

# South Harz Potash

## Scoping paper submitted to regulator, brownfield the preferred option

South Harz Potash has submitted a scoping paper to the Thuringia state regulatory authority (Thuringia Landesverwaltungsamt TLVwA) that sets out two potential development pathways for the Ohmgebirge potash deposit in Germany. The “brownfield” option would utilise existing shaft infrastructure at the nearby Bernterode mine that has been historically used for potash mining with associated railway infrastructure. The “greenfield” development option at Haynrode would involve the development of a new shaft and would use the Haynrode and Bernterode railway stations. With the scoping paper now lodged, a full Spatial Planning Application is targeted for Q4 2023 with a regulatory decision required within six months of submission. The TLVwA will evaluate whether the proposed land use aligns with the objectives and principals of the regional authority, as well as carry out a consultation process with the public and impacted local authorities. If the Application is successful, the company will then apply for a General Operations Permit.

### Brownfield development should lower capex and accelerate development

The company’s preferred option is the brownfield route utilising the Bernterode shafts, and a non-binding consent order has been signed with the owner, NDH-E/Deucalion. The Bernterode deposit is located 1,500m from the Ohmgebirge tenement boundary. The scoping study completed by SHP in Aug’22 was based on a greenfield development, with an estimated US\$89m dedicated to the shaft construction, out of the total US\$620m pre-production capex estimate. The use of an existing shaft could therefore reduce SHP’s upfront funding requirements and potentially shorten the development timeline, boosting project NPV. We note SHP announced in Mar’23 that a 5t sample had been extracted from a depth of 790m-800m from the Hartsalz potash deposit with access through the Bernterode shaft.

### Scoping study returned a NPV8% US\$1,279m on US\$620m capex

SHP published a scoping study on Ohmgebirge in Aug’22, returning a NPV<sub>8%</sub> US\$1,279m and 26.6% IRR on US\$620m initial capex (capital intensity of US\$620/t MOP vs. US\$800-1200/t greenfield peers). Construction could start in 2025 with first production in 2028. 1Mtpa of Muriate of Potash (MOP) and 2Mtpa of salt (NaCl) will be produced (1Mtpa sold with remaining backfilled) over a 21-year mine-life. This mine plan still has room for optimisation with backfilling scenarios. All-in costs were estimated at US\$92.6/t of MOP, net of US\$79/t salt by-product credits (salt accounts for 17% of LoM sales). MOP prices initially surged in the wake of the Russian invasion of Ukraine with FOB Vancouver prices peaking at US\$1,202/t in April 2022 driven by concerns about supply, with Russia accounting for 19% of supply and its close ally Belarus accounting for 17%. These have since faded with prices pulling back to US\$372/t. Over the longer term we expect prices to be driven by global demographics and the need to optimise the world’s capacity to sustain a population that the UN forecasts to increase from 8 billion at present to 10.4 billion by 2100.

### Valuation: A\$0.42/sh target price; significant debt funding likely available

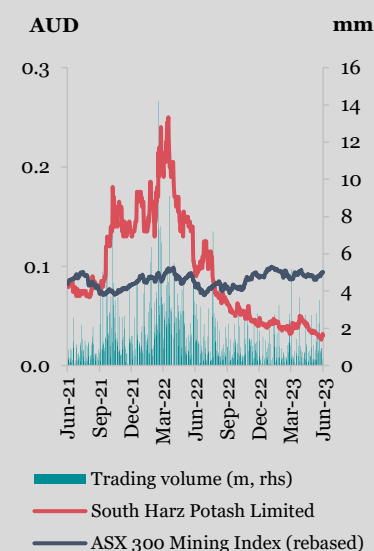
Given the early stage of development, future funding requirements and uncertain nature of our modelling assumptions, we apply a 0.2x target P/NPV to our June 2023E US\$1.1bn valuation to derive a fully diluted target price per share of A\$0.42, >14x the current share price. No further drilling is required to reach FS stage, allowing SHP to keep a lean cost structure ahead of project financing if just focusing on Ohmgebirge.

**With this note we transfer lead-analyst coverage of South Harz Potash Ltd to Jonathan Guy from Roger Bell.**

GICS Sector	Materials
Ticker	ASX: SHP
Market cap 20-June-23 (US\$m)	12
Share price 20-June-23 (A\$ cents)	3.0
Target price (A\$ cents)	42

**+1,305%**

Upside from current share price to our A\$0.42/sh risked NPV



*The cost of producing this material has been covered by South Harz Potash Ltd as part of a contractual engagement with H&P Advisory Ltd*

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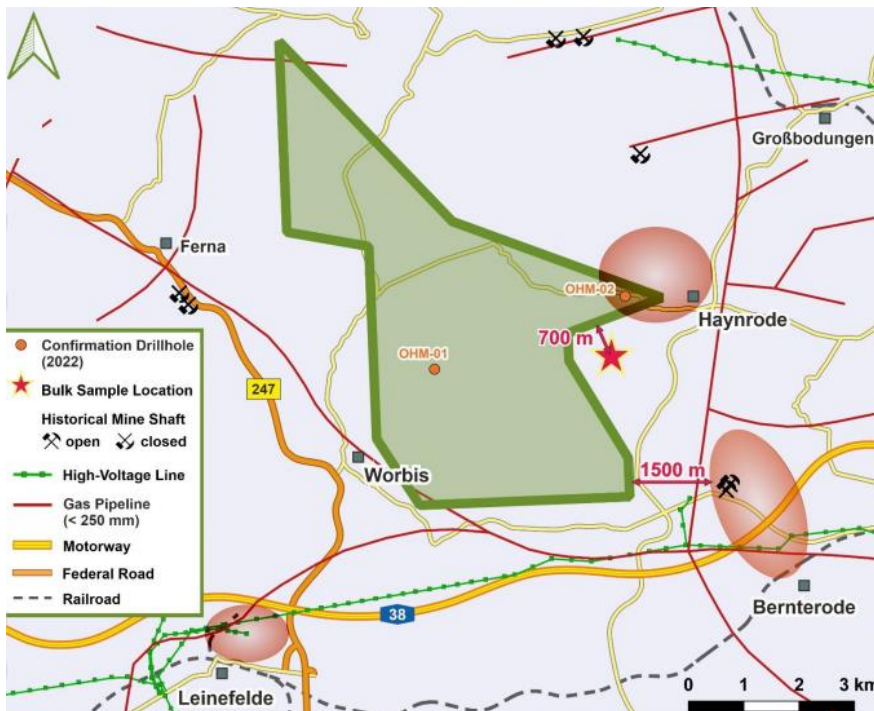
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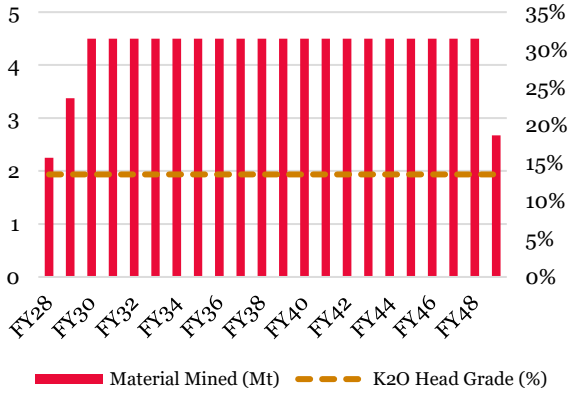
The Bernterode shaft is located within 1,500m of the property and offers the potential to both lower



Source: Company reports

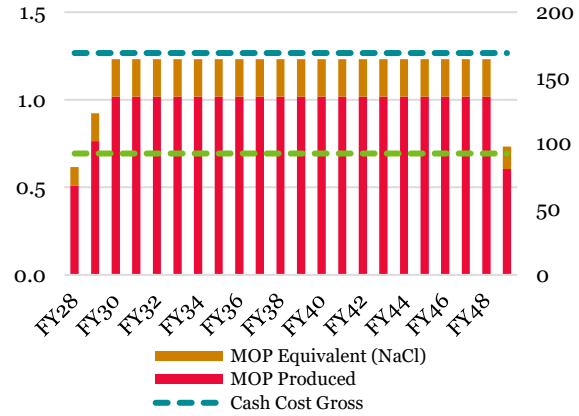
## Key Charts

Mine schedule (ROM Mtpa, lhs) and K<sub>2</sub>O grade (% , rhs) over a 21-year mine life commencing in 2028



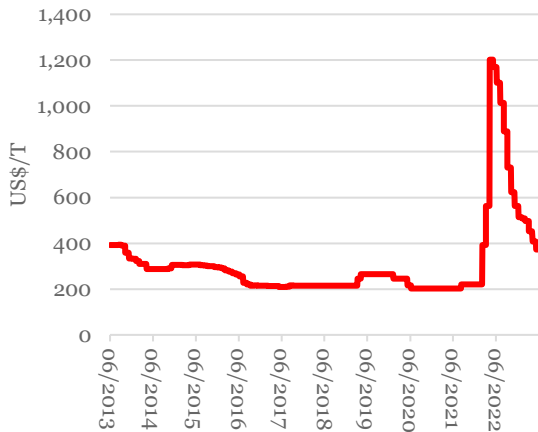
Source: SHP, H&P estimates

Forecast to produce 1Mtpa MOP and 2Mtpa of NaCl (of which half is currently earmarked for backfill)



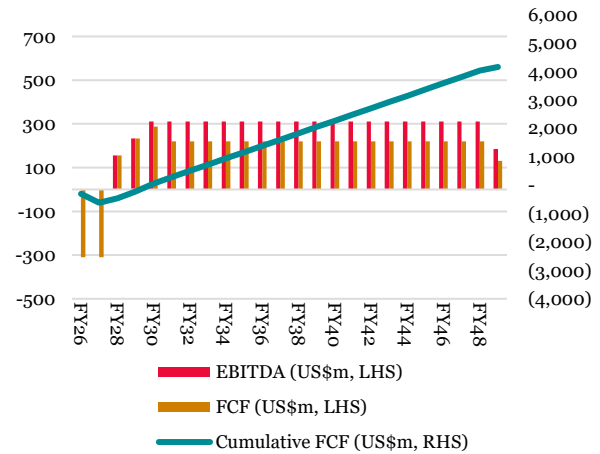
Source: Company reports, H&P estimates, Manganese X company reports, Euro Manganese company reports

MOP Pricing has pulled back from the highs touched in the immediate aftermath of the Ukraine invasion



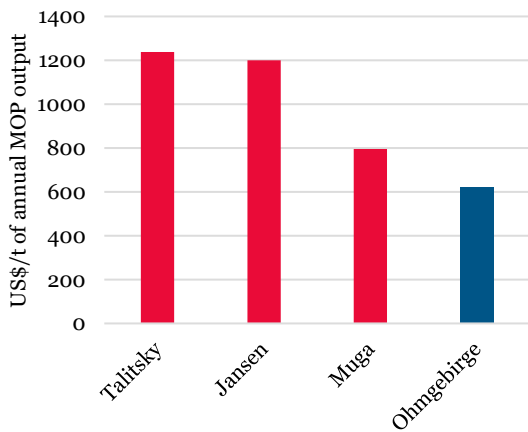
Source: BBG

Attractive cash-costs lead to significant FCF generation and rapid 3.6-year payback



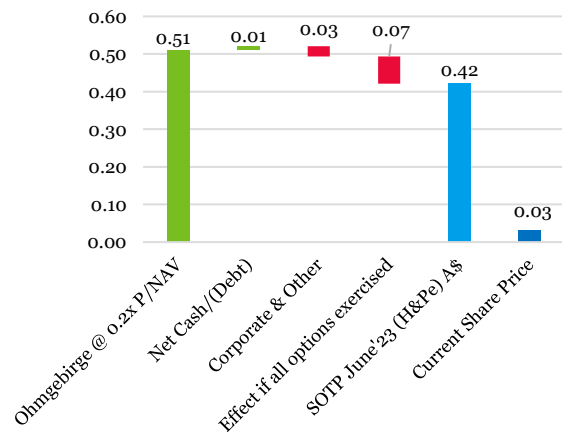
Source: H&P estimates

Leading capital intensity vs. peers due to infrastructure advantages and relatively shallow deposit depth



Source: SHP, H&P estimates

SOTP Valuation (A\$)



Source: SHP, H&P estimates

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