

Cautionary Statement

The Scoping Study referred to in this ASX release has been undertaken for the purpose of initial evaluation of a potential development of the Ohmgebirge potash deposit. It is a preliminary technical and economic study of the potential viability of the Ohmgebirge Development and has a forecast estimation accuracy of +/- 30%. The Scoping Study outcomes, production target and forecast financial information referred to in this release are based on low accuracy level technical and economic assessments that are insufficient to support estimation of Ore Reserves. While each of the modifying factors was considered and applied, there is no certainty of eventual conversion to Ore Reserves or that the production target itself will be realised. Further exploration and evaluation work and appropriate studies are required before South Harz will be able to estimate any Ore Reserves or to provide any assurance of an economic development case. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

Of the Mineral Resources scheduled for extraction in the Scoping Study production plan approximately 96% are classified as Indicated and 4% as Inferred. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production plan itself will be realised. The mine production plan does not incorporate mining of Inferred Mineral Resources during the first three years of operation and it is unlikely that Inferred Mineral Resources will contribute meaningfully to scheduled production until after Year 16 of the mine schedule. South Harz confirms that the financial viability of the Ohmgebirge Development is not dependent on the inclusion of Inferred Resources in the production schedule.

The Mineral Resources underpinning the production target in the Scoping Study have been prepared by a competent person in accordance with the requirements of the JORC Code (2012). The Competent Person's Statement is found in Appendix A of this ASX release. For full details of the Mineral Resources estimate, please refer to South Harz ASX release dated 12 July 2022, *Landmark Resource Upgrade at Ohmgebirge*. South Harz confirms that it is not aware of any new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning the estimates in that ASX release continue to apply and have not materially changed.

This release contains a series of forward-looking statements. Generally, the words "expect," "potential", "intend," "estimate," "will" and similar expressions identify forward-looking statements. By their very nature forward-looking statements are subject to known and unknown risks and uncertainties that may cause our actual results, performance or achievements, to differ materially from those expressed or implied in any of our forward-looking statements, which are not guarantees of future performance. Statements in this release regarding South Harz's business or proposed business, which are not historical facts, are forward-looking statements that involve risks and uncertainties, such as Mineral Resource estimates, market prices of potash, capital and operating costs, changes in project parameters as plans continue to be evaluated, continued availability of capital and financing and general economic, market or business conditions, and statements that describe South Harz's future plans, objectives or goals, including words to the effect that South Harz or management expects a stated condition or result to occur. Forward-looking statements are necessarily based on estimates and assumptions that, while considered reasonable by South Harz, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. Investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date they are made.

South Harz has concluded that it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this release. This includes a reasonable basis to expect that it will be able to fund the development of the Ohmgebirge Development upon successful delivery of key development milestones and when required. The detailed reasons for these conclusions are outlined throughout this ASX release (including Section 17) and in Appendix B. While South Harz considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the range of outcomes indicated in the Scoping Study, pre-production funding in excess of US\$620M may be required. There is no certainty that South Harz will be able to source that amount of funding when required. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of South Harz's shares. It is also possible that South Harz could pursue other value realisation strategies such as a sale, partial sale or joint venture of the Ohmgebirge Development. This could materially reduce South Harz's proportionate ownership of the Ohmgebirge Development.

No Ore Reserve has been declared. This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions, including sufficient progression of all JORC modifying factors, on which the production target and forecast financial information are based have been included in this ASX release.

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46.2M Listed Options

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OHMGEBIRGE SCOPING STUDY EVIDENCES WORLD-CLASS POTASH DEVELOPMENT AT SOUTH HARZ PROJECT

South Harz Potash Limited (ASX:SHP) (**South Harz** or the **Company**) is pleased to advise the key outcomes from the recently completed Scoping Study on its flagship development of the Ohmgebirge deposit at its 100%-owned, world-class South Harz Potash Project in Thuringia, Germany (**Ohmgebirge Development**).

Key Ohmgebirge Development Scoping Study outcomes (August 2022)

Key parameter	Unit	Point estimate	Range estimate
Ore throughput	Mtpa ROM	4.5	-
Initial life-of-mine	years	21	-
K ₂ O head grade	%	13.5%	-
MOP output and sales (+60% K₂O)	Mtpa MOP	1.0	-
Industrial salt sales (+99% NaCl)	Mtpa MOP	1.0	-
Pre-production capital expenditure	US\$M	620	589 - 651
Cash operating cost (AISC, delivered NW Europe) – pre salt credits	US\$/t MOP	172	163 - 181
Industrial salt price (delivered NW Europe)	US\$/t	79	-
Cash operating cost (AISC, delivered NW Europe) – post salt credits	US\$/t MOP	93	88 - 98
Weighted average FOB Hamburg equivalent potash price	US\$/t MOP	385	-
NPV_{8%} (post-tax, real basis, ungeared)	US\$M	1,279	1,215 - 1,343
IRR (post-tax, real basis, ungeared)	%	26.6%	25.3% - 27.9%
Annual free cash flow post ramp-up	US\$M pa	229	217 - 240
Payback following commissioning	years	3.6	3.4 - 3.8
Project net cashflow (post-tax)	US\$M	3,928	3,732 - 4,124

The Scoping Study has demonstrated the technical and financial robustness of a vertical shaft access, underground mining operation at Ohmgebirge with a conventional cold water leach - hot crystallization process producing approximately 1 Mtpa of premium Muriate of Potash (**MOP**) product for sale predominantly into proximate European fertilizer markets.

South Harz Executive Chairman, Ian Farmer, commented:

“We are delighted to have completed the Ohmgebirge Scoping Study. It is a seminal moment for the Company and the South Harz region as a whole as we demonstrate the latent commercial and social potential that this asset, and the broader South Harz Project, offers. This is the first time that the potash mining opportunities in the district, with its long, and sometimes tumultuous, history in mining have been evaluated based on modern, internationally recognized standards and procedures. I would like to take this opportunity to thank all South Harz personnel and consultants for their contribution to this preliminary, but robust, technical and economic evaluation.

“At South Harz, we have a deep commitment to developing Ohmgebirge in a responsible and sustainable fashion. Without a social license to operate, a natural resources business has nothing. We seek to advance Ohmgebirge and the South Harz Project in a way that never loses sight of this fundamental truth. Our local community engagement is already strong and our focus on environmental stewardship is unwavering.”

The South Harz Board has approved progression to a Pre-Feasibility Study (**PFS**) on the Ohmgebirge Development, which is scheduled for completion in Q4 CY2023. The PFS is set to focus on a 1 Mtpa MOP operation. A two-phase alternative (500 + 500 ktpa) with a lower peak financing requirement is also planned to be progressed alongside. Requisite environmental and social impact assessment and permitting requirements are well understood and set to parallel the next phases of technical feasibility work to progress the Ohmgebirge Development as expeditiously as possible.

Further substantial upside potential at South Harz includes:

- The Scoping Study utilises a weighted average FOB Hamburg equivalent MOP price of US\$385/t. This includes an assumed price of US\$370/t for Standard European MOP product which compares with an average price for this product of approx. US\$340/t (real basis, FOB NW Europe) over the past decade, and the prevailing spot price of over US\$900/t (FOB NW Europe). Conservative salt price and sales volumes assumptions have also been adopted for the Ohmgebirge Development. Clear potential upside to both inputs delivers the prospect of considerably greater revenue realisation from both MOP and salt sales at Ohmgebirge than currently incorporated.
- The Ohmgebirge Development focuses on the mining, processing and sale of MOP from solely the Ohmgebirge Sylvinitic deposit (290 Mt resource). The broader South Harz Potash Project comprises multiple deposits with total potash resources exceeding 5 Bt. Substantial long-term opportunity exists in developing multiple potash mining operations in the district. Opportunities to partner proximate existing regional mine infrastructure with potential capital and permitting synergies are also set to be examined.

Ohmgebirge Development: Key Highlights

- Outstanding, first world jurisdiction in a region rich with infrastructure and potash mining history.
- Relatively shallow, thick potash deposit of simple and well understood mineralogy.
- Adopted mining and processing mechanics are long established and extensively proven in the district.
- Low-impact development based on self-imposed commitment to zero permanent waste piles on surface.
- Equal commitment to zero water discharges, which have historically been a defining feature of the industry.
- Expected utilisation of grid power, which in Germany is already approximately 50% from renewable sources.
- Delivered operating costs projected to be in the bottom half of the global unit cost curve.
- Capital intensity of development forecast to be comfortably below average for equivalent scale operations.
- Proximity to European market offers huge cost and carbon footprint advantages versus other suppliers.
- Asset domicile increasingly valuable given heightened geopolitical tensions and supply chain challenges.
- Clear strategic opportunity for South Harz to become a new supplier of choice for potash in Europe.
- Tier 1 scale with broader South Harz Project resources delivering potential for multiple developments.
- Range of potential funding pathways available given scale, projected economics and strategic location.

South Harz Executive Chairman, Ian Farmer, commented further:

"We have had excellent support from a formidable team of premium global geological and mining industry consultants in undertaking the Ohmgebirge Scoping Study – some of whom have a long history with, and deep expertise in, the South Harz district as the cradle of potash mining globally. While the outlook for this district was not considered particularly promising after German unification in the early 1990s, this Scoping Study evidences that if evaluated based on objective and internationally accepted mining standards and procedures, the South Harz district has very realistic and indeed significant commercial potential."

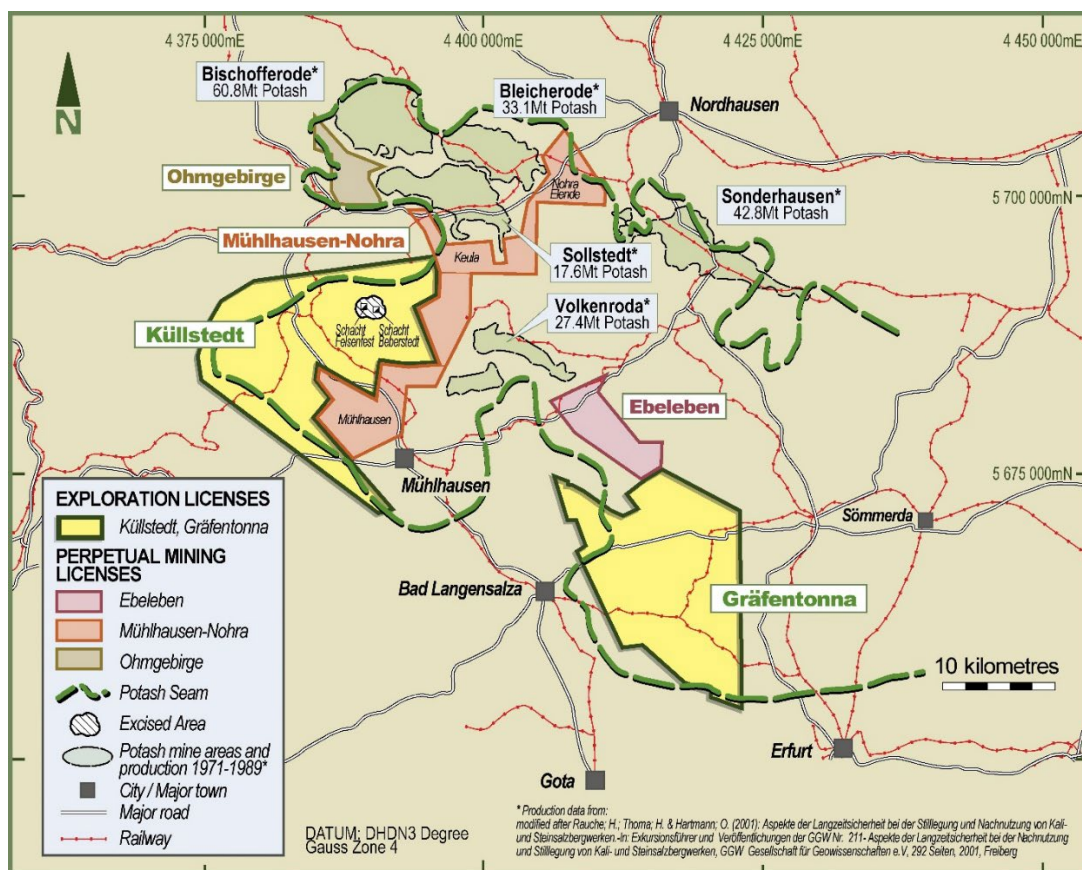
"We have also built deep permitting and financing expertise over the past 12 months, both within our existing team and with our key consultants. We now progress down both these paths with clarity and confidence."

South Harz: Growing a responsible potash business in the heart of Europe

South Harz Potash (ASX: SHP) (**South Harz**) is a potash exploration and development company with its flagship project located in the South Harz Potash District region of Germany, midway between Berlin and Frankfurt.

The South Harz Project hosts a globally large-scale potash JORC (2012) Mineral Resource estimate of 258 Mt at 13.5% K₂O of Indicated Resources and 5.0 Bt at 10.6% K₂O of Inferred Resources across four 100%-owned project areas located favourably within central Europe.¹ This comprises three perpetual potash mining licences, Ohmgebirge, Ebeleben and Mühlhausen-Nohra, and two potash exploration licences, Küllstedt and Gräfen-tonna, covering a total area of approximately 659km².

With strong established infrastructure and proximity to the key European market, the South Harz Project is well positioned to enable rapid development across multiple deposits.



South Harz Project Mineral Resources	Licence Area	Tonnage (Mt)	K ₂ O (%)	K ₂ O (Mt)
Indicated	Ohmgebirge	258	13.5	35
Total Indicated		258	13.5	35
Inferred	Ebeleben	577	12.1	69
Inferred	Mühlhausen-Nohra-Elende	1,698	9.7	165
Inferred	Mühlhausen-Keula	1,130	11.1	125
Inferred	Küllstedt	1,538	10.7	165
Inferred	Ohmgebirge	80	10.9	9
Total Inferred		5,023	10.6	533
Total Mineral Resources		5,281	10.8	568

For full Mineral Resource estimate details, refer to South Harz ASX release dated 12 July 2022, *Landmark Resource Upgrade at Ohmgebirge*. South Harz confirms that it is not aware of any new information or data that materially affects the Mineral Resource estimate information included in that release. All material assumptions and technical parameters underpinning the Mineral Resource estimate in that release continue to apply and have not materially changed.

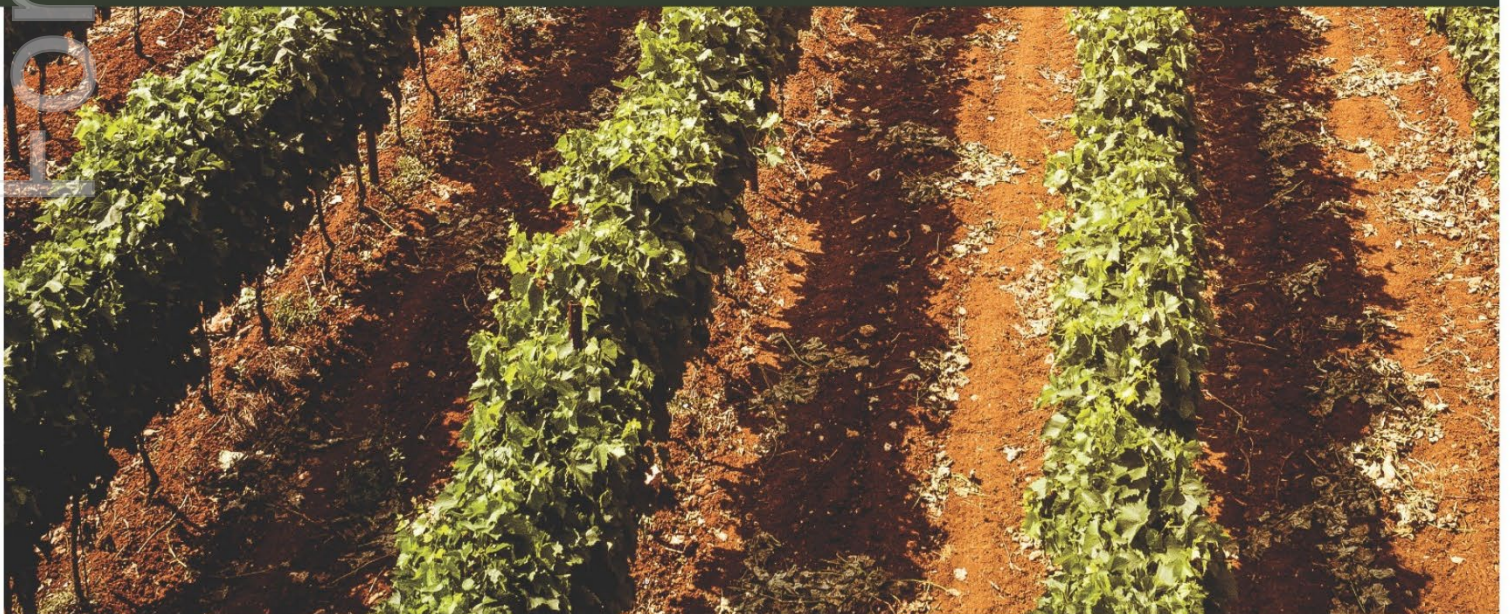


**SOUTH
HARZ
POTASH** LTD.

Ohmgebirge Development Scoping Study

SOUTH HARZ POTASH PROJECT

August 2022



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SCOPING STUDY: EXECUTIVE SUMMARY

1. Introduction and project overview

South Harz Potash Limited (**South Harz**) Harz is a publicly listed company on the Australian Securities Exchange (**ASX**) which holds the Ohmgebirge mining licence in Thuringia, Germany. In addition to the Ohmgebirge licence, in the same region South Harz also holds the Ebeleben and Mühlhausen-Nohra mining licences (Bergwerkseigentum BWE), together with the Gräfentonna and Küllstedt exploration licences, all of which form the greater South Harz Potash Project.

This document represents the Executive Summary of a Scoping Study undertaken on an underground mine development and cold leach - hot crystallization process facility to produce Muriate of Potash (**MOP**) on the Ohmgebirge mining licence for sale to European and offshore markets (**Ohmgebirge Development**).

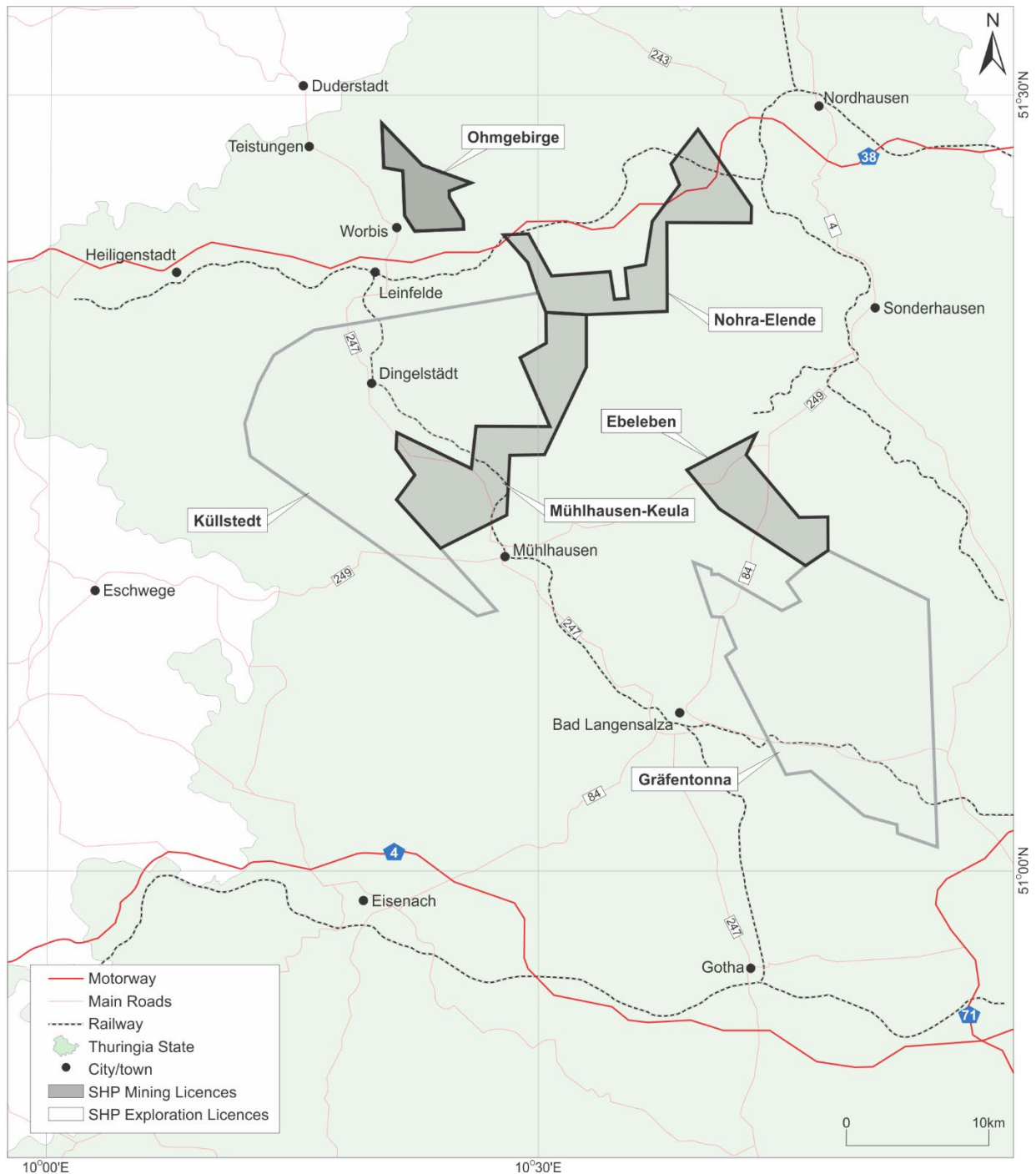
The licences comprising the South Harz Potash Project were acquired by South Harz through an open government tender in 2017, which was successfully awarded to South Harz 100%-owned locally registered subsidiary, Südharz Kali GmbH. The South Harz Potash Project (including the Ohmgebirge licence) is located within the South Harz Potash District, a long-established mining region and a key historical supplier of potash to Europe for many decades.

Figure 1: Location of Thuringia district and South Harz Potash Project in Germany



The Ohmgebirge mining licence is located in the north of Thuringia and has an area of approximately 25 km². Two historical potash mines, BWE Bischofferode and BWE Sollstedt, border the Ohmgebirge mining licence. Both of these historical mines were actively producing potash using conventional underground mining methods from 1911 and 1905, respectively, until closure after German reunification in the early 1990's. The primary mining target was the Staßfurt potash seam of the potash-bearing Zechstein Group (Upper Permian – Zechstein). The Ohmgebirge licence area was pre-drilled as the natural extension of these historic mines, which are now under care and maintenance.

Figure 2: Location of Thuringia district, South Harz Potash Project and Ohmgebirge mining licence



In general, the infrastructure of the region is modern and well-developed with several federal and state roads connecting to federal motorways, and a regional railway network connecting to the trans-regional railway network in the vicinity of the Ohmgebirge licence. Power supplies are available for households, established commerce and industry via a well-developed grid network. All of the state towns, especially the district capitals, are

considered to be advanced modern towns with developed infrastructure and all basic services can be sourced from these towns.

Potash mining being an established industry in the region has resulted in the ongoing development of a skilled local workforce. Supplies and personnel to conduct exploration and mining activities can also be predominantly sourced locally.

2. Study team

The Ohmgebirge Scoping Study was led and managed by premium geological and mining industry consultant, Micon International.

Key discipline-specific contributors include:

- Micon International – Geology, Mineral Resource, Environment and Social
- K-UTEC – Process Flowsheet and Plant Design, Mine Design and Scheduling, Site Layout, Operating and Capital Cost Estimates
- Crystal Strategy – Potash Market Outlook and Pricing, Product Marketing Strategy
- Ukwazi – Financial Analysis
- ERM – Permitting

3. Tenure

The Ohmgebirge mining licence is perpetual in nature, not subject to expiry and is valid to explore for and produce 'potash, including (associated) brine' with no applicable statutory royalties. The Ohmgebirge mining licence deed number is 1281/2017W and has an area of 24.84 km².

There are no known impediments to the security of the tenure that South Harz has over the Ohmgebirge mining licence area.

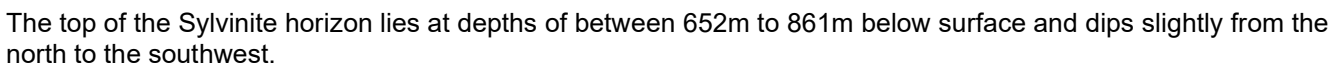
4. Geology and Mineral Resource estimate

Regional and local geology

The regional stratigraphy of the South Permian Basin is fairly well understood with a pre-Variscan basement (Upper Carboniferous and older rocks) and a transition horizon of Upper Carboniferous to Lower Permian lying beneath an expansive sequence of evaporite rocks of the Upper Permian succession. These evaporite deposits are assigned to the Zechstein Group and host the target potash mineralisation of the South Harz Potash District which occurs on Ohmgebirge. The potash-bearing target Zechstein Group consists of seven depositional cycles with the potash mineralisation of the South Harz Potash District hosted within the second cycle, the Staßfurt Formation (Z2).

The majority of the potash deposits have been altered by intruding water or occasionally by basalt intrusions causing plastic deformation resulting in the potash horizons being forced upwards into the overlying strata. Faulting and water intrusion have caused alteration or dissolving of the deposited potash, and as such strata within the Zechstein Group can be regionally highly variable. This process of water intrusion, known as subrosion, was responsible for the remobilisation of the potash minerals and the enrichment of potash into sylvite in areas of the South Harz potash basin.

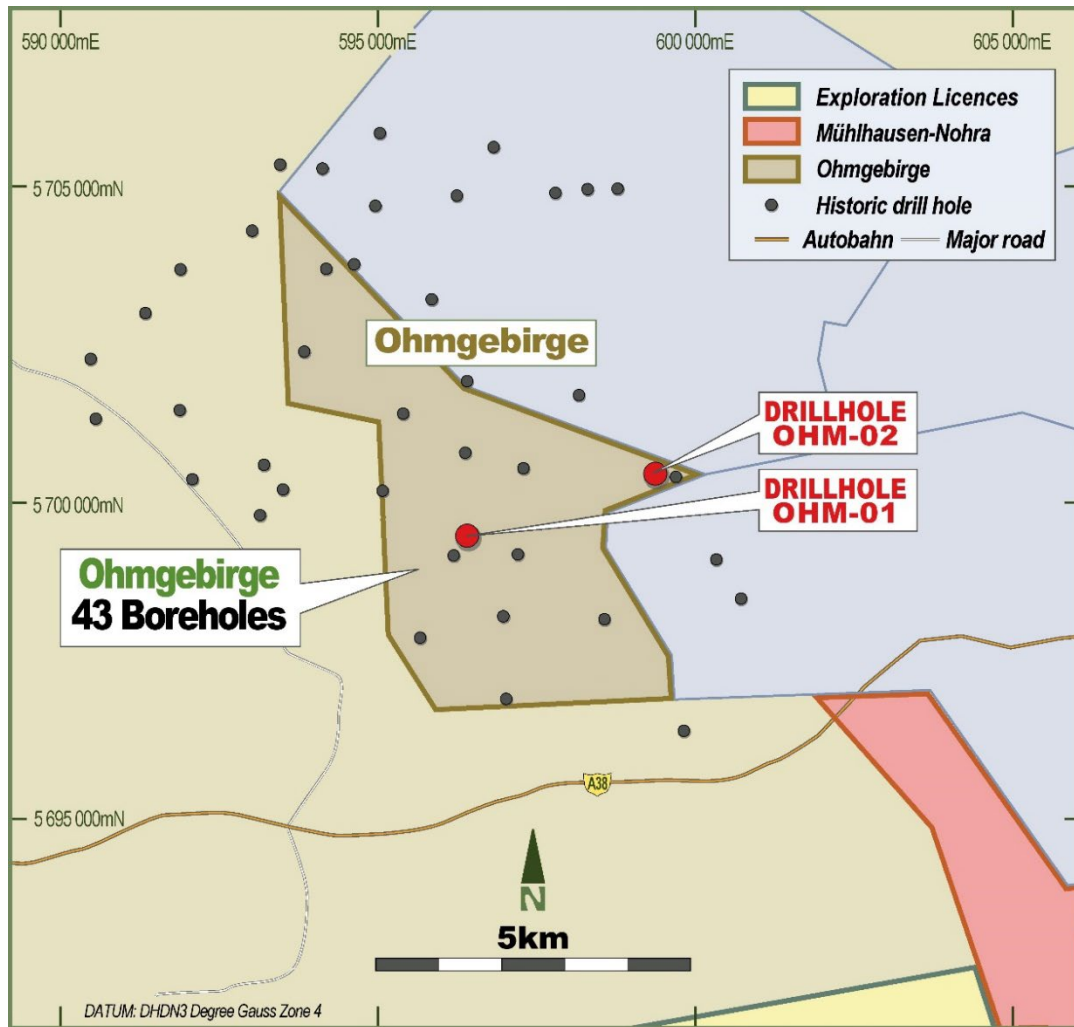
The Z2 is further sub-divided into horizons, of which the Kaliflöz Staßfurt (z2KSt) hosts the potentially economic potash seam. Mineralised z2KSt is dominated by Sylvinit, also locally known as Hartsaltz, which covers almost the entire Ohmgebirge mining licence. Based on interpretation of drill hole data and historical plan maps, the mineralised z2KSt horizon continues to the north, south, east and west of Ohmgebirge. The average thickness of the z2KSt on Ohmgebirge is approximately 14m, and the average economic portion of the sylvinit seam is approximately 7.8m.



Except for the two confirmation diamond drill holes completed in 2022 by South Harz, all exploration conducted on Ohmgebirge is historical. According to historical reports, exploration commenced within the Ohmgebirge mining licence in 1894 for potash including cored drill holes and downhole geophysics. The area around the Ohmgebirge mining licence is a well-known potash-bearing area and is adjacent to the now closed Bischofferode and Bleicherode/Sollstedt mines.

The drill hole database for Ohmgebirge consists of 43 historical drill holes – 15 within the licence boundary (including a deviation drill hole and the two holes drilled by South Harz) and 28 on the adjoining properties, mostly to the east on the Sollstedt and Bischofferode mines. All 43 of the drill holes recovered diamond core targeting potash, of which 27 historical drill holes and the two 2022 drill holes have chemical and mineralogical assay data.

Figure 4: Location of historic Ohmgebirge drillholes and the twin confirmatory holes, OHM-01 and OHM-02



Mineral Resource estimate

Following the drilling of two confirmatory holes by South Harz during the first half of 2022, the Ohmgebirge Mineral Resource estimate was updated by Micon International. This Mineral Resource estimate was prepared in accordance with the guidelines of the JORC Code (2012) by a Competent Person.

Table 1: Ohmgebirge Mineral Resource estimate (July 2022)

Mineralised Seam	Categorisation	Tonnage (Mt)	K ₂ O (%)	K ₂ O (Mt)
Sylvinite	Indicated	258	13.54	35
	Inferred	32	12.85	4
	Sylvinite total	290	13.47	39
Carnallite	Inferred	48	9.61	5
	Carnallite total	48	9.61	5
TOTAL RESOURCE	Indicated and Inferred	338	12.91	44

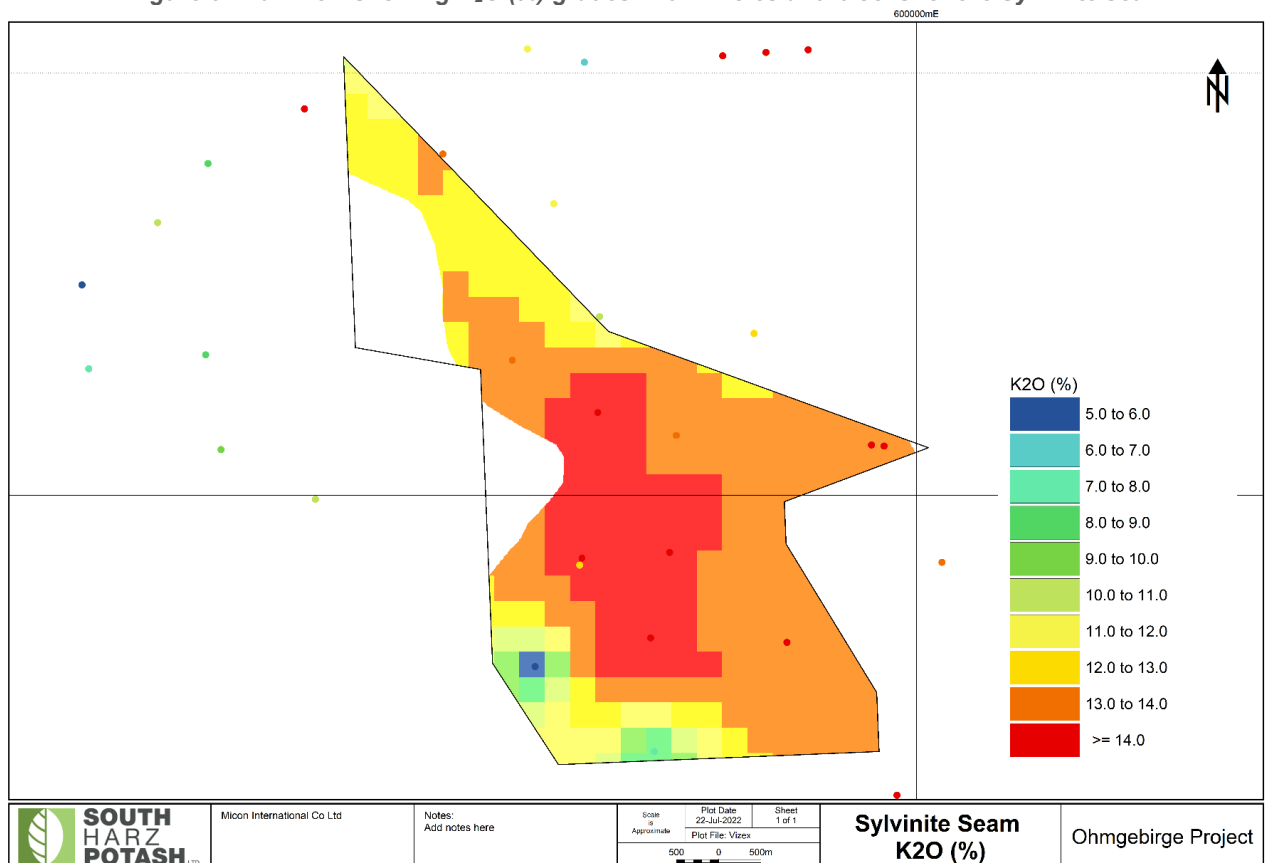
Minimum cut-off grade $\geq 5\%$ K₂O; bulk density of 2.25 t/m³ sylvinite and 1.89 t/m³ carnallite; 15% geological loss factor applied.

For full Mineral Resource estimate details, refer to South Harz ASX release dated 12 July 2022, *Landmark Resource Upgrade at Ohmgebirge*. South Harz confirms that it is not aware of any new information or data that materially affects the Mineral Resource estimate information included in that release. All material assumptions

and technical parameters underpinning the Mineral Resource estimate in that release continue to apply and have not materially changed.

The update resulted in an extensive categorisation upgrade and the declaration of an Indicated Sylvinite Mineral Resource of 258 Mt at 13.5% K₂O (previously zero Indicated resource). This results in approximately 89% of the Sylvinite seam resource now residing in the Indicated classification.

Figure 5: Plan view showing K₂O (%) grades in drill holes and blocks for the Sylvinite seam



The focus of the Ohmgebirge Development Scoping Study is the development, mining, processing and sale of potash extracted from the Sylvinite resource. The Sylvinite is comprised of KCl, NaCl and various sulphates such as anhydrite, kieserite and polyhalite.

5. Mine design and scheduling

Mine access and ventilation

Mine access and ore haulage will be via sinking of a new vertical hoisting shaft at Ohmgebirge with an assumed diameter of 7m. Shaft depth will be dependent on the final location and is estimated to be between 750m and 780m. The final shaft design will be capable of handling an annual throughput of 4.5 Mtpa plus additional development waste.

Multiple site locations for the shaft infrastructure are under evaluation with the optimal mix of economic, logistical and social and environmental considerations being targeted.

Provision of sufficient mine ventilation is expected to be available via utilisation of existing historical shaft infrastructure in the immediate area.

Hydrogeological and geotechnical parameters

Potash deposits in the South Harz District are generally separated from ground water horizons by impermeable

layers of clay and rock salt. As long as the effects of mining do not negatively affect these impermeable layers, potash deposits in this area are typically safe from flooding. Based on extensive experience from historical and recent mining activities in the area, where the standard practice is to leave a hydrogeological safety pillar to prevent water ingress from the water bearing hanging wall aquifers, the risk for major water inflow is estimated to be low.

Rock salt and Sylvinite show considerable stability with 30 MPa to 40 MPa uniaxial strength. Given the overlying salt clay layer, a protective buffer of 2-3m of Sylvinite is typically left to ensure roof stability. Rock salt is generally found below the sylvinite, which acts as a good floor material and impermeable barrier to restrict upwelling brines.

Mining method and design

The selected mining method is conventional room and pillar in long chambers with a length up to 500m. This technique has been utilised widely and successfully in the South Harz region. Backfilling of the mined-out voids is planned to take place shortly after mining. Backfilling can be carried out using waste NaCl and insoluble material from the process facility, which can be hydraulically transported as a slurry in pipelines.

The extraction rate within the Sylvinite is, depending on the depth and thickness within the deposit, typically between 45% and 55%. It has been established regionally that this extraction rate can be increased towards 70-80% with pillar re-mining after backfilling and consolidation.

Raw salt production uses continuous miners. Development is carried out in the potash level as well as in the underlying rock salt while mining takes place in the potash seam. Because of the given strength of Sylvinite, the main development of haulage roads, which goes along with the mining, can be carried out within the Sylvinite horizon.

The material mined by the continuous miners is transported by shuttle cars to panel belt conveyors with feeder-breakers. The panel belt conveyors lead to central conveyor belts that transport the raw salt to the hoisting shaft.

Fresh air is supplied through one shaft and distributed by haulage roads underground. The dead air travels through a second set of haulage roads to the second shaft where it exits the mine. The positioning of a ventilation shaft and underground connecting infrastructure must be adjusted to the option chosen.

Mine scheduling and mass balance

The Scoping Study evaluated multiple mine and process throughput scenarios before settling on run-of-mine (**ROM**) throughput of 4.5 Mtpa (equivalent to process output of 1.0 Mtpa MOP). All necessary underground infrastructure and equipment has been scaled to this capacity, including the requirement for four continuous miners with an individual capacity of 210 tonnes per hour. To facilitate pillar re-mining (and associated greater resource utilization/extraction), hydraulic backfill has been selected (which was used successfully in the South Harz district for decades).

Life-of-mine (**LOM**) scheduling was completed based on the available 290 Mt of Sylvinite Mineral Resources (151.8 million m³), taking into account the local deposit conditions and applying all modifying factors.

For the LOM estimation, the following adjustments were made to the Ohmgebirge Sylvinite Mineral Resources to arrive at the production schedule (noting that the declared Sylvinite Mineral Resources of 290 Mt have already had a geological loss factor of 15% applied to account for the losses associated with leaving a protective roof layer of Sylvinite):

- An initial 20.3 Mt was removed to adjust for a larger than usual thickness of Sylvinite reported in historic drillhole Ktf 4/83, which may represent a repetition of the potash zone caused by localised faulting/folding.
- An additional 27.7 Mt was removed to maintain a safety pillar with the now flooded neighbouring Bischofferode Mine.
- A further 12.6 Mt was omitted where the thickness of hydrogeological protection layer is below the regulated 30m minimum thickness.
- An additional 38.5 Mt was removed where the Sylvinite layer is too thin to mine (<3m thickness) and lies immediately above Carnallite.
- A further 30% loss (57.1 Mt) was incorporated to account for potential areas of undesirable mineralisation

(too much Carnallite, Kieserite, Anhydrite etc), zones where the Sylvinite thickness is too low, and zones where the footwall protective layer is below the regulated limit.

After all adjustments, a final production schedule tonnage of 134.1 Mt (59.6 million m³) of Sylvinite Mineral Resources was classified as exploitable.

Table 2: LOM production schedule reconciliation

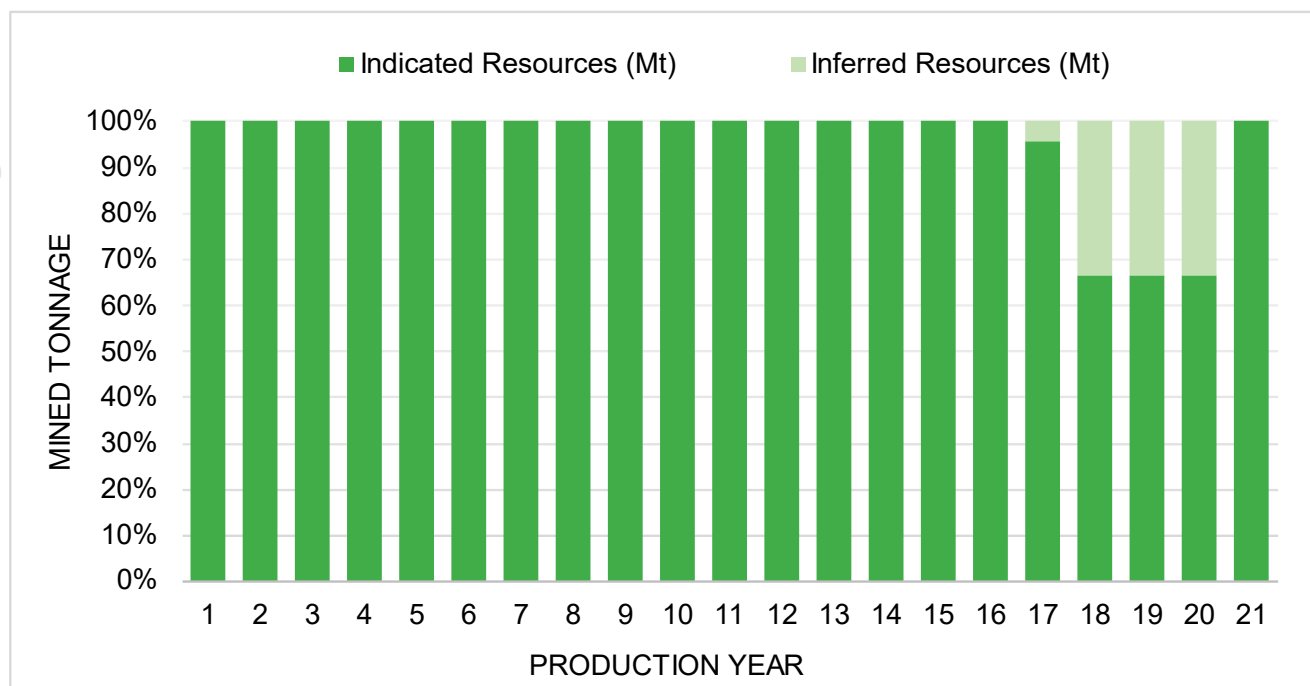
LOM Calculation Summary: Reductions applied to Ohmgebirge Sylvinite Resource		Volume Reduction (Million m ³)	Resulting Volume (Million m ³)	Resulting Tonnage (Mt)
Micon Sylvinite Wireframe Volume			151.8	341.5
	Block model created from Wireframe and a 15% geological loss factor applied considering the potential for discovery of localised structure and grade variation. The geological loss factor also considers an average thickness of 0.4 m to 1.4 m of Sylvinite which must be left as a hanging wall protective layer.	22.8		
Micon Sylvinite Mineral Resource Estimate			129.0	290.3
1	Historic drillhole Ktf 4/83 reported a larger than usual thickness of Sylvinite, which may represent a repetition of the potash zone caused by localised faulting and folding. For the purpose of the LOM calculation the potash zone was reduced from 24.78 m to 7.0 m and a new wireframe was created.	9.0	120.0	270.0
2	An area of 1.5 km ² was excluded to maintain a safety pillar to the now flooded Bischofferode mine.	12.3	107.7	242.3
3	A volume of 5.6 million m ³ was excluded, as the thickness of hydrological protection in one area is below the regulation limit of 30m.	5.6	102.1	229.7
4	An area consisting mainly of Carnallitite, where the average Sylvinite thickness is around 3 m (volume of 17.1 million m ³) is excluded from the LOM estimation.	17.1	85.0	191.2
5	Considering zones with a high content of unwanted minerals (Carnallitite, Kieserite, Anhydrite), zones where the Sylvinite thickness is too low and zones where the protection layer of the underlying bed is below the limit, a factor of 0.7 was used to reduce the total volume.	25.4	59.6	134.1
Total Sylvinite Mineral Resource Available for Mining			59.6 m³	134 Mt

* Numbers may be slightly different due to rounding

Utilising the Sylvinite Mineral Resources available for mining from Table 2 above (134 Mt), and based on a mass extraction ratio of 70% using hydraulic backfilling and pillar re-mining, the Ohmgebirge LOM at 4.5 Mtpa ROM mining is therefore approximately 21 years.

Of the Mineral Resources scheduled for extraction in the Scoping Study production plan approximately 96% are classified as Indicated and 4% as Inferred. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production plan itself will be realised. The mine production plan does not incorporate mining of Inferred Mineral Resources during the first three years of operation and it is unlikely that Inferred Mineral Resources will contribute meaningfully to scheduled production until after Year 16 of the mine schedule (see Figure 6). South Harz confirms that the financial viability of the Ohmgebirge Development is not dependent on the inclusion of Inferred Resources in the production schedule.

Figure 6: Source of mine production over LOM schedule



The overall mine volume and mass balances for a 4.5 Mtpa ROM (1.0 Mtpa MOP) operation are outlined in Table 3. At steady state operation, the total available underground volume for backfilling is estimated at 1,636,000 m³ per annum. Given that the backfilling requirement for the insoluble residue material from the process plant is approximately 970,000 m³ per annum, this leaves further available underground backfilling capacity of up to 666,000 m³ per annum. This excess capacity equates to a mass of approximately 1,000,000 tonnes per annum of NaCl, ie half of the NaCl produced annually can be (and is assumed to be) placed as backfill in the mine, with the remaining 1,000,000 tonnes being sold into industrial grade salt markets.

Table 3: Key physical and mining parameters

Parameter	Value	Volume
KCl Product (MOP)	1,000,000 t/a	-
Raw Salt Extraction	4,500,000 t/a	2,040,000 m ³ /a
Average Raw Salt Density	2.2 t/m ³	-
Mined Volume Available for Backfilling	80%	-
Volume Available for Backfilling	-	1,636,000 m ³ /a
Residue for Backfilling (Halite-Anhydrite-Clay)	1,650,000 t/a	970,000 m ³ /a
NaCl (Salt) By-Product:	2,000,000 t/a	-
Product NaCl (minimum)	1,000,000 t/a	-
NaCl for Backfilling (maximum)	1,000,000 t/a	666,000 m ³ /a
Density Backfilled Halite-Anhydrite	1.7 t/m ³	-
Density Backfilled NaCl	1.5 t/m ³	-

Transport of ROM ore to the process plant site by way of overland belt conveyor has been incorporated.

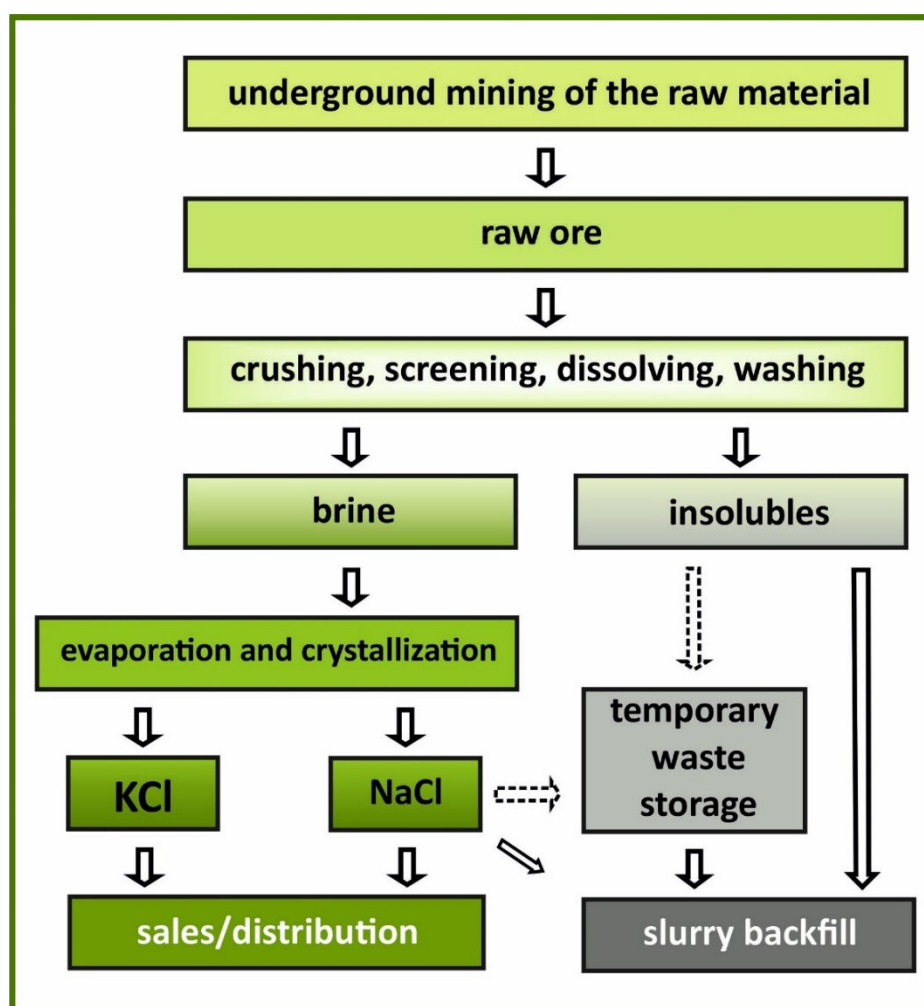
6. Process flowsheet and plant

Flowsheet selection and design

The optimal process route selected by South Harz for the Ohmgebirge Sylvinites deposit is cold leaching and evaporation-hot crystallisation. The key steps involved in this process flowsheet are:

- Crushing/milling of ore at surface.
- Cold leaching of soluble chloride minerals, KCl and NaCl, at approximately 20°C with water.
- Separation of undissolved sulphate minerals and undissolved NaCl and usage as backfilling material.
- Clarification of leaching liquor and separation of fines (clay, anhydrite).
- Mixing of clarified potash liquor with recycled mother liquor and heating this mixed brine to boiling temperature.
- Evaporation of water with mechanical vapour compression at approximately 110°C.
- Separation of crystallised NaCl.
- Cooling of hot KCl-NaCl liquor in multi-step vacuum crystallisation plant.
- Separation of obtained KCl-crystalline crop from the mother liquor and preparation of Muriate of Potash (MOP) with a K₂O content of 60% to 62%.
- Recycling of cold KCl-NaCl-mother liquor back to the evaporation process.

Figure 7: Block flow diagram of process route

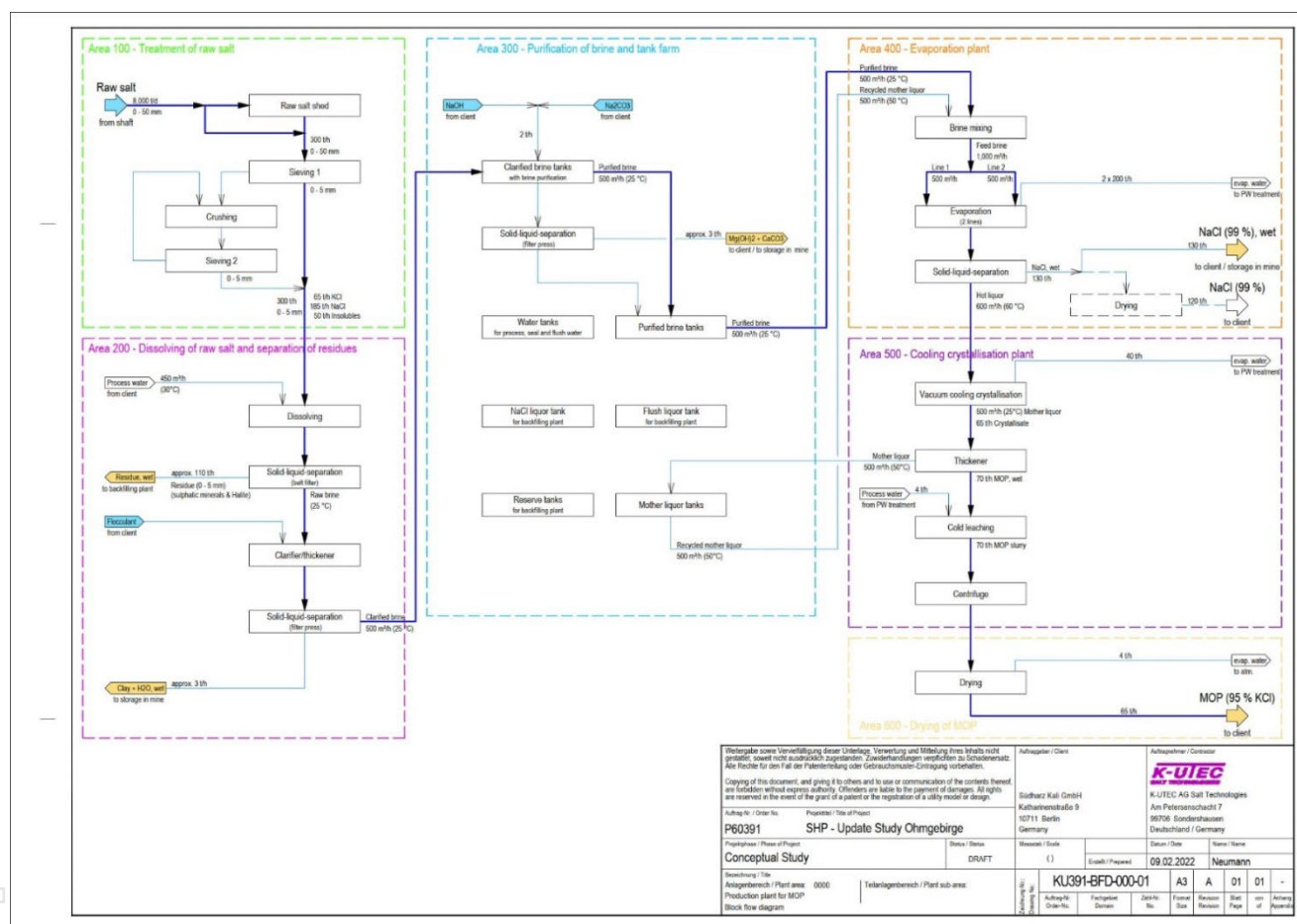


The selected process route avoids the disadvantages of conventional hot leaching and flotation and increases recoveries of the components of the raw salt. It can efficiently handle the polyminerale ore type found at Ohmgebirge by separating out the easily soluble chloride minerals (KCl and NaCl) from insoluble material and sulphate minerals at the cold leach stage. If necessary, unwanted dissolved salt components in the resultant brine can be removed by precipitation of calcium carbonate and/or magnesium hydroxide with soda ash and/or caustic soda when added in the process step before the water evaporation plant. The precipitates are freely removed by sedimentation and filtration.

Other key attributes of the selected process include:

- Ore quality is not limited to a maximum MgSO_4 content, selective mining is not necessary.
- All components of ore can be extracted and sold as products.
- Not necessary for waste to be deposited on the surface, no tailings facility is required.
- No brine waste produced.
- Simple process route requires a lower number of employees.
- Lower demand for steam for heating processes.
- Lower consumption of energy and other auxiliary materials.

Figure 8: Detailed flowsheet of process route



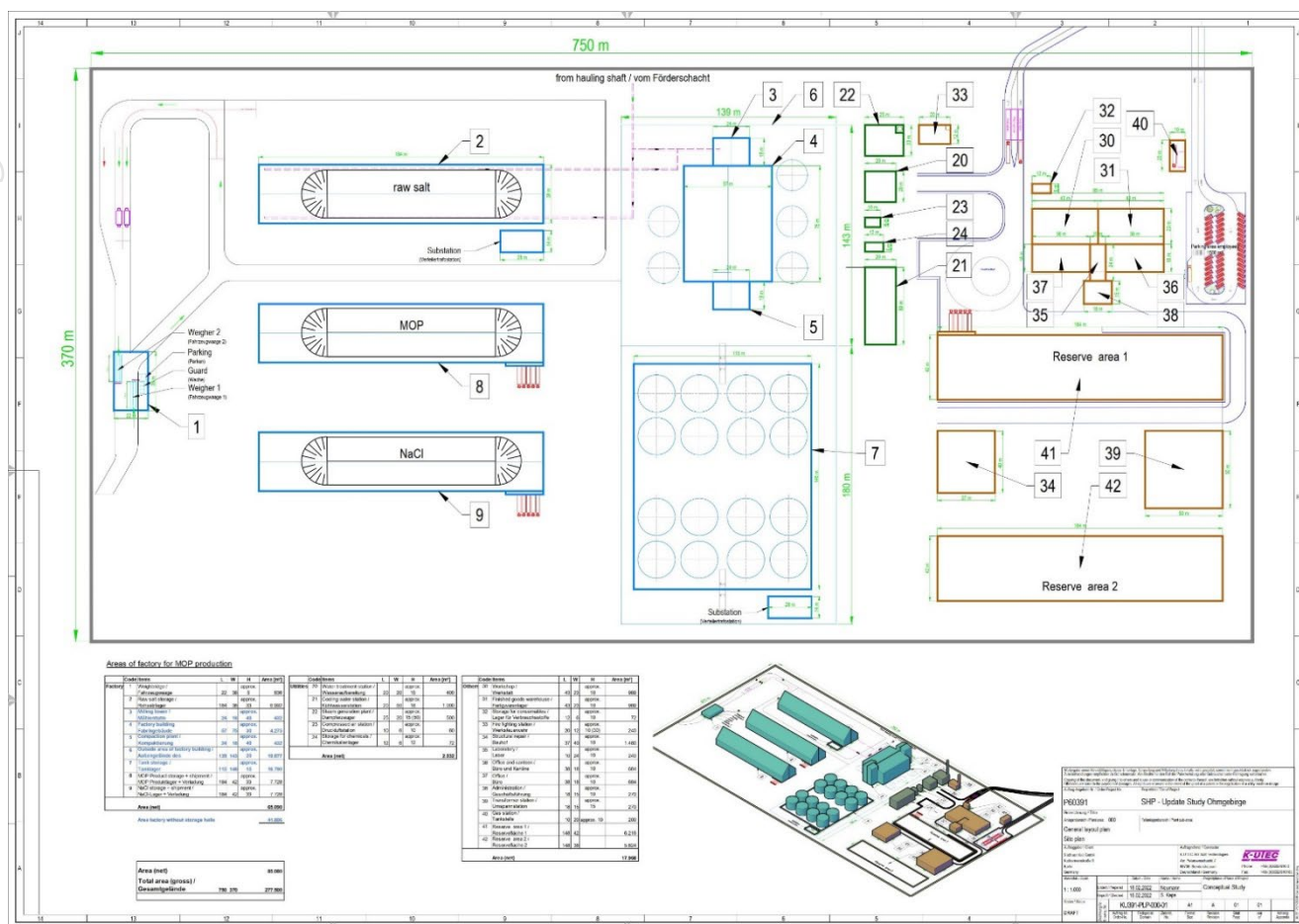
The selected process delivers potassium chloride MOP with a minimum grade of 95% KCl (K60) and maximum content of 5% NaCl. The process can also be tweaked to produce MOP with a higher grade of KCl producing a final K62 product. The process has the added advantage that all dissolved sodium chloride can be crystallised out with a purity exceeding 99% NaCl (industrial grade), resulting in a valuable and readily saleable by-product.

The cold leach and crystallization process flow design that has been selected provides an inherently good mineral recovery due to the physical chemistry of the process whereby all the potassium chloride in solution that is delivered to the crystallizer can be crystallized. Although some losses arise in the leaching stage through incomplete dissolution, it is not uncommon for overall recoveries in the order of 95-97% to be achieved in the complete KCl circuit. The Scoping Study assumes an overall recovery of 90%.

Process plant and site layout

The process plant and broader layout is depicted in Figure 9.

Figure 9: Ohmgebirge process plant design and layout



The raw ore from the hoisting shaft is transported by a belt conveyor. This transport technology and the masses involved are similar to the transport of ore from the Sollstedt shaft to the Sollstedt plant undertaken in the past.

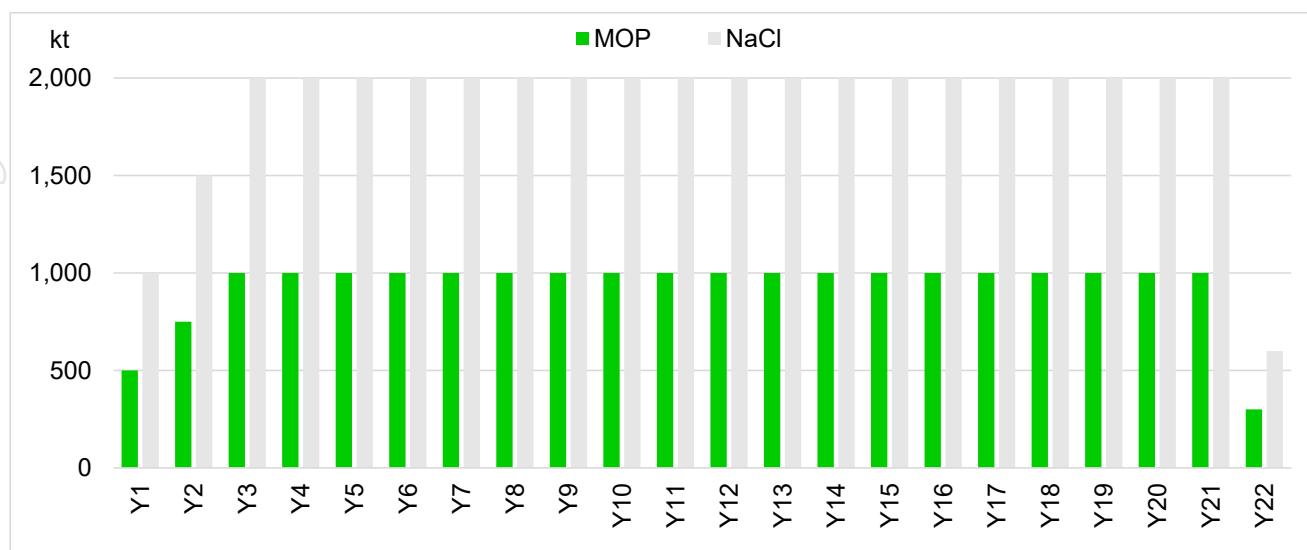
The feed stream of potash ore goes directly to the milling process or to the ROM ore shed with a capacity of 30 kt. This shed (2) is connected by belt conveyors with the ore milling tower (3) and for reverse transport. The leaching process requires milled ore with a 0 mm to 5 mm grain size at a rate of 600 t/h of feed material. This milling takes place in building (4). The other processes (filter processes, evaporation processes, crystallisation and drying processes) are also in building (4). Clarifiers are situated outside of building (4) in the outside area (6). The compaction plant (5) is in a separate building.

A large area of approximately 17,000 m² is necessary for the tank farm (7). Both sheds (8) and (9) are similar to shed (2) and are for the storage of the MOP product and for the by-product NaCl-99%. All necessary weighing will be carried out by weighbridges (1) for trucks, empty and loaded.

Production output

Figure 10 presents the production output over the initial 21-year LOM for the Ohmgebirge Development. It incorporates a two-year ramp up period to nameplate output. Of the 2.0 Mtpa nameplate salt (+99% NaCl) production, steady state operation sees 1.0 Mtpa backfilled in underground mining voids and 1.0 Mtpa sold into European industrial grade salt markets.

Figure 10: Ohmgebirge Development initial LOM process output schedule



Nameplate MOP output of 1.0 Mtpa is expected to be comprised of the following product split (see Sections 14 & 15 for more detail on product and marketing strategy):

- Standard MOP 60% K₂O (SMOP K60) – 400 ktpa
- Granular MOP 60% K₂O (GMOP K60) – 350 ktpa
- Granular MOP 60% K₂O Brazil (GMOP K60 Brazil) – 250 ktpa

7. Infrastructure, energy and water

It has been assumed that electrical power for the process plant and the mine will be provided by an on-site, natural gas-fired co- (or tri-) multi-engined generation plant providing electrical power and using surplus heat to generate process steam. Any process cooling requirements will be provided by using remaining surplus heat to drive absorption chillers. Surplus electrical power will be injected into the grid and revenue from the feed in tariff will be generated. In order to ensure resilience and continuity in operation, the cogeneration plant will be backed up by a high voltage substation connected to the grid via conventional overhead lines.

An energy trade-off study will be carried out as part of the next stage of the project to ensure that the primary energy sources are both reliable, environmentally friendly, less climate relevant and resilient as well as being cost effective. This will include a review of the use of renewables, and other sources, to supplement the primary energy choice. This is particularly relevant given the energy supply crisis in Europe that has been exacerbated by the ongoing situation in Ukraine, as well as the commitment to an ESG roadmap.

The Scoping Study is based on a self-imposed zero commitment to industrial water discharges into surface water. Water consumption on the site will be strictly controlled and monitored and will include significant recirculation, recovery and reuse of water in leaching circuits, evaporation circuits and the crystallization plant to minimise freshwater makeup. Make up water will be provided from a number of sources including treated rainwater run-off, boreholes and municipal supplies. Rainwater run-off will be preferentially collected and diverted to storage for re-use.

8. Residue balance

During steady state operation of the mine and plant there is not expected to be surplus residue material, ie all residues of the mining and processing operation are planned to be utilised for backfilling in the mining operations. It is also expected that approximately 1 Mtpa of the 2 Mtpa salt (NaCl) production will be utilised as backfill material (with only the residual 1 Mtpa being available for sale into salt markets).

During shaft sinking, the excavation of the initial underground infrastructure and the first years of mine operation (when no excavation voids are yet available for backfilling), a significant volume of excavated material and process

residues (halite-anhydrite-clay, unsold NaCl) will accrue that must be temporarily stored. This is to be undertaken via an appropriate temporary stockpile facility.

The material deposited on the temporary stockpile is planned to be fed into the ongoing backfill process as soon as backfillable voids are available. In the unexpected event that there is residual material on the stockpile at the end of the life-of-mine, it is planned to be disposed of externally so that no permanent waste stockpile remains on the site.

9. Product transport logistics

Provision has been made for both MOP and salt logistics costs from mine gate to European customers or Hamburg port. Exports of MOP to Brazil command a premium price offsetting the shipping freight cost.

The South Harz region is well served by a modern freight rail network with an existing line nearby the Ohmgebirge site. Product will be transported to the customer utilizing this network that services the major hubs of Northwest Europe and the ports of Hamburg and Rotterdam. Local sales can be sold at the mine gate and collected by trucks. Central and Eastern European sales will be delivered by combinations of rail, truck and river barge depending on the customer location. Costs for transportation of MOP are estimated at US\$30/t NW Europe and Central Europe. Granular MOP sales to Brazil, during the European off season, are sold CFR with an assumed additional shipping and handling cost of US\$50/t.

10. Environmental and social

South Harz is committed to responsibility for its impact on the local environment and the communities in which it operates.

The permitting process includes a mandatory Environmental Impact Assessment (EIA) to identify and evaluate environmental and social risks and impacts of the Ohmgebirge Development. Public consultation is mandatory, as is early public participation. For the EIA an environmental baseline study has to be prepared in monitoring a whole vegetation period, which is one year in central Europe. The greater amount of data needed is available, due to the state's obligation to monitor the environment in accordance with several EU Directives. This data will be supplemented by detailed local data collection and further baseline studies. The Ohmgebirge licence area does not cover any major protected areas.

Environmental Standards and Monitoring System (ESMS) will be developed focused on the key issues identified by the EIA process and associated conditions attached to the Environmental Licence. To this end, the ESG roadmap will examine which of the various internationally established standards and monitoring systems, such as IFC, EMAS, ISO14000 etc, are most suitable for the Ohmgebirge Development and align most with sustainability reporting obligations in Germany, namely the upcoming EU-Directive on Corporate Sustainability Reporting (CSRD), in addition to international expectations and standards within the overall framework of the UN Sustainable Development Goals (SDG).

South Harz is a region with a century-long history in potash mining. Mine closures in the early 1990's resulted in thousands of redundancies that left a social impact in the region. Local miners at that time firmly believed that with investment these operations could have been saved. The overall sentiment in the region to reactivating potash mining and processing is therefore positive, and the potential of the Ohmgebirge Development to create wealth, including highly skilled jobs, is welcomed. South Harz has cultivated well established relationships with key local, regional and national stakeholder groups. A formal stakeholder engagement plan will be put in place before the official Planning Approval Procedure starts.

11. Permitting

Permitting of the Ohmgebirge Development falls under the jurisdiction of the Thuringia State. This process consists of the four key steps outlined in Table 4.

The four permitting phases build on each other. Despite having different purposes and being partially handled by different authorities, the processes can overlap.

The permitting process can commence once the location of the shaft installation and processing plant has been

selected. The Step 1 Spatial Planning Procedure Decision is typically granted within 12-18 months of site selection. This application process can run concurrently with the completion of a feasibility study.

Preparation for the Step 2 Planning Approval Process can also take place concurrently with the feasibility study and Step 1 Spatial Planning work, ideally leading to the submission of a Step 2 Planning Approval Procedure application immediately following receipt of the Step 1 approval. A Step 2 Planning Permission may be granted within 12-24 months beyond receipt of the Step 1 approval.

The Step 3 Main Operating Plan and the Step 4 Special Operating Plan applications would typically be submitted in parallel to the Step 2 application. Approval can typically be expected 3 months beyond the receipt of the Step 2 Planning Approval Permit.

Construction of the project can begin once approval under the above four steps of the Planning Approval Procedure have been granted.

Table 4: Thuringia State project permitting process

Permitting Phase	Focus	Detail	Authority and Timeframe
Step 1 Regional and Spatial Planning Procedure	<ul style="list-style-type: none"> Determines whether project can be implemented in a spatially, socially and environmentally compatible manner at the planned location Applies for projects with significant impact on development of a state or region measured by its effect on environment, supply of public goods, traffic, plus economic and social goals of state development plan 	<ul style="list-style-type: none"> Assesses and determines the feasibility of the project in a broader scope at an early planning stage A formal EIA is required 	<ul style="list-style-type: none"> Approval authority is Thüringer Landesverwaltungsamt (TLVwA) 6 months from submission of all application documents Total timeline for this step is typically 12-18 months from point of site selection Approval leads to Spatial Planning Decision
Step 2 Planning Approval Procedure	<ul style="list-style-type: none"> Covers all mandatory regulatory processes and permits for General Operating Plan Includes all approvals and permits by the competent authorities to construct a mine and related facilities, except for very certain water law permits A typical operator regards a Step 2 approval which has become final as a sufficient basis for a project FID. 	<ul style="list-style-type: none"> Requires an EIA to be submitted as part of a General Operating Plan Plan submitted for the purpose of carrying out a public consultation procedure with authorities other than the TLUBN, municipalities, the public and environmental organisations 	<ul style="list-style-type: none"> Approval authority is the Thüringer Landesamt für Umwelt, Bergbau und Naturschutz (TLUBN) Total timeline for this step is typically 12-24 months after submission of the complete application documents. Approval leads to a Planning Approval Decision
Step 3 Approval of Main Operating Plan	<ul style="list-style-type: none"> Mandatory to operate plants and facilities in the mining area. Mining authority has no discretion regarding approval of initial and subsequent Main Operating Plans (and Special Operating Plans); if fulfilling the statutory requirements and in-line with the Step 2 approval, then the Step 3 approval must be granted. Renewable every two years 	<ul style="list-style-type: none"> Includes submission of Main Operating Plan, renewable every two years. Based on same information as submitted under Step 2 above and includes technical concept, detailed safety measures and hazard prevention for operation of mines and facilities 	<ul style="list-style-type: none"> Approval authority is TLUBN Approval leads to an Operating Plan Permit This step is performed in parallel to step 2 and approval is expected 3 months beyond the receipt of the Step 2 Planning Approval Permit.
Step 4 Approval of Special Operating Plan	<ul style="list-style-type: none"> Special Operating Plans provide the operator greater flexibility in separating certain installations and activities from the Main Operation Plan. Such plans do not have to be renewed every two years. 	<ul style="list-style-type: none"> Approval process includes submission of a Special Operating Plan for specific installations or activities Based on same 	<ul style="list-style-type: none"> Approval authority is TLUBN Approval leads to a Special Operating Plan Permit This step is performed in

information as submitted under Steps 2/3 above, with more detailed technical specification

parallel to steps 2 and 3 above and approval is expected 3 months beyond the receipt of the Step 2 Planning Approval Permit.

The Federal Mining Act (BBergG) essentially integrates the legal framework for mining activities, the administrative procedures, rules for environmental conservation requirements including specialised requisitions for emissions and water protection and sets standards for public participation.

12. Operating costs

Forecast steady state annual operating costs for the Ohmgebirge Development are outlined in Table 5.

Table 5: Steady state annual operating cost estimates

Operating Area	US\$M pa	US\$/t ROM	US\$/t MOP
Mining	37.2	8.3	37.2
Processing	96.9	21.5	96.9
General	2.5	0.6	2.5
Product Packaging and Transport	35.0	7.8	35.0
Gross Operating Cost	171.6	38.1	171.6
Salt By-Product Credit	(79.0)	(17.6)	(79.0)
Net Operating Cost	92.6	20.6	92.6

The operational expenditure for mining includes estimated costs for personnel, mining excavation and auxiliary facilities as well as transport of raw material and backfill.

The process operating costs are calculated based on consumption figures which are estimated on basis of process units for similar projects. Table 6 shows the estimated consumption figures and unit prices for these inputs to the 1 Mtpa MOP process plant.

Table 6: Process consumption parameters for power, fuel, water and labour

Consumption Parameters	Unit	Per/Hour	Per/Annum	Price per Unit (€)
Demin. Water (Condensate Loss)	m ³	9.4	69,938	6.88
Electricity	MWh	28.4	213,016	155.50
Steam, 5 bar for Evaporation	t	186.0	1,398,750	23.40
Natural Gas L for Drying	Nm ³	2,738	20,533,174	0.30
Personnel Processing	No. / Man-Year	-	140	82,500

The cost of energy (electricity and gas) was benchmarked from other projects in central Germany. While below current spot price levels, these inputs have been carefully chosen to reflect the expected European energy market environment once the severe impact to natural gas supplies in Germany from the current geopolitical situation in Eastern Europe eases.

The salt by-product credit is based on sales of 1.0 Mtpa NaCl (the surplus salt not required for mine backfilling purposes) at the assumed delivered price of US\$79/t and to the expected customer base outlined in Section 15.

13. Capital costs

Pre-production capital expenditure

The Ohmgebirge Development pre-production capital expenditure estimate of approximately US\$620M is outlined in Table 7. It has been developed to a forecast estimation accuracy of +/- 30%.

Table 7: Pre-production capital expenditure estimate

Capital Item	US\$M
Mining	
Shafts	89.3
Underground Development	23.0
Equipment Development	19.0
Potash Production	31.5
Backfilling Equipment	8.9
Total Mining	171.7
Process Plant	
Storage of Ore and Products	17.4
Crushing	10.5
Cold Leaching	38.4
Tank Farm	10.5
Separation of Residues	10.5
Evaporation Plant	76.8
Precipitation of CaCO ₃	13.9
Separation of NaCl	21.0
Crystallisation of KCl	10.5
Separation of KCl	13.9
Drying	12.2
Compaction	21.0
Power Plant	26.1
Civil Buildings and Infrastructure	20.9
Project Planning and Permitting	38.4
Total Process Plant	341.9
Infrastructure and G&A	
Offsite Infrastructure	8.7
Land Acquisition	2.0
Total General	10.7
Contingency	
Mining	34.3
Processing	61.1
Total Contingency	95.4
TOTAL PRE-PRODUCTION CAPEX	619.7

The total capital expenditure for mining includes estimated costs for mining equipment, shaft and drift development, backfilling equipment as well as all associated infrastructure. The shaft cost estimate is based on the local geological conditions and realistic assumptions for the required work and shaft lining. It includes the equipment needed for shaft operation. The underground development estimate includes establishment of new infrastructure roadways and respective infrastructure facilities to start the initial mining operation. The equipment development estimate is based on the purchase of equipment necessary to prepare the underground infrastructure, such as a road header, drill and blast equipment, roof bolter, LHD's and auxiliary mobile equipment.

The potash production estimate includes the main equipment to run the underground mine and to deliver the throughput rate. This comprises continuous miners, shuttle trucks, LHD's, roof scaler and bolter, belt conveyors and crushing units, main and field fans, and respective transport vehicles. The backfilling equipment includes all surface facilities, underground and transportation infrastructure, as well as equipment required for brine recovery from the underground workings.

The components of the processing cost estimate are based on the process flowsheet and plant design requirements detailed in Section 6. The estimate includes all associated product preparation requirements (drying, compaction (for production of granular MOP product), etc), utilities (including power plant) and civils/buildings. There is also an appropriate cost allowance for all project planning and permitting activities with respect to construction.

The total contingency allowance of approximately US\$95M (equating to an approx. 18% addition to total pre-production capex) is built up as:

- 20% mining contingency (comprised of a 10% design and development contingency and a 10% construction contingency); and
- Approx. 18% processing contingency (made up of a 10% design and development contingency and a 5-10% construction contingency).

Sustaining capital expenditure

Total sustaining capital of approximately US\$13M per annum (representing approx. 2.1% of total pre-production capex annually) is included within the maintenance component of the processing operating cost.

14. Potash market and pricing

Potash market dynamics and outlook

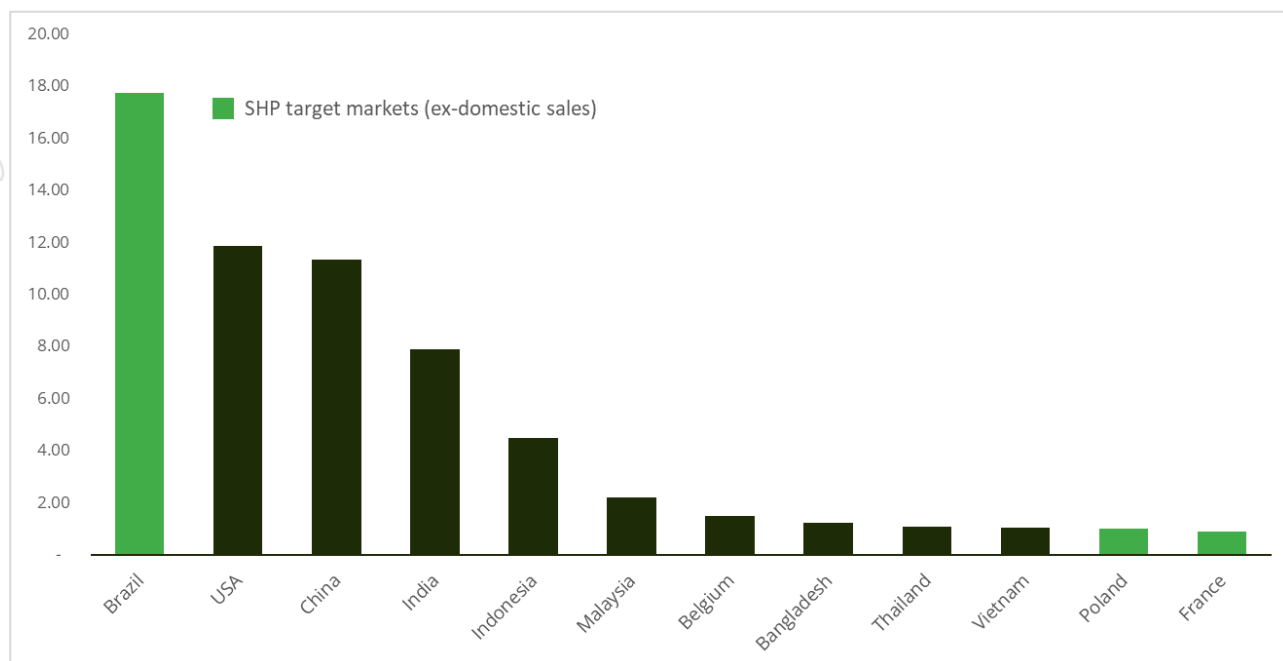
The primary end use of potash is as a fertilizer for its potassium content. Potash is essential for the cultivation of a variety of agricultural commodities including wheat, rice, corn, oilseed, sugar, fruit and vegetable crops. It is typically utilised in combination with two other primary nutrients, nitrogen and phosphate, to enhance plant growth and improve crop stability, yields and quality.

Muriate of potash (MOP or KCl – potassium chloride) is the dominant source of potash fertilizer globally, with independent fertilizer market consultant, Argus, reporting consumption of 71 Mtpa in 2021. MOP comprises nearly 90% of the total global potash produced, with the balance predominantly in the form of sulphate of potash (SOP or K₂SO₄). MOP is an essential raw material in the manufacture of fertilizer compounds, blends, and direct application products. Potassium chloride is the most widely applied potassium fertiliser due its relatively low cost and high potassium content (60 to 63 percent K₂O).

MOP demand

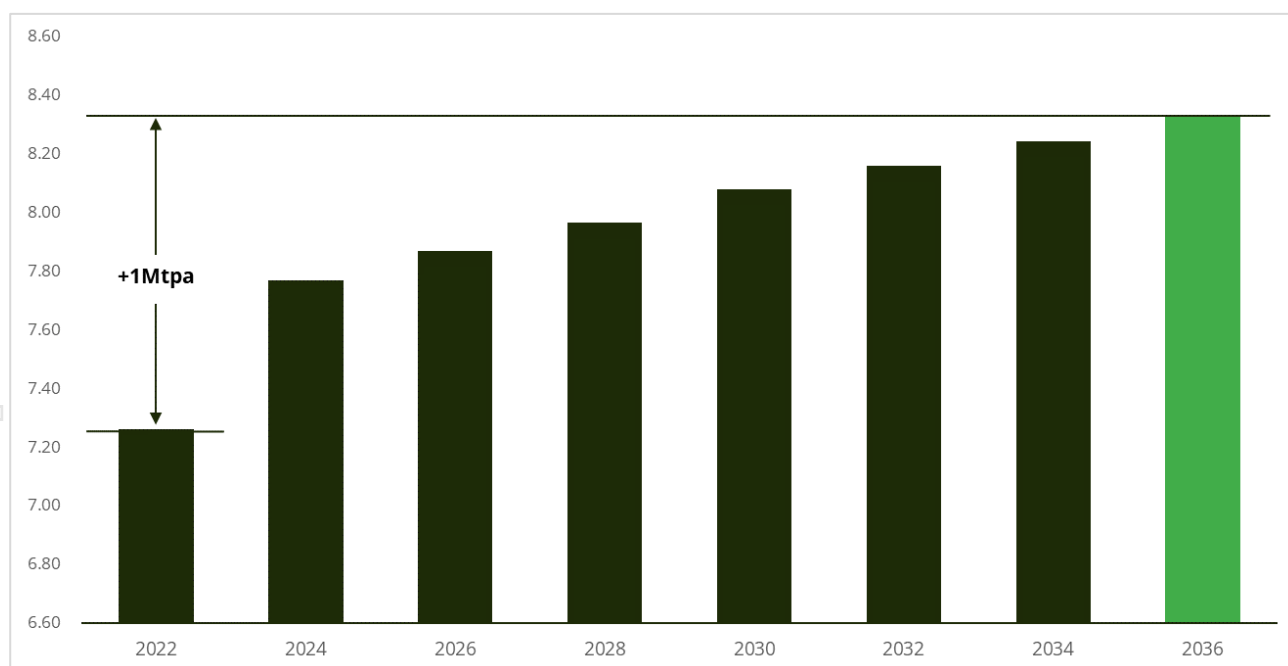
Long term global MOP demand is driven by underlying agricultural fundamentals; population growth, dietary improvements, climate change and required yield advancements from scarce arable land. Argus forecasts demand to increase at a compound annual growth rate of 3.2%, reaching 91 Mtpa by 2036. Markets with the largest forecast 2036 import demand include Brazil (17.7 Mtpa), USA (11.9 Mtpa), China (11.4 Mtpa) and India (7.9 Mtpa).

Figure 11: Argus forecast largest 2036 MOP import markets (Mtpa)



The European agricultural sector is well established and mature, resulting in reliable fertilizer demand and steady growth. Argus reported total European MOP consumption of 8.7 Mtpa in 2021 (7.7 Mtpa ex-Belarus) with 2022 demand forecast at 8.6 Mtpa (7.3 Mtpa ex-Belarus), forecast to grow to 9.6 Mtpa (8.3 Mtpa ex-Belarus) by 2036.

Figure 12: Argus European MOP demand (ex-Belarus) forecast (Mtpa)



MOP supply

Global MOP production is dominated by Nutrien (predominantly Canadian), Uralkali (Russian) and BelarusKali (Belarusian Potash Corporation, BPC). Together, these three companies supply approximately 60% of total MOP. BHP's Jansen is the only new large-scale project forecast to add significantly to global capacity, with an initial 1 Mtpa MOP scheduled to come online during 2027.

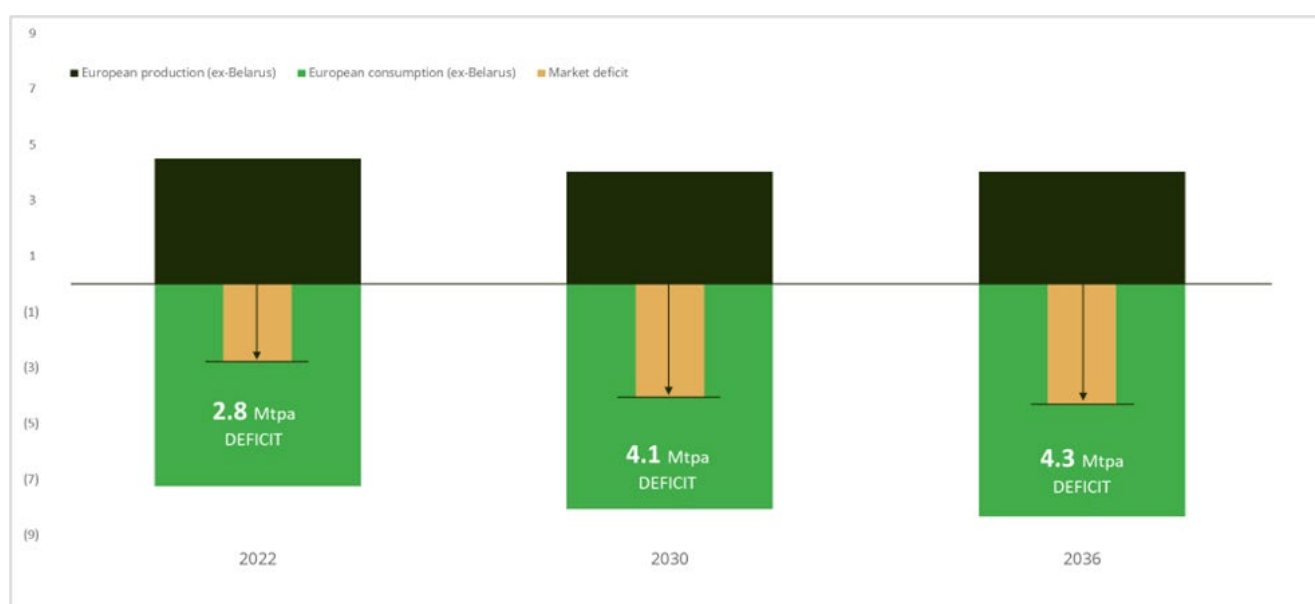
The recent Ukrainian-Russian conflict and resulting US and EU sanctions highlight the importance of Eastern European geopolitics on the MOP market. Restrictions have caused significant disruption to Russian and Belarussian export logistics and supply.

Outside of Belarus, current Western European capacity is concentrated between three ageing mines in Germany (K+S AG) and one operation in Spain (ICL Fertilizers). Combined total Western European production was 4.3 Mtpa in 2021 with Germany delivering 3.6 Mtpa and Spain 0.7 Mtpa. Forecast 2036 European supply of 4.0 Mtpa reflects declines in K+S German production (down to 2.9 Mtpa by 2036), partially offset by new Spanish supply (up to 1.1 Mtpa by 2036, Highfield).

Market balance

A persistent European market deficit now exists, with meaningful volumes of demand no longer accessible to Belarus. Steady growth in European consumption and shrinking domestic capacity is expected to result in a widening European supply gap (refer Figure 13).

Figure 13: European (ex-Belarus) MOP Market Balance Forecast 2036 (Mtpa)



High freight costs and large embedded CO₂ burdens for alternative Canadian and Middle Eastern supply is likely to be less attractive to European consumers. This presents a clear opportunity for a new local source of supply.

Potash price forecasts

MOP transactions are occurring at historically elevated levels, with CFR Brazil (granular) prices peaking at over US\$1,000/t during July 2022.

South Harz forecasts real long-term free on board (FOB) Northwest Europe prices are set to shift 10-15% higher than pre-Ukrainian conflict consensus levels, to between US\$360/t and US\$400/t longer term. This is due to the immediate widening of Europe's supply deficit, the geopolitical consequences of the Ukraine invasion and long-term security of supply implications.

Table 8: Argus June 2022 MOP price forecast (US\$/t)

Price data (US\$/t), real	2022 (US\$/t)	2023 (US\$/t)	2024 (US\$/t)	2025 (US\$/t)
FOB Vancouver (Standard)	882	682	462	369
CFR Brazil (Granular)	1,093	820	507	414
FOB NW Europe (Standard)	904	696	476	378

These assumptions are reasonable in the context of a shift in long term crop prices. A forecast uplift in food prices globally and strong farming revenues are expected to sustain elevated MOP price levels. Likewise, recent worldwide construction inflation will impact on the cost of building new MOP production capacity which will flow through to the long-term marginal MOP price required to motivate investment decisions and bring new mines to market.

Forecast MOP sale prices (real basis) utilised in the Ohmgebirge Development Scoping Study are based on a combination of the Argus price deck, the South Harz house view and a review of consensus forecast estimates:

- Standard MOP, delivered NW Europe: US\$370/t
- Granular MOP, delivered NW Europe: US\$395/t
- Granular MOP, CFR Brazil: US\$445/t

Salt market and pricing

NaCl (salt) is one of the most widely used substances on earth, with over 10,000 direct and indirect uses. It is a large and mature market with independent market consultant, Roskill, reporting estimated total consumption of 352 Mtpa during 2018. The total market size is expected to grow to 424 Mtpa by 2028, with production of Chloralkali being the dominant end-use.

Table 9: Roskill NaCl demand forecast (Mtpa), 2028

End-Use	Asia (Mtpa)	North America (Mtpa)	Europe (Mtpa)	Latin America (Mtpa)	Africa (Mtpa)	Oceania (Mtpa)	Total (Mtpa)
Chloralkali	113.8	29.3	23.1	3.9	1.5	0.4	172.0
Synthetic soda ash	62.1	1.2	20.0	0.3	-	-	83.6
Road de-icing	4.0	30.0	15.0	-	-	-	49.0
Food	20.9	1.2	2.6	6.1	6.1	0.2	33.6
Others	27.5	20.0	25.0	1.0	1.0	2.0	85.5
Total	228.3	81.7	85.7	16.8	8.6	2.6	423.7

Most salt is sold near production to avoid large logistical costs. Germany is situated close to premium European markets where consumption of salt is high. Additionally, outstanding local transport infrastructure can provide freight and logistics advantages into Germany, France, Scandinavia, The Netherlands and the UK.

Compass Minerals and K+S AG are two of the major salt suppliers in Europe. Their published sales data has been used to benchmark prices in a range of countries and these prices (US\$80 - 160/t) show a certain homogeneity with prices in Germany.

South Harz will market around 1 Mtpa of salt when at full production. The delivered NaCl sale price based on full production is assumed to be US\$79/t (real basis).

15. Potash product marketing

South Harz's primary MOP sales focus will be the domestic German market, along with Poland and France. Sales are also planned to be made to Brazil to smooth out seasonality in sales cycles.

Strategy

With reducing K+S AG production over time, and geopolitical tensions making Belarus and Russian potash imports either prohibited or unattractive, MOP buyers will likely seek alternative supply sources. It is therefore reasonable as a new market entrant to assume that South Harz would be able to acquire a 20% market share in the target European market. The low carbon footprint associated with local versus imported freight distances is also likely to make South Harz's product increasingly attractive.

To effectively penetrate the market, a potash producer requires an extensive sales and distribution channel into a broad base of customers. It is therefore envisaged that a strategy based on relationships with multiple off-takers

would best suit South Harz. This approach creates maximum flexibility and a robust marketing platform. South Harz does not anticipate selling direct to farmers.

Product blend

South Harz expects to produce a range of products suitable for its target markets.

The focus for Granular MOP sales will be the domestic German market, along with Belgium, Poland, France and Brazil. It is important to have the right product mix and grade split to fit these markets while also ensuring production and storage capital investment efficiency.

By developing sales into the Brazilian market, South Harz can mitigate the seasonal demand impact and help smooth monthly sales, in the European off season. Approximately 40% of annual imports are delivered from May to August in preparation for spring planting season. Brazil is the largest seaborne market for potash, an important potash importer, and pays a premium for Granular MOP. South Harz has logistical advantages in exporting to Brazil compared to other European markets, due to ease of access to North Sea ports.

It is expected that marketing 1 Mtpa South Harz MOP into Europe, using Brazil as an out of “European season” delivery, is achievable based on a robust sales strategy with a good product mix. The proposed South Harz product split based on this marketing strategy is:

- 600,000 tonnes per annum Granular MOP (K60); and,
- 400,000 tonnes per annum Standard MOP (K60).

16. Financial analysis

Key economic outcomes

The financial projections for the Ohmgebirge Development were prepared under the following assumptions:

- A real discount rate of 8% was used for discounted cash flow modelling; cashflows are ungeared and post-tax.
- Costs are quoted in real US\$ dollar 2022 terms; key exchange rate used for translation purposes is Euro/US\$ dollar 1.02.
- Cash flow periods are expressed annually in calendar years based on a LOM of 21 years.
- Costs have been forecast on an owner operated basis.
- Steady state sales volumes are assumed to be achieved by Year 3 after production commences and provision has been made for marketing expenses.
- Tax has been calculated based on a combination of applicable State (13.8%) and Federal (15.38%) tax rates. Tax amortisation of capex is based on asset lives varying between 6 and 20 years. Tax losses in Germany do not time expire, however in any one year only 60% of taxable profits can be offset against carried-forward losses, and the remaining losses carried forward for offset against future profits.
- No royalties are payable.

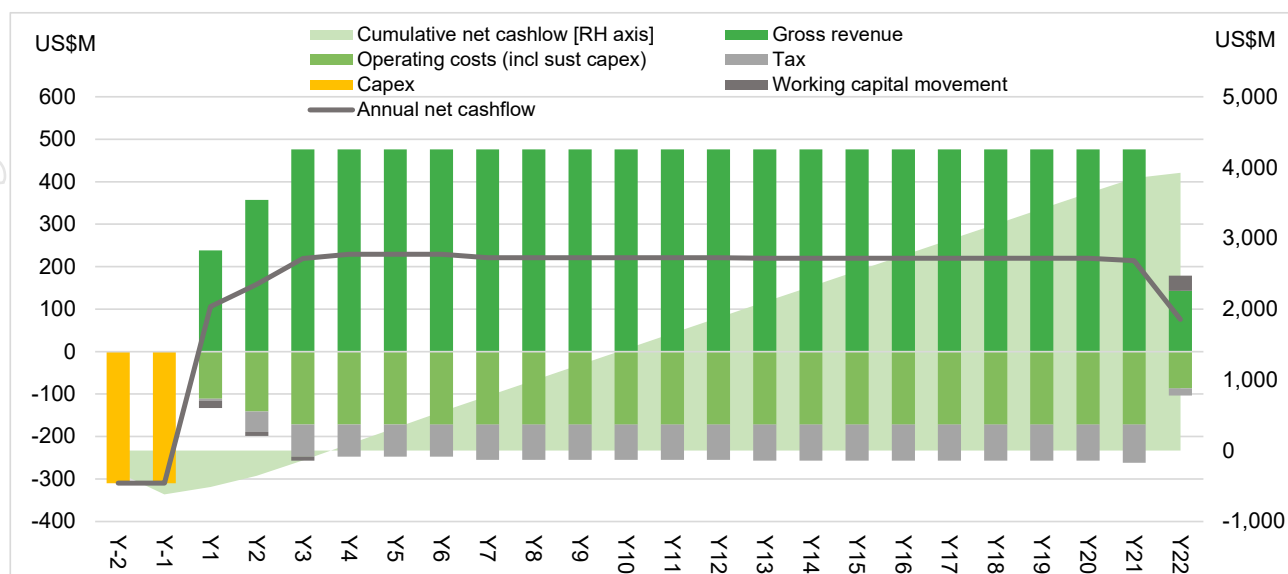
The key economic outcomes from the Ohmgebirge Development Scoping Study are outlined in Table 10.

Table 10: Ohmgebirge Scoping Study key financial projections

Key Financial Outcomes	Units	Point Estimate	Range Estimate
Inputs			
Discount rate	%	8.0	-
LOM weighted average FOB Hamburg equiv. potash price	US\$/t	385	-
LOM average NaCl price (delivered)	US\$/t CFR	79	-
FX rate Euro to US\$	US\$/€	1.02	-
Combined State and Federal tax rates	%	29.65	-
Valuation Returns & Key Ratios			
NPV 8% (pre-tax, real basis, ungeared)	US\$M	1,919	1,823 – 2,015
IRR (pre-tax, real basis, ungeared)	%	32.8	31.2 – 34.4
NPV 8% (post-tax, real basis, ungeared)	US\$M	1,279	1,215 – 1,343
IRR (post-tax, real basis, ungeared)	%	26.6	25.3 – 27.9
Payback period (post-tax, from first production)	Years	3.6	3.4 – 3.8
Capital intensity	US\$/t/a	620	589 – 651
LOM Cashflow Summary			
MOP Sales Revenue	US\$M	8,169	7,761 – 8,577
NaCl Sales Revenue	US\$M	1,623	1,542 – 1,704
Total Sales Revenue	US\$M	9,792	9,302 – 10,282
Mining Opex	US\$M	(803)	(763) – (843)
Processing Opex	US\$M	(2,024)	(1,923) – (2,125)
G&A Opex	US\$M	(54)	(51) – (57)
Product Packaging and Transport	US\$M	(719)	(683) – (755)
Project Operating Cash Flow	US\$M	6,192	5,882 – 6,502
Pre-Production Capital Expenditure	US\$M	(620)	(589) – (651)
Project Pre-tax Cashflow	US\$M	5,572	5,293 – 5,851
Tax Paid	US\$M	(1,644)	(1,562) – (1,726)
Project Free Cashflow	US\$M	3,928	3,732 – 4,124
Steady State Unit Cash Operating Costs			
Mining	US\$/t MOP	37.2	35.3 – 39.1
Processing	US\$/t MOP	96.9	92.1 – 101.7
G&A	US\$/t MOP	2.5	2.4 – 2.6
Product Transport	US\$/t MOP	35.0	33.3 – 36.8
Gross Cash Operating Cost (Pre NaCl Credits)	US\$/t MOP	171.6	163.0 – 180.2
Net Cash Operating Cost (Post NaCl Credits)	US\$/t MOP	92.6	88.0 – 97.2

Projected life-of-mine cashflows from the Ohmgebirge Development are outlined in Figure 14.

Figure 14: LOM cashflow profile



Competitive positioning

Forecast pre-production capital intensity for the Ohmgebirge Development is highly attractive at approximately US\$620/t of average annual production capacity. The industry norm for a 1 Mtpa MOP mine is typically understood as being in the US\$800 - 1,000/t range. The Ohmgebirge Development benefits from its proximity to existing infrastructure and relatively shallow deposit depth.

Argus quotes the 2021 global industry net cash operating cost *delivered to the nearest major port* as ranging between approximately US\$100/t and US\$225/t. The projected net cash operating cost for the Ohmgebirge Development of approximately US\$93/t CFR is therefore comparatively attractive and expected to comfortably reside in the lower half of the industry cost curve. This is a function of its robust grade, relatively thick mineralised seam, conventional mineralogy and process flowsheet, and proximity to key potash and salt markets (predominantly Europe) delivering low product transport distances/costs.

Sensitivity analysis

Key valuation and return sensitivities are outlined in Table 11 and Figures 15 and 16 (with each of the parameters varied independently of the others).

Table 11: Key valuation sensitivities for the Ohmgebirge Development

Valuation Sensitivities	Unit	Outcome	Sensitivity Movement
NPV – Discount Rate +1%	US\$M	1,464	-185
NPV – Discount Rate -1%	US\$M	1,117	162
NPV – Potash Market Price +US\$50/t	US\$M	1,571	292
NPV – Potash Market Price -US\$50/t	US\$M	987	-299
NPV - Prevailing Spot Potash Price	US\$M	4 246	2,967
NPV – Euro US Dollar FX Rate +1%	US\$M	1,266	-13
NPV – Euro US Dollar Rate -1%	US\$M	1,292	13
IRR – Potash Market Price +US\$50/t	%	29.9	3.3
IRR – Potash Market Price -US\$50/t	%	23.1	-3.5
IRR - Prevailing Potash Price	%	56.6	30.0
IRR – Euro US Dollar FX Rate +1%	%	26.3	-0.3
IRR – Euro US Dollar Rate -1%	%	26.9	0.3

Figure 15: Post-tax IRR sensitivity

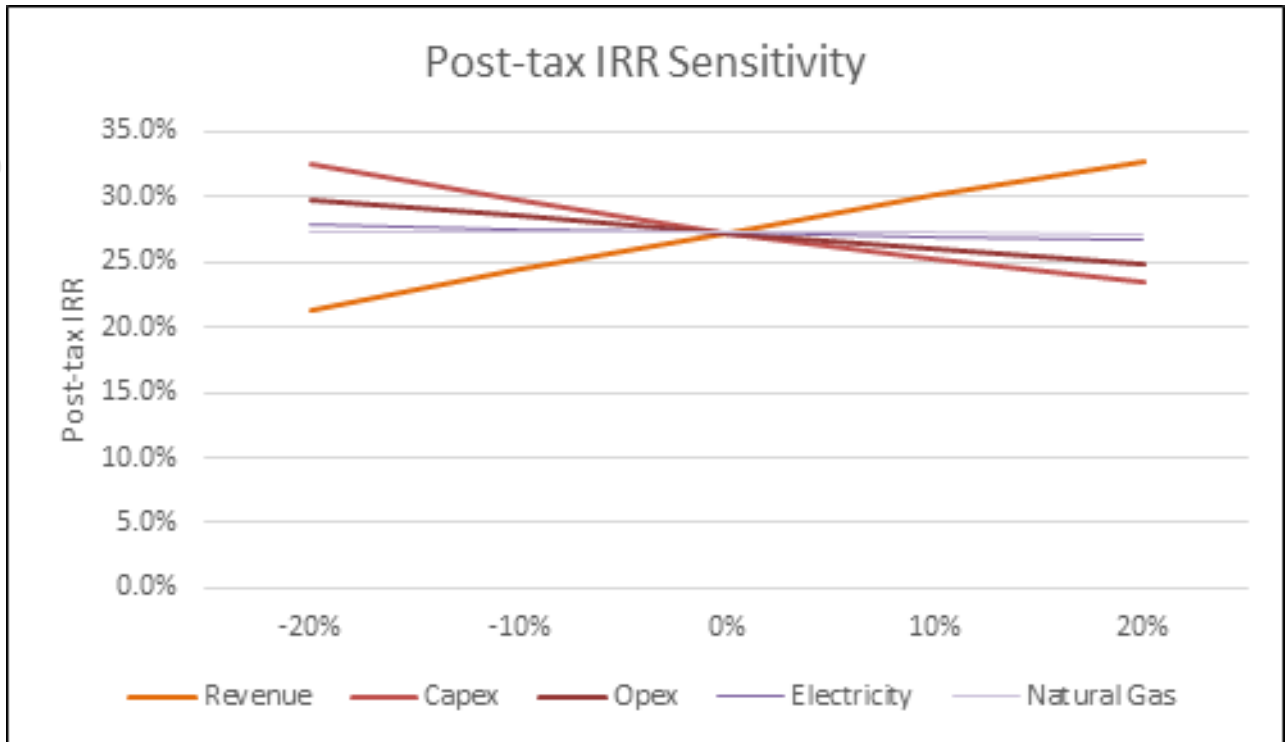
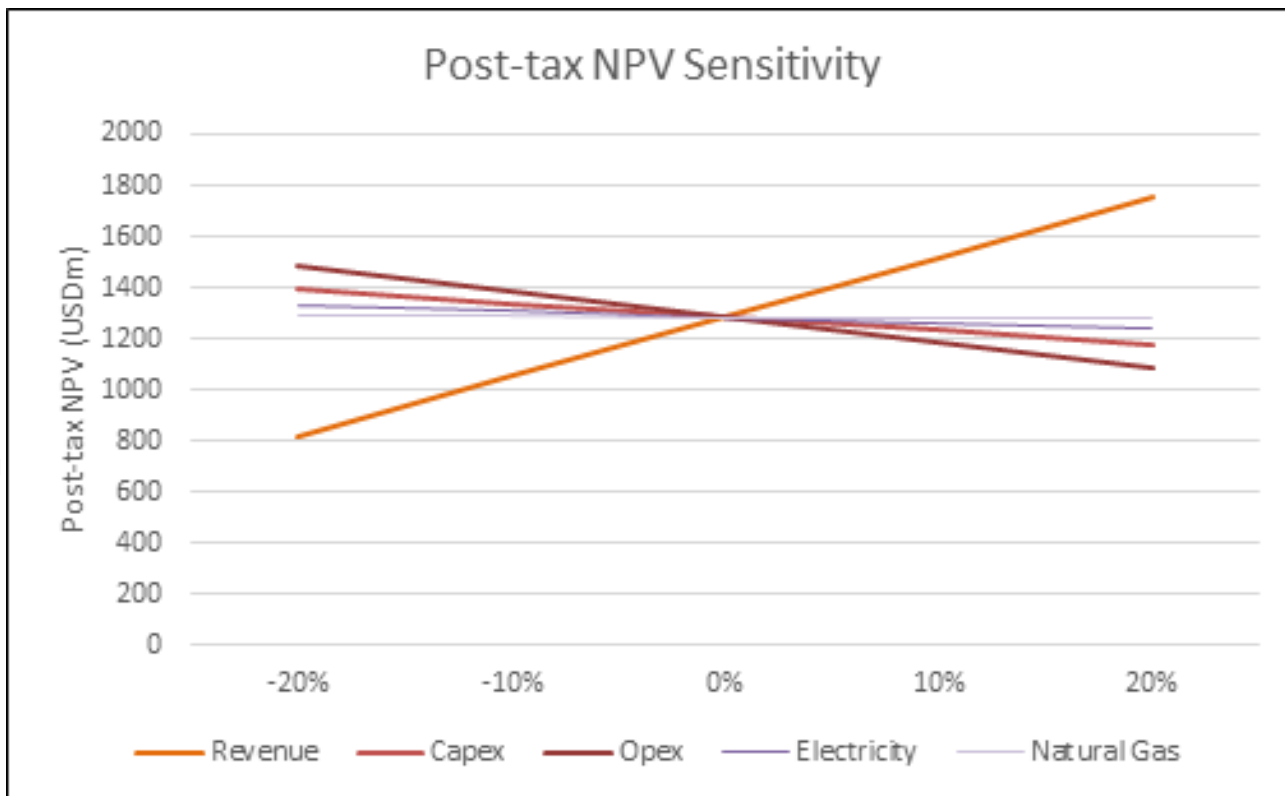


Figure 16: Post-tax NPV sensitivity



17. Funding strategy and reasonable basis for funding assumptions

To achieve the range of outcomes indicated in the Scoping Study, pre-production funding in excess of US\$620 million will likely be required.

An assessment of various funding alternatives for the Ohmgebirge Development has been made based on precedent funding transactions in the broader potash industry. South Harz plans to obtain requisite project construction and working capital funding comprised of one, some or all of: development project debt, senior debt, mezzanine debt, off-take prepayment, equity issuance and/or royalty stream funding. The final mix will depend on general market and mineral industry conditions, specific counterparty appetite and terms, and the Board's prevailing views on optimal funding mix and balance sheet configuration.

There is no certainty that South Harz will be able to source that amount of funding when required. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of South Harz's shares. It is also possible that South Harz could pursue other value realisation strategies such as a sale, partial sale, or joint venture of the Ohmgebirge Development. This could materially reduce South Harz's proportionate ownership of the Ohmgebirge Development.

South Harz has formed the view that there is a reasonable basis to believe that requisite future funding for development of the Ohmgebirge Development will be available when required. There are a number of grounds on which this reasonable basis is established:

- Funding for the Ohmgebirge Development pre-production and initial working capital is not expected to be required until close to or post completion of a Definitive Feasibility Study (DFS) and receipt of Step 2 regulatory permitting. Finalisation of a DFS is not expected before Q2 2024.
- The majority of market analysts/commentators globally forecast demand, and market prices, for potash to remain strong over the intervening period.
- Global debt and equity finance for potash projects is available, and the funding environment is expected to further improve as the strategic importance of potash production grows in the context of escalating global food demand and security of supply concerns. Examples of significant funding being made available for progression or construction of such projects globally include Highfield Resources recently executing a mandate letter for a €310M senior debt facility for its Muga Potash Project in Spain.
- The technical and financial parameters detailed in the Scoping Study are conservative, robust, and economically attractive (US\$1,279M NPV8% (post-tax, ungeared, real basis) and 26.6% IRR).
- The Ohmgebirge Development is located in Germany, Europe, a sophisticated and stable region where potash has been mined since the 1880's. Germany possesses a well-established and clear legal tenure and project permitting regulatory system.
- Release of these Scoping Study fundamentals now provides a platform for South Harz to advance discussions with potential financial partners with respect to the Ohmgebirge Development.
- South Harz has a current market capitalisation of approximately A\$60 million and zero debt. The Company owns 100% of the Ohmgebirge Development and broader South Harz Potash Project. It has an uncomplicated, clean corporate and capital structure. Finally, 100% of the forecast potash production from the Ohmgebirge Development, and broader South Harz Potash Project, is uncommitted. These are all factors expected to be highly attractive to potential strategic investors, off-take partners and conventional equity investors. These factors also deliver considerable flexibility in engagement with potential debt or quasi-debt providers.
- The South Harz Board and management team has extensive experience in the global resources industry. In this regard, key South Harz personnel have a demonstrated track record of success in identifying, defining, funding and developing mineral assets of significant scale.
- The Company has a strong track record of raising equity funds as and when required to further the exploration and evaluation of its assets.

18. Alternative development cases

Economic scenarios for the Ohmgebirge Development were evaluated using two development scenarios:

- Scenario 1: Single phase development to 1 Mtpa, which is the Base Case.
- Scenario 2: Two-phase development to 1 Mtpa, being sequential phases of 500 ktpa + 500 ktpa.

Scenario Two envisages an initial 500 ktpa development with a further 500 ktpa capacity being added in later years. This scenario has an overall higher capital expenditure requirement of US\$668 million, but a significantly

lower peak finance requirement of US\$443 million.

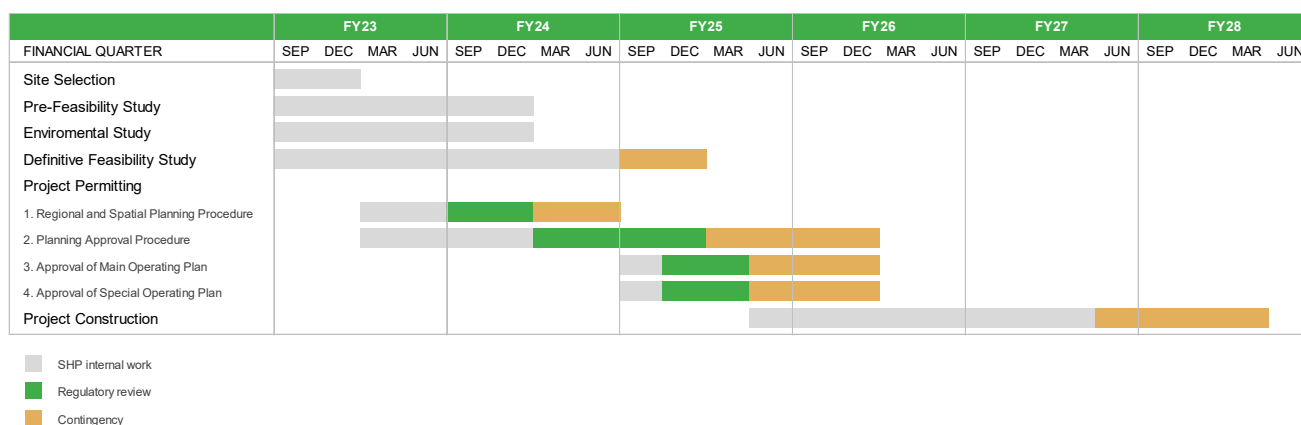
Scenario One is ultimately preferred as it presents a significantly higher NPV and IRR, with a shorter payback period and greater capital efficiency.

19. Development schedule

The schedule in Figure 17 outlines the planned advancement and development timeline for the Ohmgebirge Development. It has been compiled with a focus on presenting the relevant data to the applicable permitting regulator for the Step 1 (Spatial Planning) and Step 2 (Planning Approval Procedure) approvals at the earliest possible time.

Other aspects of the advancement plan have been constructed to inform and dovetail this prerequisite. This includes addressing remaining open scope questions via a Pre-Feasibility Study (**PFS**) period, compiling a detailed ESIA, and concurrently advancing a Definitive Feasibility Study (**DFS**) level of accuracy for those areas where technical understanding is already relatively high.

Figure 17: Ohmgebirge Development target development schedule



20. Key risks

A range of potential economic, engineering and social risks to the Ohmgebirge Development have been considered. Key potential risks identified are outlined in Table 12.

Table 12: Key risks for Ohmgebirge Development

Key Risk	Description	Potential Controls
Permitting Timeline	Completion of the permitting Step 1 and Step 2 submissions, with the correct supporting detail on time, drives the project's delivery timeline.	Work in this area has already commenced with input from key technical and permitting advisory team. Diligent submission content preparation together with close collaboration with advisors is essential, as is relationship management with all regulatory and other stakeholders.
Hydrogeological Barrier	The barrier at Ohmgebirge is relatively thin.	Underground development drilling for mine planning, utilising some of the hanging wall as a barrier, alteration to mining style.
Energy Solution	Study assumes use of electricity and gas from the German grid. Energy costs are volatile.	The PFS stage will include a study to identify optimal energy and greenhouse gas friendly solution.
NaCl Sales	The project benefits from profitable sales of some NaCl.	Market outlook and entry potential appears robust. Conservative NaCl sale price utilised.
Team Building	Building on the existing team, South Harz needs to create an owner's team with the necessary bandwidth to ensure delivery on schedule.	This has commenced; however, it is a key early area of emphasis. Sound advisory relationships are already in place in a supporting capacity.

Exchange Rate	The CFM is based on a 1.02 conversion from Euros to US\$ and selling in US\$.	Mitigate capital cost execution risk by entering into fixed currency rate contracts against the US\$.
Funding	Prevailing market circumstance can impact future financing success.	Selling price is conservative to spot. Robust marketing and strong jurisdiction. Refer to Section 17.
Environmental Impacts	Impacts on water, waste management and application of IFC standards will determine the environmental risk.	South Harz are already addressing the possible risks to the environment and aim to have no permanent waste storage on surface.
Production Levels	The ramp up rate to full production levels could be slower than anticipated	Prudently, additional contingency has been built into the model to allow for a slower build up than advised by South Harz's technical advisory team.
Dissolving Salt	If processing is slow or interrupted, raw salt and some sulphates will be dissolved as well as KCl.	Continuous, uninterrupted processing.
Marketing	Ability of market to absorb anticipated sales volumes.	The prudent ramp up profile referred to above, together with the growing European deficit of product leads us to believe that this risk is low. South Harz's close proximity to Hamburg permits cost competitive exports to Brazil during the off season.

21. Key opportunities

Potash price

The Scoping Study utilises a weighted average FOB Hamburg equivalent MOP product price forecast of US\$385/t. This includes an assumed price of US\$370/t for Standard European MOP product which compares with an average price of approx. US\$340/t (real basis, FOB NW Europe) over the past decade of excess global capacity, and the prevailing spot price of over US\$900/t (FOB NW Europe). Further, any future initiatives toward recognising carbon product footprint in pricing is expected to be highly beneficial for Ohmgebirge output given the short transport distances to deliver into European markets.

Utilisation of surrounding infrastructure

Clear opportunities to partner and/or transact with owners of proximate existing mine infrastructure in the South Harz region could see reductions in estimated capital, permitting advantages and shorter lead times to commercial production.

Salt pricing and sales volumes

Conservative salt price and sales volumes assumptions have been adopted for the Ohmgebirge Development. Clear potential upside to both inputs delivers the prospect of considerably greater revenue realisation from salt output at Ohmgebirge than currently incorporated.

Development of further South Harz Potash Project deposits

The Ohmgebirge Development Scoping Study focuses on the mining, processing and sale of MOP from solely the Ohmgebirge Sylvinitite deposit (290 Mt resource). The broader South Harz Potash Project comprises multiple deposits with total potash resources exceeding 5 Bt. Substantial potential long-term opportunity exists for South Harz to develop multiple potash mining operations across its existing tenure.

22. Conclusions and next steps

The Scoping Study has demonstrated the technical and financial robustness of the Ohmgebirge Development.

The South Harz Board has approved progression to a Pre-Feasibility Study (**PFS**), which is scheduled for completion in Q4 CY2023.

On behalf of South Harz Potash Limited,

Ian Farmer, Executive Chairman

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Appendix A: Competent Person's Statement

Elizabeth de Klerk M.Sc., Pr.Sci.Nat., MIMMM., Micon's Senior Geologist and Competent Person visited the South Harz Potash project on four separate occasions, from the 12th to 16th February, the 6th to 8th March 2018, from 15th to 17th October 2019 and specifically to the Ohmgebirge drill sites on 5th to 8th April 2022. The most recent visit included meetings with drilling supervisors and potash consultants "Ercosplan" and an inspection of the analytical laboratory facilities at K-UTEC AG Salt Technologies ("K-UTEC") in Sondershausen, Germany.

Elizabeth de Klerk is the Managing Director and Senior Geologist of Micon International Company Limited (UK) has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Mrs de Klerk consents to the inclusion in this document of the matters based on this information in the form and context in which it appears.

Appendix B: Reasonable basis for forward-looking statements

No Ore Reserve has been declared. This ASX release has been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions on which the Scoping Study production target and forecast financial information are based have been included in this release and disclosed in the table below.

Consideration of Modifying Factors (in the form of Section 4 of the JORC Code (2012) Table 1)

Criteria	JORC Code explanation	Commentary
<i>Mineral Resource estimate for conversion to Ore Reserves</i>	<ul style="list-style-type: none"> <i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i> <i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i> 	<ul style="list-style-type: none"> No Ore Reserve has been declared for the Scoping Study. The 2022 Ohmgebirge Mineral Resource estimate remains valid and was used as part of the Scoping Study.
<i>Site visits</i>	<ul style="list-style-type: none"> <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> <i>If no site visits have been undertaken indicate why this is the case.</i> 	<ul style="list-style-type: none"> Elizabeth de Klerk M.Sc., Pr.Sci.Nat., MIMMM., Micon's Senior Geologist and Competent Person visited the South Harz Potash Project from 12th to 16th February 2018 and, 6th to 8th March 2018, and 15th to 17th October 2019 and specifically to the drilling at Ohmgebirge from 5th to 8th April 2022. During Mrs. de Klerk's initial and last site visit to the South Harz Potash Project the laboratory facilities at K-UTEC Salt technologies (K-UTEC) in Sondershausen were also visited.
<i>Study status</i>	<ul style="list-style-type: none"> <i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i> <i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i> 	<ul style="list-style-type: none"> No Ore Reserve has been declared for the Scoping Study. The preliminary Life of Mine (LoM) plan presented in the Scoping Study is an initial indication of the potential mineable resources and are not considered to be Ore Reserves as they are not supported by a PFS.
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <i>The basis of the cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> A cut-off grade of >5% K₂O was used to restrict the Mineral Resource wireframes. This is a traditionally accepted cut-off grade used in the region.
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i> <i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i> <i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i> <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> <i>The mining dilution factors used.</i> <i>The mining recovery factors used.</i> <i>Any minimum mining widths used.</i> 	<ul style="list-style-type: none"> No Ore Reserve has been declared for the Scoping Study. For the LoM estimation a wireframe model of the sylvinitic seam was created, limiting an exceptionally thick seam in hole Kal Ktf 6/84 to 7 m which is considered to be in line with traditional underground mining heights in the South Harz Basin. Conventional room and pillar mining was considered with an extraction ratio of 70%. Safety pillars and barriers were applied to the LoM estimation to account for water egress from potential aquifers above and/or below the potash seam as well as the flooded neighbouring Bischofferode Mine. A 15% geological loss of potash resources was applied to account for a geotechnical safety barrier in the hanging wall. Inferred Mineral Resources make up <5% of the total resources used in the LoM plan.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i> <i>The infrastructure requirements of the selected mining methods.</i> 	<ul style="list-style-type: none"> Inferred Mineral Resources are not scheduled in the first 3 years of mining.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i> <i>Whether the metallurgical process is well-tested technology or novel in nature.</i> <i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i> <i>Any assumptions or allowances made for deleterious elements.</i> <i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i> <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i> 	<ul style="list-style-type: none"> Only the sylvinitic seam Mineral Resources were considered in the theoretical LoM plan with both the modelled carnallite wireframe and areas of increased carnallite mineralization being excluded. No modern day metallurgical test-work has been completed for Ohmgebirge. The optimal process route for Ohmgebirge is cold leaching and evaporation-crystallisation. This process route can efficiently handle the polyminerale ore type found at Ohmgebirge by separating out the easily soluble chloride minerals (KCl and NaCl) from insoluble material and sulphate minerals.
Environmental	<ul style="list-style-type: none"> <i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i> 	<ul style="list-style-type: none"> The plant and surface infrastructure site location has not been finalised. Three options have been considered in the Scoping Study that consider environmental impact and economics of the project. South Harz intend to backfill the underground workings with waste and there will be no permanent storage of waste on surface. Permitting processes have commenced and are ongoing including engagement with key stakeholders.
Infrastructure	<ul style="list-style-type: none"> <i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i> 	<ul style="list-style-type: none"> The total area required to accommodate the process plant buildings and MOP storage sheds is in the order of 28 ha to 30 ha. The plant and surface infrastructure site location has not been finalised. The Scoping Study has assumed that natural gas and a grid electrical supply will be available.
Costs	<ul style="list-style-type: none"> <i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i> <i>The methodology used to estimate operating costs.</i> <i>Allowances made for the content of deleterious elements.</i> <i>The source of exchange rates used in the study.</i> <i>Derivation of transportation charges.</i> <i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i> <i>The allowances made for royalties payable,</i> 	<ul style="list-style-type: none"> Costs are quoted in real US\$ dollar 2022 terms; key exchange rate used for translation purposes is Euro/US\$ dollar 1.02. Tax has been calculated based on a combination of State 13.8% and Federal 15.38% tax rates Mining and processing CAPEX and OPEX costs have been estimated based on a combination of real quotations (42%), mass approach (49%) and order of magnitude (8%).

Criteria	JORC Code explanation	Commentary
	<i>both Government and private.</i>	
Revenue factors	<ul style="list-style-type: none"> The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<ul style="list-style-type: none"> Two revenue sources have been considered, a 60% K₂O Muriate of Potash (MOP) and a 99% NaCl common salt. A weighted average commodity price of US\$ 385/t FOB was used for the MOP and US\$79/t Delivered for NaCl The selling prices are conservative in relation to current spot.
Market assessment	<ul style="list-style-type: none"> The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	<ul style="list-style-type: none"> Total global potash demand for MOP and NaCl have been sourced from Argus and CRU potash analyst. Potash demand is forecast to reach 100 Mt/a by 2034 – 2035. Ohmgebirge sales focus will primarily be the domestic German market, along with Poland, Belgium and France. The assumed grade split is 600,000 t/a Granular MOP and 400,000 t/a Standard MOP
Economic	<ul style="list-style-type: none"> The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<ul style="list-style-type: none"> A discount rate of 8% was used in the cash flow model. The cash flow model is based on an estimated LoM of 21 years. The intended estimation accuracy of this Scoping Study is ± 30%. Pre- and post- tax sensitivity analysis on NPV and IRR has been carried out on mining cost, processing cost, energy and capital costs. The potash price has a positive sensitivity of USD +292 million/t and a negative sensitivity of USD -299 million/t
Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<ul style="list-style-type: none"> Discussions with key stakeholders are positive and ongoing. An ESIA is planned to commence in the next phase of study.
Other (incl Legal and Governmental)	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	<ul style="list-style-type: none"> South Harz have no reason to believe that government and statutory approvals will not be granted. The project development timeline considers a 1 year contingency to allow for any unforeseen delays in permitting and approval.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Ore 	<ul style="list-style-type: none"> No Ore Reserve has been declared for the

Criteria	JORC Code explanation	Commentary
	<p><i>Reserves into varying confidence categories.</i></p> <ul style="list-style-type: none"> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> <i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i> 	<p>Scoping Study.</p> <ul style="list-style-type: none"> Inferred Mineral Resources make up <5% of the total resources used in the LoM plan. South Harz confirms that the financial viability of the Ohmgebirge Development is not dependent on the inclusion of Inferred Resources in the production schedule.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Ore Reserve estimates.</i> 	<ul style="list-style-type: none"> No Ore Reserve has been declared for the Scoping Study.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i> <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> <i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i> <i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<ul style="list-style-type: none"> No Ore Reserve has been declared for the Scoping Study. The preliminary LoM plan is an indication of potential mineable resources that were used as input into the discounted cash flow model for use in the Scoping Study at an accuracy level of $\pm 30\%$. The work conducted is not sufficient to report Ore Reserves