ASX ANNOUNCEMENT
12 July 2022

LANDMARK RESOURCE UPGRADE AT OHMGEBIRGE

- Updated Ohmgebirge Mineral Resource of 338Mt at 12.9% K_2O (previously 325 Mt at 13.2% K_2O).
- Extensive categorization upgrade achieved following recent confirmatory drilling program; Indicated Sylvinite Mineral Resource of 258 Mt at 13.5% K_2O (previously zero).
- Sees approx. 89% of key focus seam for development (Sylvinite) now in Indicated category.
- Ohmgebirge Scoping Study on track for completion in early August 2022.

South Harz Potash Limited (ASX:SHP) (**South Harz** or the **Company**) is pleased to advise of the updated Mineral Resource estimate for the flagship Ohmgebirge deposit at its South Harz Potash Project in Thuringia, Germany. This update incorporates the results of the recently completed twin-hole confirmatory diamond drilling program undertaken at Ohmgebirge.

The updated JORC (2012) Mineral Resource estimate for Ohmgebirge contains 338 Mt at 12.9% potassium oxide (K_2O) for approximately 44Mt contained K_2O. This estimate comprises 290 Mt of Sylvinite at 13.5% K_2O (split approximately 89% Indicated and 11% Inferred) and 48 Mt of Carnallite at 9.8% K_2O (100% Inferred).

Mineralised Seam	Categorisation	Tonnage (Mt)	K_2O (%)	K_2O (Mt)
Sylvinite	Indicated	258	13.54	35
	Inferred	32	12.85	4
	Sylvinite total	**290**	**13.47**	**39**
Carnallite	Inferred	48	9.81	5
	Carnallite total	**48**	**9.81**	**5**
TOTAL RESOURCE	**Indicated and Inferred**	**338**	**12.91**	**44**

Minimum cut-off grade ≥5% K2O; 15% geological loss applied to account for potential unknown geological losses.

The updated Mineral Resource was undertaken by leading geological consultancy, Micon International Co Limited (**Micon**), based on available historic exploration data combined with the two confirmatory diamond holes drilled at Ohmgebirge by South Harz earlier this year.

South Harz Acting Executive Chairman, Ian Farmer, commented:

"*The updated Mineral Resource estimate for Ohmgebirge comfortably exceeded our expectations, particularly with respect to the level of conversion to Indicated categorization classification. It is a significant validation of the construction and execution of our confirmatory drilling program earlier this year – and a ready demonstration of its success. It also further substantiates our confidence in the value of the data suite of over 300 historical drillholes which we acquired as part of our portfolio of perpetual mining licences at South Harz. With 89% of the key focus Sylvinite seam resource classified as Indicated, we are now very well placed to finalise our mine scheduling workstream and complete the Ohmgebirge Scoping Study, which is on track to be achieved early next month. We look forward to presenting the final physical and financial outcomes from this critical technical and economic evaluation of the planned Ohmgebirge potash development.*"

For personal use only

U13, 6 – 10 Douro Place
West Perth WA 6005

CONTACT DETAILS
W: southharzpotash.com
E: info@southharzpotash.com
P: +61 408 447 493

ABN: 64 153 414 852
ASX Code: SHP
ASX Code (Options): SHPO
Frankfurt Code: A2DWXX

532M Ordinary Shares
103M Unlisted Options
46.2M Listed Options
0.8M Performance Rights

For personal use only

Background

Exploration for potash commenced within the Ohmgebirge licence in 1894 and included cored drill holes and downhole geophysics. The area around the Ohmgebige mining licence is a well-known potash-bearing area and is adjacent to the now closed Bischofferode and the open Bleicherode/Sollstedt Mines. After initial exploration in the early 1900s exploration recommenced on Ohmgebirge in earnest in the 1960's and all of the exploration drilling was conducted by the former GDR. Various parties were involved, most of which combined to form VEB Kombinat after reunification. In 2022 two new drillholes, OHM-01 and OHM-02, were drilled by SHP within the Ohmgebirge mining licence. OHM-01 is a twin hole of Ktf 5/1983 located 100 m to the north of the original drill hole position. OHM-02 is a twin hole of Kal Wr 6 Liese located 148 m to the west of the original drill hole position.

A total of 14 historical exploration drillholes (including one deviation) and 2 new drillholes have been drilled within the current Ohmgebirge mining licence area (Figure 1). Additional drillholes located around the Ohmgebirge licence were used for the creation of the project database, bringing the total number of drillholes used for the resource modelling work to 43. The drill hole spacing on Ohmgebirge ranges between 970-2,400m with an average of approximately 1,000m. The drill holes are evenly distributed across the property.

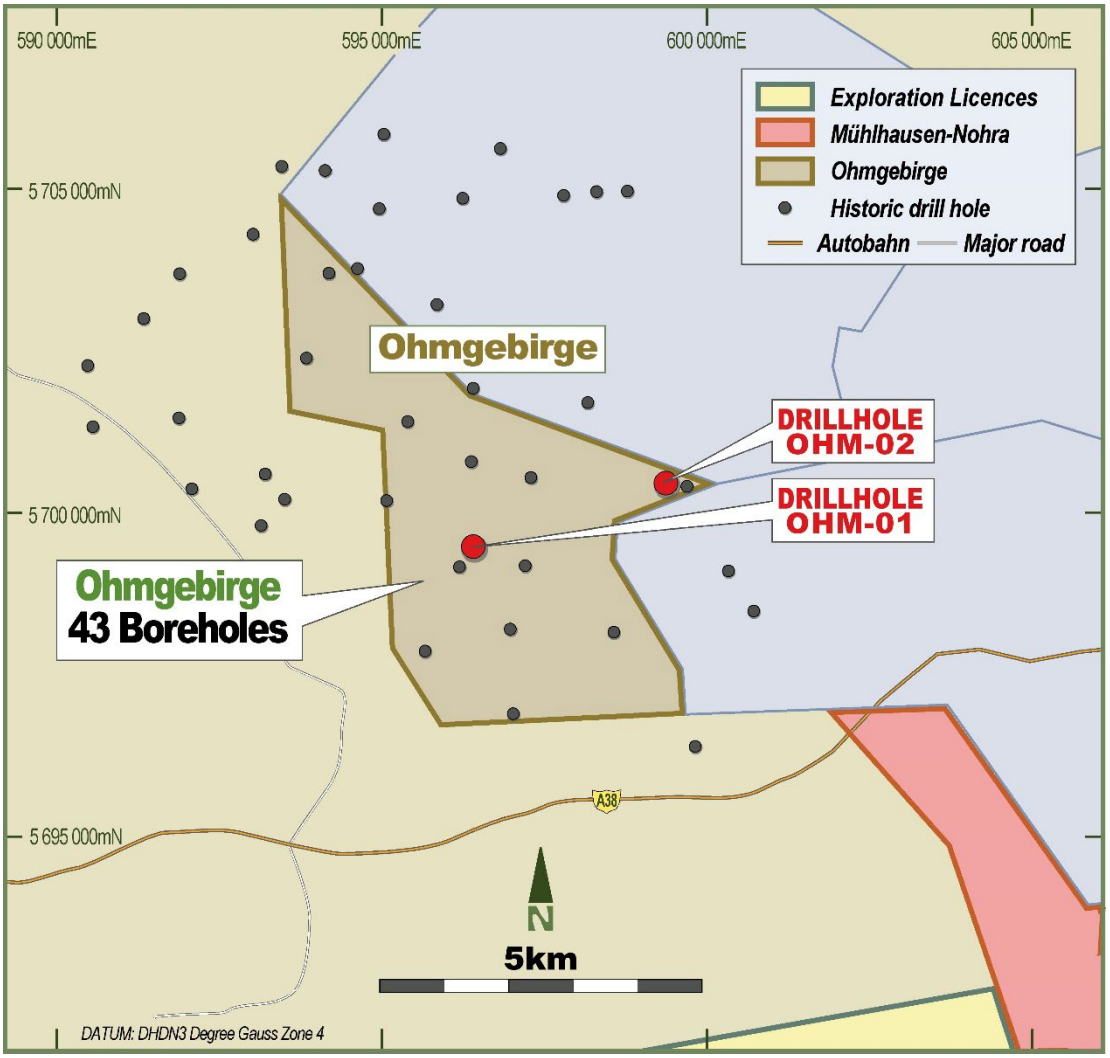


Figure 1: Ohmgebirge Mining Licence area showing the approximate location of historic drillholes and the twin confirmatory holes, OHM-01 and OHM-02.

Sampling and Database

In 2022 core logging and sampling for the two new drillholes was conducted according to ISO standards: DIN EN ISO 14688-1; DIN EN ISO 14688-2; DIN EN ISO 14689-1 and DIN EN ISO 22475-1. Core samples were geologically logged in detail. Information recorded on the drill hole logs included lithological depths, lithological description, stratigraphic interpretation, structural measurements and colour. Photographs were taken of all rock chips and core samples, including backlit core photography. During the historical campaigns core samples were geologically logged in detail and both full and summary drill hole logs were produced in both written and graphical format. Full drill hole logs included a detailed lithological description of the entire drill hole, which was also summarised and graphically portrayed alongside the downhole geophysical logging and assay results. Logs are available for 27 historical drill holes whilst information regarding mineralogy and stratigraphy were extracted from historical maps for 14 historical drill holes.

Drill core samples were taken during the recent drilling campaign carried out in 2022 and from historical drilling campaigns predominantly carried out between 1956 and 1984 with additional holes drilled in 1906-1907. For the recent drilling campaign sampling was carried out by Ercosplan geologists and lithological contacts were honoured. Samples were taken across all potash-bearing horizons and the total sampled length represents the total thickness of the potash-bearing horizon of the z2KSt. Sample preparation and analysis was carried out in the accredited laboratory of K-Utec Salt Technologies (DIN EN ISO/EC 17025). For the historical cored drillholes all drill hole sampling was conducted according to the Kali-Instruktion (1956 and 1960). Sampling information is available for drill holes drilled during the 1960-1963 and 1982-1984 exploration campaigns. Sample preparation and analysis was carried out in the laboratory of VEB Kombinat Kali research department according to standard procedures.

Chemical data exists from 29 diamond core drill holes ('potash drill holes') including 2 new drillholes and 27 historical holes. Mineralogy is available for 2 new drillhole and 35 historic drill holes. For the two new drillholes, OHM-1 and OHM-02, downhole geophysics included salinity, temperature, calliper, gamma-ray, gamma-gamma, neutron and sonic. Holes drilled between 1956 and 1984 were geophysically logged including calliper, gamma, gamma-gamma and natural gamma downhole logging.

Of the 43 drill holes used in the model database, 4 did not intersect the z2KSt potash horizon. For the 2022 drilling campaign wet chemical analysis for sodium, potassium, magnesium, calcium and sulphur was performed on half drill core using ICP-OES. Chloride was determined by automatic potentiometric titration with a silver nitrate solution. Insoluble material content was determined by HCl-insoluble following KALI 97-003/01 2.2.1: 87-12 procedures. The K_2O grade of the potash-bearing horizons was determined from the stoichiometric calculation using the analysed elements. For the historical drillholes all drill hole sampling was conducted according to the Kali-Instruktion (1956 and 1960). Sample preparation and analysis was carried out in the laboratory of VEB Kombinat Kali research department according to standard procedures. Potassium was analysed by flame photometry. Sylvinite samples were milled and sieved for microscopic determination and were also prepared for X-ray analysis of insolubles. For both historical and new drill holes the samples were taken across all potash-bearing horizons and the total sampled length represents the total thickness of the potash-bearing horizon of the z2KSt. Core sample thickness in the Ohmgebirge database ranges from 0.07 m to 14.11 m with an average sample length of 1.59 m.

For personal use only

In 2022 Ercosplan has managed the drilling and logging campaign, which was overseen by SHP and approved by Micon International. Quality Assurance and Quality Control (QA/QC) consists of 15 duplicate and 29 blank samples included in the sample analysis, out of a total of 135 samples. 25 samples have also been sent to an umpire laboratory, called VKTA in Dresden. Thicknesses of the potash-bearing horizons were confirmed by the geophysical logging and the full length of the potash was sampled. No field duplicates were taken during the historical drilling campaigns. For all exploration work conducted post-1950 in the SHP licence areas, QA/QC procedures were conducted by independent state institutions and quality checked by VEB Kombinat Kali company professionals. QA/QC was conducted on 34 1960's drill core samples as part of the 1980's campaign using drill core that had been stored in the underground core storage facility at the Sondershausen potash mine. Samples were sent to internal and external laboratories and the analytical results were identical and showed good reproducibility. Results of the QA/QC confirm validity of the laboratory results.

The database used to create the geological model and mineral resource estimation was created from manual data entry of hard copy historical drill hole logs and exploration records. The Excel databases for Ohmgebirge were cross-checked against the original drill hole logs stored in the K-Utec archives in Sondershausen in October 2019. The two new holes drilled in 2022 were added to the 2019 drillhole database and additional information regarding downhole survey deviation and corrections for geophysical depth were also incorporated to make the database as accurate as possible.

Geology and modelling

The Ohmgebirge mining licence is located in the Südharz (South Harz) Potash District in the north-western extent of the Thuringian sedimentary basin, which has been separated by the uplift of the northerly Harz Mountains from the South Permian Basin (SPB). 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 the Ohmgebirge mining licence.

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 Z2 is further sub-divided into horizons, of which the Kaliflöz Staßfurt (z2KSt) hosts potentially economic potash. Mineralised z2KSt occurs across almost the whole of the Ohmgebirge mining licence, with an area to the west that is barren. The z2KSt is present in 39 drill holes used in the 2022 Ohmgebirge model, 2 of which did not return K_2O grades and 15 of which exist within the licence area. The mineralogy on Ohmgebirge is dominated by sylvite with carnallite intersected in only one hole within the licence area. The sylvite rich seam was modelled as one horizon, and was historical known as Hartsalz, and the carnallite seam was modelled separately. A major graben has been historically mapped within the Ohmgebirge mining licence trending NNE-SSW with offsets of 150-250m. The results of the graben have been logged in the downhole geophysical logs of drill holes on Ohmgebirge with noted steeper bedding, dipping joints and deformation in the strata accompanied by gases. In the centre of the graben the Leine-Steinsalz through to the Aller-Steinsalz units have thickened whilst the rock salt units have thinned resulting in a weakened hanging-wall. No evidence of displacement in the z2KSt unit have been modelled.

For personal use only

The resource wireframes for Ohmgebirge were modelled in Micromine® modelling software, which is internationally recognised software used for modelling stratiform deposits. The roof and floor of the potash seam was flagged in the chemical database, using a combination of downhole geophysical gamma-gamma logs and K_2O analysis with a minimum of 5% K_2O. Where mineralogical data was available, the seam database was also flagged into Sylvinite or Carnallite. The roof and floor of the Sylvinite and Carnallite seams were gridded in Micromine. A grid cell size of 50 was used as this best fitted the data when correlated in cross-section. An inverse distance cubed gridding algorithm was used, with a circular search area and a 5,000 m search radius to cover the distance between data points, four sectors and maximum 20 points per sector to ensure all information was included. The roof and floor grids were converted to wireframes surfaces and combined to solids for each seam, namely the Sylvinite Seam and the Carnallite Seam.

The geological model was constrained by grade >5% K_2O and then the mineralogical data was used to split this into the Sylvinite and Carnallitite seams. A minimum cut-off grade of 5% K_2O was used as this is considered economic. The seam thickness is >1.5 m across Ohmgebirge and is considered amenable to potential mining underground and is therefore suitable for reporting resources. The average maximum mining height for underground potash in the South Harz region is ±7m, subject to local ground conditions. Some of the drill hole intersections used in resource estimation have thick (>7m) Sylvinite seams, notably Kal Ktf 8/84 and Kal Ktf 4/83. This height was not used as a cut-off during resource estimation as that will become part of the conversion to reserves, but a 15% geological loss was applied to the resources to take into consideration this loss in volume and any other uncertainties.

Modelled wireframes were compared against original stratigraphic interpretations and geophysical logs. All correlated well.

The final extents of the modelled Sylvinite seam and the Carnallitite seam are shown in Figure 2 and Figure 3 in JORC Table 1. Cross sections through the Ohmgebirge Mining Licence are shown in Figures 4 & 5 in JORC Table 1.

Mineral Resources

The Mineral Resource Estimate was carried out in Leapfrog Geo® and Leapfrog Edge® software. Block values were estimated in a single pass using 2D Inverse Distance squared (ID2). Accumulation and true thicknesses were interpolated for each variable (K_2O, KCl, Mg, Na, SO_4, and acid insolubles) and the grade was calculated as the accumulation divided by the true thickness on a block-by-block basis. All drill hole intersections used in the Mineral Resource Estimate had 100 % assay data coverage within the modelled seams except for acid insolubles. A zero value was assigned to intervals without acid insoluble data. Declustering weights were used for the Sylvinite seam and declustering cell sizes ranged between 500 to 700 m in X and Y. The same declustering weights were used for accumulation and true thickness. The Sylvinite and Carnallite seams were assumed to be flat lying for the calculation of the true thickness. For K_2O and KCl in the Sylvinite seam a search ellipse of 3,000 m (X) by 3,000 m (Y) was used with a minimum of 2 samples and a maximum of 12 samples. For K_2O and KCl in the Carnallite seam the same parameters were used except for a minimum of 1 sample. For all other variables in the Sylvinite or Carnallite seams search ellipse of 6,000 m (X) by 6,000 m (Y) was used with a minimum of 1 sample and a maximum of 12 samples. The maximum distance for extrapolation from data points for K_2O and KCl is approximately 1,600 m, for all other variables it is approximately 4,000 m.

The block model was validated using three different approaches: (1) visual comparison of the block model grades compared to the drill hole data, (2) statistical comparison of the block model grades compared to the drill hole data, and (3) swath plots of the block model grades compared to the drill hole data. The block model validation results showed a good comparison between the original data and the block model

For personal use only

A total of 41 dry density values for the Sylvinite seam were calculated from the modal mineralogy of the respective sample. The samples had an average value of 2.25 g/cm3 with a standard deviation of 0.66 and was used for the density of the Sylvinite seam. A density of 1.89 g/cm3 was used for the Carnallite seam based on historical data.

The economic potash deposit covers almost the entire Ohmgebirge mining licence, with a small, oval-shaped barren zone in the west that continues approximately 1 km to the west of the mining licence. Based on interpretation of drill hole data and historical plan maps, the mineralised z2KSt continues to the north, south, east and west of Ohmgebirge. The mineral resource has been restricted by a minimum grade cut-off of >5% K_2O.

The Ohmgebirge JORC 2012 resource contains 338 million tonnes at 12.91% potassium oxide (K_2O) in the Indicated and Inferred categories. The resource, which covers approximately 21.7km^2, is composed of 290 million tonnes of Sylvinite categorised as 89 % Indicated and 11% Inferred and 48 million tonnes of carnallitite which remains in the Inferred category.

The minimum depth from surface to the roof of the economic potash is ±404 m and the maximum depth to the base of the potash seam is ±887.

The Ohmgebirge mining licence area has been classified as an Indicated and Inferred Mineral Resource based on the quality and extents of the drilling database that are sufficient to imply geological grade and continuity for eventual economic extraction. Two twin holes were drilled in 2022 to validate the historic data and an approximate 1,500 m radius around drill holes was used to classify the Indicated Mineral Resources. The distance was based on variogram ranges from neighbouring deposits which display similar characteristics.

Figure 2 in JORC Table 1 highlights the extents of the mineral resources.

The July 2022 Indicated and Inferred Mineral Resources for the Ohmgebirge Mining Licence area are presented in Table 1.

Table 1: Ohmgebirge Mineral Resources, 8 July 2022 (JORC, 2012)

Category	Seam	Bulk Density (t/m^3)	Geol Loss (%)	Tonnage (Mt)	K_2O (%)	K_2O (Mt)	Insols (%)	KCl (%)	Mg (%)	Na (%)	SO_4 (%)
Indicated	Sylvinite	2.25	15	258	13.54	35	0.19	21.15	0.96	23.95	11.01
Total Indicated		**2.25**	**15**	**258**	**14**	**35**	**0.19**	**21.15**	**0.96**	**23.95**	**11.01**
Inferred	Sylvinite	2.25	15	32	12.85	4	0.18	20.17	0.66	24.78	10.40
	Carnallitite	1.89		48	9.61	5	-	15.09	-	-	-
Total Inferred			**15**	**80**	**10.91**	**9**	**0.18**	**17.13**	**0.66**	**24.78**	**10.40**

Minimum cut-off grade ≥5% K_2O.

15% geological loss applied to account for potential unknown geological losses.

Data source: historical state records (BVVG) checked and verified, two verification holes drill in 2022 by SHP.

Inferred Resources rounded down to nearest 1,000,000 t.

Errors may exist due to rounding.

Total Inferred qualities for insolubles, Mg, Na and SO_4 reflect information from the Hartsalz (Sylvinite) seam only as insufficient data is available for the Carnallite Seam

For personal use only

The total JORC-compliant Indicated and Inferred Resources declared by Micon as a result of modelling the drill hole data from Ohmgebirge, Ebeleben, the Mühlhausen-Keula sub-area, the Nohra-Elende sub-area and for the Küllstedt Exploration Licence area are shown in Table 2 below. Total resources held under the JORC 2012 Inferred category now stand at approximately 5.28 billion tonnes containing 567 Mt K_2O. South Harz Potash anticipates that this resource could increase with additional exploration drilling within the portfolio of licences.

Table 2: Total JORC 2012 Indicated & Inferred Resources to 8 July 2022 held by SHP.

Category	Licence Area	Potash Seam	Bulk Density (t/m³)	Geol Loss (%)	Tonnage (Mt)	K_2O (%)	K_2O (Mt)
Inferred	Ebeleben	Sylvinite	2.21	20	324	15.57	50
Inferred		Carnallite	1.86	20	253	7.50	19
Inferred	**Ebeleben Total**				**577**	**12.14**	**69**
Inferred	Mühlhausen-Nohra-Elende	Upper Sylvinite	2.17	20	87	14.75	13
Inferred		Lower Sylvinite	2.30	20	14	10.67	1
Inferred		Carnallite	1.90	20	1,597	9.41	150
Inferred	**Mühlhausen-Nohra-Elende Total**				**1,698**	**9.69**	**165**
Inferred	Mühlhausen-Keula	Upper Sylvinite	2.26	20	660	12.69	84
Inferred		Upper Carnallitite	1.88	20	233	8.53	20
Inferred		Lower Carnallitite	1.88	20	63	6.88	4
Inferred		Lower Sylvinite	2.21	20	174	9.76	17
Inferred	**Mühlhausen-Keula Total**				**1,130**		**125**
Inferred	Küllstedt	Upper Hartsalz	2.26	20	275	13.57	37
Inferred		Upper Carnallite	1.88	20	1,175	10.20	120
Inferred		Lower Carnallite	1.88	20	30	5.89	2
Inferred		Lower Hartsalz	2.21	20	59	10.23	6
Inferred	**Küllstedt Total**				**1,538**	**10.72**	**165**
Inferred	Ohmgebirge	Sylvinite	2.25	15	32	12.85	4
Inferred		Carnallitite	1.89	15	48	9.61	5
Inferred	**Ohmgebirge Total**				**325**	**13.14**	**9**
Total SHP Sylvinite/Hartsalz					**1,625**	**13.11**	**213**
Total SHP Carnallite					**3,398**	**9.41**	**320**
Total SHP Inferred South Hartz Resources					**5,023**	**10.60**	**533**
Indicated	Ohmgebirge	Sylvinite			258	13.54	35
Total SHP Indicated South Harz Resources					**258**	**13.54**	**35**

Ohmgebirge Scoping Study progress

The Scoping Study for Ohmgebirge is approaching conclusion. Upon incorporation of the updated Mineral Resource estimate, and finalisation of the concurrent mine scheduling workstream, South Harz expects to be in a position to complete the Scoping Study and release its key outcomes in early August.

On behalf of South Harz Potash Limited,
Ian Farmer, Acting Executive Chairman

For personal use only

Investor & Media Enquiries

Ian Farmer
Executive Chairman
South Harz Potash Ltd
+44 7748 642 409
ifarmer@southharzpotash.com

Andrew Edge
Fivemark Partners
+61 410 276 744
andrew.edge@fivemark.com.au

Justine James
Alma PR
+44 20 3405 0205
shp@almapr.co.uk

For personal use only

For personal use only

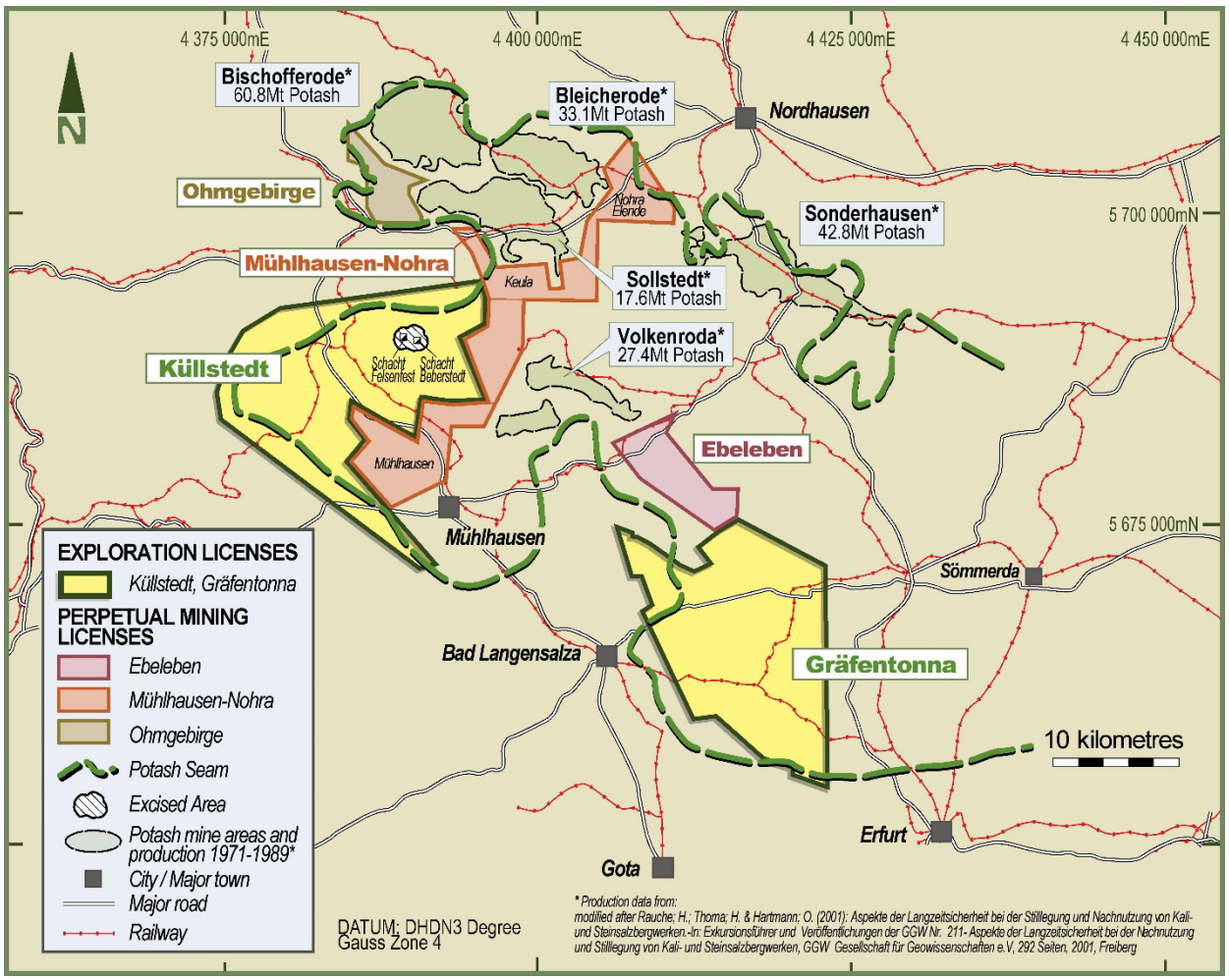
About South Harz

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 Frankfurt and Berlin.

The South Harz Project hosts a globally large-scale potash JORC (2012) Mineral Resource estimate of 5 billion tonnes at 10.6% K_2O of Inferred resources and 258 million tonnes at 13.5% K_2O of Indicated resources across four wholly-owned project areas[1] located favourably within central Europe. This comprises three perpetual potash mining licences, Ohmgebirge, Ebeleben and Mühlhausen-Nohra, and two potash exploration licences, Küllstedt and Gräfentonna, covering a total area of approximately 659km².

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

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



U13, 6 – 10 Douro Place
West Perth WA 6005

CONTACT DETAILS
W: southharzpotash.com
E: info@southharzpotash.com
P: +61 408 447 493

ABN: 64 153 414 852
ASX Code: SHP
ASX Code (Options): SHPO
Frankfurt Code: A2DWXX

532M Ordinary Shares
103M Unlisted Options
46.2M Listed Options
0.8M Performance Rights

Competent Person Statement

Elizabeth de Klerk M.Sc., Pr.Sci.Nat., SAIMM., Micon's Senior Geologist and Competent Person visited the South Harz Potash project on four separate occasions, from the 12th to 16th February and 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.

For personal use only

U13, 6 – 10 Douro Place
West Perth WA 6005

CONTACT DETAILS
W: southharzpotash.com
E: info@southharzpotash.com
P: +61 408 447 493

ABN: 64 153 414 852
ASX Code: SHP
ASX Code (Options): SHPO
Frankfurt Code: A2DWXX

532M Ordinary Shares
103M Unlisted Options
46.2M Listed Options
0.8M Performance Rights

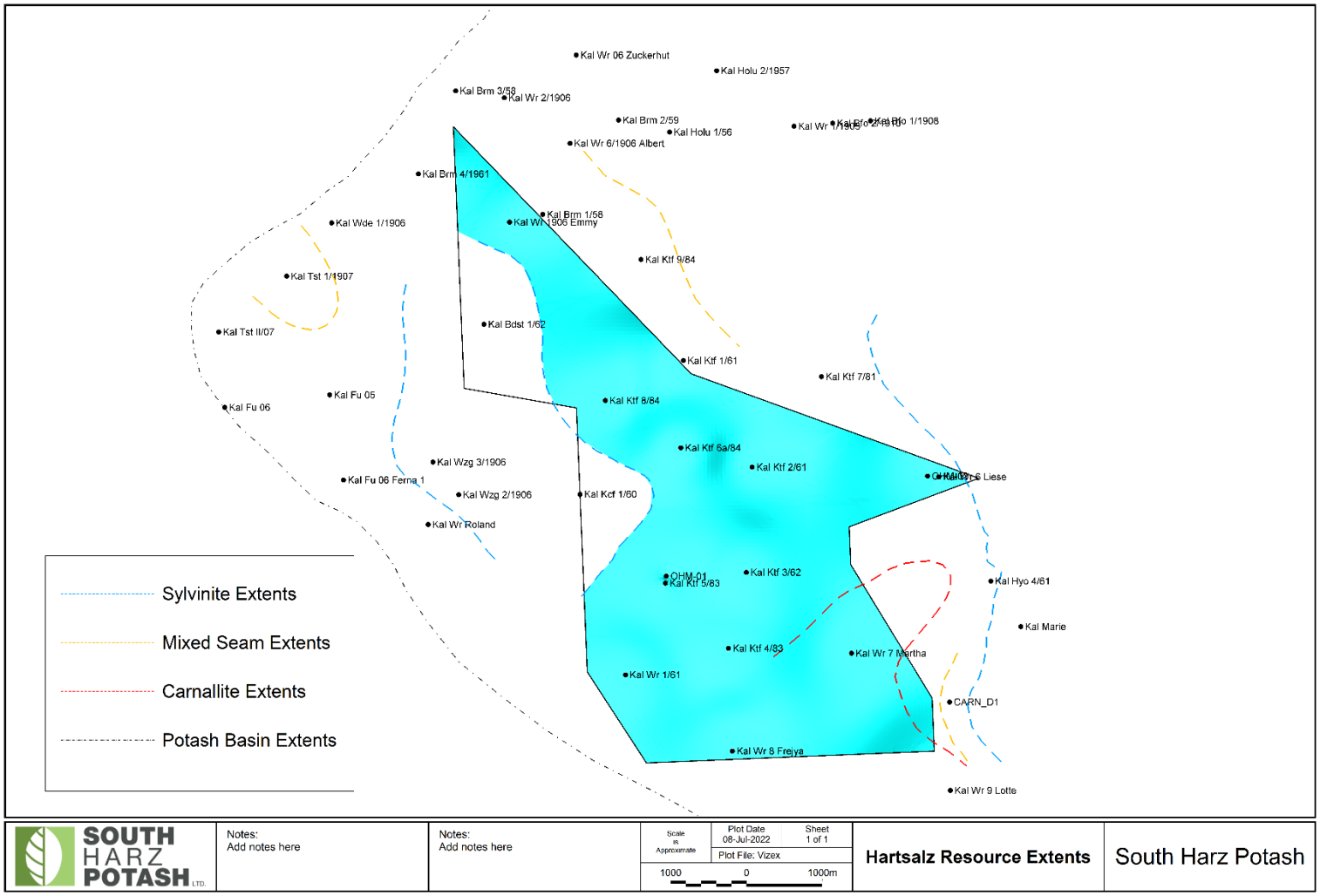
For personal use only

JORC Code, 2012 Edition – Table 1

Ohmgebirge Mineral Resource Update – July 2022

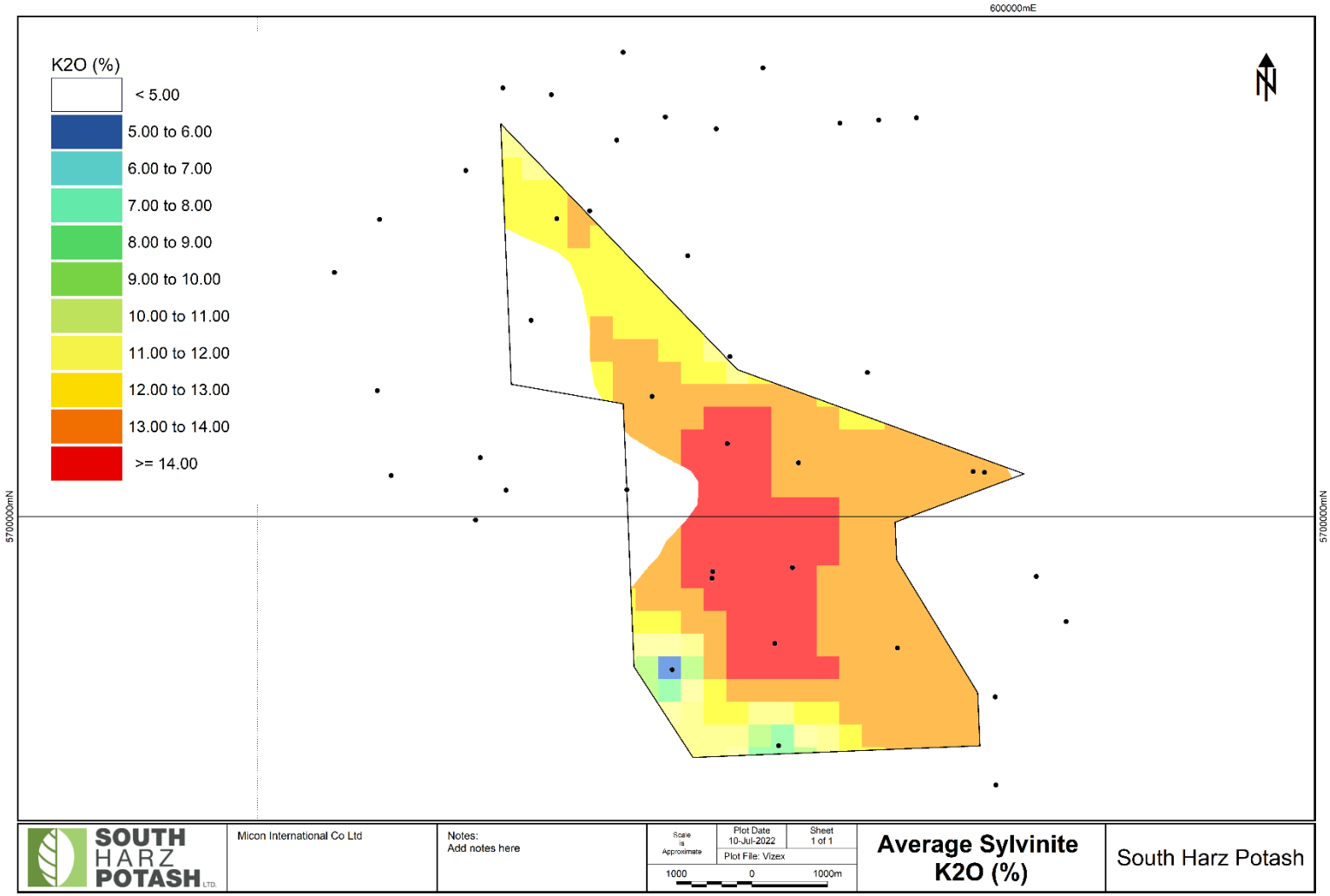
South Harz Potash Ltd

Figure 2: Drill Hole Plan for the Ohmgebirge Licence showing extent of individual potash seams.



personal use only

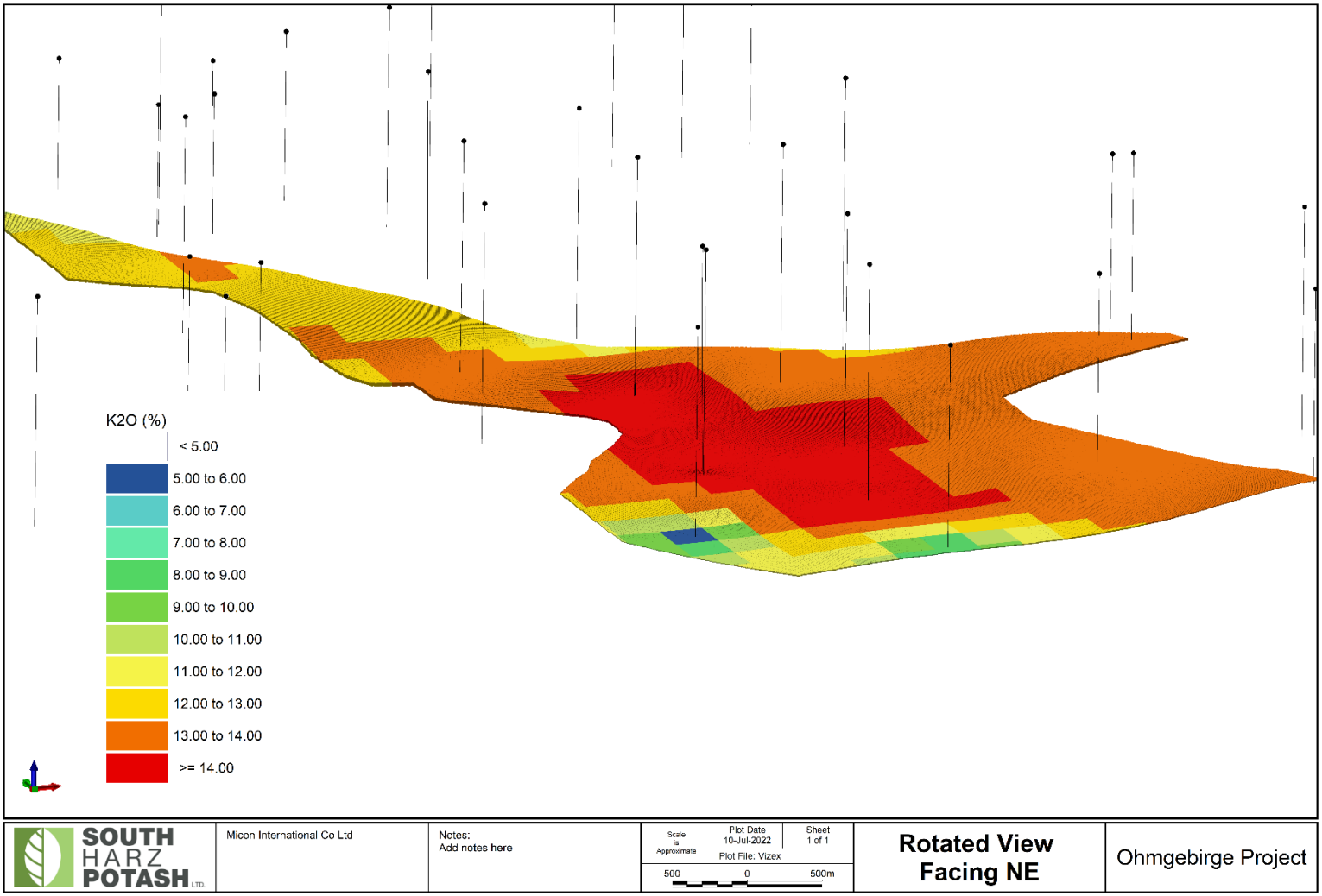
Figure 3: Distribution of K_2O (%) throughout Ohmgebirge Mining Licence



Micon International Co Limited. Suite 10, Keswick Hall, Keswick, Norwich, Norfolk, U.K., NR4 6TJ
Telephone (44) (1603)-501501 Fax (44) (1603)-507007 E-mail office@micon-international.co.uk. Registered no. 4026319, England.

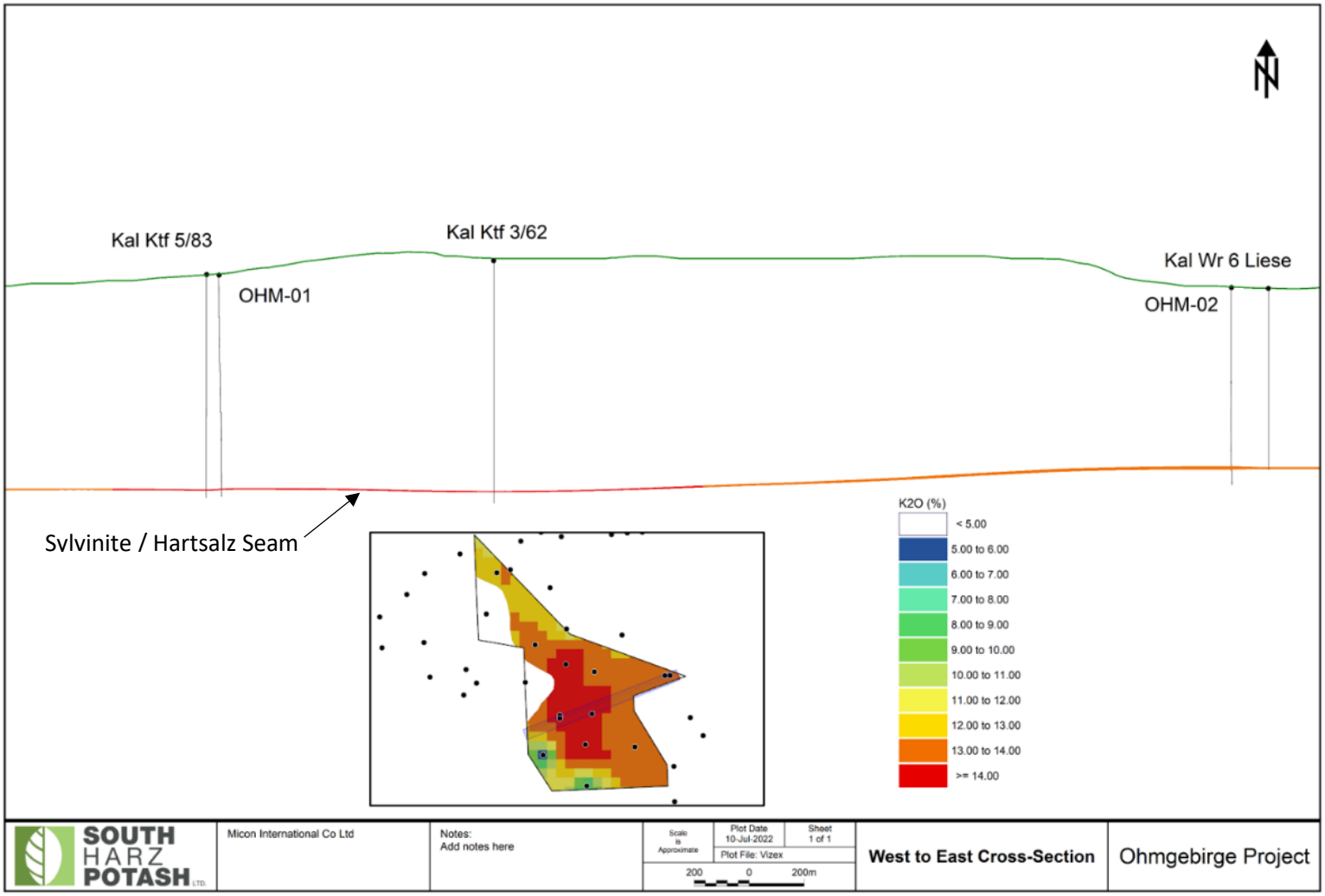
For personal use only

Figure 4: Rotated View showing distribution of K_2O (%) throughout Ohmgebirge ML



For personal use only

figure 5: West-East Cross Section Across Ohmgebirge (Surface in green, Potash Seam in orange)



personal use only

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	Samples were derived from drill core, which was split in half longitudinally. OHM-01 and OHM-02 were drilled using a combination of destructive and diamond core techniques, only the diamond drill core was analysed.
	Include reference to measures taken to ensure sample retrospectivity and the appropriate calibration of any measurement tools or systems used.	Downhole geophysics was performed by BLM Gesellschaft für Bohrlochmessung mbH and the geological drill hole logs were corrected according to the geophysical depths.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	Sample thicknesses were correlated and corrected against the downhole natural gamma log. For OHM-01 and OHM-02 wet chemical analysis was performed on half drill core. Sodium, potassium, magnesium and calcium were analysed using ICP-OES in dilutions of the solved sample (DIN EN ISO 11885). Sulphur content was determined by ICP-OES in a dilution of the solved sample (DIN EN ISO 11885). Chloride was determined by automatic potentiometric titration with a silver nitrate solution (DIN 38405 part 1). The K_2O grade of the potash-bearing horizons was determined from the stoichiometric calculation using the analysed elements. Sampling was carried out by Ercosplan geologists and lithological contacts were honoured. Samples were taken across all potash-bearing horizons and the total sampled length represents the total thickness of the potash-bearing horizon of the z2KSt. Sample preparation and analysis was carried out in the accredited laboratory of K-Utec Salt Technologies (DIN EN ISO/EC 17025). Analysis followed the German standard methods for

For personal use only

		the examination of water, waste water and sludge (89th edition, Wiley-VCH/Beuth, Weinheim/Berlin, 2013. Samples were crushed to 1-2mm and then milled to µ50 before being dried in the laboratory furnace at 400°C. 5 g of sample (sample preparation II) is dissolved in 300 ml boiling deionized water (100°C), filtered for insoluble and topped up to 500 ml, creating a solution for all laboratory tests. For the historical drillholes all drill hole sampling was conducted according to the Kali-Instruktion (1956 and 1960) and were drilled using diamond core methods. Sampling information is available for drill holes drilled during the 1960-1963 and 1982-1984 exploration campaigns. Where possible, the K_2O grade of the potash-bearing horizons was determined on an empirical base using the correlation with the downhole natural gamma log. Over inhomogeneous potash horizons where interlayers of potential waste were included, the minimum sample thickness was 0.5 m and the maximum was 5 m. Sample preparation and analysis was carried out in the laboratory of VEB Kombinat Kali research department according to standard procedures. Potassium was analysed by flame photometry following applied standard KALI 97-003/01. Sylvinite samples were milled and sieved for microscopic determination of the degree of disintegration for metallurgical reasons and samples from all salt rocks were also prepared for X-ray analysis of insolubles. For both historical and new drill holes the samples were taken across all potash-bearing horizons and the total sampled length represents the total thickness of the potash-bearing horizon of the z2KSt. Core sample thickness in the Ohmgebirge database ranges from 0.07 m to 14.11 m with an average sample length of 1.59 m.

For personal use only

For personal use only

Drilling techniques	*Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Both 2022 drill holes were destructively drilled from surface and were switched to coring in the z4ANa horizon. OHM-02 was drilled by H. Anger's Söhne using a UH4-2 rig type using bentonite mud for the upper sections and magnesium rich mud in the core sections. The drill hole diameter is 95.8mm. Casing was used from surface to 536 m ranging in size starting at 558 mm to 127 mm. Drilling information is available for historical drill holes drilled during the 1960-1963 and 1982-1984 exploration campaigns. All historical drill holes were cored. Holes drilled in the 1960's were drilled using a SIF 1200 rig type. Holes drilled in the 1980's were drilled using a T 50 B rig type using bentonite mud. Casing was used in both 1960's and 1980's campaigns. Deviation in the 1980's campaign was a maximum of 3.5m with an average of 1.3m, geophysical logs were used to correct depths and thickness. Deviation in the 2022 drilling campaign was a maximum of 2.6 m with an average of 2.3 m.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	In the 2022 drilling campaign, core recovery was monitored by the Ercosplan project geologist on site at the time of drilling and this recorded in the drill hole log. Within the core section of the drill hole recoveries were 100% apart from three exceptions that had total core loss in OHM-02 between 630.98-631.06m and 632.73-633.05m and core loss in OHM-01 between 720.00-720.41 m. Core recoveries for the 2022 drill holes through the z2KSt unit were 100%. It is apparent that the core recovery was monitored by the project geologist on site at the time of drilling and this recorded in the historical logs and is available for holes Ktf 2/61, Ktf 3/62, Wr 1/61, Ktf 4/83, Ktf 5/83, Ktf 6 and 6a/84, and Ktf 8/84. Core recoveries through the z2KSt unit ranged from 97-100%. with the exception of hole Ktf 6/84, which was subsequently deviated with Ktf 6a/84.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Casing was used as follows for OHM-02 0.00–4.70m surface pipe (outside-Ø=558mm), 0.00–9.00m standpipe (outside-Ø=340mm), 0.00–67.00m standpipe (outside-Ø=244mm), 0.00–190.00m anchor tube (outside-Ø=178mm), 0.00–536.00m technical pipe (outside-Ø=127mm). Casing was used as follows OHM-01: 0.00–16.80m auxiliary surface pipe (outside-Ø=711mm), 0.00–39.00m standpipe (outside-

For personal use only

		Ø=508mm), 0.00–129m standpipe (outside-Ø=340mm), 0.00–474.00m anchor tube (outside-Ø=178mm), 0.00–718.6m technical pipe (outside-Ø=127mm). Casing was also used in the 1960's and 1980's campaigns and drill hole Ktf 6/84 was stopped due to poor recovery and a deviation was drilled, Ktf 6a/84.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Sampling was conducted according to the stratigraphic interpretation of the core using the downhole geophysical logging as a depth guide. For the historical drill holes axial drilling into the drill core with a spiral drill was conducted to contain pulverised material for chemical and mineralogical analysis. Core recovery is not expected to have affected grade.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	In 2022 core logging and sampling was conducted according to ISO standards: DIN EN ISO 14688-1; DIN EN ISO 14688-2; DIN EN ISO 14689-1 and DIN EN ISO 22475-1. Core samples were geologically logged in detail. Information recorded on the drill hole logs included lithological depths lithological description, stratigraphic interpretation, structural measurements and colour. Photographs were taken of all rock chips and core samples, including backlit core photography. Downhole geophysics was performed by BLM Gesellschaft für Bohrlochmessung mbH who measured salinity (ST16), temperature (ST16), calliper (CARI, CAL4017), gamma-ray (GRFEL, TA.ORI), gamma-gamma (GRFEL, TA.ORI), neutron and sonic. Lithological depth intersections have not yet been corrected according to the geophysical log prior to sampling. The detail recorded is sufficient for Mineral Resource estimation. During the historical campaigns core samples were geologically logged in detail and both full and summary drill hole logs were produced in both written and graphical format. Full drill hole logs included a detailed lithological description of the entire drill hole, which was also summarised and graphically portrayed alongside the downhole geophysical logging and assay results. Logs are available for 27 historical drill holes whilst information regarding mineralogy and stratigraphy were read of historical maps for 14 historical drill holes.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	

For personal use only

	The total length and percentage of the relevant intersections logged.	The complete core intersection was logged on a millimetre scale.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	In 2022 drill core was cut longitudinally for sample selection. Half core samples were analysed. Axial drilling into the historical drill core with a spiral drill was conducted to obtain pulverised material for chemical and mineralogical analysis.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	In the 2022 drilling campaign all horizons above 537m (OHM-02) and 720.41 m (OHM-01) were drilled with a percussion drill bit and produced rock chips. The chips were cleaned of drilling mud through a shaker tray and then logged on site. The rock chips have not been sampled. All historical drilling was core only.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation and analysis was carried out in the accredited laboratory of K-Utec Salt Technologies (DIN EN ISO/EC 17025). Analysis followed the German standard methods for the examination of water, waste water and sludge (89th edition, Wiley-VCH/Beuth, Weinheim/Berlin, 2013. Samples were crushed to 1-2mm and then milled to µ50 before being dried in the laboratory furnace at 400°C. All historical drill hole sampling was conducted according to the Kali-Instruktion (1956 and 1960).
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Samples were homogenised to ensure a representative sample obtained.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	15 duplicate and 29 blank samples were included in the sample analysis, out of a total of 135 samples. 25 samples have also been sent to an umpire laboratory, called VKTA. Thicknesses of the potash-bearing horizons were confirmed by the geophysical logging and the full length of the potash was sampled. No field duplicates were taken during the historical drilling campaigns.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate to the material being sampled, which is bulk mineralisation.

For personal use only

Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	The 2022 samples were sent to K-Utec AG Salt Technologies. Wet chemical analysis was carried out according to the following standards HCl-insoluble KALI 97-003/01 2.2.1: 87-12, Total H2O KALI 97-003/01 2.3.3: 87-12, Chloride DIN 38 405-D 1-2: 1985-12, Sulphate DIN EN ISO 11885 - E22, Potassium DIN EN ISO 11885-E22:09-09, Sodium DIN EN ISO 11885-E22:09-09, Calcium DIN EN ISO 11885-E22:09-0, Magnesium DIN EN ISO 11885-E22:09-09, Aqua-regia-digestion DIN EN 13346-S7a: 2001-0, Lithium DIN EN ISO 11885-E22:09-09. Historical samples were sent to the VEB Kombinat Foundation of Potash Research Institute, now known as K-Utec AG Salt Technologies. Chemical analysis was carried out according to the Kali 97-003/01 standard using potassium flame photometry. Transmitted light investigation in bright field for thin sections was conducted
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Downhole geophysics was carried out to confirm lithological contacts and deviation from vertical. X-ray diffractometer (XRD) D2 Phaser (Bruker AXS) was used for mineralogical analysis.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	In 2022 15 duplicate and 29 blank samples were included in the sample analysis, out of a total of 135 samples. 25 samples have also been sent to an umpire laboratory, called VKTA.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	In 2022 Ercosplan managed the drilling and logging campaign, which was overseen by SHP and approved by Micon International. For all exploration work conducted post-1950 in the SHP licence areas, quality assurance and quality control (QAQC) procedures were conducted by independent state institutions and quality checked by VEB Kombinat Kali company professionals. QAQC was conducted on 34 1960's drill core samples as part of the 1980's campaign using drill core that had been stored in the underground

For personal use only

		core storage facility at the Sondershausen potash mine. Samples were sent to internal and external laboratories and the analytical results were identical and showed good reproducibility.
	The use of twinned holes.	HM-02 is a twin hole of Kal Wr 6 Liese located 148 m to the west of the original drill hole position due to modern day surface logistical restraints. OHM-01 is a twin hole of Ktf 5/1983 located 100 m to the north of the original drill hole position due to modern day surface logistical restraints. The twin holes are considered to be comparable. No twin drilling has taken place historically although the comparison of hole Ktf 6/84 with Ktf 6a/84 is favourable despite the low core recovery in Ktf 6/84.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Original drill hole logs were recorded on paper, using a combination of handwritten and typed records and the 2022 records are stored at Ercosplan. Historical logs were made in duplicate and are stored at the BVVG Archive in Berlin and the K-Utec archives. Digital copies of the drill hole logs (including the summary logs and geophysical logging etc) are saved on the SHP cloud and backed up at both K-Utec and Ercosplan.
	Discuss any adjustment to assay data.	Chemical assay results were used to calculate the mineral assemblages (including sylvinite and carnallitite) using the Rietveld method.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	The 2022 drill hole collars were surveyed by RÖSSLER Ingeniervermessung GmbH a Markscheider, a licenced surveyor who is registered by the TLUBN. OHM-02 has an officially registered name provided by TLUBN of Kal Haynrode 1/2021. OHM-01 has an officially registered name provided by TLUBN of Kal Worbis 1/2021. Historical drill hole collars were surveyed by the state surveyor subsequent to drilling and given with centimetre to decimetre accuracy.
	Specification of the grid system used.	Historical drill hole coordinates were recorded in local a German coordinate system, which is a 3-degree Gaus Kruger zone 4 projection with a DHDN datum and an East Germany local transformation to 2 m (EPSG-Code 31, 468). All new coordinates are surveyed in UTM 32 ETRS 89.
	Quality and adequacy of topographic control.	A new topographic survey was acquired by SHP in 2022 from the THÜRINGER LANDESAMT FÜR

		BODENMANAGEMENT UND GEOINFORMATION (https://www.tlbg.thueringen.de/) with an accuracy of 0.15 to 0.3 m. Some of the historical drill hole collars did not sit on the topographic survey and their elevations were adjusted accordingly.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	With the exception of the 2022 drill holes, the drill hole spacing on Ohmgebirge ranges between 970-2400m with an average of approximately 1000m. The drill holes are evenly distributed across the property. OHM-01 was drilled approximately 100m north of Kal Ktf 5/83 and OHM-02 was drilled approximately 148 m to the west of Kal Wr 6 Liese. The complete potash horizon was sampled and analysed with all results reported. Average sample length is 0.35m.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The spacing of drill holes and samples is considered sufficient to imply geological and grade continuity based on information obtained from drill holes and samples.
	Whether sample compositing has been applied.	Samples were not composited prior to laboratory test work.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	All drill holes are vertical with minor deviations at depth. The potash-bearing horizons are regionally sub-horizontal with localise folds and undulations. Licence-scale differences in true and apparent thickness caused by undulations are taken into consideration during wireframing.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The potash seam at Ohmgebirge is horizontal to sub-horizontal on a regional scale and the vertical core drilling is considered appropriate to represent the seam without bias. Downhole geophysical readings indicate a final deviation from vertical of 5.7m.
Sample security	*The measures taken to ensure sample security.*	Core is stored at a secure warehouse in Erfurt and was transported from the drill rig by the drilling company Anger's.

For personal use only

Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	SHP and Micon have reviewed the sampling techniques and analytical data produced by K-Utec and Ercosplan and are satisfied with the methodology and results.

For personal use only

Section 2 Reporting of Exploration Results

Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	South Harz Potash (SHP) is a publicly listed company on the Australian Securities Exchange and holds the Ohmgebirge exploration licence through its wholly owned subsidiary Südharz Kali GmbH. The Ohmgebirge mining licence is located within the South Harz Potash District of the Thuringian Basin, Germany.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	There are no known impediments to the security of the tenure that SHP have over the Ohmgebirge Mining Licence area. 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 No. is 1281/2017W and has an area of 24,840,100 m2 (24.84 km²).
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	With the exception of the recently drilled OHM-01 and OHM-02, all of the 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 the Bleicherode/Sollstedt Mines that are currently being backfilled with waste. After initial exploration in the early 1900s exploration recommenced on Ohmgebirge in earnest in the 1960's and all of the exploration drilling was conducted by the former GDR. Various parties were involved, most of which combined to form VEB Kombinat. A total of 14 historical exploration drillholes (including one deviation) have been drilled within the current Ohmgebirge mining licence area.

For personal use only

For personal use only

Criteria	JORC Code explanation	Commentary
Geology	*Deposit type, geological setting and style of mineralisation.*	The Ohmgebirge mining licence is located in the Südharz (South Harz) Potash District in the north-western extent of the Thuringian sedimentary basin, which has been separated by the uplift of the northerly Harz Mountains from the South Permian Basin (SPB). 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 the Ohmgebirge mining licence. 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 Z2 is further sub-divided into horizons, of which the Kaliflöz Staßfurt (z2KSt) hosts potentially economic potash. The z2KSt is split into a Hanging Wall Group that has 11 to 19 horizons of finely layered potassium salts and a Footwall Group that has 1 to 10 coarsely layered potassium salts and thick halite layers. Mineralised z2KSt occurs across almost the whole of the Ohmgebirge mining licence, with an area to the west that is barren. The z2KSt is present in 35 drill holes used in the 2019 Ohmgebirge model, 12 of which exist within the licence area. The mineralogy on Ohmgebirge is dominated by Sylvinite with carnallite intersected in only one hole within the licence area. The sylvite seam was modelled as one horizon, and was historical known as Sylvinite, and the carnallite seam was modelled separately. A major graben has been historically mapped within the Ohmgebirge mining licence trending NNE-SSW with offsets of 150-250m. The results of the graben have been logged in the downhole geophysical logs of drill holes on Ohmgebirge with noted steeper bedding, dipping joints and deformation in the strata accompanied by gases. In the centre of the graben the Leine-Steinsalz through to the Aller-Steinsalz units have thickened whilst the rock salt units have

For personal use only

Criteria	JORC Code explanation	Commentary
		thinned resulting in a weakened hanging-wall. No evidence of displacement in the z2KSt unit have been modelled.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*	The drill hole database for Ohmgebirge is made up of 43 historical drill holes and the recently drilled OHM-01 and OHM-02. The table below shows the key drill hole information.

Hole ID	Easting (UTM	Northing (UTM	RL	EOH (m)	z2KSt Intersection (m)		Average K_2O Grade	Location
					From	To		
OHM-01	596025	5699274	410	807	775.19	778.94	16.19	Ohmgebirge Licence
OHM-02	599469	5700592	365	720	651.34	662.32	14.62	Ohmgebirge Licence
Kal Bdst 1/62	593622	5702593	497	753	Not intersected			Ohmgebirge Licence
Kal Bfo 1/1908	598718	5705272	351	601	571.50	581.50	15.00	Off licence
Kal Bfo 2/1910	598220	5705241	344	611	576.50	586.50	15.00	Off licence
Kal Brm 1/58	594396	5704039	325	620	569.90	578.00	13.63	Off licence
Kal Brm 2/59	595396	5705282	310	589	508.30	519.85	8.71	Off licence
Kal Brm 3/58	593248	5705667	238	800	403.50	413.50	10.20	Off licence
Kal Brm 4/1961	592757	5704573	295	530	508.00	518.00	15.00	Off licence
Kal Fu 05	591588	5701662	280	800	547.46	557.33	8.25	Off licence
Kal Fu 06	590204	5701498	235	800	572.00	575.00	7.50	Off licence
Kal Fu 06 Ferna 1	591770	5700541	265	800	550.16	563.13	9.50	Off licence
Kal Holu 1/56	596070	5705125	383	766	643.90	653.50	6.51	Off licence
Kal Holu 2/1957	596690	5705931	380	701	575.40	585.40	10.20	Off licence
Kal Hyo 4/61	600303	5699208	341	800	709.27	720.84	13.51	Off licence
Kal Kcf 1/60	594888	5700354	458	837	Not intersected			Ohmgebirge Licence
Kal Ktf 1/61	596250	5702114	463	823	811.16	814.16	10.20	Off licence
Kal Ktf 2/61	597158	5700709	498	869	829.56	834.63	13.52	Ohmgebirge Licence
Kal Ktf 3/62	597080	5699325	462	884	840.88	842.69	17.72	Ohmgebirge Licence
Kal Ktf 4/83	596845	5698322	445	876	820.80	845.58	14.61	Ohmgebirge Licence
Kal Ktf 5/83	596009	5699281	412	814	784.00	787.00	12.42	Ohmgebirge Licence
Kal Ktf 6/84*	596217	5700963	463	878	832.28	839.50	14.97	Ohmgebirge Licence
Kal Ktf 6a/84	596217	5700963	463	847	833.85	841.05	16.22	Ohmgebirge Licence
Kal Ktf 7/81	598070	5701903	507	985	871.00	883.75	14.37	Off licence
Kal Ktf 8/84	595220	5701589	479	849	808.10	821.44	13.24	Ohmgebirge Licence
Kal Ktf 9/84	595691	5703446	425	798	692.71	702.40	13.57	Off licence
Kal Marie	600699	5698610	313	800	Not intersected (stopped short?)			Off licence
Kal Tst 1/1907	591020	5703227	288	582	554.20	569.60	7.18	Off licence
Kal Tst II/07	590124	5702490	230	800	492.75	497.75	5.20	Off licence
Kal Wde 1/1906	591615	5703927	324	558	544.97	558.00	8.56	Off licence
Kal Wr 06 Zuckerhut	594838	5706137	339	800	502.88	524.95	7.11	Off licence
Kal Wr 1/1905	597708	5705201	349	616	570.90	580.90	15.00	Off licence
Kal Wr 1/61	595487	5697974	346	766	730.73	732.38	5.78	Ohmgebirge Licence
Kal Wr 1906 Emmy	593959	5703936	325	460	Not intersected			Ohmgebirge Licence
Kal Wr 2/1906	593889	5705576	250	459	425.50	438.20	8.84	Off licence
Kal Wr 6 Liese	599617	5700583	362	662	651.70	657.20	15.72	Ohmgebirge Licence
Kal Wr 6/1906 Albert	594754	5704976	286	397	Not information			Off licence
Kal Wr 7 Martha	598467	5698259	340	726	672.24	692.24	14.37	Ohmgebirge Licence
Kal Wr 8 Frejya	596898	5696969	359	721	704.50	707.50	7.50	Ohmgebirge Licence
Kal Wr 9 Lotte	599769	5696452	290	572	525.00	535.60	8.28	Off licence
Kal Wr Roland	592887	5699954	295	800	614.00	623.50	10.50	Off licence
Kal Wzg 2/1906	593289	5700348	335	665	649.10	653.00	0.00	Off licence
Kal Wzg 3/1906	592950	5700778	310	601	597.08	599.38	0.00	Off licence

*1.96m core loss with no assay

For personal use only

Criteria	JORC Code explanation	Commentary
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	The chemical analysis for Ohmgebirge was composited according to stratigraphy (z2KSt). A minimum cut-off grade of 5% K_2O was applied to delineate the limits of the potash-bearing horizon within the z2KSt. A weighted average K_2O grade was calculated against sample length.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Waste was included in the grade composite with a 2 m maximum total length of waste and a 1 m maximum consecutive length of waste allowed.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents were used or reported.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	All drill holes are vertical with minor deviations at depth. The potash-bearing horizons are regionally sub-horizontal with localise folds and undulations. Licence-scale differences in true and apparent thickness caused by undulations are taken into consideration during wireframing.
	If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.	
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a*	See separate diagrams provided.

For personal use only

Criteria	JORC Code explanation	Commentary
	plan view of drill-hole collar locations and appropriate sectional views.	
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All available drill hole information was used. Ohmgebirge has been reported as a mineral resource, see Section 3 of Table 1.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Acoustic televiewer measurements taken downhole in the historical drilling campaigns show steeply dipping (70-90 degrees) joints in the stratigraphic formations, associated with the Ohmgebirge graben. No other exploration was conducted on the Ohmgebirge licence area and seismics was deemed irrelevant to the internal structure of the Zechstein-aged rocks. The z2KSt intersection in OHM-02 has been subdivided into three distinct mineralogical units as detailed in the table below (thickness shown is apparent). The subtle variations in mineralogy across the licence area should be considered as they offer different product options, though the process design would have to allow for that. These details will be investigated in the next phase of techno-economic study.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	SHP are continuing to investigate the economic potential of the Ohmgebirge Licence and their other licence areas in the South Harz Basin. The anticipated next step for Ohmgebirge is a Pre-Feasibility Study.

Hole ID	From (m)	To (m)	Thick (m)	Mineral Unit	Av. K_2O (%)
OHM-02	651.53	654.43	2.9	Kieseritic Hartsalz	12.62
	654.43	658.46	4.03	Anhydritic Hartsalz	19.69
	658.46	662.51	4.05	Carnallitic Sylvinite	10.51

For personal use only

Criteria	JORC Code explanation	Commentary
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	The mineralisation modelled on Ohmgebirge using the drill hole database covers almost the entire licence area. Potential expansion could only be outside of SHP's current mining licence to the north and west.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	The database used to create the geological model and mineral resource estimation was created from manual data entry of hard copy historical drill hole logs and exploration records. The Excel databases for Ohmgebirge was cross-checked against the original drill hole logs stored in the K-Utec archives in Sondershausen in October 2019. The two new holes drilled in 2022 were added to the 2019 drillhole database and additional information regarding downhole survey deviation and corrections for geophysical depth were also incorporated to make the database as accurate as possible.
	Data validation procedures used.	When the Excel database is imported into Micromine® modelling software, a data validation exercise is run that includes checking for missing samples, mis-matching samples and stratigraphy intersections, duplicate records and overlapping from-to depths. In addition, and where possible

Criteria	JORC Code explanation	Commentary
		the sum of chemical compounds was checked to ensure a total of 100%.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	The Competent Person visited Ohmgebirge and the K-Utec archives, as well as the surrounding area where there are currently operating and now dormant Potash mines from the 15th-17th October 2019 and again from 6th-8th April 2022. Previous trips to the South Hartz Basin have been made for SHP since 2017.
	If no site visits have been undertaken indicate why this is the case.	Not applicable.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	The confidence in the data used and geological interpretation of the potash deposit is high due to the strict guidelines followed during the historical exploration and adherence to the Kali-Instruktion. In addition, the geological interpretation was checked by several geologists during both the 1960s and 1980s drilling campaigns. The 2022 SHP drillholes produced accurate results, which compared favourably to the historical data allowing for a robust interpretation together with the downhole geophysics to aid in stratigraphic modelling.
	Nature of the data used and of any assumptions made.	The potash deposits of the South Harz Basin have been mined since the early 1900s and there is an abundance of information relating to mineralogy, chemistry, structure and morphology. Due to the large distance between drill holes (as with all potash deposits) certain assumptions had to be made regarding changes in seam thickness, and localised seam dips due to folding. A new topographic survey for the Ohmgebirge licence area to an accuracy of 0.15 to 0.3 m was used in the July 2022 resource estimate. Many of the historical drill hole collars did not rest on the surface topography. It was assumed that the topography was correct and the drill hole collar elevations were corrected to fit the topography.

For personal use only

For personal use only

Criteria	JORC Code explanation	Commentary
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	Three historical resource estimates have been reported for various areas partly covering the current Ohmgebirge mining licence area. The resources estimates, called reserves at the time, were named as follows: the Worbis reserve area (1963), the Haynrode reserve area (1986) and the Watznauer and Tita reserve area (1996). Because the three historical resource areas are different to SHP's mining licence the tonnages cannot be compared, however the Sylvinite grades reported are comparable to this 2022 resource estimate.
	The use of geology in guiding and controlling Mineral Resource estimation.	The mineralisation is predominately confined to the Kalifloz Stassfurt (z2KSt) horizon but is known to occur in Decksteinsalz (z2NAr) and Stassfurt-Steinsalz (z2NA) formations as well. As such a cut-off grade of 5% K_2O was applied during modelling.
	The factors affecting continuity both of grade and geology.	There is very little variation in grade across Ohmgebirge. Sylvinite is dominant and apart from a barren zone to the west covers the entire mining licence. One drill hole (Kal Wr 7 Martha) intersected a thick unit of Carnallite below the Sylvinite as well as a thin Lower Sylvinite seam below the Carnallite. The K_2O grade in the Sylvinite across the Ohmgebirge mining licence is predominantly >12.5%. OHM-02 has three distinct bands of mineralogy identified in the Hartsalz seam (anhydritic hartsalz, kieseritic hartsalz and Carnallitic hartsalz). There is not enough information to model these distinctions separately but mineralogy variation has been considered.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The economic potash deposit covers almost the entire Ohmgebirge mining licence, with a small, oval-shaped barren zone in the west that continues approximately 1 km to the west of the mining licence. Based on interpretation of drill hole data and historical plan maps, the mineralised z2KSt continues to the north, south, east and west of Ohmgebirge. The mineral resource has been restricted by a minimum grade cut-off of >5% K_2O. The total mineral resource area for Ohmgebirge is approximately 21.7 km2

For personal use only

Criteria	JORC Code explanation	Commentary
		and the total Mineral Resources tonnage, with a 15% geological loss applied) is 339 Mt of which there is 44 Mt of K_2O. The minimum depth from surface to the roof of the economic potash is ±404 m and the maximum depth to the base of the potash seam is ±887.
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	The resource wireframes for Ohmgebirge were modelled in Micromine® modelling software, which is internationally recognised software used for modelling stratiform deposits. The roof and floor of the potash seam was flagged in the chemical database, using a combination of downhole geophysical gamma-gamma logs and K_2O analysis with a minimum of 5% K_2O. Where mineralogical data was available, the seam database was also flagged into Sylvinite or Carnallite. The roof and floor of the Sylvinite and Carnallite seams were gridded in Micromine. The minimum and maximum X and Y origins used for gridding were 588262 (min X), 5693805 (min Y), 602651 (max X) and 5708773 (max Y). A grid cell size of 50 was used as this best fitted the data when correlated in cross-section. An inverse distance cubed gridding algorithm was used, with a circular search area and a 5,000 m search radius to cover the distance between data points, four sectors and maximum 20 points per sector to ensure all information was included. The roof and floor grids were converted to wireframes surfaces and combined to solids for each seam, namely the Sylvinite Seam and the Carnallite Seam. The Mineral Resource Estimate was carried out in Leapfrog Geo® and Leapfrog Edge® software. Block values were estimated in a single pass using 2D Inverse Distance squared (ID2). Accumulation and true thicknesses were interpolated for each variable (K_2O, KCl, Mg, Na, SO4, and acid insolubles) and the grade was calculated as the accumulation divided by the true thickness on a block-by-block basis. All drill hole intersections used in the Mineral Resource Estimate had 100 % assay data coverage within the modelled seams except for acid insolubles. A zero value was

For personal use only

Criteria	JORC Code explanation	Commentary
		assigned to intervals without acid insoluble data. Declustering weights were used for the Sylvinite seam and declustering cell sizes ranged between 500 to 700 m in X and Y. The same declustering weights were used for accumulation and true thickness. The Sylvinite and Carnallite seams were assumed to be flat lying for the calculation of the true thickness. For K_2O and KCl in the Sylvinite seam a search ellipse of 3,000 m (X) by 3,000 m (Y) was used with a minimum of 2 samples and a maximum of 12 samples. For K_2O and KCl in the Carnallite seam the same parameters were used except for a minimum of 1 sample. For all other variables in the Sylvinite or Carnallite seams search ellipse of 6,000 m (X) by 6,000 m (Y) was used with a minimum of 1 sample and a maximum of 12 samples. The maximum distance for extrapolation from data points for K_2O and KCl is approximately 1,600 m, for all other variables it is approximately 4,000 m.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	Three historical reserves exist for various areas covering the current Ohmgebirge mining licence. The most recent historical reserve estimate, namely the Watznauer and Tita reserve, is dated 1996 and covers approximately 72% of the current licence area; the Kali-Instruktion balanced C2 tonnage of Sylvinite is 20.1 Mt K_2O. In 2017 a JORC Exploration Target was declared for the Ohmgebirge mining licence. The tonnage of Sylvinite was estimated to range from 182-271 Mt at a grade of 13.91% K_2O, and the tonnage of Carnallite was estimated to range from 57-71 Mt at a grade of 10.10% K_2O. In 2019 Micon estimated an Inferred Resource of 325Mt at an average grade of 13.14% K_2O.
	The assumptions made regarding recovery of by-products.	No assumptions have been made regarding by-products. There are a range of sulphate minerals in the Sylvinite seam but these have not been individually estimated at this stage. Kieserite is particular frequent.

For personal use only

Criteria	JORC Code explanation	Commentary
	Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	The insoluble content has been reported for purposes of metallurgical processing review and is not considered to be significant.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The block size was 300 m (X) by 300 m (Y) with variable height blocks (Z) to completely fill the modelled seams. The average horizontal drill hole spacing is approximately 1,300 m. For K_2O and KCl a search ellipse of 3,000 m (X) by 3,000 m (Y) was used. For all other variables a search ellipse of 6,000 m (X) by 6,000 m (Y).
	Any assumptions behind modelling of selective mining units.	The proposed mining method is room and pillar mining in long chambers with a length up to 500 m. No selective mining units were modelled. The resource was modelled according to Sylvinite and Carnallite so the lower grade and higher grade areas can be distinguished as well as variations in mineralogy, which will be important for processing. In some areas the seam is very thick (>10m) which will probably not be mined in full. However, they have been included in the resource estimation and will be discounted during the PFS when reserves are estimated.
	Any assumptions about correlation between variables.	There were no assumptions about correlation between variables.
	Description of how the geological interpretation was used to control the resource estimates.	The geological model was constrained by grade >5% K_2O and then the mineralogical data was used to split this into the Sylvinite and Carnallitite seams.
	Discussion of basis for using or not using grade cutting or capping.	No grade capping was used during the interpolation as no outliers were identified during the exploratory data analysis that warranted further treatment.
	The process of validation, the checking process used, the comparison of model data to drill-hole data, and use of reconciliation data if available.	The block model was validated using three different approaches: (1) visual comparison of the block model grades compared to the drill hole data, (2) statistical comparison of the block model grades compared to the drill hole data, and (3) swath plots of the block model grades compared to the drill hole data. The block model validation

Criteria	JORC Code explanation	Commentary
		results showed a good comparison between the original data and the block model.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Not applicable.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	A 5% K_2O cut-off was applied during the modelling of the Carnallite and Sylvinite seam wireframes.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The seam thickness is >1.5 m across Ohmgebirge and is considered amenable to potential mining underground and is therefore suitable for reporting resources. The average maximum mining height for underground potash in the South Harz is ±7m. Some of the drill hole intersections used in resource estimation have thick (>7m) Sylvinite seams, notably Kal Ktf 8/84 and Kal Ktf 4/83. This height was not used as a cut-off during resource estimation as that will become part of the conversion to reserves, but a 15% geological loss was applied to the reserves to take into consideration this loss in volume and any other uncertainties.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this*	The South Harz area has historically been mined for decades and there is a lot of local knowledge about the metallurgical processes required. K-Utec have defined a process flow for the Sylvinite ore at Ohmgebirge and not the Carnallitite. The process involves cold leaching and evaporation-crystallisation.

For personal use only

For personal use only

Criteria	JORC Code explanation	Commentary
	is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a Greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	Mining will take place underground. The aim of SHP is to create a sustainable potash business that benefits the communities in which its projects operate. SHP has endorsed Environmental, Social and Governance policies which are being applied to, and integrated with, all stages of exploration and consideration of design alternatives, and which will be applicable to construction, operation, decommissioning, closure and post closure. The proposed mining method is room and pillar mining in long chambers with a length up to 500 m. Due to the geological conditions and the mining depth, backfilling of the mined-out voids should 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. SHP aim to have no tailings stored on surface, at least once back fill becomes viable after a few years of extraction.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	A total of 41 dry density values for the Sylvinite seam were calculated from the modal mineralogy of the respective sample. The samples had an average value of 2.25 g/cm3 with a standard deviation of 0.66 and was used for the density of the Sylvinite seam. A density of 1.89 g/cm3 was
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.	

Criteria	JORC Code explanation	Commentary
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	used for the Carnallite seam based on historical data.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.*	The Ohmgebirge mining licence area has been classified as an Indicated and Inferred Mineral Resource based on the quality and extents of the drilling database that are sufficient to imply geological grade and continuity for eventual economic extraction. Two twin holes were drilled in 2022 to validate the historic data and an approximate 1,500 m radius around drill holes was used to classify the indicated Mineral Resources. The distance was based on variogram ranges from neighbouring deposits which display similar characteristics.
	Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	The location of Ohmgebirge is in an area that has been mining potash for decades. The newly created modelling database and the historical cross sections both show the seams to be consistent across the property. A recent underground visit by members of the SHP team confirmed that there is local scale folding and duplication of the potash in places, and thick seam intersections, such as Kal Ktf 4/83 confirm the presence of folding. However, the overall roof and floor model displays a sub-horizontal seam, which was also seen during the underground visit. To counteract these unknowns a geological loss of 15% has been applied to the resource estimation.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The stated tonnage and grade are considered an appropriate reflection of the Competent Persons view of the deposit.

For personal use only

For personal use only

Criteria	JORC Code explanation	Commentary
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	Three historical reserves exist for various areas covering the current Ohmgebirge mining licence. The most recent historical reserve estimate, namely the Watznauer and Tita reserve, is dated 1996 and covers approximately 72% of the current licence area; the Kali-Instruktion balanced C2 tonnage of Sylvinite is 20.1 Mt K_2O. In 2017 a JORC Exploration Target was declared for the Ohmgebirge mining licence. The tonnage of Sylvinite was estimated to range from 182-271 Mt at a grade of 13.91% K_2O, and the tonnage of Carnallite was estimated to range from 57-71 Mt at a grade of 10.10% K_2O. Micon estimated the Mineral Resources for Ohmgebirge in 2019 to be 325Mt at a grade of 13.14% K_2O. The 2017 Exploration Target grade and the Micon 2019 grade and tonnage compare favourably to the 2022 Inferred and Indicated Resource estimate.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource 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 resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	The Ohmgebirge resources were estimated in Leapfrog using ID2. Accumulation and true thicknesses were interpolated for each variable (K_2O, KCl, Mg, Na, SO4, and acid insolubles) and the grade was calculated as the accumulation divided by the true thickness on a block-by-block basis. All drill hole intersections used in the Mineral Resource Estimate had 100 % assay data coverage within the modelled seams except for acid insolubles. Variography was performed to estimate the range of data points and classification confidence. The range for Indicated Resources from the resulting variography was <5,000m, however, since the majority of information used to estimate resources is historical and the known uncertainties about seam thickness, the limits of Indicated Resources were reduced to 1,500 m and a geological loss of 15% was applied to the tonnage.
	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.	This statement relates to the global Ohmgebirge resource.

Criteria	JORC Code explanation	Commentary
	Documentation should include assumptions made and the procedures used.	
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Not applicable.

For personal use only