

## Bushveld Minerals\*

BMN LN

**Strong Buy**  
Valuation 82p

7 November 2019

### Stock Data

Ticker	BMN LN
Share Price:	23.3p
Market Cap:	£268m

### Price Chart



## Bushveld completes Vanchem acquisition as Vametco reports >300mtV in September

**Bushveld Minerals** owns 74% of Vametco and 100% of the Vanchem, integrated vanadium mining, processing and technology businesses. 26% of Vametco held by a BEE group. **Bushveld Energy** (84%) is developing vanadium redox batteries for grid use in South Africa.

- Bushveld Minerals report a substantial increase in Nitrovan, vanadium-magnetite concentrate in September following significant improvement at Vametco.
- Production of Nitrovan rose to >300mtV in September a new record from the processing of vanadium-in- magnetite concentrate feedstock on its own.
- Increase in production means Bushveld is on track to meet its 2,800-2,900mtV target for the year.
- **Costs:** of US\$18.90-19.50/KgV for the year remain on track and are below our estimates.
- **Q3 production** fell 24% to 561mtV of Nitrovan from 742mtV in Q2 due to planned maintenance which completed 2 days ahead of schedule.
- **Environmental:** Kiln off-gas project initiated at Vametco to achieve better environmental performance and improve kiln feed throughput, due for completion in H1 2020.
- **Vanchem acquisition completed** for US\$53.5m vs US\$68m along with approval for the Mokopane mining right application.
- **Valuation:** We have recently reviewed our modelling on the Q3 op. performance and on the acquisition of Vanchem and the impact of the renegotiated price and debt facilities.
- Our valuation raises to 82p from 80p due to better performance at Vametco and improved terms on the Vanchem deal.
- **Assumptions:** our key assumptions are in the table below. We expect the price for ferro-vanadium to recover over the next few months with buying activity expected to return to the market supporting a price of US\$45/kg next year.

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(Dec year end)		2018	2019E	2020E	2021E	2022E	2023E
FeV price	US\$/kg	81	45	45	45	45	45
Vanadium sales	mtV	2,573	3,060	4,114	5,432	6,168	7,645
Sales*	US\$m	192.1	132.1	177.7	234.6	266.3	330.2
Cash Op costs	US\$m	-65.3	-62.2	-78.6	-101.3	-110.5	-129.9
Unit Cash Op costs*	US\$/kg	25.4	20.3	19.1	18.6	17.9	17.0
Operating profit	US\$m	95.2	42.7	72.3	103.7	123.3	162.9
Pre-tax profit	US\$m	86.6	44.2	69.6	101.7	121.3	161.3
Tax	US\$m	-37.6	-12.6	-19.8	-29.0	-34.6	-46.0
Post-tax profit	US\$m	49.0	31.6	49.8	72.7	86.8	115.3
EPS	US\$/c/s	2.90	2.03	3.29	5.03	6.14	8.52
PE	x	10.4	14.9	9.2	6.0	4.9	3.6
EV/EBITDA	x	2.7	6.6	3.9	2.7	2.3	1.8
EBITDA	US\$m	101.2	46.2	79.0	113.4	134.6	174.3
Free Cash Flow (100%)	US\$m	32.2	-12.4	4.2	29.4	64.0	112.3

Source: SP Angel, Company. +Vametco & Vanchem figures combined.

SP Angel forecasts: Figures based on 100% of Vametco plant. Bushveld now hold an effective 74% of the Vametco plant. Bushveld hold 100% of Vanchem. \*An SP Angel mining analyst and nomad have visited the Vametco in South Africa.

**Bushveld Cont...**

- **Further works at Vametco completed:**
  - Improving crusher and mill availability, and throughput rates
  - increase kiln availability and hourly feed rate
  - better recovery rates
  - improvement in leach recoveries
- **Bushveld Energy:** have committed US\$5m to the takeover of redT Energy Plc by Avalon Battery Corp.
- Avalon manufactures VRFB batteries and is looking for US\$30m to roll out its strategy for European VRFB development.
- Supporting Avalon gives Bushveld exposure to the VRFB battery market in the UK, Europe and North America.
- Electrolyte Plant: capacity for 200MWh pa for a capital cost of US\$10m to be financed by Bushveld and the Industrial Development Corporation of South Africa.
- Planning passed the 20-day appeal period and EIA now authorised.
- Lease finance for vanadium in VRFB batteries: rental contract agreed with Avalon and its customer, Sandbar, in the US.
- Brits vanadium resource: due in Q4
- **Mokopane mine:** A DFS on the Main Magnetite Layer and a resource / reserve assessment for feedstock to Vanchem is due H2 2020.
- **Vametco based Solar Mini-Grid:** completed a grid connection and geotechnical studies. Procurement for the project has commenced.
- **Lemur:** DFS to progress following preliminary findings and coal mine optimisation study. Negotiations for the construction of the power station with Sinohydro (PowerChina) are advanced due completion by the year end.
- **Debt:** Bushveld recently secured ~US\$25m in facilities through Vametco with Nedbank in the form of a R250m loan and a R125m revolving credit facility. This is carved out from the obligation to repay 50% of any debt raised over US\$15m, provided no more than 50 per cent of the Vanchem loan notes have been repaid.

**Conclusion:** Bushveld have worked hard in recent months to achieve a significant improvement in the performance at Vametco. The group now appears well set to repeat this success at Vanchem following confirmation of its acquisition today.

We are looking forward to new demand for vanadium from new VRFB installations and for Bushveld Energy's strategic positioning within this new technology sector to enable the Bushveld to grow with the sector as it develops.

*\*SP Angel act as Nomad and broker to Bushveld Minerals.*

*Note: Bushveld Minerals controls and holds an effective 84% of Vametco and has agreed to buy 100% of Vanchem.*

*\*An SP Angel mining analyst and nomad have visited the Vametco vanadium mine and processing facilities in South Africa.*

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Recommendations are based on a 12-month time horizon as follows:

Buy - Expected return >15%

Hold - Expected return range -15% to +15%

Sell - Expected return < 15%