – 45% paid as annual cash bonus + 28% deferred bonus – Chief Financial Officer – 45% paid as annual cash bonus + 28% deferred bonus – Other Executive Directors – 35% paid as annual cash bonus + 23% deferred bonus 																				
Performance measure weightings	A combination of financial and personal measures are used, each of which has an assigned weighting, depending on seniority. Executive performance is heavily weighted towards business performance to ensure executive and shareholder alignment. <ul style="list-style-type: none"> – Top Management: Business Weighting = 80%; Personal Weighting = 20% – Executive Team: Business Weighting = 70%; Personal Weighting = 30% 																				
Business performance measures and targets	As mentioned above, the business score will include a combination of financial and non-financial performance measures. The applicable targets and achievement of those targets will be disclosed on a retrospective basis once the STI has been implemented.																				
Personal performance measures and targets	The personal score will be dependent on the personal performance rating of the employee for the relevant financial year. KPI's are rated on a 1 to 5 scale. Individuals with a personal performance rating of less than 2.5 will not receive an STI for the year under review.																				
STI opportunity	Threshold, target and stretch performance levels are set for each performance target. No bonus is payable if threshold performance is not achieved. The on-target and stretch bonus levels for executive management are explained below under the heading "package design".																				
Deferral operation	For employees who hold jobs graded between Paterson Grades D and F, the STI is partly paid in cash (annual bonus) and partly deferred (deferred bonus). The deferred bonus will be paid as bonus awards under the LTI (as described below). The deferral is designed to further align management's short-term interests with those of the shareholders. The cash vs deferred on-target percentages are as follows: <table border="1" data-bbox="542 1187 1165 1433"> <thead> <tr> <th rowspan="2">Paterson Grade</th> <th colspan="2">On-target Bonus as a % of Qualifying TGP</th> </tr> <tr> <th>Annual Bonus</th> <th>Deferred Bonus</th> </tr> </thead> <tbody> <tr> <td>F2</td> <td>45%</td> <td>28%</td> </tr> <tr> <td>F1</td> <td>45%</td> <td>28%</td> </tr> <tr> <td>EU</td> <td>35%</td> <td>23%</td> </tr> <tr> <td>EL</td> <td>30%</td> <td>18%</td> </tr> <tr> <td>DU</td> <td>20%</td> <td>8%</td> </tr> </tbody> </table>	Paterson Grade	On-target Bonus as a % of Qualifying TGP		Annual Bonus	Deferred Bonus	F2	45%	28%	F1	45%	28%	EU	35%	23%	EL	30%	18%	DU	20%	8%
Paterson Grade	On-target Bonus as a % of Qualifying TGP																				
	Annual Bonus	Deferred Bonus																			
F2	45%	28%																			
F1	45%	28%																			
EU	35%	23%																			
EL	30%	18%																			
DU	20%	8%																			
Long-term incentive																					
Purpose	The purpose of the LTI is to align the interests of executives with those of shareholders over the long-term.																				
Policy's link to Company strategy	Long-term incentives are inherently retentive, but there are no schemes specifically in place for the sole purpose of retaining key employees. Through the delivery of real equity, employees will become shareholders in the company.																				
Nature of LTI	A new Conditional Share Plan ("CSP") was introduced in 2018 and will be implemented in 2019. Under the CSP eligible employees will receive conditional rights to shares. The following instruments are available: <ul style="list-style-type: none"> – Performance awards are subject to forward-looking Company performance conditions, measured over a three-year performance period. Awards will vest subject to the achievement of the performance measures and continued employment for the duration of a vesting period. – Bonus awards are based on an STI deferral and therefore subject to continued employment, but are not subject to forward-looking performance vesting conditions. 																				
Eligibility	Middle management and above.																				
Instruments and its application	A mix of performance and bonus awards will be paid. The policy applying to executive management is explained in the package design section below.																				

Remuneration Report continued

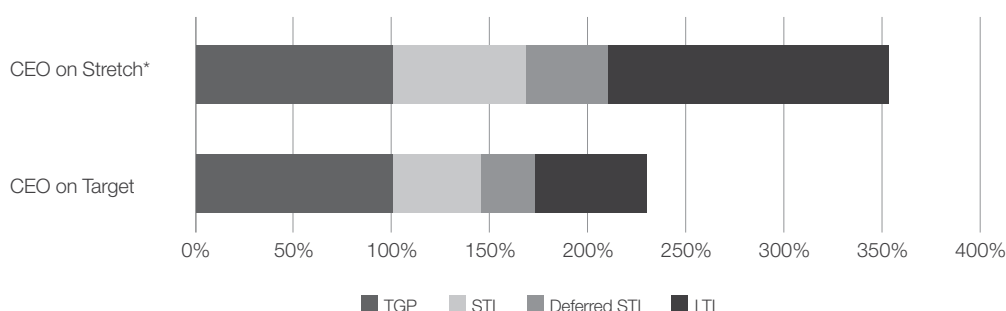
Remuneration element	Policy
Performance measures and period	<p>Performance awards are subject to performance measures over a three year period i.e. Total Shareholder Return and Free Cashflow Margin. To ensure Group alignment, all performance awards will be subject to Group performance measures.</p> <p>Applicable performance measures will be determined by the Committee each time an award is made and will be communicated to participants in the award letter. Once the CSP has been implemented, retrospective achievement against targets will be disclosed. The LTI targets include:</p> <ul style="list-style-type: none"> – Free Cashflow Margin – Total shareholder return (Absolute TSR)
Award levels	Intended on-target award levels are expressed as a percentage of TGP, as described in the “package design” section below.
Vesting levels	<p>Recognising that TGP is set between the lower quartile and median, the CSP will have an outperformance element in the case of superior performance, as follows:</p> <ul style="list-style-type: none"> – Threshold performance – 50% linear vesting – Target performance – 100% linear vesting – Stretch performance – 250% linear vesting
Vesting period	All awards are subject to a three-year vesting period, after which the shares will be paid. In addition, at the discretion of the Committee, 50% of vested shares will be subject to an additional two-year holding period, during which the shares cannot be disposed of. During the holding period the vested shares may also be subject to claw-back, as explained further below.
Dilution limit	No more than 5% of the company’s issued share capital can be utilised for purposes of the CSP.

PACKAGE DESIGN

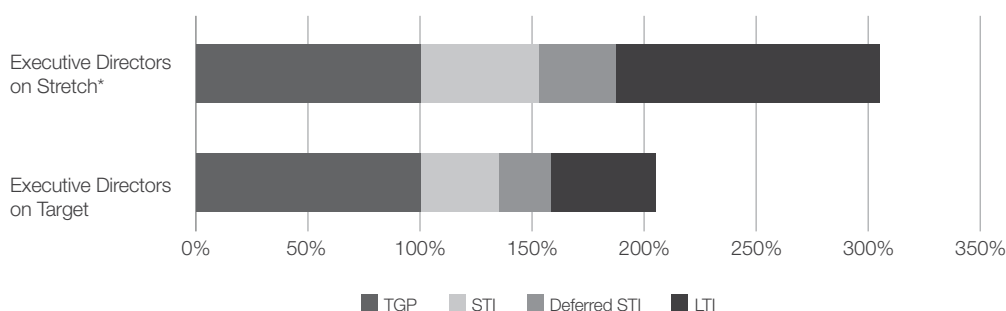
The remuneration policy is linked to our strategy and enables the achievement of the Group’s performance indicators by aligning compensation with performance. The structure of the remuneration package supports the Group’s strategic objectives and is made up of fixed and variable remuneration.

Under the terms of the policy, the mix between fixed pay, variable pay and performance outcomes (On target & Stretch for executive management) is as indicated in the graphs below as a percentage of Guaranteed Compensation:

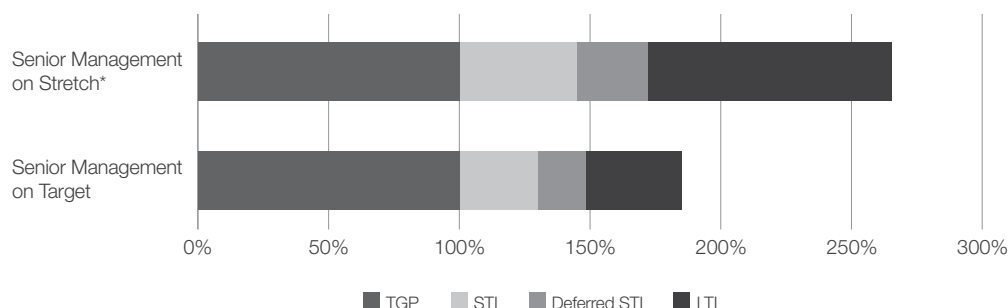
CEO AS % OF TGP



EDs AS % OF TGP



SENIOR MANAGEMENT AS % OF TGP



1.2 FURTHER DETAIL RELATING TO EXECUTIVE MANAGEMENT AND DIRECTORS

MINIMUM SHAREHOLDING REQUIREMENTS

To ensure further shareholder alignment, Executive Directors will be required to build up and maintain a percentage of their TGP in unencumbered Company shares over a three-year period from date of appointment. Such shareholding can be built up as desired by executives. Any existing shareholding as well as vested CSP shares (including those that are subject to the holding period) will be taken into consideration when calculating the shareholding percentage.

The required shareholding levels, as a percentage of TGP (before tax), are as follows:

- Chief Executive Officer 200%
- Chief Financial Officer 175%
- Other Executives 150%

MALUS AND CLAW-BACK POLICY

As a result of increased corporate governance requirements on executive remuneration, variable remuneration is subject to malus and claw-back. The purpose is to give the Board the discretion to recoup vested, settled and/or paid incentives (also referred to a “claw-back”) and to reduce and cancel any unvested and/or unpaid incentive remuneration (also referred to as “malus”) when trigger event(s) occur.

The policy may be implemented by the Board when there were material misstatements of financial results or other calculation errors that resulted in overpayment of incentives and gross misconduct on the part of the employee leading to dismissal. The policy applies to all variable pay as follows:

- Unpaid STI and unvested LTIs are subject to malus as a pre-vesting forfeiture provision.
- Paid STI and 50% of vested LTIs may be subject to claw-back as a post-vesting recoupment of paid and vested incentives.
- LTIs that are subject to a holding period will be subject to claw-back as follows: 25% can be clawed back for a one-year period post vesting and the final 25% for a two-year period post vesting.

EXECUTIVE EMPLOYMENT CONTRACTS

During this period the committee appointed ENS Africa, one of the largest independent law firms in South Africa, to review existing and draft new executive employment contracts that include restraint of trade provisions. All newly-appointed executives are engaged on the basis of the new contract and tied to a six-month restraint period.

The STI and LTI distinguish between fault and no-fault terminations, as follows:

STI & LTI

Fault termination (resignation and dismissal)	The incentive is forfeited
No-fault termination (termination due to death, ill-health, disability, retrenchment, sale of an employer, retirement)	A pro-rata portion of the incentive will be paid, based on the number of completed months in service. The unvested or unpaid portion will lapse

Remuneration Report continued

1.3 SHAREHOLDER ENGAGEMENT

Bushveld Minerals is committed to fair, responsible and transparent remuneration. It invites shareholders to engage with the Group on remuneration-related matters. In response to shareholder queries, where appropriate, the Board may resolve to alter relevant elements of the remuneration policy in line with market norms.

1.4 NON-EXECUTIVE DIRECTORS' FEES

Non-executive directors are appointed to the Bushveld Minerals Board based on their ability to contribute competence, insights and appropriate experience to assist the Group to set and achieve its objectives. Fees are set at levels designed to attract and retain the calibre of directors necessary to contribute to a highly effective board.

Non-executive directors do not participate in either the STI or LTI. No arrangements exist for compensation in respect of loss of office. The aggregate fees of all directors shall not exceed GBP500,000 per annum, or such higher amount as may be determined by ordinary resolution (excluding amounts payable under any other provisions of the Articles).

The Board approved an increase in non-executive directors' fees effective 1 September 2018 as outlined below:

Office	New Annual Board Member Fee USD	% Increase from prior year
Chairperson	95,460	88%
Non-Executive Director	50,912	60%
Senior Independent Director	63,640	25%

Before September 2018, no additional fees were paid to directors for chairing Board sub-committees. In August 2018 shareholders approved the increases disclosed above, as well as the fees shown below for senior independent directors and sub-committee chairpersons:

Office	New Annual committee member Fee
USD	
Senior Independent Director	12,728
Audit Committee Chairperson	6,364
Remuneration Committee Chairperson	6,364
Nomination Committee Chairperson	3,182
Disclosure Committee Chairperson	3,182
Additional fee per NED (Incl. Chair) attending non-scheduled Board and Committee meetings/calls	1,273

PART THREE: REMUNERATION IMPLEMENTATION REPORT

MARKET CORRECTION AND RESTRUCTURE OF EMPLOYEE TGP

As disclosed in Part 1 of this report, once-off retrospective compensation has been paid to employees, directors and advisers. It was intended to compensate for historical remuneration backlogs but did not address ongoing below-market compensation.

As a first step to implement the organisation's new remuneration policy, a remuneration benchmarking analysis was conducted through PwC REMchannel®. This confirmed that 100% of our staff at the time were paid significantly below the 25th percentile of the market. This presented a significant retention risk and it meant we could not hire appropriately skilled and qualified professionals without creating internal pay inequalities.

PURPOSE OF BENCHMARKING

As a result of that analysis, the Committee sought to ensure that executives, management and all employees were rewarded competitively and fairly for their contribution to the Group's operating and financial performance. Market pricing was used to determine market trends relative to the Company's pay practices. These market pay trend lines were overlaid on Bushveld Mineral's actual pay to compare it to market levels.

PwC REMchannel® benchmark data provides the lower quartile, the median and the upper quartile pay for each of the positions identified. In the benchmarking exercise, total guaranteed pay (comprising basic pay and guaranteed benefits) and total package (total guaranteed pay plus variable pay) were used as the basis for comparison.

MARKET BENCHMARKING APPROACH FOLLOWED

The Company followed the following market benchmarking approach:

- a. Total reward for executive roles was benchmarked against a customised comparator group benchmark, comprising listed companies; and
- b. All other roles were benchmarked using the PwC Remchannel® Mining Remuneration Survey Database for fixed pay and short-term incentive market benchmarking. This database provides sufficient spread of positions to enable the determination of market and industry trend lines. Bushveld uses the PwC guidelines for long-term incentives. The guidelines are tested against affordability and dilution limits as approved by shareholders.

PROCESS OF BENCHMARKING

To effectively compare the Company's pay practices with the market it is necessary to align the appropriate jobs/roles based on job content with those provided in the market surveys. The process necessitated defining all Bushveld Mineral's jobs/roles and matching them to as many of the survey jobs/roles as possible. This matching process takes into account the following:

- a. the title of the Bushveld Minerals position and that of the survey position; and
- b. the extent to which the survey position description matches the Bushveld position; and the reporting line, qualifications and years of experience of the Bushveld role relative to the benchmark.

MARKET POSITIONING/LEVEL

Bushveld Mineral's remuneration policy stipulates that total guaranteed pay for all levels of staff should be set at a minimum between the lower quartile and median while the total package opportunity (*including incentives*) is set at the median or above, where stretch targets are met.

This resulted in significant salary adjustments for all employees and executives who fell below the lower quartile of the market. In addition, the Committee mandated management to restructure all employee packages to include benefits (*Retirement Plan, Risk Benefits and Health Insurance*) to form part of the fixed component of the remuneration structure. The organisation thus transitioned from a basic salary, with no benefits, pay structure to a Total Cost to Company/Total Guaranteed Pay (TGP) pay structure (base pay plus benefits).

After rigorous market analysis and a comparison process (*Comparing fees, product ranges, fund size, investment options*) through an Employee Benefits service provider, the Company appointed Momentum (Funds@Work) as the preferred Employee Benefits Administrator. All Bushveld Minerals Group employees are now members of Funds@Work, an umbrella fund which affords the Company the following benefits:

- Provident Fund (7.5% employer contribution and 7.5% employee contribution); and
- Group Life Cover, Disability Benefit and Death Benefit.

Remuneration Report continued

TGP INCREASES AWARDED TO EXECUTIVE MANAGEMENT

The Bushveld Minerals Chief Executive Officer (CEO) role was also benchmarked by PwC in 2018 against a JSE-listed comparator group, comprising 12 companies based on publicly-available information. The bespoke comparator group consisted of mining companies with a similar market capitalisation and a comparable holding structure, where the operational assets are managed at operational level and a holding company plays a portfolio management strategic role with step-in rights. A mix of companies with a comparable commodity exposure, ranging from large-capitalisation to small-capitalisation listed entities, was also included.

The analysis presented to the Committee confirmed that the incumbent CEO was substantially underpaid and a market-related correction was recommended and approved to adjust the CEO's TGP from **\$83,266** to **\$173,471**. The market correction brought the incumbent CEO's compensation in line with the market as well as the Company's remuneration policy.

2018 STI OUTCOMES

In the absence of an STI scheme, Remco approved an across-the-board 13th cheque payment to be awarded to all employees for the 2018 performance year. A total of **\$112,568.21** in 13th cheques was paid to all employees including executive directors. **\$44,942.50** of the total amount paid was paid to Executive Directors. 13th cheque payments will be discontinued when the new STI is introduced in 2019.

2018 LTIS AWARDED

The new CSP will be implemented in 2019.

REMUNERATION DISCLOSURE

DIRECTORS EMOLUMENTS

The remuneration of the individual Directors who served during the twelve months to 31 December 2018 was as stated below:

Name	Guaranteed Pay USD	NED Fees USD	Share Based Payment 2018	December 2018 Total USD	December 2017 Total USD
Fortune Mojapelo	340,234	–	2,347,679	2,687,913	118,122
Geoffrey Sproule	255,436	–	–	255,436	106,310
Ian Watson	–	68,851	1,011,180	1,080,031	38,658
Michael Kirkwood	–	48,792	–	48,792	–
Anthony Viljoen	–	38,184	2,347,679	2,385,863	96,645
Jeremy Friedlander	–	40,730	352,152	392,882	24,161
	595,670	196,557	6,058,690	6,850,917	383,896

Michael Kirkwood

Remuneration Committee Chairman

22 May 2019

Independent Auditor's Report To the Members of Bushveld Minerals Limited For the year ended 31 December 2018

OPINION

We have audited the financial statements of Bushveld Minerals Limited and its subsidiaries (the 'group') for the year ended 31 December 2018 which comprise of the Consolidated Income Statement, Consolidated Statement of Comprehensive Income, Consolidated Statement of Financial Position, Consolidated Statement of Changes in Equity, Consolidated Statement of Cash Flows and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

In our opinion, the financial statements:

- give a true and fair view of the state of the group's affairs as at 31 December 2018 and of the group's profit for the year then ended;
- are in accordance with IFRSs as adopted by the European Union; and
- comply with the requirements of The Companies (Guernsey) Law, 2008.

BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

CONCLUSIONS RELATING TO GOING CONCERN

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the Directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the Directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the group's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current year and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on the overall audit strategy, the allocation of resources in the audit and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

ACQUISITION OF MINORITY INTEREST SHAREHOLDING IN STRATEGIC MINERALS CORPORATION

Accounting for the acquisition by Bushveld Vametco Limited of the remaining 21.2% of Strategic Minerals Corporation (SMC) resulted in a significant decrease in the reported amounts of Non-Controlling Interest in the Statement of Financial Position. As a result, the acquisition was determined to be a key audit matter. Our work included:

- Review of the Sale and Purchase Agreement;
- Corroboration of consideration paid to bank statements;
- Audit of the accounting treatment and recalculation of the adjustment made in equity; and
- Audit of the disclosures included in the financial statements in respect of the transaction.

The related disclosures are included in note 33 in the financial statements.

RISK OF FRAUD IN REVENUE RECOGNITION AND COMPLETENESS OF REVENUE

2018 is the first year of fully consolidated Vametco revenues in the Bushveld Minerals Limited Group financial statements. Due to the inherent risk of fraud in relation to revenue recognition it has been included as a key audit matter. Our work included:

- Consideration of the revenue recognition policy with reference to supporting documentation including contractual agreements;
- Review of component auditor work, including testing of key controls over accuracy and completeness of revenue;
- Audit of revenue cut-off to check that transactions are recognised in the period that they have occurred; and
- Review of the allocation and presentation of sales commission.

The related disclosures are included in the "revenue recognition" accounting policy in note 3 in the financial statements.

OUR APPLICATION OF MATERIALITY

When establishing our overall audit strategy, we set certain thresholds which help us to determine the nature, timing and extent of our audit procedures. When evaluating whether the effects of misstatements, both individually and on the financial statements as a whole, could reasonably influence the economic decisions of the users we take into account the qualitative nature and the size of the misstatements. During planning materiality for the group financial statements as a whole was calculated as \$4,703,000, which was revised to \$4,931,000 as the audit progressed. We agreed with the Audit Committee that we would report to them all unadjusted differences in excess of \$50,000, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds.

Independent Auditor's Report continued

To the Members of Bushveld Minerals Limited

For the year ended 31 December 2018

AN OVERVIEW OF THE SCOPE OF OUR AUDIT

The audit was scoped to ensure that we obtained sufficient and appropriate audit evidence in respect of:

- the significant business operations of the group;
- other operations which, irrespective of size, are perceived as carrying a significant level of audit risk whether through susceptibility to fraud, or for other reasons; and
- the appropriateness of the going concern assumption used in the preparation of the financial statements.

The audit was scoped to support our audit opinion on group financial statements of Bushveld Minerals Limited and was based on group materiality and an assessment of risk at group level. Where components of the group were considered significant, the group engagement team were involved in the component auditor's planning and risk assessment and reviewed the component auditor's work in accordance with ISA (UK) 600. The Bushveld Vametco Holdings Proprietary Limited group was a significant component and we visited the offices of the component auditor in South Africa to review the audit working papers and discuss the audit issues with the component auditor.

OTHER INFORMATION

The Directors are responsible for the other information. The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

MATTERS ON WHICH WE ARE REQUIRED TO REPORT BY EXCEPTION

We have nothing to report in respect of the following matters where The Companies (Guernsey) Law 2008 requires us to report to you if, in our opinion:

- proper accounting records have not been kept by the parent company; or
- the financial statements are not in agreement with the accounting records; or
- we have failed to obtain all the information and explanations which, to the best of our knowledge and belief, are necessary for the purposes of our audit.

RESPONSIBILITIES OF DIRECTORS

As explained more fully in the Directors' responsibilities statement set out on page 56, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the group or to cease operations, or have no realistic alternative but to do so.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK), we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.
- Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, including the FRC's Ethical Standard, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current year and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

USE OF THIS REPORT

This report is made solely to the company's members, as a body, in accordance with section 262 of The Companies (Guernsey) Law 2008. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

RSM UK AUDIT LLP, Auditor

Chartered Accountants
25 Farringdon Street
London, EC4A 4AB

22 May 2019

Consolidated Income Statement For the year ended 31 December 2018

	Note	Year ended 31 December 2018 \$	10 months ended 31 December 2017 \$
Continuing operations			
Revenue	5	192,089,845	2,848,360
Cost of sales		(65,273,543)	(1,409,011)
Gross profit		126,816,302	1,439,349
Other operating income		7,420,109	–
Selling and distribution costs		(10,661,706)	(284,425)
Other mine operating costs		(2,508,971)	(158,120)
Idle plant costs		(2,688,422)	(31,205)
Administration expenses	6	(23,202,234)	(4,820,083)
Operating profit/(loss)		95,175,078	(3,854,484)
Share of results of associate		–	4,651,931
Impairment loss on demerger of tin assets	12	–	(705,432)
Finance income	8	1,987,333	137,938
Finance costs	9	(1,233,406)	(1,112,107)
Share based payment economic empowerment transaction	34	(3,232,425)	–
Movement in earnout estimate	27	(6,091,514)	–
Profit/(loss) before tax		86,605,066	(882,154)
Taxation	10	(37,604,907)	(10,494)
Profit/(loss) after taxation		49,000,159	(892,648)
Attributable to:			
Owners of the parent		30,215,509	(1,228,729)
Non-controlling interests		18,784,650	336,081
		49,000,159	(892,648)
Profit/(loss) per ordinary share			
Basic and diluted profit/(loss) per share (in cents)	11	2.9	(0.2)

All results relate to continuing activities.

The notes on pages 79 to 102 form part of these financial statements.

Consolidated Statement of Comprehensive Income For the year ended 31 December 2018

	Year ended 31 December 2018 \$	10 months ended 31 December 2017 \$
Profit/(loss) for the year	49,000,159	(892,648)
Other comprehensive income, net of tax:		
Items that may be subsequently reclassified to profit or loss:		
Currency translation differences	(13,715,270)	1,827,623
Available-for-sale financial assets – net change in fair value	19 659,007	(1,052,282)
Other fair value movements	21,796	–
Total comprehensive income for the year	35,965,692	(117,307)
Attributable to:		
Owners of the parent	21,941,346	(383,771)
Non-controlling interests	14,024,346	266,464
Total comprehensive income for the year	35,965,692	(117,307)

The notes on pages 79 to 102 form part of these financial statements.

Consolidated Statement of Financial Position As at 31 December 2018

Company number: 54506

	Note	31 December 2018 \$	31 December 2017 \$
Assets			
Non-current assets			
Intangible assets: exploration and evaluation	12	57,150,425	60,862,691
Property, plant and equipment	13	47,881,162	44,419,179
Investment properties	14	2,816,007	3,303,502
Deferred tax asset	15	3,004,141	3,275,122
Total non-current assets		110,851,735	111,860,494
Current assets			
Inventories	16	17,193,018	17,171,868
Trade and other receivables	17	32,586,185	13,878,230
Restricted investment	18	5,388,953	5,186,937
Income tax receivable		251,382	1,163,229
Available-for-sale financial assets	19	2,311,272	1,652,265
Cash and cash equivalents	20	42,019,123	9,739,632
Total current assets		99,749,933	48,792,161
Total assets		210,601,668	160,652,655
Equity and liabilities			
Share capital	25	14,921,079	11,817,573
Share premium	25	101,003,256	69,222,661
Accumulated profit/(deficit)		21,447,137	(13,121,418)
Warrant reserve		–	2,113,866
Foreign exchange translation reserve		(7,073,387)	1,881,579
Fair value reserve		(371,479)	(1,052,282)
Equity attributable to owners of the parent		129,926,606	70,861,979
Non-controlling interests		29,712,446	36,371,168
Total equity		159,639,052	107,233,147
Non-current liabilities			
Borrowings	21	–	7,861,526
Other financial liabilities	21	–	1,366,052
Post-retirement medical liability	23	2,377,737	2,783,456
Environmental rehabilitation liability	24	6,632,607	6,669,432
Deferred consideration	27	17,427,512	11,019,447
Total non-current liabilities		26,437,856	29,699,913
Current liabilities			
Trade and other payables	22	20,203,795	20,247,713
Provisions	26	4,320,965	3,471,882
Total current liabilities		24,524,760	23,719,595
Total equity and liabilities		210,601,668	160,652,655

The notes on pages 79 to 102 form part of these financial statements.

The financial statements were authorised and approved for issue by the Board of directors and authorised for issue on 22 May 2019.

G N SPROULE

Director
22 May 2019

Consolidated Statement of Changes in Equity For the year ended 31 December 2018

	Attributable to owners of the parent company								
	Share capital \$	Share premium \$	Accumulated profits/(deficit) \$	Warrant reserve \$	Foreign exchange translation reserve \$	Fair value reserve \$	Total \$	Non-controlling interests \$	Total equity \$
Total equity at 28 February 2017	9,393,321	82,198,556	(11,892,689)	801,596	(15,661)	–	80,485,123	2,742,822	83,227,945
(Loss) profit for the period	–	–	(1,228,729)	–	–	–	(1,228,729)	336,081	(892,648)
Other comprehensive income, net of tax:									
Fair value movement on investments	–	–	–	–	–	(1,052,282)	(1,052,282)	–	(1,052,282)
Currency translation differences	–	–	–	–	1,897,240	–	1,897,240	(69,617)	1,827,623
Total comprehensive income for the period	–	–	(1,228,729)	–	1,897,240	(1,052,282)	(383,771)	266,464	(117,307)
Transactions with owners:									
Grant of warrants	–	–	–	1,312,270	–	–	1,312,270	–	1,312,270
Exercise of warrants	956,017	1,325,495	–	–	–	–	2,281,512	–	2,281,512
Issue of shares	1,468,235	7,485,492	–	–	–	–	8,953,727	–	8,953,727
Distribution of capital on de-merger	–	(21,786,882)	–	–	–	–	(21,786,882)	–	(21,786,882)
Non-controlling interest	–	–	–	–	–	–	–	33,361,882	33,361,882
Total equity at 31 December 2017	11,817,573	69,222,661	(13,121,418)	2,113,866	1,881,579	(1,052,282)	70,861,979	36,371,168	107,233,147
Profit for the year	–	–	30,215,509	–	–	–	30,215,509	18,784,650	49,000,159
Other comprehensive income, net of tax:									
Fair value movement on investments	–	–	–	–	–	680,803	680,803	–	680,803
Currency translation differences	–	–	–	–	(8,954,966)	–	(8,954,966)	(4,760,304)	(13,715,270)
Total comprehensive income (loss) for the year	–	–	30,215,509	–	(8,954,966)	680,803	21,941,346	14,024,346	35,965,692
Transactions with owners:									
Exercise of warrants	547,453	4,232,445	–	–	–	–	4,779,898	–	4,779,898
Issue of shares	2,556,053	27,548,150	–	–	–	–	30,104,203	–	30,104,203
Reserve transfer	–	–	2,113,866	(2,113,866)	–	–	–	–	–
Change in non-controlling interest	–	–	2,239,180	–	–	–	2,239,180	(19,739,180)	(17,500,000)
Dividends paid to non-controlling interest	–	–	–	–	–	–	–	(943,888)	(943,888)
Total equity at 31 December 2018	14,921,079	101,003,256	21,447,137	–	(7,073,387)	(371,479)	129,926,606	29,712,446	159,639,052

The notes on pages 79 to 102 form part of these financial statements.

Consolidated Statement of Cash Flows For the year ended 31 December 2018

	Note	Year ended 31 December 2018 \$	10 months ended 31 December 2017 \$
Cash flows from operating activities			
Profit / (loss) before taxation		86,605,066	(882,154)
Adjustments for:			
Depreciation property, plant and equipment	13	6,039,339	60,443
Fair value economic empowerment transaction	34	3,232,425	–
Movement in earnout estimate	27	6,091,514	–
Impairment loss on demerger	12	–	705,432
Finance income	8	(1,987,333)	(137,938)
Finance costs	9	1,233,406	1,112,107
Share of profit in associate		–	(4,651,931)
Changes in working capital		(25,350,569)	(1,549,643)
Income taxes paid		(30,923,733)	–
Net cash generated from/(used in) operating activities		44,940,115	(5,343,684)
Cash flows from investing activities			
Finance income	8	1,987,333	137,938
Purchase of exploration and evaluation assets	12	(1,553,219)	(1,702,137)
Purchase of property, plant and equipment	13	(11,205,702)	–
Acquisition of non-controlling interest	33	(17,500,000)	5,953,901
Net cash (used in)/generated from investing activities		(28,271,588)	4,389,702
Cash flows from financing activities			
Finance costs		–	–
Net proceeds from issue of shares and warrants	25	4,139,825	2,281,512
Net proceeds from capital raised	25	19,006,177	8,830,514
Net repayments of other borrowings	21	(6,907,035)	(173,732)
Net cash generated from financing activities		16,238,967	10,938,294
Net increase in cash and cash equivalents		32,907,494	9,984,312
Cash and cash equivalents at the beginning of the year		9,739,632	176,954
Effect of foreign exchange rates		(628,003)	(421,634)
Cash and cash equivalents at end of the year		42,019,123	9,739,632

The notes on pages 79 to 102 form part of these financial statements.

Notes to the Consolidated Financial Statements

For the year ended 31 December 2018

1. CORPORATE INFORMATION AND PRINCIPAL ACTIVITIES

Bushveld Minerals Limited ("Bushveld") was incorporated and domiciled in Guernsey on 5 January 2012 and admitted to the AIM market in London on 26 March 2012.

Bushveld has changed its presentational reporting currency from British Pound Sterling to United States Dollars. The change has been made because the majority of the group's sales and vanadium prices are denominated in United States Dollars. The comparative information in these financial statements has been re-translated into United States Dollars.

The Bushveld Group comprises Bushveld Minerals Limited and its subsidiaries as noted below.

During the year the Company acquired an effective 74.0% in Bushveld Vametco Holdings Proprietary Limited through the Company's acquisition of a 100.0% interest in Strategic Minerals Corporation. Bushveld Vametco Holdings Proprietary Limited is the parent company of Bushveld Vametco Alloys Proprietary Limited, an operational vanadium mining company which owns a processing plant and an operating open cast vanadium mine, situated about 6.5 km northeast of the town of Madibeng (formerly known as Brits) which is in the Bojanala Platinum District in the North West Province of the Republic of South Africa. Bushveld Vametco Alloys Proprietary Limited has approximately 480 employees.

Bushveld Resources Limited ("BRL") is an investment holding company formed to invest in resource-based vanadium and iron ore exploration companies in South Africa. The South African subsidiaries are Pamish Investments No. 39 (Proprietary) Limited ("Pamish 39") in which BRL holds a 64% equity interest, Amaraka Investments No. 85 (Proprietary) Limited ("Amaraka 85") in which BRL holds 68.5% equity interest and Frontier Platinum Resources (Proprietary) Limited in which BRL holds 100% equity interest. The minority shareholder in Pamish 39 is Izingwe Capital (Proprietary) Limited and the minority shareholder in Amaraka 85 is Afro Multi Minerals (Proprietary) Limited.

The Lemur subsidiaries are coal project development companies. The Lemur subsidiaries are the holder of 11 concession blocks in South West Madagascar covering the Imaloto Coal Basin.

As at 31 December 2018, the Bushveld Group comprised of:

Company	Equity holding and voting rights	Country of incorporation	Nature of activities
Bushveld Minerals Limited	N/A	Guernsey	Ultimate holding company
Bushveld Resources Limited ¹	100%	Guernsey	Holding company
Pamish Investments 39 (Pty) Limited ²	64%	South Africa	Vanadium and iron ore exploration
Amaraka Investments 85 (Pty) Limited ²	68.50%	South Africa	Vanadium and iron ore exploration
Frontier Platinum (Pty) Limited ²	100%	South Africa	Group support services
Bushveld Energy Limited ¹	84%	Mauritius	Holding company
Bushveld Energy (Pty) Limited ⁶	100%	South Africa	Energy development
Bushveld Vametco Limited ¹	100%	Guernsey	Holding company
Strategic Minerals Corporation LLC ⁹	100%	United States	Holding company
Bushveld Vametco Holdings (Pty) Limited ¹⁰	74%	South Africa	Holding company
Bushveld Vametco Alloys (Pty) Limited ¹¹	100%	South Africa	Mining and manufacturing company
Bushveld Vametco Properties (Pty) Limited ¹²	100%	South Africa	Property owning company
Lemur Holdings Limited ¹	100%	Mauritius	Holding company
Lemur Investments Limited ⁵	100%	Mauritius	Holding company
Coal Mining Madagascar SARL ⁷	99%	Madagascar	Coal exploration
Imaloto Power Limited ⁵	100%	Mauritius	Holding company
Imaloto Power Project Company SARL ⁸	99%	Madagascar	Power generation company
Great 1 Line Investment (Pty) Limited ²	62.5%	South Africa	Vanadium and iron ore exploration
Gemsbok Magnetite (Pty) Limited ²	74.0%	South Africa	Vanadium and iron ore exploration
Caber Trade and Invest 1 (Pty) Limited	51.0%	South Africa	Vanadium and iron ore exploration

1 Held directly by Bushveld Minerals Limited

2 Held by Bushveld Resources Limited

3 Held by Greenhills Resources Limited

4 Held by Mokopane Tin Company (Pty) Limited

5 Held by Lemur Holdings Limited

6 Held by Bushveld Energy Limited

7 Held by Lemur Investments Limited

8 Held by Imaloto Power Limited

9 Held by Bushveld Vametco Limited

10 Held by Strategic Minerals Corporation LLC

11 Held by Vametco Holdings (Pty) Limited

12 Held by Vametco Alloys (Pty) Limited

Notes to the Consolidated Financial Statements *continued*

For the year ended 31 December 2018

2. ADOPTION OF NEW AND REVISED STANDARDS

ACCOUNTING STANDARDS AND INTERPRETATIONS NOT APPLIED

Standards, amendments and interpretations to existing standards that are not yet effective and have not been early adopted by the Group:

IFRS 16 Leases	The new standard recognises a leased asset and a lease liability for almost all leases and requires them to be accounted for in a consistent manner. This introduces a single lessee accounting model and eliminates the previous distinction between an operating lease and a finance lease.
IFRS 17 Insurance Contracts	The new standard requires insurance liabilities to be measured at a current fulfilment value and provides a more uniform measurement and presentation approach for all insurance contracts. These requirements are designed to achieve the goal of a consistent, principle-based accounting for insurance contracts.
IFRIC 23 Uncertainty over Income Tax Treatments	The interpretation addresses the determination of taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates, when there is uncertainty over income tax treatments under IAS 12.
IFRS 9 Prepayment Features with Negative Compensation – (Amendments to IFRS 9)	Under IFRS 9, a debit instrument can be measured at amortised cost or at fair value through other comprehensive income, provided that the contractual cash flows are 'solely payments of principal and interest on the principal amount outstanding' (the SPPI criterion) and the instrument is held within the appropriate business model for that classification. The amendments to IFRS 9 clarify that a financial asset passes the SPPI criterion regardless of the event or circumstance that causes the early termination of the contract and irrespective of which party pays or receives reasonable compensation for the early termination of the contract.
IAS 19, Plan Amendment, Curtailment or Settlement – (Amendments to IAS 19)	The amendments to IAS 19 Employee Benefits address the accounting when a plan amendment, curtailment or settlement occurs during a reporting period.
IAS 28 Long-term interests in associates and joint ventures – (Amendments to IAS 28)	The amendments clarify that an entity applies IFRS 9 to long-term interests in an associate or joint venture to which the equity method is not applied by that, in substance, form part of the net investment in the associate or joint venture (long-term interest). This clarification relevant because it implies that the expected credit loss model in IFRS 9 applies to such long-term interests.
IFRS 10 and IAS 28 Sale or Contribution of Assets between an Investor and its Associate or Joint Venture – (Amendments to IFRS 10 and IAS 28)	The amendments address the conflict between IFRS 10 and IAS 28 in dealing with the loss of control of a subsidiary that is sold or contributed to an associate or joint venture.
IFRS 3, Definition of a Business – (Amendments to IFRS 3)	The IASB issued amendments to the definition of a business in IFRS 3 Business Combinations to help entities determine whether an acquired set of activities and assets is a business or not. They clarify the minimum requirements for a business, remove the assessment of whether market participants are capable of replacing any missing elements, add guidance to help entities assess whether an acquired process is substantive, narrow the definitions of a business and of outputs, and introduce an optional fair value concentration test. New illustrative examples were provided along with the amendments.
IAS 1 and IAS 8 – Definition of Material – (Amendments to IAS 1 and IAS 8)	In October 2018, the IASB issued amendments to IAS 1 Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors to align the definition of 'material' across the standards and to clarify certain aspects of the definition. The new definition states that, 'Information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity'.

The Directors anticipate that the adoption of these Standards and Interpretations, which become effective for annual periods beginning on or after 1 January 2019, in future periods will have no material impact on the financial statements of the Group.

3. SIGNIFICANT ACCOUNTING POLICIES

BASIS OF ACCOUNTING

These financial statements have been prepared in accordance with International Financial Reporting Standards, International Accounting Standards and Interpretations (collectively "IFRS") issued by the International Accounting Standards Board ("IASB") as adopted by the European Union ("EU adopted IFRS").

The financial year covers the 12 months to 31 December 2018. The comparative period covered the 10 month period to 31 December 2017.

The consolidated financial statements have been prepared under the historical cost basis, except for the revaluation of certain financial instruments and investment properties to fair value. Historical cost is generally based on the fair value of the consideration given in exchange for the assets. The principal accounting policies are set out below.

GOING CONCERN

The group closely monitors and manages its liquidity risk, cash forecasts are regularly produced and sensitivities run for different scenarios including, but not limited to, changes in commodity prices and different production profiles from the group's producing assets. Based on the current status of the group's finances, having considered going concern forecasts and reasonably possible investments and downside scenarios, the group's forecasts demonstrate it will have sufficient liquidity headroom to meet its obligations in the ordinary course of business for the next 12 months from the date of approval of the financial statements.

Accordingly the directors are satisfied that the group continues to adopt the going concern basis of accounting in preparation of the 31 December 2018 financial statements.

BASIS OF CONSOLIDATION

SUBSIDIARIES

Subsidiaries are all entities (including structured entities) over which the group has control. The group controls an entity when the group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the group. They are deconsolidated from the date that control ceases.

The group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The group recognises any non-controlling interest in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the recognised amounts of acquiree's identifiable net assets.

Acquisition-related costs are expensed as incurred.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measurement are recognised in profit or loss.

Subsequent transactions that do not result in the obtaining of control are accounted for as equity transactions as follows:

- The carrying amounts of the controlling and non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiary; and
- Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid is recognised directly in equity and attributed to the owners of the parent

Any contingent consideration to be transferred by the group is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in accordance with IAS 39 either in profit or loss or as a change to other comprehensive income. Contingent consideration that is classified as equity is not re-measured, and its subsequent settlement is accounted for within equity.

Inter-company transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated. When necessary amounts reported by subsidiaries have been adjusted to conform to the group's accounting policies.

DISPOSAL OF SUBSIDIARIES

When the group ceases to have control, any retained interest in the entity is re-measured to its fair value at the date when control is lost, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to profit or loss.

NON-CONTROLLING INTERESTS

Non-controlling interests in subsidiaries are identified separately from the group's equity therein. Those interests of non-controlling shareholders that present ownership interests entitling their holders to a proportionate share of the net assets upon liquidation are initially measured at fair value. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Black Economic Empowerment ("BEE") interests are accounted for as non-controlling interests on the basis that the group does not control these entities.

Notes to the Consolidated Financial Statements continued

For the year ended 31 December 2018

3. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

BASIS OF CONSOLIDATION CONTINUED

ASSOCIATES

Associates are all entities over which the group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. The group's investment in associates includes goodwill identified on acquisition.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate.

The group's share of post-acquisition profit or loss is recognised in the income statement, and its share of post-acquisition movements in other comprehensive income is recognised in other comprehensive income with a corresponding adjustment to the carrying amount of the investment. When the group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the group does not recognise further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate.

The group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognises the amount adjacent to share of profit/(loss) of associates in the income statement.

Profits and losses resulting from upstream and downstream transactions between the group and its associate are recognised in the group's financial statements only to the extent of unrelated investor's interests in the associates. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the group.

Dilution gains and losses arising in investments in associates are recognised in the income statement.

SEGMENT REPORTING

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the board of directors, which makes strategic decisions.

FOREIGN CURRENCIES

FUNCTIONAL AND PRESENTATIONAL CURRENCY

The individual financial statements of each group company are prepared in the currency of the primary economic environment in which they operate (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each group company are expressed in US Dollars, which is the presentation currency for the consolidated financial statements.

TRANSACTIONS AND BALANCES

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the income statement.

GROUP COMPANIES

The results and financial position of all the group entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- a. assets and liabilities for each statement of financial position presented are translated at the closing rate;
- b. income and expenses for each income statement are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the dates of the transactions); and
- c. all resulting exchange differences are recognised in other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate. Exchange differences arising are recognised in other comprehensive income.

REVENUE RECOGNITION

SALE OF GOODS/PRODUCTS

IFRS 15 requires revenue from contracts with customers to be recognised when the separate performance obligations are satisfied, which is when control of promised goods or services are transferred to the customer.

The entity satisfied a performance obligation by transferring control of the promised goods/products to the customer. In the standard “control of an asset” refers to the ability to direct the use of, and obtain substantially all of the remaining benefits from, the asset. Control includes the ability to prevent other entities from directing the use of, and obtaining the benefits from, an asset.

The group recognises revenue at the amount that reflects the consideration to which the entity expects to be entitled in exchange for transferring goods or services to a customer.

COST OF SALES

When inventories are sold, the carrying amount of those inventories is recognised as an expense in the period in which the related revenue is recognised. The amount of any write-down of inventories to net realisable value and all losses of inventories are recognised as an expense in the period in which the write-down or loss occurs.

SHARE BASED PAYMENTS

The Group may issue equity-settled share based payment instruments to BBE shareholders to either obtain or retain BEE credentials. Equity-settled share-based payments are measured at the fair value of the instruments at the date of the grant.

FINANCE INCOME

Interest revenue is recognised when it is probable that economic benefits will flow to the group and the amount of revenue can be measured reliably. Interest revenue is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset’s net carrying amount on initial recognition.

TAXATION

The tax expense represents the sum of the tax currently payable and deferred tax.

The tax charge is based on taxable profit for the year. The group’s liability for current tax is calculated by using tax rates that have been enacted or substantively enacted by the reporting date.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the “balance sheet liability” method.

Deferred tax liabilities are recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Deferred tax is calculated at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled based upon rates enacted and substantively enacted at the reporting date. Deferred tax is charged or credited to profit or loss, except when it relates to items credited or charged to other comprehensive income, in which case the deferred tax is also dealt with in other comprehensive income.

INTANGIBLE EXPLORATION AND EVALUATION ASSETS

All costs associated with mineral exploration and evaluation including the costs of acquiring prospecting licences; mineral production licences and annual licences fees; rights to explore; topographical, geological, geochemical and geophysical studies; exploratory drilling; trenching, sampling and activities to evaluate the technical feasibility and commercial viability of extracting a mineral resource; are capitalised as intangible exploration and evaluation assets and subsequently measured at cost.

If an exploration project is successful, the related expenditures will be transferred at cost to property, plant and equipment and amortised over the estimated life of the commercial ore reserves on a unit of production basis (with this charge being taken through profit or loss). Where a project does not lead to the discovery of commercially viable quantities of mineral resources and is relinquished, abandoned, or is considered to be of no further commercial value to the group, the related costs are recognised in profit or loss.

The recoverability of capitalised exploration costs is dependent upon the discovery of economically viable ore reserves, the ability of the group to obtain necessary financing to complete the development of ore reserves and future profitable production or proceeds from the extraction or disposal thereof.

IMPAIRMENT OF EXPLORATION AND EVALUATION ASSETS

Whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, the asset is reviewed for impairment. Assets are also reviewed for impairment at each reporting date in accordance with IFRS 6. An asset’s carrying value is written down to its estimated recoverable amount (being the higher of the fair value less costs to sell and value in use) if that is less than the asset’s carrying value. Impairment losses are recognised in profit or loss.

An impairment review is undertaken when indicators of impairment arise but typically when one of the following circumstances applies:

- unexpected geological occurrences that render the resources uneconomic; or
- title to the asset is compromised; or
- variations in mineral prices that render the project uneconomic; or
- variations in the foreign currency rates; or
- the group determines that it no longer wishes to continue to evaluate or develop the field.

Notes to the Consolidated Financial Statements continued

For the year ended 31 December 2018

3. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are stated at historical cost less accumulated depreciation, except for investment properties which are carried at fair value. Depreciation is calculated on the straight line method to write off the cost of each asset (less residual value) over its estimated useful life as follows:

Buildings and other improvements	20-25 years
Plant and machinery	15-20 years
Motor vehicles, furniture and equipment	4-10 years
Decommissioning asset	Life of mine

Repairs and maintenance is generally charged against income during the financial period in which it is incurred. However renovations are capitalised and included in the carrying amount of the asset when it is probable that future economic benefits will flow to the group. Major renovations are depreciated over the remaining useful life of the related asset.

An item of property, plant and equipment is derecognised upon disposal or when no future benefits are expected from its use or disposal. Any gain or loss arising from de-recognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the income statement in the year the asset is derecognised.

INVESTMENT PROPERTY

Investment property is initially measured at cost and subsequently at fair value with any change therein recognised in profit or loss.

Any gain or loss on disposal of investment property (calculated as the difference between the net proceeds from disposal and the carrying amount of the item) is recognised in profit or loss.

IMPAIRMENT OF PROPERTY, PLANT AND EQUIPMENT

At each reporting date, the group reviews the carrying amounts of its tangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where the asset does not generate cash flows that are independent from other assets, the group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Where there has been a change in economic conditions that indicate a possible impairment in a cash-generating unit, the recoverability of the net book value relating to that field is assessed by comparison with the estimated discounted future cash flows based on management's expectations of future commodity prices and future costs.

The recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted. If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised as an expense immediately, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease. Where conditions giving rise to impairment subsequently reverse, the effect of the impairment charge is also reversed as a credit to the income statement, net of any depreciation that would have been charged since the impairment.

INVENTORIES

Inventories are valued at the lower of cost or estimated net realisable value. Cost is determined on the following basis:

Raw materials	weighted average cost
Consumable stores	weighted average cost
Work in progress	weighted average cost
Finished product	weighted average cost

The cost of finished product and work in progress comprises of raw materials, direct labour, other direct costs, and related production overheads (based on normal operating capacity) but excludes borrowing costs.

Net realisable value is the estimated selling price in the ordinary course of business, less costs of completion and selling expenses.

FINANCIAL ASSETS AND LIABILITIES

Financial assets and financial liabilities are recognised in the group's statement of financial position when the group becomes a party to the contractual provisions of the instrument. Financial instruments are classified into specified categories dependent upon the nature and purpose of the instruments at the time of initial recognition. All financial assets are recognised as loans and receivables or available for sale investments and all financial liabilities are recognised as other financial liabilities.

FINANCIAL ASSETS

The Group initially measures all financial assets at fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Financial assets are classified at initial recognition and subsequently measured at amortised cost, fair value through other comprehensive income (OCI) or fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them.

In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest' (SPPI) on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

TRADE AND OTHER RECEIVABLES

Trade and other receivables are stated initially recognised at the fair value of the consideration receivable and subsequently measured at amortised cost using the effective interest method, less any allowance for expected credit losses. Allowances for expected credit losses are recognised when there is objective evidence that the group will be unable to collect all of the amounts due under the terms of the receivable, the amount of such a provision being the difference between the carrying amount and the present value of the future expected cash flows associated with the impaired receivable.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents comprise cash at hand and deposits on a term of not greater than three months.

TRADE AND OTHER PAYABLES

Trade and other payables are initially recognised at fair value. They are subsequently measured at amortised cost using the effective interest rate method.

AVAILABLE FOR SALE FINANCIAL ASSETS

Listed shares held by the group that are traded in an active market are classified as being available for sale and are stated at fair value. The fair value of such investments is determined by reference to quoted market prices.

Gains and losses arising from changes in fair value are recognised in other comprehensive income and accumulated in the fair value reserve with the exception of impairment losses. Where the investment is disposed of or is determined to be impaired, the cumulative gain or loss previously recognised in the fair value reserve is reclassified to profit or loss.

Dividends on available for sale equity instruments are recognised in profit or loss when the group's right to receive the dividends is established.

FINANCIAL LIABILITIES AND EQUITY

Financial liabilities (including loans and advances due to related parties) and equity instruments are classified according to the substance of the contractual arrangements entered into. An equity instrument is any contract that evidences a residual interest in the assets of the group after deducting all of its liabilities. When the terms of a financial liability are negotiated with the creditor and settlement occurs through the issue of the Company's equity instruments, the equity instruments are measured at fair value and treated as consideration for the extinguishment of the liability. Any difference between the carrying amount of the liability and the fair value of the equity instruments issued is recognised in profit or loss.

CONVERTIBLE LOAN

Interest-bearing loans are recorded initially at their fair value, net of direct transaction costs. Such instruments are subsequently carried at their amortised cost and finance charges, including premiums payable on settlement, redemption or conversion, are recognised in profit or loss over the term of the instrument using the effective rate of interest.

Instruments where the holder has the option to redeem for cash or convert into a predetermined quantity of equity shares are classified as compound instruments and presented partly as a liability and partly as equity.

Instruments where the holder has the option to redeem for cash or convert into a variable quantity of equity shares are classified separately as a loan and a derivative liability.

Notes to the Consolidated Financial Statements continued

For the year ended 31 December 2018

3. SIGNIFICANT ACCOUNTING POLICIES CONTINUED

CONVERTIBLE LOAN CONTINUED

Where conversion results in a fixed number of equity shares, the fair value of the liability component at the date of issue is estimated using the prevailing market interest rate for a similar non-convertible instrument. The difference between the proceeds of issue and the fair value assigned to the liability component, representing the embedded option to convert the liability into equity of the group, is included in equity. Where conversion is likely to result in a variable quantity of equity shares the related derivative liability is valued and included in liabilities.

The interest expense on the liability component is calculated by applying the prevailing market interest rate for similar non-convertible debt to the instrument. The difference between this amount and the interest paid is added to the carrying value of the convertible loan note.

Derivative liabilities are revalued at fair value at the reporting date, and changes in the valuation amounts are credited or charged to the profit or loss.

WARRANTS

Warrants issued by the company are recorded at fair value on initial recognition net of transaction costs. The fair value of warrants granted is recognised as an expense or as share issue costs, with a corresponding increase in equity. The fair value of the warrants granted is measured using the Black Scholes valuation model for options without market conditions and using the binomial method for those with market conditions, taking into account the terms and conditions under which the options were granted. The amount recognised as an expense is adjusted to reflect the actual number of warrants that vest.

LEASES

The determination of whether an arrangement is, or contains a lease is based on the substance of the arrangement at inception date and whether the fulfilment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys a right to use the asset.

Leases of property, plant and equipment where the Group assumes substantially all the benefits and risk of ownership are classified as finance leases. Finance leases are capitalised at the inception of the lease at the fair value of the leased property, or if lower, at the present value of the minimum lease payments. Each payment is allocated between the liability and the finance charges so as to achieve a constant rate on the finance balance outstanding. The corresponding finance lease obligation, net of finance charges, is included in long-term payables. The interest element is charged to the income statement over the lease period. The property, plant and equipment acquired under finance leases is depreciated over the useful life of the asset, unless there is no reasonable certainty that the Group will obtain ownership by the end of the lease term, in which case the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term.

Leases where a significant portion of the risks and reward of ownership is retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentive received from the lessor) are charged to the income statement on a straight line basis over the period of the lease.

PROVISIONS

GENERAL

Provisions are recognised when the group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Where the group expects some or all of a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the statement of comprehensive income, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used the increase in the provision due to the passage of time is recognised as a finance cost.

I. ENVIRONMENTAL REHABILITATION LIABILITY

The group is exposed to environmental liabilities relating to its operations. Full provision for the cost of environmental and other remedial work such as reclamation costs, close down and restoration costs and pollution control is made based on the estimated cost as per the Environmental Management Program Report. Annual increases in the provisions relating to change in the net present value of the provision and inflationary increases are shown in the statement of comprehensive income as a finance cost. Changes in estimates of the provision are accounted for in the year the change in estimate occurs, and is charged to either the statement of comprehensive income or the decommissioning asset in property, plant and equipment, depending on the nature of the liability.

II. POST-RETIREMENT MEDICAL LIABILITY

The liability in respect of the defined benefit medical plan is the present value of the defined benefit obligation at the reporting date together with adjustments for actuarial gains/losses. Any actuarial gains or losses are accounted for in other comprehensive income. The defined benefit obligation is calculated annually by independent actuaries using the projected unit of credit method.

III. PROVIDENT FUND CONTRIBUTIONS

The group's contributions to the defined contribution plan are charged to the statement of comprehensive income in the year to which they relate.

USE OF ESTIMATES AND JUDGEMENTS

In the application of the group's accounting policies, the directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates. In particular, information about significant areas of estimation uncertainty considered by management in preparing the financial statements is described below:

I. DECOMMISSIONING AND REHABILITATION OBLIGATIONS

Estimating the future costs of environmental and rehabilitation obligations is complex and requires management to make estimates and judgements as most of the obligations will be fulfilled in the future and contracts and laws are often not clear regarding what is required. The resulting provisions are further influenced by changing technologies, political, environmental, safety, business and statutory considerations.

II. ASSET LIVES AND RESIDUAL VALUES

Property, plant and equipment are depreciated over its useful life taking into account residual values, where appropriate. The actual lives of the assets and residual values are assessed annually and may vary depending on a number of factors. In reassessing asset lives, factors such as technological innovation, product life cycles and maintenance programmes are taken into account. Residual value assessments consider issues such as future market conditions, the remaining life of the asset and projected disposal values.

III. POST-RETIREMENT EMPLOYEE BENEFITS

Post-retirement medical aid liabilities are provided for certain existing employees. Actuarial valuations are based on assumptions which include employee turnover, mortality rates, the discount rate, health care inflation costs and rates of increase in costs.

IV. SURFACE RIGHTS LIABILITIES

The group has provided for surface lease costs that would accrue to the owners of the land on which the mine is built. The quantum of the amounts due post implementation of the Mineral and Petroleum Resources Development Act (MPRDA) and the granting of the new order mining right to the group is somewhat uncertain, and need to be negotiated with such owners. The group has conservatively accrued for possible costs in this regard, but the actual obligation may be materially different when negotiations with the relevant parties are completed.

V. REVALUATION OF INVESTMENT PROPERTIES

The group carries its residential investment properties at fair value. The group engaged an independent valuation specialist to assess the fair value as at 31 December 2018 for residential properties. For residential properties, it measures land and buildings at revalued amounts with changes in fair value being recognised in other comprehensive income. Land and buildings were valued by reference to market-based evidence, using comparable prices adjusted for specific market factors such as nature, location and condition of the property. The key assumptions used to determine the fair value of the residential properties are provided in note 14.

VI. IMPAIRMENT OF EXPLORATION AND EVALUATION ASSETS

Determining whether an exploration and evaluation asset is impaired requires an assessment of whether there are any indicators of impairment, including by reference to specific impairment indicators prescribed in IFRS 6 – Exploration for and Evaluation of Mineral Resources. If there is any indication of potential impairment, an impairment test is required based on value in use of the asset. The valuation of intangible exploration assets is dependent upon the discovery of economically recoverable deposits which, in turn, is dependent on future vanadium and iron ore prices, future capital expenditures and environmental and regulatory restrictions. The directors have concluded that there are no indications of impairment in respect of the carrying value of intangible assets at 31 December 2018 based on planned future development of the projects and current and forecast commodity prices. See note 12 for details of exploration and evaluation assets.

Notes to the Consolidated Financial Statements *continued* For the year ended 31 December 2018

4. SEGMENTAL REPORTING

The reporting segments are identified by the directors of the group (who are considered to be the chief operating decision makers) by the way that group's operations are organised. As at 31 December 2018 the group operated within four operating segments, mineral exploration activities for iron ore and vanadium, vanadium mining and production, coal exploration and energy. Activities take place in South Africa (iron ore, vanadium and energy) and Madagascar (coal).

SEGMENT REVENUE AND RESULTS

The following is an analysis of the group's revenue and results by reportable segment.

	Vanadium and iron ore exploration \$	Coal exploration \$	Vanadium mining and production \$	Energy \$	Total \$
Year ended 31 December 2018					
Results					
Segment revenue	–	–	192,089,845	–	192,089,845
Segment costs	(2,721,652)	–	(84,051,698)	(231,540)	(87,004,890)
Segmental (loss)/profit	(2,721,652)	–	108,038,147	(231,540)	105,084,955
		Vanadium and iron ore exploration \$	Coal exploration \$	Vanadium mining and production \$	Total \$
Period ended 31 December 2017					
Results					
Segment revenue		–	–	2,848,360	2,848,360
Segment costs		(781,367)	(629,355)	(1,233,327)	(2,644,049)
Segmental (loss)/profit		(781,367)	(629,355)	1,615,033	204,311

The reconciliation of segmental profit to the group's profit/(loss) before tax is as follows:

	Year ended 31 December 2018 \$	10 months ended 31 December 2017 \$
Segmental profit	105,084,955	204,311
Unallocated costs	(13,142,302)	(4,058,755)
Share of results of associate	–	4,651,931
Impairment – de-merger of tin assets	–	(705,472)
Movement in earnout estimate	(6,091,514)	–
Finance income	1,987,333	137,938
Finance costs	(1,233,406)	(1,112,107)
Profit/(loss) before tax	86,605,066	(882,154)

Unallocated costs relate primarily to corporate costs and parent company overheads not attributable to a specific segment.

OTHER SEGMENTAL INFORMATION

	Vanadium and Iron ore exploration \$	Vanadium mining and production \$	Coal exploration \$	Bushveld Energy \$	Total \$
31 December 2018					
Intangible assets – exploration and evaluation	55,639,067	–	1,511,358	–	57,150,425
Total reportable segmental net assets	55,639,067	132,200,627	1,511,358	(420,254)	188,930,798
Unallocated net liabilities					(29,291,746)
Total consolidated net assets					159,639,052

	Vanadium and Iron ore exploration \$	Vanadium mining and production \$	Coal exploration \$	Total \$
31 December 2017				
Intangible assets – exploration and evaluation	60,862,691	–	–	60,862,691
Total reportable segmental net assets	60,862,691	67,221,312	–	128,084,003
Unallocated net liabilities				(20,850,856)
Total consolidated net assets				107,233,147

Unallocated assets and liabilities relate to corporate and parent company liabilities not attributable to a specific segment.

5. REVENUE

	Year ended 31 December 2018 \$	10 months ended 31 December 2017 \$
Revenue from contracts with customers	192,089,845	2,848,360

Revenue with contract customers is generated from sale of goods and is recognised upon delivery of the goods to the customer and comprises the invoiced amount of goods to customers, net of value added tax.

6. ADMINISTRATIVE EXPENSES BY NATURE

	Year ended 31 December 2018 \$	10 months ended 31 December 2017 \$
The profit for the year has been arrived at after charging:		
Shares issued to directors and senior employees	8,333,360	–
Staff costs	7,166,859	1,287,989
Depreciation of property, plant and equipment	182,159	60,443
Professional fees	1,886,507	977,960
Acquisition expenses	–	958,718
Foreign exchange loss	91,082	758,000
Other	5,542,267	776,973
	23,202,234	4,820,083

7. STAFF COSTS

Key management personnel have been identified as the Board of directors.

Details of directors' remuneration are included in note 35 (related party transactions) and the Remuneration Report.

No pension contributions were made on behalf of the Directors and other staff members.

8. FINANCE INCOME

	Year ended 31 December 2018 \$	10 months ended 31 December 2017 \$
Bank interest	1,987,333	137,938

Notes to the Consolidated Financial Statements continued

For the year ended 31 December 2018

9. FINANCE COSTS

	Year ended 31 December 2018 \$	10 months ended 31 December 2017 \$
Interest on convertible bonds	522,079	301,030
Other finance costs	711,327	811,077
	1,233,406	1,112,107

10. TAXATION

The tax expense represents the sum of the tax currently payable and deferred tax.

Factors affecting tax for the year/period:	Year ended 31 December 2018 \$	10 months ended 31 December 2017 \$
Profit/(loss) before taxation	86,605,066	(882,154)
Loss before taxation multiplied by Guernsey corporation tax rate of 0%	–	–
South African tax – current tax	32,218,043	10,494
South African tax – deferred tax	386,864	–
US tax charge on conversion of SMC to a LLC	5,000,000	–
Taxation expense for the year/period	37,604,907	10,494

Management believe that any unrecognised deferred tax assets relating to the accumulated losses in the subsidiary undertakings of the group, would be immaterial to these financial statements.

A tax liability pertaining to the conversion of a subsidiary from a corporation into a limited liability company in the United States of America has resulted in an amount of \$5,000,000 which is payable to Internal Revenue Service (IRS).

11. PROFIT/(LOSS) PER SHARE FROM CONTINUING OPERATIONS

The calculation of a basic profit per share of 2.9 cents (December 2017: loss per share of 0.2 cents), is calculated using the total profit for the year attributable to the owners of the company of \$30,215,509 (December 2017: loss of \$1,228,729) and the weighted average number of shares in issue during the year of 1,043,907,922 (December 2017: 648,698,780). The dilutive effect of other shares in issue would be immaterial to the profit per share.

12. INTANGIBLE EXPLORATION AND EVALUATION ASSETS

	Vanadium and Iron ore \$	Tin \$	Coal \$	Total \$
As at 1 March 2017	56,576,808	24,647,365	–	81,224,173
Exchange differences	2,583,746	(2,121,834)	–	461,912
Impairment/loss on disposal	–	(22,525,531)	–	(22,525,531)
Additions	1,702,137	–	–	1,702,137
As at 31 December 2017	60,862,691	–	–	60,862,691
Exchange differences	(5,265,485)	–	–	(5,265,485)
Additions	41,861	–	1,511,358	1,553,219
As at 31 December 2018	55,639,067	–	1,511,358	57,150,425

VANADIUM AND IRON ORE

The Company's subsidiary, Bushveld Resources Limited has a 64% interest in Pamish Investment No 39 (Proprietary) Limited ("Pamish") which holds an interest in Prospecting right 95 ("Pamish 39"). Bushveld Resources Limited also has a 68.5% interest in Amaraka Investment No 85 (Proprietary) Limited ("Amaraka") which holds an interest in Prospecting right 438 ("Amaraka 85").

Under the agreements to acquire the licences within Bushveld Resources, the group is required to fully fund the exploration activities up to the issue of the corresponding mining licences. As the non-controlling interest party retains their equity interest, the funding of their interest is accounted as deemed purchase consideration and is included in the additions in the year to exploration activities. A corresponding increase is credited to non-controlling interest.

BRITS VANADIUM PROJECT

The Company is in a process to secure regulatory approval in terms of section 11 of the Mineral and Petroleum Resources Development Act (MPRDA) for change of control in respect of the acquired Sable Metals & Mining Ltd subsidiaries. Following approval, Bushveld Minerals will commence with activities to delineate the shallow resource on the Uitvalgrond farm portion.

- NW 30/5/1/1/2/11069 PR – held through Great Line 1 (Pty) Ltd
- NW 30/5/1/1/2/11124 PR – held through Great Line 1 (Pty) Ltd
- GP 30/5/1/1/02/10142 PR – held through Gemsbok Magnetite (Pty) Ltd

COAL

Coal Exploration licences have been issued to Coal Mining Madagascar SARL a 99% subsidiary of Lemur Investments Limited.

The exploration is in South West Madagascar covering 11 concession blocks in the Imaloto Coal basin known as the Imaloto Coal Project and Extension.

TIN

In November 2017 the Group disposed of its tin assets through the demerger of Greenhills Resources Limited and the subsequent listing of AfriTin Mining Limited.

13. PROPERTY, PLANT AND EQUIPMENT

	Buildings and other improvements \$	Plant and machinery \$	Motor vehicles Furniture and Equipment \$	Decommissioning assets \$	Assets under construction \$	Total \$
Cost						
At 1 March 2017	–	926,862	–	–	–	926,862
Additions due to acquisition	583,360	39,440,168	27,382	1,439,339	892,419	42,382,668
Foreign exchange	27,429	1,780,363	1,288	67,674	41,960	1,918,704
At 31 December 2017	610,789	42,147,393	28,670	1,507,013	934,379	45,228,234
Additions	–	–	–	271,518	10,934,184	11,205,702
Disposals	–	(1,180,001)	(30,017)	–	–	(1,210,018)
Assets under construction capitalised	730,388	3,310,376	246,498	–	(4,287,262)	–
Foreign Exchange differences	(82,128)	(1,398,908)	(3,856)	(202,636)	(125,639)	(1,813,167)
At 31 December 2018	1,259,049	42,878,860	241,295	1,575,895	7,455,662	53,410,751
Depreciation						
At 1 March 2017	–	550,511	–	–	–	550,511
Depreciation charge for the year	–	60,443	–	–	–	60,443
Foreign exchange	–	198,101	–	–	–	198,101
At 31 December 2017	–	809,055	–	–	–	809,055
Depreciation charge for the year	237,758	5,508,585	209,890	83,106	–	6,039,339
Disposals	–	(1,180,001)	(30,017)	–	–	(1,210,018)
Foreign exchange	–	(108,787)	–	–	–	(108,787)
At 31 December 2018	237,758	5,028,852	179,873	83,106	–	5,529,589
Net Book Value						
At 31 December 2018	1,021,291	37,850,008	61,422	1,492,789	7,455,662	47,881,162
At 31 December 2017	610,787	41,338,338	28,669	1,507,009	934,376	44,419,179

CHANGE IN ESTIMATES

As at 31 December 2018, management reviewed the average usage lives of property, plant and equipment. As a result, the expected useful lives of certain assets were decreased and fully depreciated during 2018. The effect of these changes on actual and expected depreciation expense, included in 'cost of sales', in current and future years respectively is as follows:

	2018	2019	2020	2021	2022	Later
Increase/(decrease) in depreciation expense	123,234	(10,325)	(10,325)	(10,325)	(10,325)	(81,934)

Notes to the Consolidated Financial Statements continued For the year ended 31 December 2018

14. INVESTMENT PROPERTIES

	31 December 2018 \$	31 December 2017 \$
Fair value at start of the year/period	3,303,501	–
Acquired in the year	–	3,303,502
Fair value movements	(20,214)	–
Foreign exchange	(467,280)	–
Fair value at end of year/period	2,816,007	3,303,502

Land and buildings comprise residential housing in Brits and Elandsrand, North West Province.

Investment properties are stated at fair value, which has been determined based on valuations performed by Mr WJ van Aardt, an accredited independent valuer, as at 31 December 2017 and 2018. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The following valuation techniques and key inputs were used in the valuation of the investment properties:

- i. Physical inspection of each property;
- ii. Consultation with estate agencies to discuss current sales market trends; and
- iii. Comparative sales reports for locations where properties are situated were obtained from South Africa.

15. DEFERRED TAX ASSET

	31 December 2018 \$	31 December 2017 \$
As at 31 December 2018	3,004,141	3,275,122

16. INVENTORIES

	31 December 2018 \$	31 December 2017 \$
Finished goods	6,094,274	6,476,940
Work in progress	4,489,189	4,391,664
Raw materials	2,157,296	1,617,291
Consumable stores	4,452,259	4,685,973
Inventories	17,193,018	17,171,868

The amount of write-down of inventories due to net realisable value provision requirement is nil.

17. TRADE AND OTHER RECEIVABLES

	31 December 2018 \$	31 December 2017 \$
Trade receivables	27,454,540	8,278,854
Other receivables	5,131,645	5,599,376
Trade and other receivables	32,586,185	13,878,230

Trade receivables are non-interest bearing and are generally on 15-90 day terms. There were no indicators of impairment at the year end. At 31 December 2018 the group had one customer which accounted for approximately 90% of trade receivables.

The directors consider that the carrying amount of trade and other receivables approximates to their fair value due to their short-term nature. As at the year end, no receivables are past their due date, hence no allowance for doubtful receivables is provided on the basis that expected credit losses are nil.

The total trade and other receivables denominated in South African Rand amount to \$1,602,806 (December 2017: \$7,471,478).

18. RESTRICTED INVESTMENT

	31 December 2018	31 December 2017
	\$	\$
Rehabilitation trust fund and insurance fund	5,388,953	5,186,937

The group is required by statutory law in South Africa to hold these restricted investments in order to meet decommissioning liabilities on the statement of financial position (note 24).

19. AVAILABLE-FOR-SALE FINANCIAL ASSET

	\$
AIM listed shares	
As at 1 January 2018	1,652,265
Fair value movement	659,007
As at 31 December 2018	2,311,272

The Group measures the fair value of an instrument using the quoted price in an active market for that instrument. A market is regarded as active if transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

20. CASH AND CASH EQUIVALENTS

	31 December 2018	31 December 2017
	\$	\$
Cash at hand and in bank	42,019,123	9,739,632

Cash and cash equivalents (which are presented as a single class of assets on the face of the Statement of Financial Position) comprise cash at bank and other short-term highly liquid investments with an original maturity of three months or less. The directors consider that the carrying amount of cash and cash equivalents approximates their fair value.

The total cash and cash equivalents denominated in South African Rand amount to \$38,304,481 (December 2018: \$7,223,070).

21. BORROWINGS AND OTHER FINANCIAL LIABILITIES

	31 December 2018	31 December 2017
	\$	\$
Convertible loan notes	–	7,861,526
Other financial liabilities	–	1,366,052
	–	9,227,578

SETTLEMENT OF CONVERTIBLE BONDS

The outstanding convertible bonds balance was reduced by the following conversions:

- \$337,300 of convertible bonds converted into 3,078,817 ordinary shares of 1 pence each of the Company at a conversion price of 8.12 pence each on 18 January 2018. Following the exercise, Atlas held a total of \$9,039,640 Convertible Bonds;
- \$944,440 of convertible bonds converted into 8,620,689 ordinary shares of 1 pence each of the Company at a conversion price of 8.34 pence each on 23 January 2018. Following the exercise, Atlas held a total of \$8,095,200 Convertible Bonds;
- \$1,349,200 of convertible bonds converted into 11,990,407 ordinary shares of 1 pence each of the Company at a conversion price of 8.34 pence each on 19 February 2018. Following the exercise, Atlas held a total of \$6,746,000 Convertible Bonds;
- \$978,170 of convertible bonds converted into 8,809,234 ordinary shares of 1 pence each of the Company at a conversion price of 8.23 pence each 14 March 2018. Following this exercise, Atlas held a total of \$5,767,830 Convertible Bonds.

On 14 June 2018, Bushveld fully redeemed the issued Convertible Bonds. The Convertible Bonds were settled in full for a final aggregate cash payment of \$6.9 million, including interest and early redemption charges.

Notes to the Consolidated Financial Statements continued For the year ended 31 December 2018

22. TRADE AND OTHER PAYABLES

	31 December 2018 \$	31 December 2017 \$
Trade payables	12,140,084	10,874,018
Other payables	–	6,381,182
Accruals	8,063,711	2,992,513
	20,203,795	20,247,713

Trade and other payables principally comprise amounts outstanding for trade purchases and on-going costs. The average credit period taken for trade purchases is 30 days.

The group has financial risk management policies in place to ensure that all payables are paid within the pre-arranged credit terms. No interest has been charged by any suppliers as a result of late payment of invoices during the year.

The directors consider that the carrying amount of trade and other payables approximates to their fair value.

The total trade and other payables denominated in South African Rand amount to \$15,793,322 (December 2018: \$14,840,008).

23. POST-RETIREMENT MEDICAL LIABILITY

	31 December 2018 \$
Benefit liability	
As at 1 January 2018	2,783,456
Actuarial changes arising from changes in financial assumption	(405,719)
Balance at 31 December 2018	2,377,737

The benefit comprises medical aid subsidies provided to qualifying retired employees. Actuarial valuations are made annually, and the most recent valuation was made on 31 December 2018.

The main assumptions in the valuation are:

Discount rate	9.90%
Health care cost inflation	8.20%
Average retirement age	76.6 years

A one percentage point change in the assumed rate of healthcare costs would have the following effect on the present value of the unfunded obligation: Plus 1%: \$2.6 million; Less 1%: \$2.1 million.

A one percentage point change in the assumed interest rate would have the following effect on the present value of the unfunded obligation; Plus 1%: \$0.25 million; Less 1%: \$0.21 million.

24. ENVIRONMENTAL REHABILITATION LIABILITY

	31 December 2018 \$	31 December 2017 \$
Provision for future environmental rehabilitation costs	6,632,607	6,669,432

Provision for future environmental rehabilitation costs are made on a progressive basis. Estimates are based on costs that are regularly reviewed and adjusted as appropriate for new circumstances.

The rehabilitation provision represents the present value of rehabilitation costs relating to the mine sites, which are expected to be incurred up to 2037, which is when the producing mine properties are expected to cease operations. The provisions are based on management's estimates and assumptions based on the current economic environment. Actual rehabilitation costs will ultimately depend upon future market prices for the necessary rehabilitation works and timing of when the mine ceases operation. Furthermore, the timing of rehabilitation is likely to depend on when the mines cease to produce at economically viable rates. This, in turn, will depend upon future vanadium prices, which are inherently uncertain.

The discount rate used in the calculation of the provision as at 31 December 2018 was 9.73% (2017: 9.79%).

25. SHARE CAPITAL AND SHARE PREMIUM

	Shares Number	Share capital \$	Share premium \$	Total share capital and premium \$
At 1 March 2017	696,214,271	9,393,318	82,198,555	91,591,873
Warrants exercised	70,858,086	956,018	1,325,495	2,281,513
Conversion of convertible bonds	13,056,184	176,155	1,240,506	1,416,661
Other issues – Dawnmin	41,000,000	553,173	323,809	876,982
Distribution of capital on de-merger	–	–	(21,786,883)	(21,786,883)
Shares issued on acquisition	54,766,364	738,909	5,921,179	6,660,088
At 1 January 2018	875,894,905	11,817,573	69,222,661	81,040,234
Conversion of convertible bonds	32,499,147	413,649	2,991,090	3,404,739
Warrants exercised	33,737,419	429,409	3,710,416	4,139,825
Shares issued	152,749,172	1,944,191	18,080,981	20,025,172
Shares issued to directors and staff	24,847,310	316,257	8,017,103	8,333,360
Share issue expenses	–	–	(1,018,995)	(1,018,995)
At 31 December 2018	1,119,727,953	14,921,079	101,003,256	115,924,335

The Board may, subject to Guernsey Law, issue shares or grant rights to subscribe for or convert securities into shares. It may issue different classes of shares ranking equally with existing shares. It may convert all or any classes of shares into redeemable shares. The Company may also hold treasury shares in accordance with the law. Dividends may be paid in proportion to the amount paid up on each class of shares.

As at the 31 December 2018 the Company owns 670,000 (December 2017: 670,000) treasury shares with a nominal value of 1 pence.

EQUITY PLACING

On 26 March 2018, the Company raised approximately US\$20.0 million (before expenses) by way of an oversubscribed placing of 152,749,172 new ordinary shares of 1 penny each at a price of 10.3 pence per share with leading institutional and mining investors (the “Placing”). The price was calculated as the 5 day volume weighted average price (as published by Bloomberg) at close of trading Monday 19 March 2018. The Placing shares represented approximately 14.4% of the Company’s issued share capital on admission.

The planned use of the net proceeds of the Placing was to:

- Redeem the outstanding Atlas Capital Convertible Bond US\$6.9 million;
- Simplify Bushveld’s organisational and corporate structure to improve Bushveld’s exposure to the underlying cash flows of its assets US\$9.0 million; and
- Support Bushveld’s vanadium expansion programme: Expansion of the vanadium reserves and resources at the Vametco mine and Brits Project for future production and support Vametco’s expansion plans to increase production to more than 5,000 mtV and beyond US\$5.6 million.

SHARES ISSUED TO DIRECTORS AND STAFF

During the course of the year a benchmarking exercise was conducted in order to address a pay gap matter which resulted in a one-off retrospective compensation by way of shares being issued to employees, directors and advisors. Further to the approval by Shareholders of the Retrospective Compensation Scheme, the Compensation Shares were issued as follows:

Name of recipient	Role	Number of Compensation shares
Fortune Mojapelo	Chief Executive Officer	7,000,000
Anthony Viljoen	Non-Executive Director (Executive Director until 09/11/2017)	7,000,000
Ian Watson	Non-Executive Chairman	3,015,000
Jeremy Friedlander	Non-Executive Director	1,050,000
Bill Chipane	Director of Bushveld Vametco Limited	2,500,000
Senior Employees and Advisors		4,282,310
Total Shares		24,847,310

Notes to the Consolidated Financial Statements continued

For the year ended 31 December 2018

25. SHARE CAPITAL AND SHARE PREMIUM CONTINUED

NATURE AND PURPOSE OF OTHER RESERVES

SHARE PREMIUM

The share premium reserve represents the amount subscribed for share capital in excess of nominal value.

WARRANT RESERVE

The warrant reserve represents proceeds on issue of warrants relating to the equity component (i.e. option to convert the debt into share capital).

FOREIGN EXCHANGE TRANSLATION RESERVE

The translation reserve comprises all foreign currency differences arising from the translation of financial statements of foreign operations.

FAIR VALUE RESERVE

The fair value reserve comprises the cumulative net change in the fair value of available-for-sale financial assets until the assets are derecognised or impaired.

ACCUMULATED PROFIT/LOSS

The accumulated profit/loss reserve represents other net gains and losses and transactions with owners (e.g. dividends) not recognised elsewhere.

26. PROVISIONS

	Leave pay and bonus \$	Performance bonus \$	Surface lease \$	Other \$	Total \$
Balance at 1 March 2017	–	–	–	–	–
Acquired during the period	929,525	1,293,417	1,148,922	100,018	3,471,882
Balance at 1 January 2018	929,525	1,293,417	1,148,922	100,018	3,471,882
Additional provisions	73,314	1,841,460	(86,905)	2,158,839	3,986,708
Utilised during the year	–	(2,175,591)	(315,116)	(192,524)	(2,683,231)
Foreign exchange	(166,384)	(150,201)	(124,285)	(13,524)	(454,394)
Balance at 31 December 2018	836,455	809,085	622,616	2,052,809	4,320,965

LEAVE PAY AND BONUS

Leave pay represents employee leave days due multiplied by their cost to the company employment package. The bonus represents the estimated amount due to employees based on their approved bonus scheme.

PERFORMANCE BONUS

The performance bonus represents an incentive bonus due to senior employees, calculated in terms of an approved scheme based on the company's operating results.

SURFACE LEASE

The provision is based on management's best estimate of the expenditure required to settle the obligation for surface lease rentals to Co-Owners, subsequent to finalisation of the surface lease agreements.

OTHER

The other provision represents amounts funded by the Industrial Development Corporation of South Africa to Bushveld Energy as well as group tax, legal and consulting fees expected fees to be charged.

27. DEFERRED CONSIDERATION

	31 December 2018 \$	31 December 2017 \$
Opening balance	11,019,447	–
Initial recognition on acquisition	–	11,019,447
Unwinding of discount	316,551	–
Movement in earnout estimate	6,091,514	–
Closing balance	17,427,512	11,019,447

At the year-end management have updated their estimate of the earnout payable on the acquisition of the Vametco Group, which is based on the expected EBITDA for the year ended 31 December 2020.

28. WARRANTS

The warrants in issue during the year are as follows:

	Number of warrants
Outstanding at 1 March 2017	114,109,300
Granted during the 10 months to 31 December 2017	36,877,820
Exercised during the 10 months to 31 December 2017	(103,552,751)
Outstanding at 31 December 2017	47,439,660
Exercisable at 30 December 2017	47,439,660
Exercised during year to 31 December 2018	(47,439,660)
Outstanding at 31 December 2018	–

29. FINANCIAL INSTRUMENTS

The group is exposed to the risks that arise from its use of financial instruments. This note describes the objectives, policies and processes of the group for managing those risks and the methods used to measure them. Further quantitative information in respect of these risks is presented throughout these financial statements.

CAPITAL RISK MANAGEMENT

The group manages its capital to ensure that entities in the group will be able to continue as going concerns while maximising returns to shareholders. In order to maintain or adjust the capital structure, the group may issue new shares or arrange debt financing. At the reporting date, the group had borrowings of nil (2017: \$9,211,774).

The capital structure of the group consists of cash and cash equivalents and equity, comprising issued capital and retained profits.

The group is not subject to any externally imposed capital requirements.

SIGNIFICANT ACCOUNTING POLICIES

Details of the significant accounting policies and methods adopted including the criteria for recognition, the basis of measurement and the bases for recognition of income and expenses for each class of financial asset, financial liability and equity instrument are disclosed in note 3.

PRINCIPAL FINANCIAL INSTRUMENTS

The principal financial instruments used by the group, from which financial instrument risk arises, are as follows:

- Trade and other receivables
- Cash at bank
- Trade and other payables
- Borrowings
- Investments in listed shares

CATEGORIES OF FINANCIAL INSTRUMENTS

The group holds the following financial assets:

	31 December 2018 \$	31 December 2017 \$
Loans and receivables		
Trade and other receivables	32,586,186	13,878,230
Restricted investment	5,388,953	5,186,937
Cash and cash equivalents	42,019,123	9,739,632
Available for sale financial assets	2,311,272	1,652,265
Total financial assets	82,305,534	30,457,064

The group holds the following financial liabilities:

	31 December 2018 \$	31 December 2017 \$
Other financial liabilities		
Trade and other payables	20,203,795	20,247,713
Borrowings	–	7,861,526
Total financial liabilities	20,203,795	28,109,239

Notes to the Consolidated Financial Statements continued For the year ended 31 December 2018

29. FINANCIAL INSTRUMENTS CONTINUED

GENERAL OBJECTIVES, POLICIES AND PROCESSES

The Board has overall responsibility for the determination of the group's risk management objectives and policies. The Board receives reports through which it reviews the effectiveness of the processes put in place and the appropriateness of the objectives and policies it sets.

The overall objective of the Board is to set policies that seek to reduce risk as far as possible without unduly affecting the group's competitiveness and flexibility. Further details regarding these policies are set out below:

PRICE RISK

The Group's exposure to commodity price risk is dependent on the fluctuating price of the various commodities that it mines, processes and sells.

The average market price net of sales of each of the following commodities was:

	2018 \$/kgV	2017 \$/kgV
NV	67.36	29.25
MVO	110.12	–

If the average price of each of these commodities increased/decreased by 10% the total sales related to each of these commodities would have increased/decreased as follows:

	Effect on 2018 revenue \$	Effect on 2018 net income \$
NV	17,273,858	12,437,178
MVO	93,862	67,581
	17,367,720	12,504,758

A 2017 analysis has not been included because the group was only exposed to significant price risk following the acquisition of the Vametco group in December 2017.

CREDIT RISK

Credit risk arises principally from the group's cash balances with further risk arising due to its other receivables and available-for-sale investments. Credit risk is the risk that the counterparty fails to repay its obligation to the group in respect of the amounts owed. The group gives careful consideration to which organisations it uses for its banking services in order to minimise credit risk.

It is the group's policy that all suppliers who wish to trade on credit terms are subject to credit verification procedures. Credit risk arises from credit exposure to customers, including outstanding receivables and committed transactions.

Trade account receivables comprise a limited customer base. Ongoing credit evaluation of the financial position of customers is performed and granting of credit is approved by directors.

The group's credit risk is considered by counterparty, geography and by currency. The group has a significant concentration of cash held on deposit with large banks in South Africa, Mauritius and the United Kingdom and America with A ratings and above (Standard and Poors).

The concentration of credit risk by currency was as follows:

Currency	31 December 2018 \$	31 December 2017 \$
Sterling	1,548,907	2,693,382
South African Rand	10,322,765	6,489,818
United States Dollar	30,147,451	556,432
	42,019,123	9,739,632

At 31 December 2018, the group held no collateral as security against any financial asset. The carrying amount of financial assets recorded in the financial statements, net of any allowances for losses, represents the group's maximum exposure to credit risk without taking account of the value of any collateral obtained. At 31 December 2018, no financial assets were past their due date. As a result, there has been no impairment of financial assets during the year. An allowance for impairment is made where there is an identified loss event which, based on previous experience, is evidence of a reduction in the recoverability of the cash flows. Management considers the above measures to be sufficient to control the credit risk exposure.

LIQUIDITY RISK

Liquidity risk is the risk that the group will encounter difficulty in meeting its financial obligations as they fall due. Ultimate responsibility for liquidity risk management rests with the Board of directors. The Board manages liquidity risk by regularly reviewing the group's gearing levels, cash-flow projections and associated headroom and ensuring that excess banking facilities are available for future use.

The group maintains good relationships with its banks, which have high credit ratings and its cash requirements are anticipated via the budgetary process. At 31 December 2018, the group had \$42,019,123 (December 2017: \$9,739,632) of cash reserves.

MARKET RISK

The group's activities expose it primarily to the financial risk of changes in foreign currency exchange rates and interest rates.

INTEREST RATE RISK

With the exception of cash and cash equivalents, the group's only interest-bearing assets or liabilities were the convertible loan notes (see note 21), which carry a fixed rate of interest and were redeemed or settled in full in the year. The group was therefore exposed to minimal interest rate risk during the year. For this reason, no sensitivity analysis has been performed regarding interest rate risk.

FOREIGN EXCHANGE RISK

As highlighted earlier in these financial statements, the functional currency of the group is US Dollars. The group also has foreign currency denominated assets and liabilities. Exposures to exchange rate fluctuations therefore arise. The carrying amount of the group's foreign currency denominated monetary assets and liabilities, all in US Dollars, are shown below:

	31 December 2018 \$	31 December 2017 \$
Cash and cash equivalents	11,871,672	9,183,200
Other receivables	5,383,027	5,599,376
Trade and other payables	(9,161,039)	(20,247,713)
	8,093,660	(5,465,137)

The group is exposed to a level of foreign currency risk. Due to the minimal level of foreign transactions; the directors currently believe that foreign currency risk is at an acceptable level.

The group does not enter into any derivative financial instruments to manage its exposure to foreign currency risk.

Notes to the Consolidated Financial Statements continued

For the year ended 31 December 2018

30. OPERATING LEASE COMMITMENTS

The group had total commitments at the reporting date under non-cancellable operating leases falling due as follows:

	31 December 2018 Land and buildings \$	31 December 2017 Land and buildings \$
Within one year	991,870	1,072,829
Between one and five years	1,904,324	1,908,800
More than five years	7,812,984	–
	10,709,178	2,981,629

31. CONTINGENT LIABILITIES

As required by the Minerals and Petroleum Resources Act (South Africa), a guarantee amounting to \$5,651,318 before tax and \$4,068,946 after tax was issued in favour of the Department of Mineral Resources for the unscheduled closure of the mine. This guarantee was issued on condition that a portion be deposited in cash with Guard Risk Insurance Company Ltd with restricted use by the Group, as per the below.

The restricted cash disclosed as a current asset consists of \$2,455,711 (2017: \$2,850,636) paid to Investec Bank Limited and \$1,996,638 (2017: \$2,336,300) paid to Guardrisk Insurance Company Ltd, to enable Guard Risk Insurance Company Ltd to issue a guarantee to the Department of Mineral Resources for the mine's environmental rehabilitation obligation. The insurance company deposited this balance in a Money Market account and interest at a rate of 5.75% is earned on the net credit balance. The guarantee is valid for three years, commencing on 1 April 2015 and the funds are only available if the agreement is terminated with a three months' notice period. The contract was renewed on 1 April 2018, it will expire on 31 March 2021.

32. CAPITAL COMMITMENTS

	31 December 2018 \$	31 December 2017 \$
Authorised and contracted for	7,599,075	5,887,761
Authorised but not contracted for	2,258,667	3,098,650
	9,857,742	8,986,411

33. ACQUISITION OF SOJITZ INTEREST IN STRATEGIC MINERALS CORPORATION

On 13 September 2018, the group completed the acquisition of a 21.22 per cent interest in Strategic Minerals Corporation, an intermediate holding company of Vametco Alloys Proprietary Limited, from Sojitz Noble Alloys Corporation for a total cash consideration of \$17,500,000 ("the transaction"). On completion of the transaction, the Bushveld group increased its indirect beneficial interest in Vametco Alloys Proprietary Limited from 59.1 per cent to 75 per cent.

TRANSACTION SUMMARY

- The group acquired all of Sojitz Noble Alloys Corporation's shareholding interest and accompanying rights in Strategic Minerals Corporation, the 75 per cent owner of Vametco Alloys Proprietary Limited, for a total consideration of US\$20,000,000 (twenty million US dollars). The US\$20,000,000 consideration payable comprises:
 - US\$17,500,000 in cash (seventeen million five hundred thousand US dollars) for the sale shares;
 - US\$2,500,000 in cash (two million five hundred thousand US dollars) in full and final settlement of accrued but unpaid dividends on the sale shares;
- The Sojitz Noble Alloys Corporation shareholding in Strategic Minerals Corporation was acquired free from all claims, liens, equities, charges, encumbrances and adverse rights of any description, and together with all rights attaching thereto, accrued or contingent;
- Following completion of the transaction Bushveld, through wholly owned Bushveld Vametco Limited, owns 100 per cent of Strategic Minerals Corporation and therefore have an indirect beneficial interest of 75 per cent in Vametco Alloys Proprietary Limited (subsequently reduced to 74 per cent – see note 34); and
- The group used existing cash resources to complete the transaction.

34. BROAD BASED BLACK ECONOMIC EMPOWERMENT OWNERSHIP IN THE GROUP

On 27 September 2018, the group completed the sale of a 1.0% equity interest in Bushveld Vametco Holdings (Proprietary) Limited equally to its two Broad Based Black Economic Empowerment Shareholders, Business Ventures Investments No. 1833 (Proprietary) Limited and Business Ventures Investments No. 973 (Proprietary) Limited ("BBBEE Shareholders") for a total cash consideration of R1,780,000.

The commitment to conclude the transaction at the agreed consideration was made by the previous Strategic Minerals Corporation owners, prior to Bushveld Minerals Limited's acquisition of Strategic Minerals Corporation, with a view to meeting the Black Economic Empowerment equity requirements as set out in the recently promulgated Mining Charter III. Accordingly, the sale increased Bushveld Vametco Holdings (Proprietary) Limited's Broad Based Black Economic Empowerment shareholding from 25.0% to 26.0%, ensuring Bushveld Vametco Holdings (Proprietary) Limited is fully compliant with the minimum Black Economic Empowerment ownership requirements of the Mining Charter. Bushveld Minerals Limited's shareholding in Bushveld Vametco Holdings (Proprietary) Limited, through its wholly owned subsidiary Strategic Minerals Corporation, accordingly, reduces to 74%.

TRANSACTION SUMMARY

- Total 1.0% interest acquired to increase total Broad Based Black Economic Empowerment shareholders interest to 26.0% for a total cash consideration of R1,780,000;
- The R1,780,000 consideration was vendor financed provided to Broad Based Black Economic Empowerment shareholders by Bushveld Minerals which has since been repaid; and
- The share based payment charge recognised in the income statement of \$3,232,425 represents the difference between the grant date fair value and the 1% interest and the amount receivable for the shares. A charge has been recognised in the income statement to recognise the services (BEE credentials) received by the group.

The fair value of the shares were determined by using the estimated fair value of the subsidiary company. The fair value of the subsidiary company was determined using the following assumptions:

- Future estimated vanadium prices
- Future estimated exchange rates
- Future estimated production volumes
- Discount rate of 12.8%
- New order mining rights will expire in 2037

35. RELATED PARTY TRANSACTIONS

Balances and transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note.

VM Investments Limited is a related party due to two of the Executive Directors (Fortune Mojapelo and Anthony Viljoen) of Bushveld Minerals Limited being majority shareholders of VM Investments. At the year end, VM Investments Ltd (VMI) owed the group \$22,688 (2017: nil).

The remuneration of the directors, who are the key management personnel of the group, is set out below. Further information about the remuneration of individual directors is provided in the Directors' remuneration report.

	Year ended 31 December 2018 \$	10 months ended 31 December 2017 \$
Fees for services as directors	196,557	159,464
Short-term employee benefits	595,670	224,432
Share based payments (note 25)	6,058,690	–
	6,850,917	383,896

Notes to the Consolidated Financial Statements *continued*

For the year ended 31 December 2018

36. EVENTS AFTER THE REPORTING DATE

VANCHEM ACQUISITION

On 1 May 2019 the Company announced it had entered into a Business and Share Purchase Agreement (the "Agreement") with Vanchem Vanadium Products (Pty) Limited ("VVP"), a subsidiary of Duferco Vanadium Investment Holding S.A. ("Duferco"), South African Japan Vanadium Proprietary Limited ("SAJV"), a wholly owned subsidiary of VVP and Duferco Participations Holding S.A. to conditionally acquire the following vanadium production assets in South Africa (the "Transaction"):

- i. the vanadium production business of VVP as a going concern ("Vanchem Plant");
- ii. the ferrovandium production business of SAJV as a going concern ("SAJV Business"); and
- iii. 100 per cent of the outstanding shares of Ivanti Resources (Pty) Limited ("Ivanti"), a subsidiary of Duferco Participations Holding S.A. which has economic rights to certain secondary vanadium units treated within the Vanchem Plant.

The assets are being acquired as one indivisible transaction, for an aggregate cash consideration of US\$68 million (the "Consideration"), which is to be settled in two stages. The Vanchem Plant and SAJV Business are hereinafter jointly referred to as the Vanchem Business ("Vanchem Business").

Key aspects of the acquisition transaction include the following:

- The Company is acquiring the Vanchem Business and 100 per cent of the outstanding shares of Ivanti for an aggregate Consideration of US\$68 million.
- Consideration is payable in two stages,
 - US\$6.8 million paid on 30 April 2019 following the execution of the Agreement into an escrow account pending completion of the Transaction; and
 - US\$61.2 million to be settled in full no sooner than 31 July 2019 and no later than 31 October 2019.
- All fair value determinations of assets being acquired will be completed on or before Transaction completion date.
- For a 12 month period after completion of the Transaction, VVP will be entitled to 50 per cent of the profits made by Ivanti.
- The Vanchem Plant is a primary vanadium producing facility with a beneficiation plant capable of producing various vanadium oxides, ferro-vanadium and vanadium chemicals.
- The Vanchem Plant is located approximately 200 km by road from the Company's Mokopane Vanadium Project ("Mokopane"). Mokopane is intended to become a primary source of feedstock for the Vanchem Business and its development will be accelerated as a result of the Transaction.
- Capital expenditure requirements associated with developing Mokopane are estimated to be US\$20.0 million.
- The Vanchem Business provides immediate production growth, adding an estimated 960 mtV on an annualised basis using one of the three kilns on site and is expected to achieve a steady state production of 4,200 mtV per annum following refurbishment.
- Refurbishment costs are expected to be approximately US\$45.0 million and will be incurred over a five year period from the completion of the Transaction.
- The Company plans to finance the entire Consideration and associated capital expenditure from the Company's existing cash resources, future cash flows as well as, to the extent necessary, debt facilities which are currently being negotiated.

LEMUR FUNDING

Lemur Holdings Limited, a subsidiary entered into a \$1,000,000 (One Million United States Dollars) facility agreement with the Development Bank of Southern Africa Limited in March 2019. The purpose of the facility is to assist with the costs associated with delivering the key milestones to the power project. The repayment is subject to the successful bankable feasibility of the project at which point the repayment would be the facility value plus an amount equal to an IRR of 40% capped at 2.5 times which ever is lower. Due to the uncertainty of the outcome of the project the liability is classified as contingent at this point in time. As at end April 2019, no amount has been drawn from this facility.

Glossary

MINING TERMS AND ACRONYMS

Beneficiation The process of physically separating ore from waste material followed by further processing and of the upgrading ore.

Brownfield Exploration Exploration close or adjacent to an operating mine where existing mine data is often of use in the exploration programme the development or exploration located inside the area of influence of existing mine operations which can share infrastructure/management.

Competent Person Report (CPR) Responsible for the preparation of a report on all the technical aspects of a project or mine. The contents are determined by the nature/status of the project/mine being reported on and may include a techno-economic model as appropriate for the level of study. A Competent Person must have a minimum of five years' relevant experience in the style of mineralisation or type of deposit under consideration and in the activity that the person is undertaking (JORC Code, 2012).

Crushing First stage of mineral processing which involves reducing large rocks or boulders into smaller sizes using equipment such as gyratory crushers, jaw crushers and cone crushers.

Greenfield Exploration Refers to exploration in historically largely unexplored territory, where mineral deposits have not previously been identified. Exploration areas are located outside the area of influence of existing mine operations/infrastructure.

Hanging Wall Rock formation overlying the ore horizon being exploited.

Indicated Mineral Resource An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration results with information gathered from outcrops, trenches, pits, old workings and drill holes. The drillholes should be spaced closely enough for geological and grade continuity to be reasonably assumed

Inferred Mineral Resource An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing of information gathered through appropriate techniques from outcrops, trenches, pits, workings and drill holes.

Leaching The process by which a soluble metal can be economically recovered from minerals in ore by dissolution using chemicals appropriate for the ore under consideration.

Life of Mine Life of Mine is the time in which the ore reserves (or such reasonable extension of the reserves as conservative geological analysis may justify) will be exhausted due to its exploitation by employment of the capital available to do so.

Magnetic separation The process of concentrating magnetic ore particles from nonmagnetic rock particles using a magnet.

Magnetite The most magnetic naturally occurring mineral, often with the formula Fe₃O₄ often constituting iron ore

Main Magnetite Layer The most important vanadium bearing magnetite layer in the lower portion of the upper zone of the Bushveld Complex. It consists of massive to highly disseminated magnetite, varying in thickness from one to ten metres.

Measured Mineral Resource A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support detailed production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, data sampling and all relevant information gathered from the study of outcrops, trenches, pits, workings and drill holes. Drill holes should be spaced closely enough to confirm both geological and grade continuity of the resource.

Milling The process of breaking down rock particles obtained from various crushing stages into even smaller sizes (usually to powder like form) using equipment such as a ball mill.

Mineralisation A concentration (or occurrence) of material of possible economic interest, in or on the Earth's crust, for which quantity and quality cannot be estimated with sufficient confidence to be defined as a Mineral Resource. Mineralisation is not classified as a Mineral Resource or Mineral Reserve and can only be reported under Exploration Results. The data and information relating to it must be sufficient to allow for a considered and balanced judgement of its significance.

Mineral Deposits A mass of naturally occurring mineral material, usually of economic interest, without regard to mode of origin.

Glossary continued

Mineral Reserves Mineral Reserves are sub-divided into two categories. Proven category – The highest level of confidence of a reserve. Probable category – The lower level of confidence of a reserve.

Reserves are distinguished from resources as all the technical and economic parameters have been applied and the estimated grade and tonnage of the resources should closely approximate the actual results of mining. The guidelines state “Mineral Reserves are inclusive of the diluting material that will be mined in conjunction with the Mineral Reserve and delivered to the treatment plant or equivalent facility.” The guidelines also state that: “The term ‘Mineral Reserve’ need not necessarily signify that extraction facilities are in place or operative or that all government approvals have been received.” It does signify that there are reasonable expectations of such approvals.

Mineral Resource A ‘Mineral Resource’ is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

Modified Vanadium Oxide (“MVO”) An oxide form of vanadium that is chemically produced by reducing Ammonium MetaVanadate and is used as feed stock for final vanadium products such as Nitrovan and ferro-vanadium.

Open Pit Mine A method of mining rock or minerals by removing them from an open-pit mine situated close to the surface and not involving underground excavations and tunnels.

Qualified person A professionally qualified member in good standing of an appropriate, recognised professional association or society, having at least five years relevant experience within the sector. A professional association is a Recognised Professional Organisation (RPO) of engineers and or geoscientists.

Reserve Life The current stated ore reserve estimate divided by the current approved nominated production rate as at the end of the financial year.

Run of Mine Run of mine is the rock produced in the course of regular mining activities. Tonnes include allowances for diluting materials and for losses that occur when the material is mined.

Salt Roasting Process where a magnetite concentrate is roasted with salts (Sodium Carbonate & Sodium Sulphate) in an extremely high temperature rotary kiln, with temperatures of up to 1,150°C, to form water soluble solids containing vanadium.

Strike Horizontal direction or trend of a geological formation or layer.

OTHER TERMS

Bankable Feasibility Study A feasibility study is bankable if it has been prepared in detail and with objectivity such that the company could submit it to investors or lenders when seeking financing for the project.

EBITDA Earnings before interest, tax, depreciation and amortization is a measure of a company’s operating performance.

Adjusted EBITDA Is EBITDA, plus other fair value adjustments not deemed to be part of normal operating activities.

Free Cash Flow Free cash flow represents the net cash generation from operating activities after taking into consideration capital expenditure.

Prefeasibility Study Prefeasibility study is an early stage analysis of a potential mining project. It is conducted and designed to give company stakeholders the basic information required to choose between potential investments.

Notice of Annual General Meeting

BUSHVELD MINERALS LIMITED

(Incorporated in Guernsey under registered number 54506)

REGISTERED OFFICE:

18-20 Le Pollet, St Peter Port
Guernsey, GY1 1WH
22 May 2019

THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION

If you are in any doubt as to what action you should take, you are recommended to seek your own financial advice immediately from your stockbroker, bank manager, solicitor, accountant or other independent financial advisor who specialises in advising on shares or other securities and who is, in the case of UK shareholders, authorised under the Financial Services and Market Act 2000.

If you have sold or transferred your shares in Bushveld Minerals Limited, please forward this document at once to the purchaser or transferee or to the stockbroker, bank or other agent through whom the sale or transfer was effected, for delivery to the purchaser or transferee. If you have sold or transferred part of your registered holding of shares, please consult the stockbroker, bank or other agent through whom the sale or transfer was effected.

Notice of an Annual General Meeting of Bushveld Minerals Limited to be held at 11:00 am on 2 July 2019 at 18-20 Le Pollet, St Peter Port, Guernsey, GY1 1WH.

ORDINARY RESOLUTIONS

1. To receive and adopt the Annual Financial Statements of the Company and the Directors report and the report of the Auditors for the financial year ended 31 December 2018.
2. To approve the Directors Fees as reflected in Remuneration Report and in Note 35 of the Annual Financial Statements.
3. That Messrs RSM UK Audit LLP be reappointed as Auditors to the Company.
4. That the Directors be authorised to approve the remuneration of the Company's Auditors to the Company.
5. That Michael Kirkwood shall be re-elected as a Director, having retired and offered himself for re-election.
6. That Anthony Viljoen shall be re-elected as a Director, having retired by rotation and offered himself for re-election.
7. That Geoff Sproule shall be re-elected as a Director, having retired by rotation and offered himself for re-election.
8. The Company be generally and unconditionally authorised for the purposes of Articles 50.3 of the Articles to make on market acquisitions (as defined in Article 50.5 of the Articles) of Ordinary Shares on such terms and in such manner as the Directors determine provided that:
 - (i) the maximum aggregate number of Ordinary shares which may be purchased is 111,905,795 Ordinary Shares;
 - (ii) the minimum price (excluding expenses) which may be paid for each Ordinary share is £0.01;
 - (iii) the maximum price (excluding expenses) which may be paid for any Ordinary Share does not exceed 105 per cent of the average closing price of such shares for the 5 business days of AIM prior to the date of purchase; and
 - (iv) this authority shall expire at the conclusion of the next Annual General Meeting of the Company unless such authority is renewed prior to that time (except in relation the purchase of Ordinary Shares the contract for which was concluded before the expiry of such authority, in which case such purchase may be concluded wholly or partly after such expiry).
9. The Directors of the Company be and are hereby authorised to exercise all powers of the Company to issue, grant rights to subscribe for, or to convert any securities into, up to 373,019,317 shares (together "Equity Securities") in the capital of the Company being approximately one third of the issued share capital of the Company (excluding treasury shares) in accordance with Article 8.3 of the Articles of Incorporation of the Company such authority to expire, unless previously renewed, revoked or varied by the Company by ordinary resolution, at the end of the next Annual General Meeting of the Company or, if earlier, at the close of business on the date falling 15 months from the date of the passing of this Resolution, but in each case, during this period the Company may make offers, and enter into agreements, which would, or might, require Equity Securities to be issued or granted after the authority given to the Directors of the Company pursuant to this Resolution ends and the Directors of the Company may issue or grant Equity Securities under any such offer or agreement as if the authority given to the Directors of the Company pursuant to this Resolution had not ended. This Resolution is in substitution for all unexercised authorities previously granted to the Directors of the Company to issue or grant Equity Securities; and

Notice of Annual General Meeting continued

SPECIAL RESOLUTION

10. If Resolution 9 is passed, the Directors of the Company be and they are hereby authorised to exercise all powers of the Company to issue or grant Equity Securities in the capital of the Company pursuant to the issue or grant referred to in Resolution 9 as if the pre-emption rights contained in Article 9.9 of the Articles of Incorporation of the Company did not apply to such issue or grant provided that: (A) the maximum aggregate number of Equity Securities that may be issued or granted under this authority is 111,905,795 shares, being approximately 10.0 per cent of the issued share capital of the Company (excluding treasury shares); and (B) the authority hereby conferred, unless previously renewed, revoked or varied by the Company by special resolution, shall expire at the end of the next Annual General Meeting of the Company or, if earlier, at the close of business on the date falling 15 months from the date of the passing of this Resolution, save that the Company may before such expiry make an offer or agreement which would or might require Equity Securities to be issued or granted after such expiry and the Directors may issue or grant Equity Securities in pursuance of such an offer or agreement as if the authority conferred by the above resolution had not expired. This Resolution is in substitution for all unexercised authorities previously granted to the Directors of the Company to issue or grant Equity Securities in the capital of the Company as if the pre-emption rights contained in Article 9.9 of the Articles of Incorporation of the Company did not apply to such issue or grant.

By order of the Board

F MOJAPELO

Director
22 May 2019

NOTICE OF MEETING NOTES

The following notes explain your general rights as a shareholder and your right to attend and vote at this Meeting or to appoint someone else to vote on your behalf.

1. To be entitled to attend and vote at the Meeting (and for the purpose of the determination by the Company of the number of votes they may cast), shareholders must be registered in the Register of Members of the Company at close of trading on 30 June 2019. Changes to the Register of Members after the relevant deadline shall be disregarded in determining the rights of any person to attend and vote at the Meeting.
2. Shareholders, or their proxies, intending to attend the Meeting in person are requested, if possible, to arrive at the Meeting venue at least 20 minutes prior to the commencement of the Meeting at 11:00 a.m. (UK time) on 2 July 2019 so that their shareholding may be checked against the Company's Register of Members and attendances recorded.
3. Shareholders are entitled to appoint another person as a proxy to exercise all or part of their rights to attend and to speak and vote on their behalf at the Meeting. A shareholder may appoint more than one proxy in relation to the Meeting provided that each proxy is appointed to exercise the rights attached to a different ordinary share or ordinary shares held by that shareholder. A proxy need not be a shareholder of the Company.
4. In the case of joint holders, where more than one of the joint holders purports to appoint a proxy, only the appointment submitted by the most senior holder will be accepted. Seniority is determined by the order in which the names of the joint holders appear in the Company's Register of Members in respect of the joint holding (the first named being the most senior).
5. A vote withheld is not a vote in law, which means that the vote will not be counted in the calculation of votes for or against the resolution. If no voting indication is given, your proxy will vote or abstain from voting at his or her discretion. In the absence of any specific instructions from you, your proxy will vote (or abstain from voting) as he or she thinks fit in relation to any other matter which is put before the Meeting.
6. You can vote either:
 - by logging on to www.signalshares.com and following the instructions. This system allows you to appoint a proxy and to instruct your proxy how to vote. If you have not used the service before you will need to register online, for which you will need your investor code (IVC). In order for a proxy appointment to be made in this way, you will need to submit your instructions via www.signalshares.com by 11:00 am on 30 June 2019;
 - by requesting a hard copy form of proxy directly from the registrars, Link Asset Services (previously called Capita), on Tel: 0371 664 0300. Calls cost 12p per minute plus your phone company's access charge. Calls outside the United Kingdom will be charged at the applicable international rate. Lines are open between 09:00-17:30, Monday to Friday excluding public holidays in England and Wales. In order for a proxy appointment by way of a hard copy form of proxy to be valid, the form of proxy must be received by Link Asset Services at 34 Beckenham Road, Beckenham, Kent, BR3 4ZF by 11:00 a.m. on 30 June 2019.
 - in the case of shareholders holding their shares through CREST, by submitting a CREST Proxy Instruction utilising the CREST electronic proxy appointment service in accordance with the procedures set out below.
7. If you return more than one proxy appointment, either by paper or electronic communication (including via www.signalshares.com), the appointment received last by the Registrar before the latest time for the receipt of proxies will take precedence. You are advised to read the terms and conditions of use carefully. Electronic communication facilities are open to all shareholders and those who use them will not be disadvantaged.
8. The return of a completed form of proxy or any CREST Proxy Instruction (as described in note 10 below), or the submission of instructions via www.signalshares.com, will not prevent a shareholder from attending the Meeting and voting in person if he/she wishes to do so.

9. Shareholders holding their shares through CREST who wish to appoint a proxy or proxies through the CREST electronic proxy appointment service may do so for the Meeting (and any adjournment of the Meeting) by using the procedures described in the CREST Manual (available from www.euroclear.com/site/public/EUI). Shareholders holding their shares through a CREST sponsor or service provider(s) should refer to their CREST sponsor or voting service provider(s), who will be able to take the appropriate action on their behalf.
10. In order for a proxy appointment or instruction made by means of CREST to be valid, the appropriate CREST message (a 'CREST Proxy Instruction') must be properly authenticated in accordance with Euroclear UK & Ireland Limited's specifications and must contain the information required for such instructions, as described in the CREST Manual. The message must be transmitted so as to be received by the issuer's agent (ID RA10) by 11:00 a.m. on 30 June 2019. For this purpose, the time of receipt will be taken to mean the time (as determined by the timestamp applied to the message by the CREST application host) from which the issuer's agent is able to retrieve the message by enquiry to CREST in the manner prescribed by CREST. After this time, any change of instructions to proxies appointed through CREST should be communicated to the appointee through other means.
11. Shareholders holding their shares through CREST and, where applicable, their CREST sponsors or voting service providers should note that Euroclear UK & Ireland Limited does not make available special procedures in CREST for any particular message. Normal system timings and limitations will, therefore, apply in relation to the input of CREST Proxy Instructions. It is the responsibility of the shareholder concerned to take (or, if the shareholder is a CREST personal member, or sponsored member, or has appointed a voting service provider(s), to procure that his CREST sponsor or voting service provider(s) take(s) such action as shall be necessary to ensure that a message is transmitted by means of the CREST system by any particular time. In this connection, shareholders holding their shares through CREST and, where applicable, their CREST sponsors or voting system providers are referred, in particular, to those sections of the CREST Manual concerning practical limitations of the CREST system and timings. The Company may treat as invalid a CREST Proxy Instruction in the circumstances set out in Regulation 34(1) of the Uncertificated Securities (Guernsey) Regulations, 2009.
12. Any corporation which is a shareholder can appoint one or more corporate representatives who may exercise on its behalf all of its powers as a shareholder provided that no more than one corporate representative exercises powers in relation to the same shares.
13. As at 22 May 2019 (being the latest practicable business day prior to the publication of this Notice), the Company's ordinary issued share capital (excluding treasury shares) consists of 1,119,057,953 ordinary shares, carrying one vote each. Therefore, the total voting rights in the Company as at 22 May 2019 are 1,119,057,953.
14. You may not use any electronic address (within the meaning of Section 523(2) of the Companies (Guernsey) Law, 2008) provided in either this Notice or any related documents (including the form of proxy) to communicate with the Company for any purposes other than those expressly stated.
15. A copy of this Notice can be found on the Company's website at www.bushveldminerals.com/investors

Company Information

BUSHVELD MINERALS

Registered Office
18-20 Le Pollet
St Peter Port
Guernsey

PRINCIPAL OPERATING ADDRESS

2nd Floor, Building 3
Illovo Edge Office Park
9 Harries Road, Illovo
Johannesburg, 2116
South Africa
Tel: +27 11 268 6555

SP ANGEL

NOMINATED ADVISER & BROKER

Prince Frederick House
35-39 Maddox Street
London, W1S 2PP

ALTERNATIVE RESOURCES CAPITAL

BROKER

8-10 Hill Street
London, W1J 5NQ

BMO CAPITAL MARKETS LIMITED

JOINT BROKER

95 Queen Victoria St,
London, EC4V 4HG

GOWLING WLG

LEGAL COUNSEL – UK

4 More London Riverside
London, SE1 2AU

RSM

INDEPENDENT AUDITOR

RSM UK Audit LLP
25 Farringdon Street
London, EC4A 4AB





www.bushveldminerals.com