

ASX ANNOUNCEMENT 08 June 2022

# STRONG CONFIRMATORY RESULTS FROM SECOND OHMGEBIRGE DRILLHOLE

- Assay results from second Ohmgebirge confirmatory drill hole (OHM-01) return key intercept of 3.75m at an average grade of 16.19% K<sub>2</sub>O.
- Confirms potash intersection with similar thickness, depth and tenor to historical drillhole that was being twinned by OHM-01.
- Work on updating the Ohmgebirge Mineral Resource estimate has commenced and Scoping Study completion remains scheduled for early Q3 2022.

South Harz Potash Limited (ASX:SHP) (**South Harz** or the **Company**) is pleased to announce initial assay results from the recently completed drillhole, OHM-01, located within the Ohmgebirge Mining Licence (**Ohmgebirge**) area of its South Harz Potash Project. Results returned to date are summarised in the table below. Assay results from the lower section of the drillhole are still pending.

Intercepted sections	From (m)	To (m)	Apparent thickness (m)	K₂O wt. avg %
Upper Mineralised section	775.05	778.80	3.75	16.19
Lower Mineralised section	787.67	795.19	7.52	pending

Drillhole OHM-01 was completed to a depth of 807.91m to fully penetrate the known Staßfurt Potash Horizon (z2KSt). It was designed to twin and validate the results of the historic drillhole, *Kal Ktf 5/83*, which recorded a potash intercept from 785.2m to 788.2m (3.0 m thickness) with an historic reported grade of 12.4% K<sub>2</sub>O (see SHP ASX announcement dated 23 December 2019<sup>[1]</sup>).

OHM-01 was drilled approximately 100m north of the historic drillhole. It intercepted the top of the high-grade potash horizon from 775.05m down to a depth of 778.80m, a total apparent thickness of 3.75m. A comprehensive assay suite comprising wet ICP and XRD analyses has identified a high grade Anhydritic Hartsalz returning an average intercept grade of 16.9%  $K_2O$ . A second lower grade potash zone with a higher abundance of kieserite<sup>2</sup> (MgSO<sub>4</sub>·H<sub>2</sub>O) was identified from 787.67m to 795.19m downhole, with assay results still pending.

Drilling and assay of core from these two confirmatory drillholes is intended to allow South Harz to upgrade a substantial proportion of the current Ohmgebirge JORC (2012) Inferred Mineral Resource estimate to the Indicated category. Following receipt of the key assay results from both OHM-02 and OHM-01, work has now commenced on updating the Ohmgebirge Mineral Resource estimate. Subject to concurrent and satisfactory advancement of all modifying factors, this is expected to allow the release of a comprehensive Scoping Study (a preliminary technical and economic assessment) for Ohmgebirge in early Q3 2022.

**South Harz Acting Executive Chairman, lan Farmer, commented:** "We are pleased to announce the assay results returned from the high-grade potash section of our second confirmatory drillhole at Ohmgebirge, OHM-01. Similar to our first confirmatory hole, OHM-02, the results show excellent correlation with the nearby historic drillhole. We have now effectively validated historic results at Ohmgebirge from both the initial drilling campaign conducted in the early 1900's and the extensive drilling campaign carried out by the GDR from the 1960's through to the 1980's.



"The results from our two confirmatory drillholes further substantiate our confidence in the accuracy of the 41 drillholes in the Ohmgebirge licence area, and indeed the 300 drillholes which we acquired as part of the suite of mining licences that comprise our world-class South Harz Potash Project.

"Work has now commenced on updating the Ohmgebirge Mineral Resource model and finalising the Scoping Study, which we look forward to completing early next quarter."

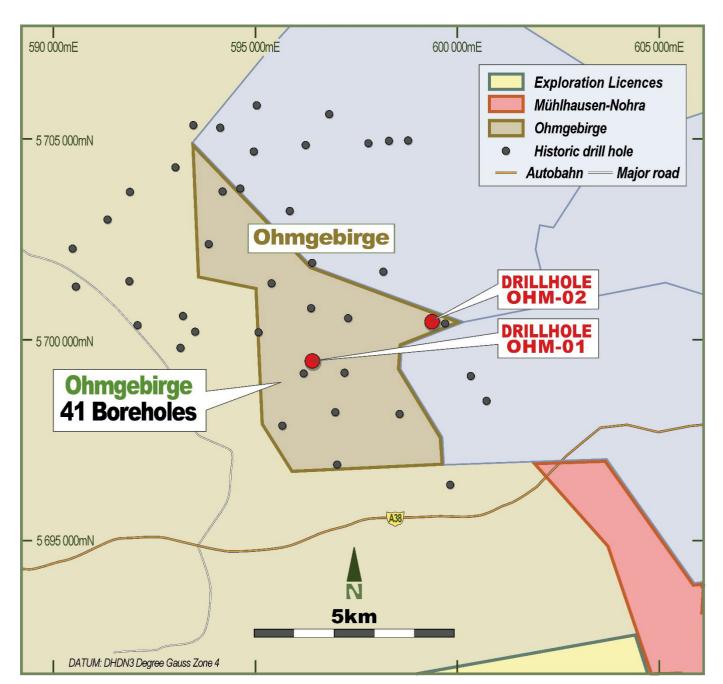


Figure 1: Ohmgebirge Mining Licence area showing the approximate location of historic drillholes and the twin confirmatory holes, OHM-01 and OHM-02.

- 1. Refer to South Harz ASX announcement dated 23 December 2019 for full Mineral Resource estimate details. In accordance with ASX Listing Rule 5.23, the Company is not aware of any new information or data that materially affects the information included in this appouncement
- <sup>2</sup> Kieserite is an important water soluble source of Magnesium and Sulphur and is used widely in blended fertilizers.



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

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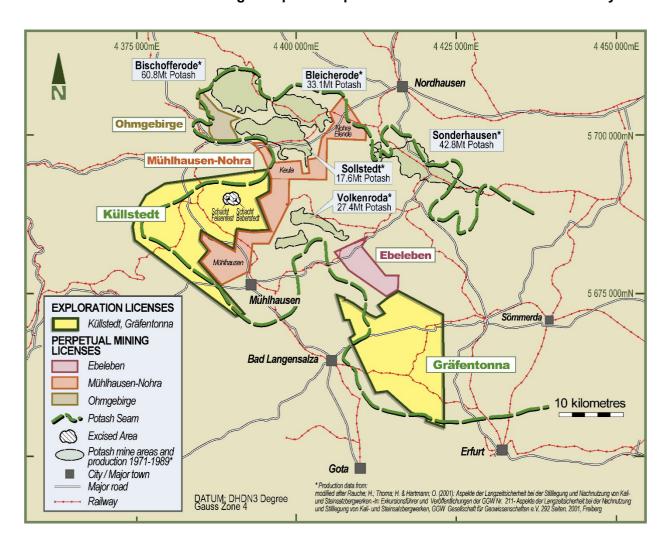
#### **About South Harz**

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) Inferred Mineral Resource estimate of 5.3 billion tonnes at 10.8% K<sub>2</sub>O across four wholly-owned project areas<sup>[1]</sup> 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 659km<sup>2</sup>.

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





### **APPENDIX 1 - OHM-01 Drilling & Sampling**

The Ohmgebirge mining licence is located in the Südharz (South Harz) Potash District in the north-western extent of the Thuringian sedimentary basin. The Permian-aged Zechstein Group hosts the potash horizon, z2KSt, which occurs across the majority of the Ohmgebirge licence and has been historically intersected in 35 drill holes.

OHM-01 is a twin hole of historical drill hole Kal Ktf 5/83 located approximately 100 m to the north of the original collar position. Historic drillhole Kal Ktf 5/83 recorded a potash intercept from 785.2m to 788.2m (3.0 m thick) with an historic reported grade of 12.4% K<sub>2</sub>O. The recently drilled confirmatory drillhole, OHM-01, intercepted the top of the high grade potash horizon at a slightly shallower depth of 775.05m down to a depth of 778.80m, a total apparent thickness of 3.75m. The high grade Anhydritic Hartsalz potash horizon from drillhole OHM-01 returned a potash grade of 16.19% K<sub>2</sub>O. The two holes are considered to be comparable. A second lower grade potash zone with a higher abundance of Kieserite (MgSO<sub>4</sub>·H<sub>2</sub>O), Langbeinite (K<sub>2</sub>Mg<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>) and Polyhalite (K<sub>2</sub>Ca<sub>2</sub>Mg(SO<sub>4</sub>)<sub>4</sub>·2H<sub>2</sub>O) was identified down hole from 787.67m to 795.19m. This zone was also identified in the historic drillhole Kal Ktf 5/83 though problems with core recovery from this historic drillhole did not allow for accurate mineralogical and grade definition. Core recovery in the new drillhole OHM-01 was 100% thus enabling the company to better evaluate this lower zone. Assay results from samples collected from this lower zone are still pending.

Drilling of OHM-02 began on 16<sup>th</sup> March 2022 and was completed on 14<sup>th</sup> May 2022. The hole was destructively drilled from surface down to 720.0m at which depth the method was switched over to core drilling. Casing, ranging in size starting at 711 mm to 127 mm, was installed from surface down to a depth of 720m to seal off the z4ANb-z7 horizon and the overlying units. OHM-01 was drilled by H. Anger's Söhne using a UH4-2 rig type using bentonite mud for the upper sections and magnesium chloride rich mud in the coring sections. The basal anhydrite unit was intersected at a depth of 807.29m and drilled for 0.62m, this unit forms a barrier to any groundwater flow beneath. Drill hole OHM-01 has a final end depth of 807.91m and a total z2KSt thickness of 20.14m.

The upper section of the drillhole was completed using a percussion drill bit and produced rock chips. The chips were logged on site and have not been sampled. The core retrieved from 720.41m was logged on a millimeter scale. Core recovery was monitored by the Ercosplan project geologist on site at the time of drilling and is recorded in the drill hole log. Core recovery was 100% throughout the entire core section except for 1 zone of total core loss between 720.0m and 720.41m (41cm). Core recoveries through the target potash z2KSt unit were 100%. Core recovery is not expected to have affected grade.

Downhole geophysics was performed by BLM Gesellschaft für Bohrlochmessung mbH and the geological drill hole logs were corrected according to the geophysical depths. Various downhole measurements were taken including salinity (ST16), temperature (ST16), calliper (CARI, CAL4017), gamma-ray (GRFEL, TA.ORI), gamma-gamma (GRFEL, TA.ORI), neutron and sonic.

Sampling was conducted according to the stratigraphic interpretation of the core using the downhole geophysical logging as a depth guide. Core 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 (Photos 1 and 2).

Drill core was cut longitudinally for sample selection and half core samples were analysed. A total of 84 samples were collected covering the entire z2Kst horizon and blank samples collected from within the barren halite units. The samples were scheduled to be analysed in two phases, with the first 25 samples collected from the higher grade potash zone given higher priority with the results presented in this announcement. Results for the second set of lower priority samples are pending.



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  $\mu$ 50 before being dried in the laboratory furnace at 400°C. Samples were homogenised to ensure a representative sample obtained. 19 blank samples were included in the sample analysis, out of a total of 84 samples. 5 duplicate samples have been sent from the first batch of samples to the umpire laboratory VKTA in Dresden, Germany; results are not available at the time of writing. Thicknesses of the potash-bearing horizons were confirmed by the geophysical logging and the full length of the potash was sampled.

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. Drillhole OHM-01 intercepted the top of the high grade z2KSt potash seam from 775.05m down to a depth of 778.80m, a total apparent thickness of 3.75m. Interpretation of the wet chemical and XRD analyses has identified a single high grade mineralised potash horizon comprising mainly Sylvite with subordinate Anhydrite, Kieserite and minor Carnallite. Lower grade mineralisation with Sylvite, Anhydrite, Kieserite, Langbeinite and Carnallite is evident in the lower sections of the z2KSt member and which will be interpreted when results are available from the second batch of samples from the lab.

Historic drillhole Kal Ktf 5/83, which was drilled in 1983, recorded potash within the z2KSt potash seam from a depth of 785.2m to 788.2m (3.0 m thick) with an historic reported grade of 12.42%  $K_2O$ . Corelation between the new drillhole OHM-02 is considered to be good (Figure 2). The difference in thickness, and subsequently the weighted average  $K_2O$  (%) grade is considered to be due to localised variation in mineral assemblages, which is common in potash deposits of the region. The elevation drop of approximately 10m over a 100m distance is in line with the assumed dip of the potash seam at Ohmgebirge and compares with geological dips seen in the adjacent historic mines.

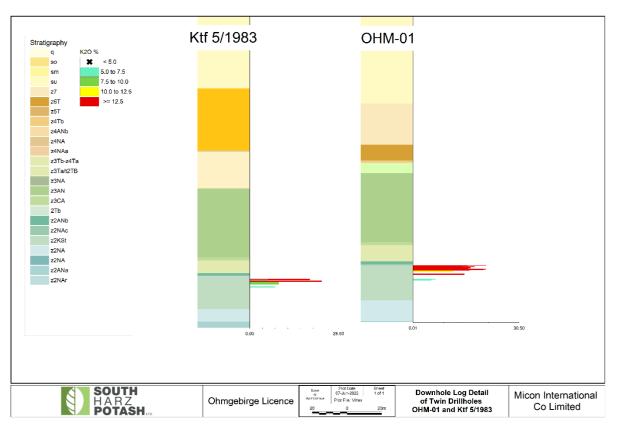


Figure 2: Comparison between the confirmation hole OHM-02 and the historic hole Kal Ktf 5/83 located ~100m to the north.



Table 1: First batch of laboratory assay results from drillhole OHM-01

#	SAMPLE ID	depth		K-UTEC N	lo -	K /%	Na /%	Ca /%	Mg /%	CI/%	S /%	SO4	inso-	total	mass	total	total	ion	Br	Li	Rb
		from	to	CPA								/%	luble	water	balance	cations	anions	balance	/ppm	/ppm	/ppm
													/%	/%	/%	/mmol	/mmol	/%	LOQ7	LOQ 5	LOQ 1
1	OHM-01_1	774.41	774.70	22-0852	1	1.16	32.95	2.82	0.41	50.61	3.34	10.01	0.21	1.07	99.2	1637	1636	0.06	226	< LOQ	< LOQ
2	OHM-01_2	774.70	775.05	22-0852	2	1.84	30.32	4.74	0.36	48.15	4.40	13.17	0.43	0.81	99.8	1632	1633	-0.01	200	< LOQ	2.06
3	OHM-01_3	775.05	775.23	22-0852	3	17.45	19.33	4.85	0.09	45.48	4.05	12.14	0.39	0.24	100.0	1536	1536	0.03	546	<loq< td=""><td>24.3</td></loq<>	24.3
4	OHM-01_4	775.23	775.67	22-0852	4	13.13	20.09	6.34	0.09	43.04	5.11	15.30	0.29	0.22	98.5	1533	1533	0.03	493	< LOQ	18.7
5	OHM-01_5	775.67	775.93	22-0852	5	14.69	26.25	1.03	0.06	53.92	0.82	2.45	0.17	0.19	98.7	1573	1572	0.06	579	< LOQ	21.6
6	OHM-01_6	775.93	776.21	22-0852	6	11.83	28.38	0.63	0.22	54.00	0.99	2.98	0.15	0.78	99.0	1586	1585	0.05	486	< LOQ	19.2
7	OHM-01_7	776.21	776.71	22-0852	7	13.70	20.93	4.12	0.93	42.52	5.50	16.48	0.25	1.41	100.3	1543	1543	0.04	450	< LOQ	22.8
8	OHM-01_8	776.71	777.19	22-0852	8	13.17	26.32	1.06	0.39	51.72	1.71	5.12	0.21	2.14	100.1	1566	1566	0.05	473	< LOQ	22.9
9	OHM-01_9	777.19	777.48	22-0852	9	17.39	21.33	1.41	0.72	48.13	2.30	6.90	0.42	1.67	98.0	1502	1501	0.04	606	< LOQ	35.6
10	OHM-01_10	777.48	777.71	22-0852	10	16.77	14.96	3.57	2.14	38.07	5.78	17.31	0.42	4.97	98.2	1435	1434	0.02	683	< LOQ	37.9
11	OHM-01_11	777.71	778.18	22-0852	11	13.48	19.75	3.15	1.41	42.95	4.26	12.75	0.75	3.65	97.9	1477	1477	0.01	526	< LOQ	33.7
12	OHM-01_12	778.18	778.80	22-0852	12	9.57	25.29	1.06	1.98	47.45	3.54	10.61	0.38	1.64	98.0	1560	1559	0.05	480	< LOQ	22.1
13	OHM-01_13	778.80	779.18	22-0852	13	0.87	32.26	3.83	0.43	50.55	3.60	10.80	0.23	0.67	99.6	1652	1651	0.05	240	< LOQ	1.48
14	OHM-01_14	779.18	779.59	22-0852	14	0.35	30.96	4.25	0.48	47.88	4.10	12.27	0.47	0.87	97.5	1607	1606	0.06	253	< LOQ	< LOQ
15	OHM-01_15	779.59	780.04	22-0852	15	1.13	29.51	5.31	0.32	46.77	4.56	13.65	0.47	0.67	97.8	1604	1604	0.05	266	< LOQ	1.73
16	OHM-01_16	780.04	780.50	22-0852	16	12.22	21.61	5.25	0.22	44.25	4.55	13.63	0.40	0.48	98.1	1533	1532	0.04	619	< LOQ	22.1
17	OHM-01_17	780.50	780.96	22-0852	17	1.07	29.25	5.15	0.50	45.60	4.97	14.88	0.76	0.89	98.1	1597	1596	0.06	213	< LOQ	< LOQ
18	OHM-01_18	780.96	781.38	22-0852	18	1.74	29.08	4.91	0.65	44.99	5.42	16.23	0.42	1.13	99.1	1608	1607	0.05	226	< LOQ	1.32
19	OHM-01_19	781.38	781.63	22-0852	19	1.34	33.87	2.05	0.48	52.17	2.84	8.52	0.13	1.23	99.8	1649	1649	-0.01	253	< LOQ	< LOQ
20	OHM-01_20	781.63	781.93	22-0852	20	3.65	28.37	1.96	2.21	43.95	5.87	17.59	0.10	1.11	98.9	1607	1606	0.05	246	< LOQ	8.09
21	OHM-01_21	781.93	782.26	22-0852	21	3.48	23.95	6.79	1.27	36.91	8.55	25.62	0.86	2.09	101.0	1574	1575	-0.03	193	< LOQ	3.19
22	OHM-01_22	782.26	782.49	22-0852	22	1.62	31.94	2.05	0.68	49.12	3.25	9.72	0.26	3.21	98.6	1589	1588	0.06	306	< LOQ	< LOQ
23	OHM-01_23	782.49	782.84	22-0852	23	3.44	29.47	2.13	1.60	45.76	5.07	15.20	0.75	1.44	99.8	1608	1607	0.06	213	< LOQ	5.02
24	OHM-01_24	782.84	783.40	22-0852	24	5.40	25.52	1.43	3.13	39.33	7.49	22.44	0.48	1.29	99.0	1577	1577	0.05	203	< LOQ	11.5
25	OHM-01_25	783.40	783.85	22-0852	25	4.31	28.53	0.47	2.74	44.29	5.60	16.79	0.26	0.81	98.2	1600	1599	0.05	256	< LOQ	9.53





Photo 1: Example of OHM-01 potash core photo shot under natural light. Core run 775.23 – 776.21m.

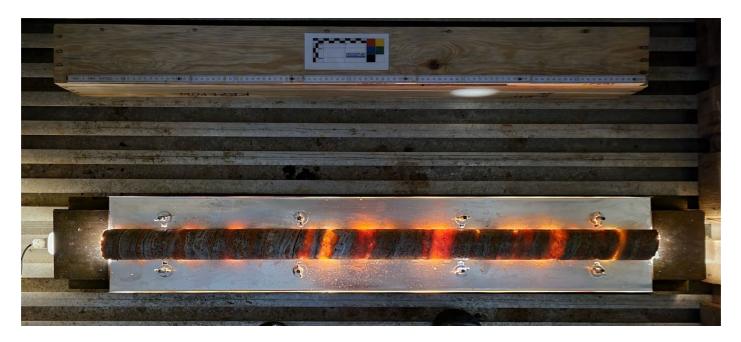


Photo 2: Example of OHM-01 potash core photo shot under backlit light. Core run 775.23 – 776.21m.









Photos 3 - 5: Overview of core recovery, boxing and sampling. 100% core recovery and excellent overall core condition was achieved as evident from the photographs.



#### **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, 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.



## JORC Code, 2012 Edition – Table 1

Ohmgebirge Drillhole OHM-01
South Harz Potash Ltd



### **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
	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 was 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.
Sampling techniques	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. 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 K2O 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. Core sample thickness in OHM-01 range from 0.18 m to 0.62 m with an average sample length of 0.38 m. 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. 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.
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).	All drill holes were destructively drilled from surface and were switched to coring in the z4ANa horizon.  OHM-01 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 718.6 m ranging in size starting at 711 mm to 127 mm.
	Method of recording and assessing core and chip sample recoveries and results assessed.	Core recovery was monitored by the Ercosplan project geologist on site at the time of drilling and this is recorded in the drill hole log. Within the core section of the drill hole recoveries were 100% apart from a 41cm of core loss between 720.00 and 720.41m Core recoveries through the z2KSt unit were 100%.
Drill sample recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Casing was used as follows: $0.00-16.80$ m auxiliary surface pipe (outside- $\emptyset$ =711mm), $0.00-39.00$ m standpipe (outside- $\emptyset$ =508mm), $0.00-129$ m standpipe (outside- $\emptyset$ =340mm), $0.00-474.00$ m anchor tube (outside- $\emptyset$ =178mm), $0.00-718.6$ m technical pipe (outside- $\emptyset$ =127mm).
	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. 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.	Core logging and sample 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.				
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.					
	The total length and percentage of the relevant intersections logged.	The complete core intersection was logged on a millimetre scale.				
	If core, whether cut or sawn and whether quarter, half or all core taken.	Drill core was cut longitudinally for sample selection. Half core samples were analysed.				
Sub-	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All horizons above 720.41m 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.				
sampling techniques and sample preparation	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.				
	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.	19 blank samples were included in the sample analysis, out of a total of 84 samples. 10 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.		
	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.		
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	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		
Quality of For geophysical tools, spectrometers, handheld XRF instruments, etc, the laboratory 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.	called VKTA.		
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Ercosplan managed the drilling and logging campaign, which was overseen by SHP and approved by Micon International.		
/ 9	The use of twinned holes.	OHM-01 is a twin hole of Ktf 5/1983 Liese located 100 m to the north of the original drill hole position due to		



		modern day surface logistical restraints. The two holes are considered to be comparable.
	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 are stored at Ercosplan. 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 sylvite and carnallite) using the Rietveld method.
	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.	OHM-01 collar was surveyed by RÖSSLER Ingeniervermessung GmbH a Markscheider, a licenced surveyor who is registered by the TLUBN. OHM-01 has an officially registered name provided by TLUBN of Kal Worbis 1/2021.
Location of data points	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 and converted into WGS84 for modelling.
	Quality and adequacy of topographic control.	No topographic survey exists for the project area, which is flat lying to gently undulating.
	Data spacing for reporting of Exploration Results.	The complete potash horizon was sampled and analysed with all results reported. Average sample length is 0.38 m.
Data spacing and distribution	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	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. The drilled vertical thickness of the z2KSt potash seam has been interpreted as true thickness of 3.75m.
relation to geological structure	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 subhorizontal on a regional scale and the vertical core drilling is considered appropriate to represent the seam without bias. Downhole geophysical reading 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.
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.



### **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-02 and OHM-01, 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 Bischoferrode 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



Criteria	JORC Code explanation	Commentary
		deviation) have been drilled within the current Ohmgebirge mining licence area.
Geology	Deposit type, geological setting and style of mineralisation.	The Ohmgebirge mining licence is located in the Südharz (South Harz) Potash District in the northwestern 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 def



Criteria	JORC Code ex	planation	1	Commentary						
				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.						
Drill hole Information	A summary of material to th of the explora including a ta following info Material drill	ne understantion resultion of the second sec	anding ts of the	The drill hole database for Ohmgebirge is made up of 41 historical drill holes and the recently drilled OHM-02 and OHM-01. The table below shows the key drill hole information for OHM-01 and its historical twin, Ktf 5/83. Information regarding the historical database can be found in SHP press release dated 23rd December 2019.						
	Easting Northing Hole ID (UTM 32N (UTM 32N WGS84)			RL	EOH (m)	z2KSt Inters		Average K <sub>2</sub> O Grade		
	OHM-01	596025	5699274	410	807.9	From	To	(%)		
	Ktf 5/1983	596025	5699181	410	813.2	775.05 785.20	778.80 788.20	16.19 12.42		
	In reporting E weighting ave techniques, m minimum gra cutting of high off grades are and should be	eraging naximum d de trunca h grades) e usually N	and/or tions (eg and cut-	The chemical analysis for Ohmgebirge was composited according to stratigraphy (z2KSt). A minimum cut-off grade of 5% K2O was applied to delineate the limits of the potash-bearing horizon within the z2KSt. A weighted average K2O grade was calculated against sample length.						
Data aggregation methods	Where aggregincorporate single grade reliengths of low procedure use aggregation sand some typ such aggrega shown in deta	hort length sults and l grade res ed for such should be s ical examp tions shou	hs of longer sults, the n stated ples of	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 assumption reporting of no values should	netal equi	valent	No meta	al equivalents we	ere used or re	eported.			



Criteria	JORC Code explanation	Commentary				
	These relationships are particularly important in the reporting of Exploration Results.					
Relationship between mineralisatio n widths and	If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.	All drill holes are vertical with minor deviations at depth. The potash-bearing horizons are regionally				
intercept lengths leng	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').	sub-horizontal with localise folds and undulations.				
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 plan view of drill-hole collar locations and appropriate sectional views.	OHM-02  Kel Wr 6 Liese  OHM-02  Kel Wr 6 Liese  Finding the control of the contro				
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.	OHM-01 intersected a 3.75 m intersection of the mineralised z2KSt potash horizon with an average grade of 16.19% K2O. An additional potash seam was also intersected below this horizon but the analytical results are still pending. The total z2KSt horizon has a thickness of 20.14m.				



Criteria	JORC Code explanation	Commentary	
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.	The z2KSt intersection in OHM-01 has been subdivided into two distinct mineralogical units as detailed in the table below.	
		Hole ID         From (m)         To (m)         Thick (m)         Mineral Unit         Av. K <sub>2</sub> O (%)           OHM-01         775.05         778.80         3.75         Anhydritic Hartsalz         16.19           787.67         795.19         7.52         Sulphate-rich         pending	
		707.07 773.17 7.32 Surpliate-field pending	
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Once the results of both twin drill holes (OHM-01 and OHM-02) have been received the Mineral Resource estimation will be updated.	
	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 historical 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		
Site visits		
Geological interpretation		
Dimensions		
Estimation and modelling techniques		
Moisture	Not applicable for this report	
Cut-off parameters		
Mining factors or assumptions		
Metallurgical factors or assumptions		
Environmental factors or assumptions		
Bulk density		
Classification		
Audits or reviews		
Discussion of relative accuracy/ confidence		



### **Section 4 Estimation and Reporting of Ore Reserves**

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves		
Site visits		
Study status		
Cut-off parameters		
Mining factors or assumptions		
Metallurgical factors or assumptions		
Environmental		
Infrastructure		
Costs	Not applicable for this report	
Revenue factors		
Market assessment		
Economic		
Social		
Other		
Classification		
Audits or reviews		
Discussion of relative accuracy/ confidence		



### Section 5 Estimation and Reporting of Diamonds and Other Gemstones

(Criteria listed in other relevant sections also apply to this section. Additional guidelines are available in the 'Guidelines for the Reporting of Diamond Exploration Results' issued by the Diamond Exploration Best Practices Committee established by the Canadian Institute of Mining, Metallurgy and Petroleum.)

Criteria	JORC Code explanation	Commentary
Indicator minerals		
Source of diamonds		
Sample collection		
Sample treatment		
Carat		
Sample grade		
Reporting of Exploration Results	Not applicable for this report	
Grade estimation for reporting Mineral Resources and Ore Reserves		
Value estimation		
Security and integrity		
Classification		