ASX Announcement

16 November 2017

COMPANY DETAILS
Davenport Resources Limited
ABN: 64 153 414 852
ASX CODE: DAV

PRINCIPAL AND REGISTERED OFFICE (& Postal Address)
Davenport Resources Limited
Level 28,
303 Collins Street
Melbourne VIC 3000

W: www.davenportresources.com.au
E: info@davenportresources.com.au
P: +61 (0) 415 065 280

Capital Structure
74.3M Ordinary shares
33.85M First milestone shares
33.85M Second milestone shares
6.2M Unlisted options

BOARD OF DIRECTORS
Patrick McManus
(Non-Executive Chairman)
Chris Bain
(Managing Director)
Rory Luff
(Non-Executive Director)
Chris Gilchrist
(Non-Executive Director)

Historic potash resource at Mühlhausen-Nohra licence

Highlights

- **Historic Resource on Mühlhausen sub-area Mining Licence of 234 million tonnes at 14.4% K_2O (33.8 million tonnes contained K_2O)**
- **Presence of mixed salts in Mühlhausen area demonstrates potential for parallel MOP and SOP fertiliser production**
- **Mühlhausen sub-area adjoins Davenport's existing Küllstedt Exploration Licence**
- **Quality of historic data will allow Davenport to rapidly advance evaluation of South Harz resources and achieve JORC compliance**

Davenport Resources (ASX: DAV) ("Davenport", "the Company"), is pleased to announce a historic resource of **234 million tonnes of 14.4% K_2O (33.8 million tonnes contained K_2O),** on its 100%-owned **Mühlhausen sub-area within the Mühlhausen-Nohra** Mining Licence in the South Harz region of Germany. In addition there exists a lower classification historic resource of **54.4 million tonnes of 10.6% K_2O (5.8 million tonnes contained K_2O) in Carnallitite.**

Mühlhausen-Nohrah is one of three perpetual mining licences in the South Harz basin that Davenport acquired recently from German government agency Bodenverwertungs- und -verwaltungs GmbH (BVVG)(Figure 1). The resource on the Mühlhausen sub-area was estimated in 1980 and given a classification of C2 for the Hartsalz mineralisation and c2 for the Carnallitite mineralisation under the former German Democratic Republic (GDR) system. No known resource estimate has been done on this sub-area since then.

Davenport Managing Director Chris Bain said: *"The historic resource for the southern part of Mühlhausen-Nohra follows the announcement of a historic resource of 356 million tonnes at 16.1% K_2O for the nearby Ebeleben Mining Licence (ASX announcement 8 November 2017). The presence of Hartsalz, a mixed salt that includes sulphates, in the Mühlhausen sub-area is notable as it potentially allows the production of both MOP and SOP fertilizer products."*

Cautionary Note: The Mühlhausen sub-area resource estimate is a historical foreign estimate and is not reported in accordance with the JORC Code. A competent person has not done sufficient work to classify this historical foreign estimate as a mineral resource in accordance with the JORC code and it is uncertain that following further exploration work that this historical foreign estimate will be able to be reported as a mineral resource in accordance with the JORC Code.

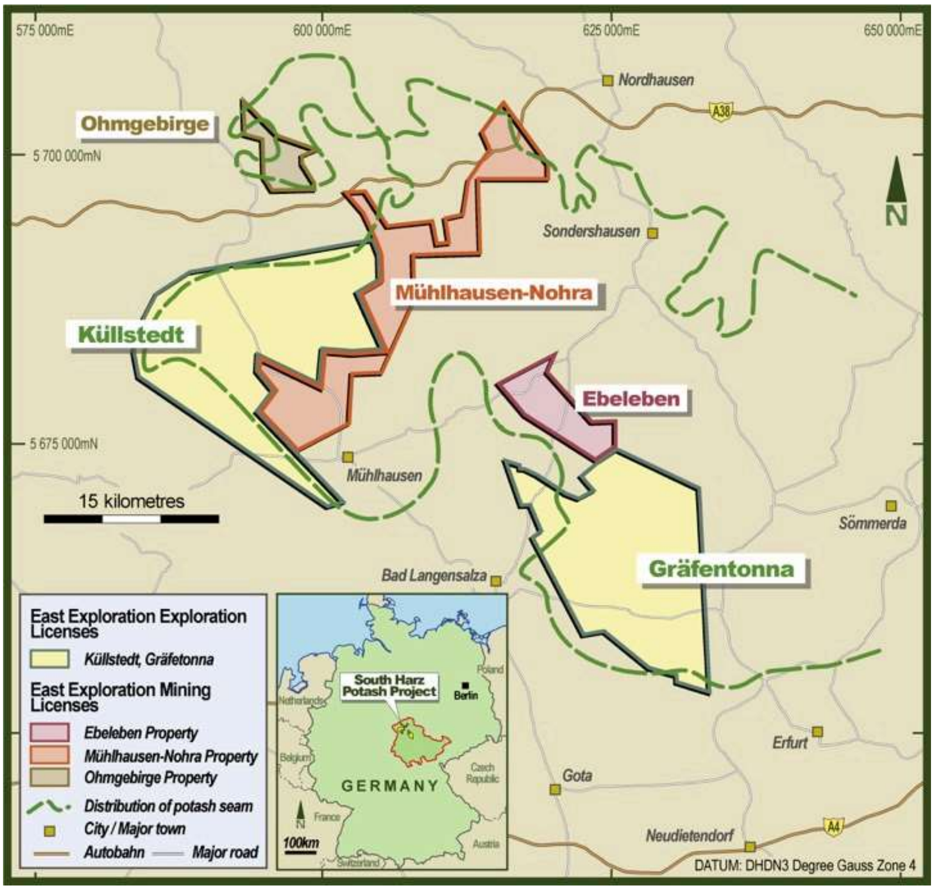

Figure 1 Location of the South Harz potash project

The Mühlhausen sub-area covers 54.4 km^2 and adjoins the south-eastern boundary of Davenport's Küllstedt Exploration Licence (Figure 2). Close to the former Volkenroda potash mine, last operated in 1991, the area was explored for a potential extension of Volkenroda and was considered important to the development of the potash industry in the former German Democratic Republic (GDR).

A comprehensive exploration campaign was conducted within the sub-area during the 1960s and 1970s, with 17 holes drilled targeting potash mineralisation. In addition two petroleum exploration holes are reported. Detailed lithological information and geophysical well logs is available for all potash targeting drill holes. Full details of the available data are set out in the JORC Code Table 1, attached to this announcement.

In the Mühlhausen sub-area different evaporite minerals occur in the potash horizon changing with ratios both horizontally and vertically although the fine rock salt and clay layers are usually unaffected. The two main evaporative rock types are Hartsalz and Carnallitite. Hartsalz is a German term referring to a harder mixed evaporite rock that includes various sulphates. The main mineral in Hartsalz is Halite (NaCl) with Sylvite (KCl) the main potash mineral. In addition, Anhydrite ($CaSO_4$), Kieserite ($MgSO_4 \cdot H_2O$), Polyhalite ($K_2SO_4 \cdot MgSO_4 \cdot 2CaSO_4 \cdot H_2O$), Langbeinite ($K_2SO_4 \cdot 2MgSO_4$), Kainite ($KCl \cdot MgSO_4 \cdot 2.75H_2O$), Glaserite ($K_3Na(SO_4)^2$) and to a lesser degree clay occurs. Generally, there is a high to very high variability of mineralogy in Hartsalz.

Normally, the Hartsalz may occur at the top and/or base of the Carnallitite. The Hartsalz above the Carnallitite (Upper Hartsalz), is distributed almost over the entire Mühlhausen sub-area, whereas the Carnallitite mainly occurs in the NE part of the Mühlhausen sub-area. The Hartsalz below the Carnallitite (Lower Hartsalz) occurs more irregularly with local absence. The potash bearing horizon is developed over the entire Mühlhausen sub-area with varying thicknesses and K_2O grades. The bedding shows in general wide alternating synclines and anticlines with, especially within the saliferous horizons, faults and folds as well as local thinning and thickening of the potash bearing horizon.

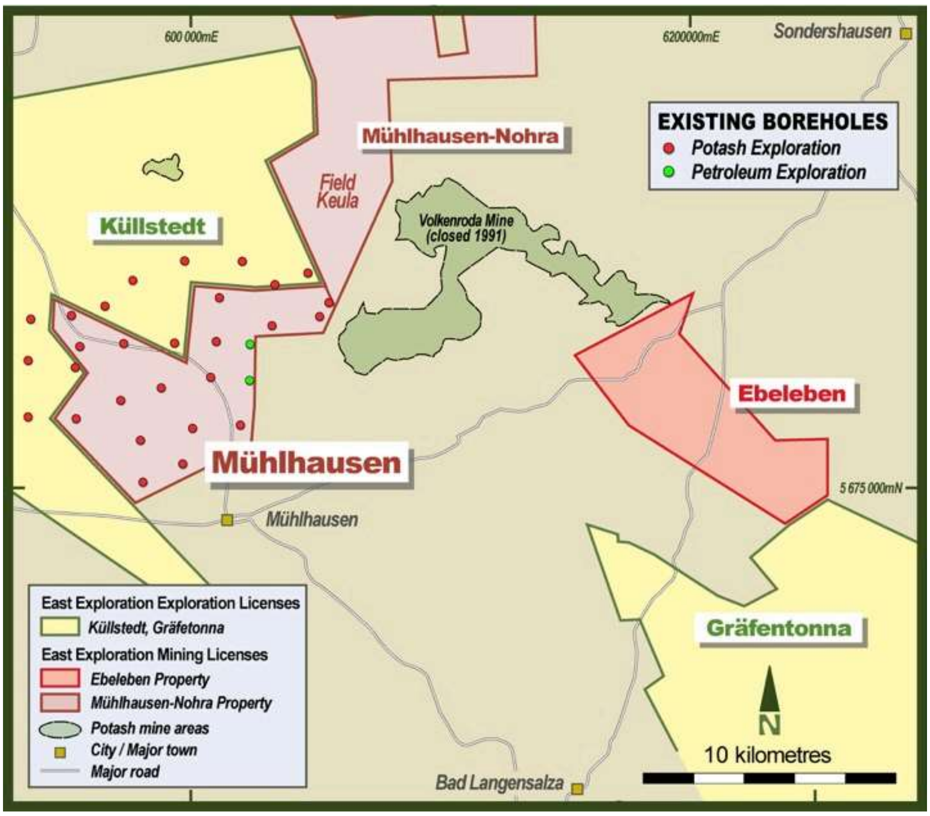

Figure 2 Mühlhausen sub-area within the Mühlhausen-Nohra mining licence and part of the Küllstedt exploration licence showing approximate historic drill hole locations

Historic Resource

A historical resource estimate for Hartsalz at Mühlhausen was commissioned by the Ministry of Geology and prepared by “VEB Geologische Forschung und Erkundung Freiberg (VEB Geological Research and Exploration Freiberg) in 1980 using the GDR guidelines of the time for an area similar to the current Mühlhausen sub-area. The following parameters were applied:

- Area of resource: 49.2 km^2
- Minimum content of the total resources of 13.2 % K_2O of crude salt
- Geological cut-off: 8.0% K_2O
- Maximum content of deleterious minerals for processing:
  - 3.0 % Kieserite, 1.8 % Glaserite, 3.0 % Anhydrite in mined raw salt
  - 2.4 % Kieserite, 2.8 % Glaserite, 2.0 % Anhydrite in-situ mineralised rock
- Minimum extraction height: 2.3 m
- Commodity coefficient: 0.5
- Maintaining a roof beam above the mining horizon of 2.0 m rock salt to the overlying anhydrite and clay strata.

The historic resource estimation focused on the Upper Hartsalz layer and made allowance for the parameters above. Carnallitite was included only as much as was needed for blending with the hartsalz to maintain the minimum $MgCl_2$ content in crude salt to meet the tolerance range of typical processing facilities of the period. For resource estimation, geological blocks were applied within an area of influence around drill holes after subtracting drill hole safety pillars. The average thickness per block was calculated as a weighted arithmetic mean based on drill holes with available drill cores and matching cut-off criteria. Average potash assay values in each drill hole were calculated as thickness weighted mean and density values were calculated from mineralogical composition. The influence of any drill holes not matching the cut-off criteria (e.g. barren zones) was allowed for by applying the commodity coefficient across the entire resource based on mining experience at Volkenroda mine.

The Hartsalz resource was classified as C2 according to the estimation standard “Kali-Instruktion” of the former GDR. The additional Carnallitite resource was classified as c2. Historic resources as estimated in the 1980 report are shown in Table 1.

There has been no mining in the Mühlhausen sub-area in the and no known exploration since 1980. The Volkenroda mine closed in 1991.

	Resource Category	Tonnes (Million)	K_2O grade %	Contained K_2O (Million tonnes)
Hartsalz	C2	234.0	14.4%	33.8
Carnallitite	c2	54.4	10.6%	5.8

Table 1 Historic Resource Estimation for the Mühlhausen sub-area in the Mühlhausen-Nohra Mining Licence area (Kästner et al., 1980)

Note on comparison between C2 Resources and JORC resource classification.
No direct comparison exists between the former GDR resource classification and the JORC resource classification. A C2 resource is not a JORC resource. Under the GDR (or Soviet system as used in the GDR) if certain mining and economic parameters were applied to a C2 resource and depending on the drill hole spacing it could be considered an equivalent to a Measured or Indicated Resource. However, given the uncertainties and different modifying factors to allow a Resource estimation under JORC it is generally considered that C2 resources are broadly equivalent to a JORC Inferred Resource. A c2 resource has either been excluded by mining studies a so-called “non-balanced resource” or generally has a lower standard of surety and may be likened to an Exploration Target

Reliability of the Historic Resource Estimate
In order to check the reliability of the historic resource Davenport’s consultants, ERCOSPLAN, undertook a thorough evaluation of the available historic data on the Mühlhausen sub-area and adjoining Küllstedt licence. This work included checking original drill hole data, information available on sampling and parameters used and modelling the potash horizons is also described in JORC TABLE 1.

The information in this report that relates to historic resources, is an accurate representation of the available data and studies for the Mühlhausen sub-area reviewed by Andreas Jockel, a Competent Person who is a Member of a ‘Recognised Professional Organisation’ (RPO), the European Federation of Geologists, and a registered “European Geologist” (Registration Number 1018). Andreas Jockel is a full-time employee of ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH (ERCOSPLAN). Andreas Jockel has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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’. Andreas Jockel consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Planned Exploration

Davenport has prioritised areas within all the new Mining Licences, where known historic exploration was conducted for systematic data analysis. Additional information will be released to the market as this analysis progresses.

Once all data has been evaluated Davenport intends to select priority areas with historic resources for additional evaluation and potential drill testing. Areas will be prioritised based on the quality of historic results and also on available access and approval requirements for new drilling. Not all areas will be subject to further evaluation.

Upgrading the Mühlhausen sub-area historic resource to JORC 2012 standard may require confirmatory drilling by twinning one or two of the 17 historic drill holes drilled specifically for potash. Ideally the confirmation drill holes should be planned to twin a historic hole from each of the drilling campaigns carried out in the 1960s and 1970s.

If the Mühlhausen sub-area is considered a priority area, the focus for confirmatory drilling would likely be in the area close to or within Davenport's Küllstedt Exploration Licence. Prior to acquisition of the Mühlhausen Mining Licence from BVVG, Davenport had been planning a drillhole in the Küllstedt exploration licence close to the Mühlhausen boundary. This location will be reviewed taking into consideration the new information.

Drilling will allow collection of core material from the potash bearing horizon for detailed description, chemical and mineralogical analyses. All confirmatory drill holes will need to be logged geophysically to cross-check against the historical data and to correlate the results with the chemical analyses. On successful confirmation drilling of the historic drillhole(s), Davenport's consultant ERCOSPLAN would consider whether there is sufficient information to extend the area of confidence to other nearby drillholes and potentially to drillholes from the same historic drilling campaign. Subsequently this would allow adjacent holes and other holes from the historic drilling campaigns to define a JORC Inferred Resource.

Planning, permitting, drilling and compilation of a new Resource Estimate will take approximately 18 months to complete. The cost of drilling varies depending on the depth to the potash horizon. In addition drilling costs are influenced by conditions that may be mandated by the State mining regulator regarding establishment and access to drill sites. Davenport intends to initiate the approval process once sites are selected using existing working capital and will require new equity capital to fully fund a comprehensive drilling program.

Exploration Target

An outcome of the evaluation of the historic data is that ERCOSPLAN has estimated an Exploration Target for the Mühlhausen sub-area as set out in Table 2. The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a mineral resource and it is uncertain if further exploration will result in the estimation of a mineral resource.

The Exploration Target is estimated for the potash horizon across the Mühlhausen sub-area above a cutoff grade of 5% K_2O. The potash bearing horizon was lithologically subdivided in an upper Hartsalz layer, an underlying Carnallitite layer and a lower Hartsalz layer in the footwall. All three layers were modelled individually. Based on the experience gained from adjacent mines, a factor of up to 20% for barren zones is assumed.

	Volume (million m^3)	Tonnage of mineralised rock (Million tonnes)		K_2O Grade (%)		Tonnage of K_2O (Million tonnes)	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Upper Hartsalz	233	401	583	10.2	18.4	41	107
Carnallitite	209	297	432	5.4	10.8	16	47
Lower Hartsalz	122	210	276	4.8	12.1	10	33
Total	564	908	1,291	7.4	14.5	67	187

Table 2 Exploration Target for Mühlhausen sub-area

Based on the mean K_2O grade of 14.29 % K_2O for the upper Hartsalz layer an average tonnage of K_2O between 57 and 83 million metric tonnes of K_2O can be calculated for this layer, which is higher than the historic resource estimation.

Davenport now holds exploration licences and perpetual mining licences covering well in excess of 650km^2 in the South Harz. In addition to the Küllstedt and Gräfentonna exploration licences, the three mining licences – Mühlhausen-Nohra, Ebeleben and Ohmgebirge (Figure 1) – are unique and valuable, being perpetual mining licences granted under the former GDR system.

The report on the Mühlhausen sub-area of the Mühlhausen-Nohra Mining Licence prepared by ERCOSPLAN can be read on Davenport's website: https://davenportresources.com.au/technical-reports/

INVESTOR & MEDIA ENQUIRIES

Chris Bain - Managing Director
Davenport Resources Ltd
+61 (0) 413 275 756
cbain@davenportresources.com.au

Luke Forrestal - Account Director
Media & Capital Partners
+61 (0) 411 479 144
luke.forrestal@mcpartners.com.au

Competent Person Statement

The information in this report that relates to Exploration Targets, is based on information compiled by Andreas Jockel, a Competent Person who is a Member of a 'Recognised Professional Organisation' (RPO), the European Federation of Geologists, and a registered "European Geologist" (Registration Number 1018). Andreas Jockel is a full-time employee of ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH (ERCOSPLAN). Andreas Jockel has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Andreas Jockel consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1

Mühlhausen–Nohra Mining Licence area, Mühlhausen sub-area

ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH
Arnstaedter Strasse 28, 99096 Erfurt, Germany

Phone: + 49 361 3810 500 Fax: +49 361 3810 505 e-mail: mining@ercosplan.com web: http://www.ercosplan.com

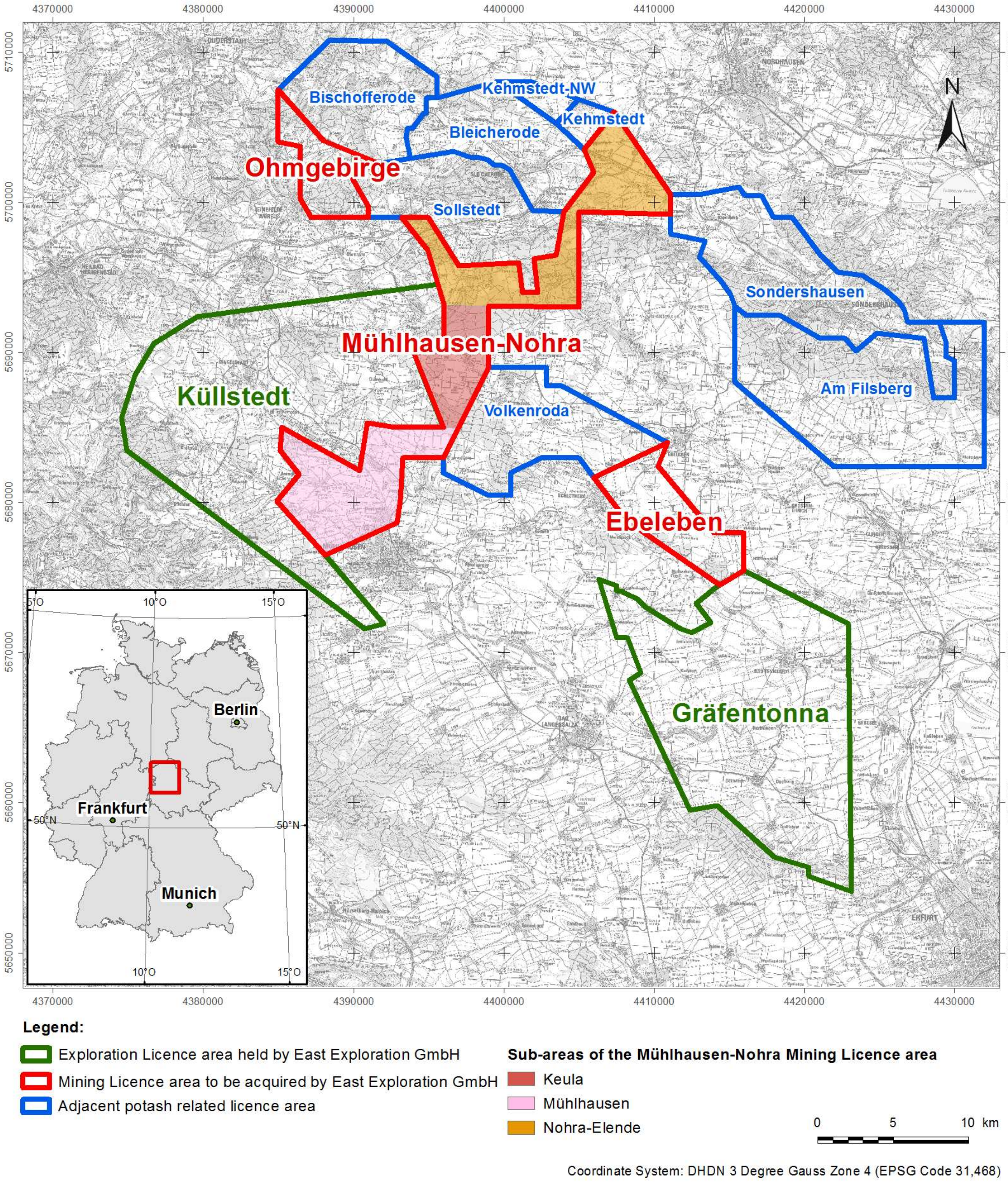

Figure 1 Potash related licence areas adjacent to the Mühlhausen-Nohra Mining Licence area

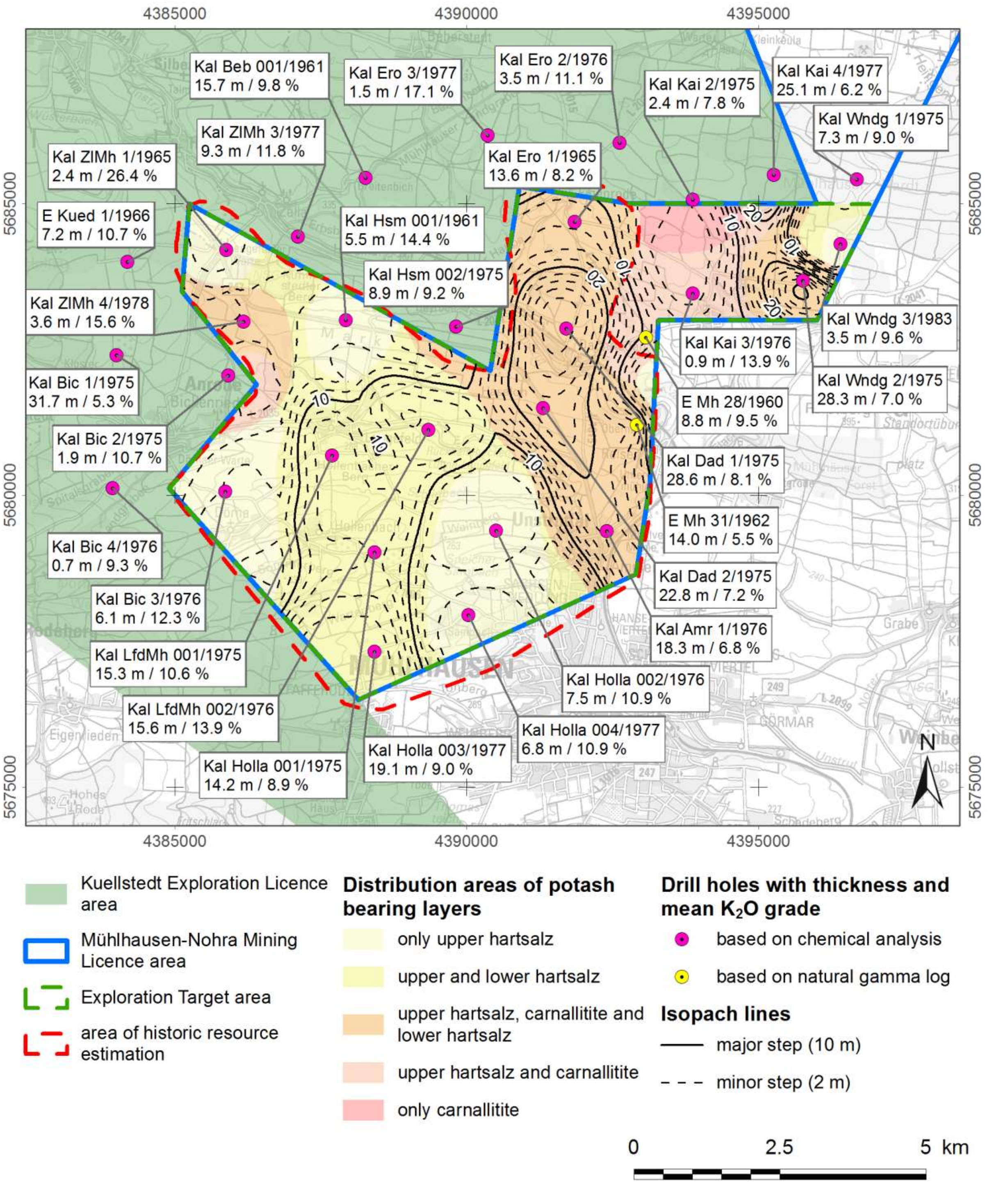

Figure 2 Isopach map and distribution of the potash bearing layers in the Mühlhausen sub-area of the Mühlhausen-Nohra Mining Licence area

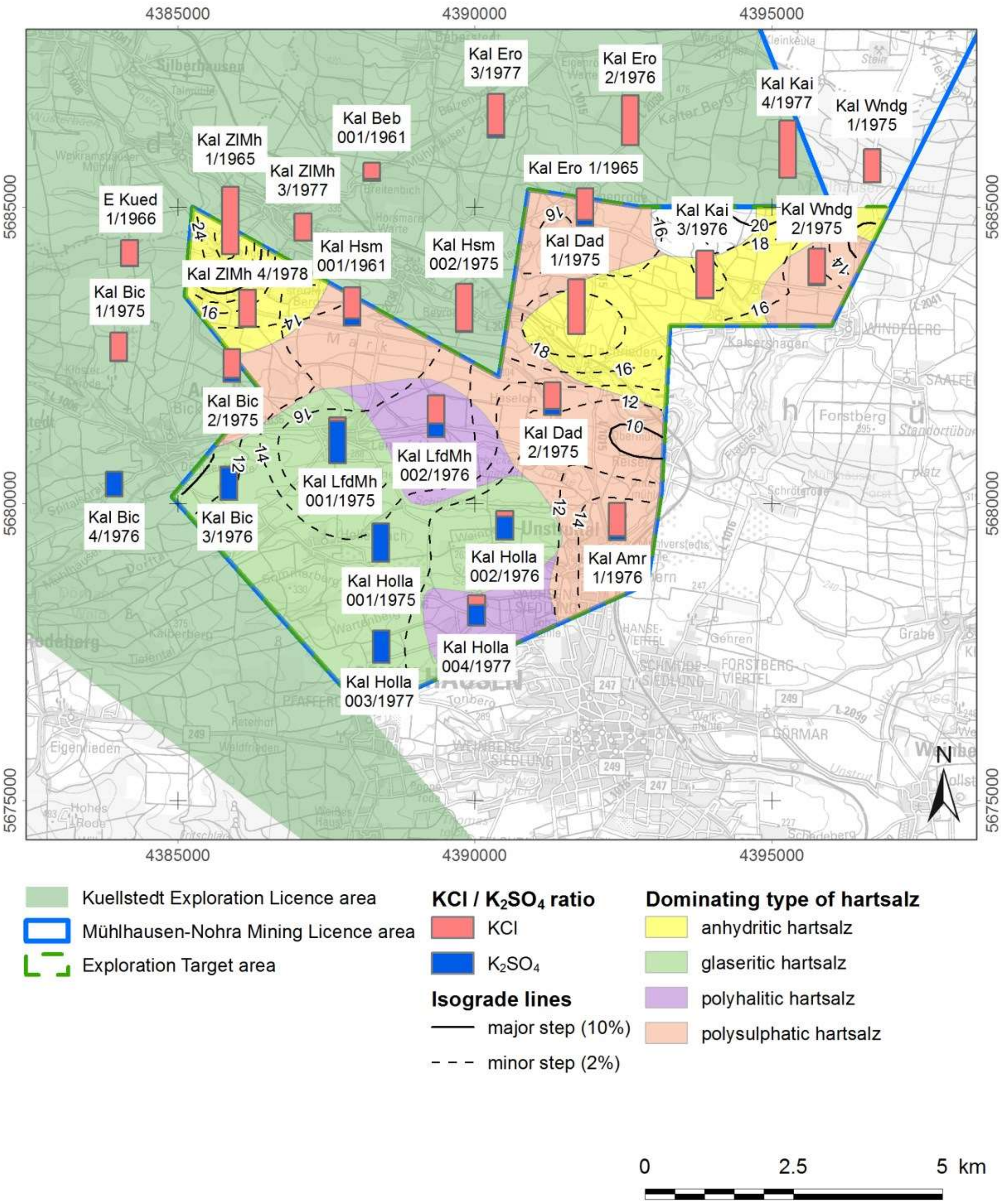

Figure 3 Isograde map and hartsalz type distribution of the upper hartsalz layer in the Mühlhausen sub-area

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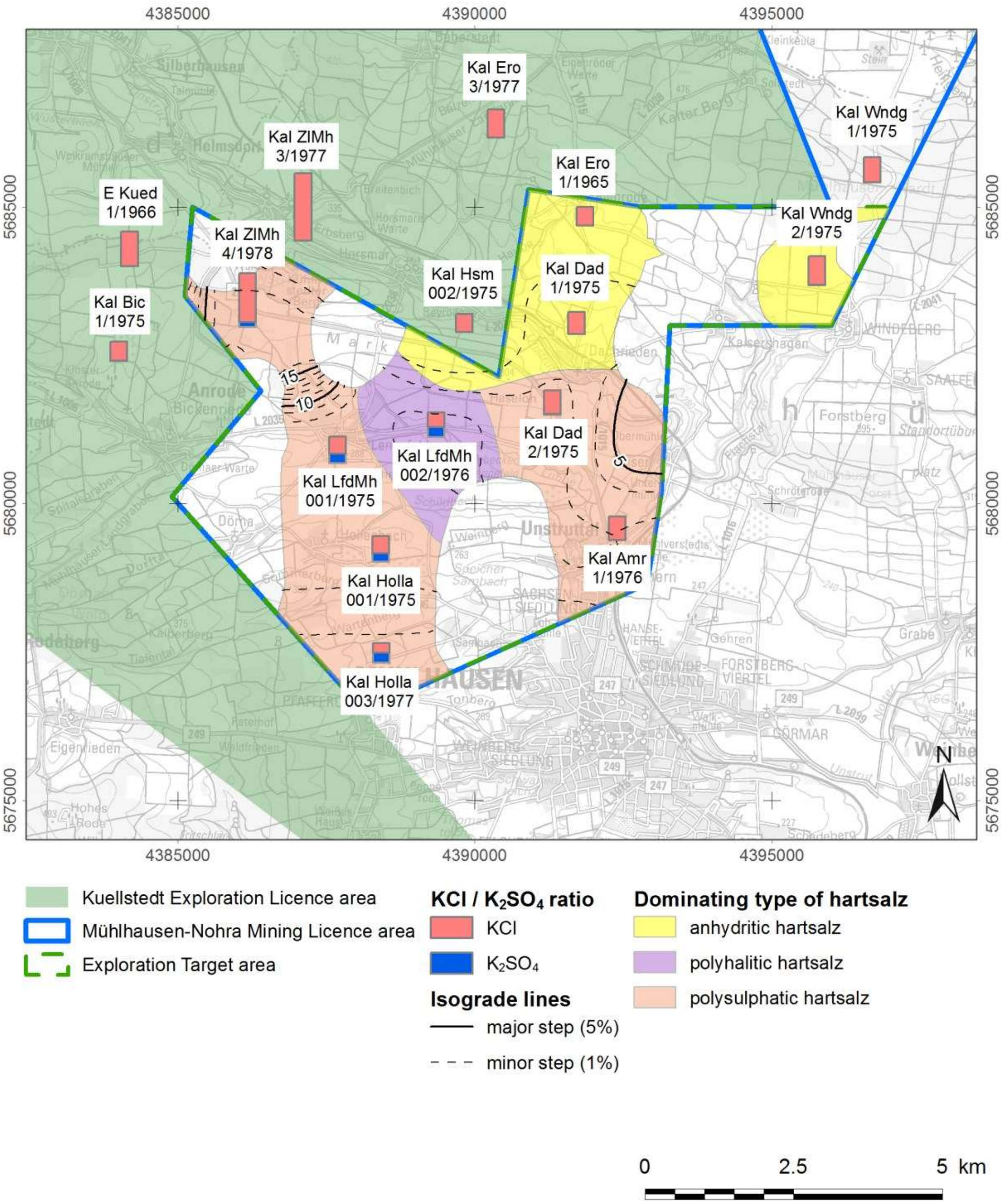

Figure 4 Isograde map and hartsalz type distribution of the lower hartsalz layer in the Mühlhausen sub-area

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Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	Currently, only historical exploration data are available. Within the Mühlhausen sub-area of the Mühlhausen-Nohra Mining Licence (cf. Figure 1) 17 potash exploration drill holes and two hydrocarbon exploration drill holes were drilled between 1960 and 1983. Drill cores were obtained only in the potash exploration drill holes. Sample intervals of the drill cores were defined based on petrographical changes as well as stratigraphical elements, sample lengths range from 0.06 – 7.33 m. Axial drilling with spiral drill was conducted to obtain pulverized material for chemical and mineralogical analysis. Potassium was determined by flame-photometric analysis. Regarding all drill holes there is no knowledge about sample packing and sample transport to the laboratory for analysis. The two hydrocarbon exploration drill holes were destructively drilled in the potash bearing horizon without samples been taken. For these drill holes the estimated K_2O grade as well as stratigraphical and lithological interpretation bases on geophysical well logging.
Drilling techniques	The potash exploration drill holes were drilled by a Type C 1500 and a T 50 A drilling rig. According to the available information, drilling started from the surface with tricone bits through the overburden and upper part of the Zechstein section into the transition zone of the lithostratigraphic units Leine-Anhydrit to Grauer Salzton and subsequently cored to final depth of the drill hole. In five drill holes the entire Zechstein sequence was cored to improve knowledge of the hanging wall formations overlaying the potash bearing horizon. The diameter of obtained drill cores were mainly between 85 mm and 108 mm. Clay-/Bentonite mud or clear water was used as drilling fluid for the overburden section. Within the salt sections MgCl brine was used, which was concentrated (> 350 g/l $MgCl_2$) before reaching the potash bearing horizon. Usually two casings were set in the overburden. The first below the lithostratigraphic unit Mittlerer Muschelkalk and the second below the Oberer Buntsandstein. The last casing was secured by a blowout preventer as gas hazard was expected. The abandoned drill holes were filled by cement, partly with clay seals and in the overburden partly by fly ash. No information is available about the drilling technique of the hydrocarbon exploration drill holes.
Drill sample recovery	Based on geophysical logging results drilling/core depths were corrected as well as depth intervals of core loss determined. According to available information core recovery within the potash bearing

Criteria	Commentary
	horizon varied between 58 % and 100 %. The total core recovery within the potash bearing horizon was about 97 %.
Logging	For all of the drill holes targeting potash mineralisation, detailed lithological logs are available, where a detailed lithological description as well as high-resolution stratigraphy of the potash bearing horizon and its adjacent units is provided. The geophysical well logging data is only available as scanned graphs and nothing is known about the data processing. It has been documented that interpretations and correlations were additionally cross-checked by geologists comparing the logging results with results from other drill holes. Geophysical well logs are available for all 17 potash targeting drill holes covering the entire potash bearing horizon. They comprise mainly of calliper, temperature and natural gamma measurements. Additionally, for two drill holes gamma-gamma, for four drill holes neutron-gamma and for one drill hole resistivity logs are available. Logging speed is stated between 2.5 m/min and 7 m/min.
Sub-sampling techniques and sample preparation	Sub-sampling was conducted by axially drilling of the drill cores by a spiral drill. The gathered cuttings were homogenised, quartered and if applicable further reduced in sample size and subsequently chemically and partly mineralogically analysed according to standard procedures developed by the state authority of the former German Democratic Republic (GDR).
Quality of assay data and laboratory tests	The procedures conducted followed strict rules on execution, checking and evaluation of assay data. Quality control was ensured by independent state institutions. The quality of the analyses is considered to be satisfactory.
Verification of sampling and assaying	Cross-check analyses were conducted by independent laboratories to verify the assay results. About 25 % of the samples chemically analysed were checked by internal and external cross check analysis. In result, only minor differences occurred and chemical assay data deemed to be correct. Additionally, every drill hole was geophysically logged and the results independently interpreted regarding lithology and K_2O grade, which generally match with the results of chemical assays. For the two non-cored hydrocarbon exploration drill holes only geophysical well logging data is available. The K_2O grade was derived from natural gamma ray. Lithology was interpreted on the base of all available measurements. Results were verified by comparison to adjacent drill holes. No core or sample material is preserved.
Location of data points	Coordinates of drill holes were obtained from available historical documents and partly from state authorities. Historical drill hole locations were determined by survey and are given with centimetre to decimetre accuracy. Except the two hydrocarbon exploration drill holes, general deviation data of the borehole track is available, given as total lateral deviation at final depth. For three drill holes a detailed deviation

Criteria	Commentary
	survey is available. The measured borehole deviation ranges from 2.88 m (inclination: 0.2°) to 31.2 m (inclination: 1.8°). Coordinate system is DHDN 3 Degree Gauss Krueger Zone 4 (EPSG-Code 31,468).
Data spacing and distribution	The drill holes used as data points for modelling are regularly distributed over the Mühlhausen sub-area with higher drill hole density in the SE. Drill hole spacing ranges from 0.9 km to 2.4 km with an average of about 1.9 km.
Orientation of data in relation to geological structure	All drill holes are close to vertical. The bedding of the potash bearing horizon is in general more or less horizontally. The orientation of sampling in relation to geological structure is deemed to be insignificant.
Sample security	No information is available about the sample storage until shipment to the laboratories in charge. Furthermore, no information is available, if special procedures were executed to preserve sample material.
Audits or reviews	ERCOSPLAN could not review analytical results, since no sample and core material are available from the historical exploration campaigns. However, the editors of the historical reports and the results they present therein are considered to be reliable. The reported comprehensive verification measures support that opinion. Therefore, the available data is acceptable for the present project status and the initial estimation of Exploration Targets.

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Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	East Exploration GmbH (EAST EXPLORATION), a subsidiary of Davenport Resources Limited, is progressing with the acquisition of the three Mining Licences Mühlhausen-Nohra, Ebeleben and Ohmgebirge from the Bodenverwertungs- und -verwaltungs GmbH (BVVG) based on a contract dated 15 August 2017. The Mühlhausen-Nohra Mining Licence is located adjacent to EAST EXPLORATIONs Exploration Licences Gräfentonna and Küllstedt in the Federal State of Thuringia, Federal Republic of Germany, about 30 km northwest of the state capital, Erfurt (cf. Figure 1). The Mining Licence grants the mining of potash salts including occurring brine within the deposit. Based on three historical resource reports the Mühlhausen-Nohra Mining Licence area can be separated in the sub-areas Mühlhausen, Keula and Nohra-Elende more or less similar to the extent of the historical resource areas. The Mühlhausen sub-area covers a total area of 54.4 km².
Exploration done by other parties	Potash exploration in the Mühlhausen sub-area started in 1961 with the aim to increase the resource base for the perspective development of the potash industry of the former GDR. In four stages a total of 17 potash exploration drill holes were drilled. The first exploration stage on potash was conducted in 1961 and 1962, whereas only one drill hole of that time is located within the Mühlhausen sub-area. The second exploration stage was conducted between 1963 and 1965, with two drill holes in the northern part of the sub-area. The third exploration stage was conducted between 1975 and 1978. Drill holes were sunken to explore the southern part of the sub-area. Additionally, 2D seismic surveys were untertaken covering nearly 100% of the sub area. During the last phase in 1983 one drill hole was sunken, to densify drill hole pattern in the northeast. Independently, two hydrocarbon exploration drill holes at the eastern boundary were sunk in the early 1960s.
Geology	The Mühlhausen sub-area is located at the S border of the South Harz Potash District, which covers the central and NW part of the Thuringian Basin. The South Harz Potash District reflects the extent of the potash deposit. Potash mineralisation occurs in the South Harz Potash District within the evaporite rocks of the Upper Permian succession, which are assigned to the Zechstein Group. The Zechstein Group is developed with seven cycles, where the second cycle (Staßfurt Formation) hosts the potash mineralisation. In the South Harz Potash District commercially mineable concentration of potassium salts occur normally within the lithostratigraphic unit Kaliflöz Staßfurt. However, the potash mineralisation has its onset already in the upper part of the evaporites of the lithostratigraphic unit Staßfurt-Steinsalz. The potash deposit is tectonically divided into three tectonic main levels consisting of the basement, the saliferous strata and the overburden. The tectonic influence on the potash deposit resulted in

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Criteria	Commentary
	folding and faulting of the saliferous strata to various degrees. The bedding shows in general wide alternating syn- and anticlines with faults and folds as well as local thinning and thickening of the potash bearing horizon. However, in general a more even and less complex structure is present. The historical drilling results show that the potash bearing horizon is distributed across the entire Mühlhausen sub-area. The top varies between -495 and -805 m above sea level (m asl) with increasing depth generally from NW to SE. The thickness is ranging between about 0.9 and 29.0 m (cf. Figure 2). Main minerals of the potash deposit are Halite, Carnallite, Sylvite, Anhydrite and Kieserite with additional amounts of Polyhalite and Langbeinite and accompanying clay minerals. In the SW part Glaserite occurs in significant grades. Based on the historical data within the Mühlhausen sub-area the potash bearing horizon consits predominantly of carnallitite and/or hartsalz rock. Hartsalz is in Germany a common miner's term for potash bearing evaporite rocks, which show high hardness while drilling due to the admixtures of sulphate minerals. Sylvite (KCl) is commonly the main potassium bearing mineral but can be replaced by potash bearing sulphate minerals, e.g. Glaserite ($K_3Na(SO_4)_2$) Normally, the hartsalz occurs at the top and/or base of the carnallitite, if both rock types are present. The hartsalz above the carnallitite (upper hartsalz), is distributed almost over the entire Mühlhausen sub-area, whereas the carnallitite mainly occurs in the NE part of the Mühlhausen sub-area. The hartsalz below the carnallitite (lower hartsalz) occurs more irregular with local absence. (cf. Figure 2). Subrosion of the evaporite rocks of the Zechstein Group within the Mühlhausen sub-area is not known. The saliferous strata of the upper Zechstein cycles in the hanging wall of the potash horizon as well as the clayey-silty strata of the Buntsandstein in the overburden serve as a effective hydrogeological barrier. Below the potash bearing horizon of the lithostratigraphic unit Kaliflöz Staßfurt hydrocarbon bearing dolomites exists. A potential hazard of hydrocarbon outbursts or brine intrusions from the footwall is present where the underlying rock salt, serving as a barrier horizon against these dolomites, is too thin.
Drill hole information	No drill holes were drilled recently in the licence area. Only 19 historical drill holes exist. All of the 19 historical drill holes used for modelling intersected the entire thickness of the potash bearing horizon.

Drill Hole Short Name	Easting [m]	Northing [m]	Elevation [m asl]	Final Depth [m]	Dip/Azimut [°]	Depth Potash Intersection [m]
E Mh 28/1960	4393067.86	5682705.81	317.2	1274.2	n/a	967.20 - 976.00
E Mh 31/1962	4392917.91	5681208.96	273.5	1320.9	n/a	971.40 - 986.80
Kal Amr 1/1976	4392398.09	5679382.04	224.0	1061.5	1.5 / 349.2	1020.14 - 1038.66
Kal Bic 3/1976	4385860.48	5680064.40	289.2	982.6	1.5 / 185.4	917.00 - 923.06
Kal Dad 1/1975	4391709.35	5682856.12	294.2	1004.3	0.5 / 44.1	957.50 - 986.05

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Criteria	Commentary						
Kal Dad 2/1975	4391305.36	5681493.45	278.4	1020.5	0.5 / 298.8	977.15 - 999.99
Kal Ero 1/1965	4391854.97	5684685.02	369.2	1003.5	1.1 / 73.8	947.00 - 960.10
Kal Holla 1/1975	4388419.86	5679019.12	280.0	995.6	0.2 / 357.3	961.58 - 976.04
Kal Holla 2/1976	4390504.60	5679392.44	257.1	1060.6	1.4 / 322.2	1023.96 - 1031.41
Kal Holla 3/1977	4388423.39	5677322.00	292.4	959.8	0.2 / 0.0	927.62 - 946.67
Kal Holla 4/1978	4390031.80	5677944.79	248.7	980.4	1.0 / 258.3	945.45 - 952.23
Kal Hsm 1/1961	4387934.90	5682998.38	318.9	1001.4	1.3 / 316.8	964.15 - 972.28
Kal Kai 3/1976	4393876.45	5683457.82	362.2	1014.8	0.7 / 35.1	982.52 - 983.46
Kal LfdMh 1/1975	4387691.13	5680677.81	285.0	997.4	0.4 / 277.2	965.56 - 980.90
Kal LfdMh 2/1976	4389348.97	5681118.70	252.4	976.0	0.9 / 324.9	937.14 - 950.90
Kal Wndg 2/1975	4395760.00	5683682.70	362.2	1044.4	1.0 / 18.0	993.93 - 1022.21
Kal Wndg 3/1983	4396411.30	5684307.50	363.2	1006.7	1.8 / 314.1	973.80 - 977.28
Kal ZlMh 1/1965	4385883.65	5684206.72	370.0	973.2	0.3 / 100.8	889.50 - 891.85
Kal ZlMh 4/1978	4386175.21	5682975.32	337.4	955.3	1.0 / 318.6	920.64 - 924.21

Criteria	Commentary
Data aggregation methods	A minimum cut-off grade of 5 % K_2O has been used for delineation of upper and lower boundary of potash mineralisation interval. Average K_2O content per drill hole was calculated by sample length weighted average. Single low grade samples with < 5 % K_2O within the potash mineralisation interval have been incorporated.
Relationship between mineralisation widths and intercept lengths	All drill holes are close to vertical. The bedding of the potash bearing horizon is in general more or less horizontally. The difference between down hole length to true thickness of the potash bearing horizon is deemed to be insignificant for the Exploration Target estimation.
Diagrams	Refer to Figure 1, Figure 2, Figure 3 and Figure 4
Balanced reporting	The documented thicknesses based on available information from drill holes range from approx. 0.5 m to 10.7 m with an average of about 4.6 m for the upper hartsalz layer, from approx. 0.4 m to 26.6 m with an average of about 11.6 m for the carnallitite layer, and from approx. 0.4 m to 10.5 m with an average of about 4.1 m for the lower hartsalz layer. Highest K_2O content in a single sample reaches 29.9 % (1.15 m sample interval). The average K_2O grade per drill hole varies between 10.9 and 26.4 % K_2O for the upper hartsalz layer, between 2.7 and 15.0 % K_2O for the carnallitite layer and between 4.1 and 16.4 % K_2O for the lower hartsalz layer.
Other substantive exploration data	Partly thin sections of the potash bearing horizon were prepared by dry preparation method. Regular bromium analyses in metre intervals have been conducted to support stratigraphical classification and the genetic evaluation of the onset of potash mineralisation. Additionally, sub-samples of drill cores were obtained for gas-, iron- and clay mineralogical analyses. The rest of the core material of the potash bearing horizon was used for processing test work. Core samples for geotechnical investigations were taken from the deflected drill hole *Kal Hollenbach 4/1978*.

Criteria	Commentary
	Moreover, 2D seismic surveys have been conducted, covering the entire Mühlhausen sub-area. The data or results are not available to the authors of this memorandum but are incorporated in the isobath maps of the historical reports.
Further work	The data from the historical drill holes located within the Mühlhausen sub-area should be checked via confirmation drilling. This will allow collection of core material from the potash bearing horizon for the purpose of detailed description and chemical and mineralogical analyses. All confirmation drill holes will need to be logged geophysically to cross-check against the historical data and to correlate the results with the chemical analyses, in addition to obtain independent and additional data from the new drill holes for assay and drill record confirmation.

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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	Commentary
Database integrity	Summarised lithological and geophysical drill hole data in the licence area have been processed using Paradigms SKUA-GOCAD (Version 17), Microsoft Excel (Version 2010), RockWare RockWorks (Version 15) and ESRI ArcGIS (Version 10.5). Digitised data were cross-checked by other team members responsible for the Report. The database was internally validated comparing the results of the different data types (e.g. lithological description, chemical assay data, geophysical drill hole logs) while database development.
Site visits	A site visit was carried out by ERCOSPLAN and EAST EXPLORATION on 06 June 2016. The objectives of the site visit were an overview of the site situation, an inspection of closed shafts and a general geological introduction.
Geological interpretation	Confidence on the geological interpretation of the potash deposit and its overburden is very high as exploration activities as well as mining activities since more than 100 years in different areas have extended the overall and detailed knowledge tremendously. The data used is historical. Assumptions made are based on methods, which were applied for resource and reserve estimations in former times. Factors affecting the potash deposit are small-scale tectonic structures and variations in mineralisation, which cannot be investigated in detail by exploration drilling or other surficial exploration methods. The existence of these small-scale variations is proven by mining activities conducted in the deposit.
Dimensions	The potash bearing horizon spreads across the entire licence area over a distance of about 9 km in N-S direction and over a distance of about 11 km in E-W direction (cf. Figure 2). The top of the potash bearing horizon ranges between about 885 m below surface and about 1,023 m below surface. Its base ranges between about 895 m below surface and about 1,031 m below surface.
Estimation and modelling techniques	For the estimation of the Exploration Target tonnages, the modelling results of the software Paradigm SKUA-GOCAD (Version 17) with implemented Discrete Smooth Interpolation (DSI) algorithm (Mallet, 1992[1]) and a gridding cell size of 50x50 m were used. The following procedures were carried out (Exploration Target is given as mineralisation in place): (1) The geometry of the whole three dimensional model is represented by the base surfaces of each modelled lithostratigraphic unit. (2) All drill holes within the modelling area were used to build

[1] Mallet, J.L. (1992): Discrete Smooth Interpolation.- Computer Aided Design Journal, 24(4): p. 263–270.

Criteria	Commentary
	up the stratigraphic model. Additionally the geological surface map 1:200.000 (BGR, 2007[2]) was included to specify the border between the lithostratigraphic units Keuper and Muschelkalk, which are therefore the best explored lithostratigraphic units in the licence area. Their geometry was calculated by depth interpolation. (3) The base surfaces of the underlying Buntsandstein and Zechstein strata is modelled afterwards by thickness interpolation of each lithostratigraphic unit and cumulative addition of the thicknesses below the base surface of the lithostratigraphic unit Muschelkalk. (4) The potash bearing horizon was lithologically subdivided in an upper hartsalz layer, a carnallitite layer, and a lower hartsalz layer, all modelled individually. The thickness and K_2O grade distribution of these horizons, was also interpolated using the DSI algorithm. (5) The volumes of the three layers were calculated by summarizing the single cell volumes, derived from the average thickness of each cell of the above mentioned grid with a cell area of 2,500 m^2. (6) The calculated volumes of the three layers were multiplied by a tonnage factor depending on the mineralisation (density). Hence the upper and lower hartsalz layers show varying mineral compositions (cf. Figure 3 and Figure 4), a density range was calculated for these layers. The density for the upper hartsalz layer varies between 2.15 t/m^3 and 2.50 t/m^3, the derived density for the carnallitite layer is 1.94 t/m^3 and the density for the lower hartsalz layer varies between 2.16 t/m^3 and 2.27 t/m^3. This amounts to a range of tonnage of mineralised rock for the three layers of the potash bearing horizon within the Exploration Target area. (7) Based on the experience gained from adjacent mines, a factor of up to 20% for barren zones is assumed. Therefore, the minimum tonnage of mineralised rock for the three layers has to be multiplied additionally by 0.8. (8) The K_2O grade was calculated by the mean value and standard deviation of the average K_2O grades of each drill hole for the three layers. The minimum K_2O grade was determined by subtracting the standard deviation from the mean; the maximum K_2O grade by adding the standard deviation to the mean. For the upper hartsalz layer the average K_2O grade is 14.29 % with a standard deviation of 4.10 %, for the carnallitite layer the average K_2O grade is 8.09 % with a standard deviation of 2.71 %, and for the lower hartsalz layer the average K_2O grade is 8.43 % with a standard deviation of 3.68 %. (9) The tonnage range of K_2O was obtained by multiplying the minimum/maximum tonnage of mineralised rock with the corresponding minimum/maximum K_2O grades of the three layers.

[2] BGR (2007): Digitale Geologische Übersichtkarte der Bundesrepublik Deutschland.- Bundesanstalt für Geowissenschaften und Rohstoffe, Hannover

Criteria	Commentary
Moisture	Considered not relevant for determination of tonnage of potash salts.
Cut-off parameters	For lateral differentiation of the potash bearing horizon against barren zones a minimum cut-off grade of 5 % average K_2O of a cell for the carnallitite and the lower hartsalz layer was applied.
Mining factors or assumptions	Neither assumptions for preliminary processing concepts nor mining factors has been considered during the current Exploration Target estimation.
Metallurgical factors or assumptions	Neither assumptions for preliminary mining concepts nor metallurgical factors has been considered during the current Exploration Target estimation.
Environmental factors or assumptions	No environmental factors, which would have been relevant to the current Exploration Target estimation, have currently been considered.
Bulk density	In each drill hole the density for each chemical sample was calculated based on the derived mineralogical composition. By thickness weighted averaging an average density for the upper hartsalz layer, the carnallitite layer and the lower hartsalz layer of the potash bearing horizon was calculated individually for each drill hole. The total average density of the Mühlhausen sub-area per layer was determined by arithmetic mean of the average densities of the drill holes. Hence the upper and lower hartsalz layers shows varying mineral compositions (cf. Figure 3 and Figure 4), a density range was calculated for these layers. The density for the upper hartsalz layer varies between 2.15 t/m^3 and 2.50 t/m^3, the average calculated density for the carnallitite layer is 1.94 t/m^3 and the density for the lower hartsalz layer varies between 2.16 t/m^3 and 2.27 t/m^3.
Classification	The potash mineralisation present in the potash bearing horizon can be correlated between the historical drill holes. The thickness is relatively uneven with local highs and lows due to halotectonic and dissolution processes. For the Exploration Target estimation, the following values have been calculated: • The volume of the upper hartsalz layer amounts to 233 million m^3, for the carnallitite layer to 209 million m^3 and for the lower hartsalz to 122 million m^3, **in total 564 million m^3**. • The tonnage of mineralised rock ranges for the upper hartsalz layer between 401 and 583 million metric tonnes, for the carnallitite layer between 297 and 432 million metric tonnes, and for the lower hartsalz layer between 210 and 276 million metric tonnes, **in total between 908 and 1,291 million metric tonnes of mineralised rock**. • The K_2O grade ranges for the upper hartsalz layer between 10.19 and 18.38 % of K_2O, for the carnallitite layer between 5.38 and 10.79 % of K_2O , and for the lower hartsalz layer between 4.75 and 12.12 % of K_2O, **in total between 7.37 and 14.50 % of K_2O**.

Criteria	Commentary
	• The tonnage of K_2O ranges for the upper hartsalz layer between 41 and 107 million metric tonnes, for the carnallitite layer between 16 and 47 million metric tonnes, and for the lower hartsalz layer between 10 and 33 million metric tonnes, **in total between 67 and 187 million metric tonnes of K_2O**. No Mineral Resources have been defined at present.
Audits or reviews	**Exploration Data** The historic resource estimate of 1980 was reviewed in detail as the exploration data of this report was reprocessed and represents the base for the current Exploration Target estimation. Based on the provided data for quality control and verification the historical exploration results and resource estimation are considered to be consistent and satisfactory. **Conditions** The so-called conditions correlate with cut-off criteria in order to estimate the crude salt, which summarises the minable parts of the in-situ mineralised rock. • Geological cut-off content per drill hole: 8.0 % K_2O • Minimum content of the total resources of 13.2 % K_2O of crude salt • Minimum extraction height: 2.3 m • Commodity coefficient: 0.5 • Maintaining a roof beam above the mining horizon of 2.0 m rock salt to the overlying anhydrite and clay strata **Historic Resource Estimation** Balance resources for hartsalz has been estimated, assigned to a resource category C_2 according to the formerly applied resource estimation standard "4. Kali-Instruktion" of the former GDR. Additionally, non-balance resources for carnallitite, assigned to a resource category c_2, has been estimated. The historical resources are shown in the following table.

	Resource category	Tonnage of Mineralised Rock [Mio. t]	Tonnage of K_2O [Mio. t]	K_2O Grade [%]
Balance Resources				
Hartsalz	C_2	234.0	33.8	14.4
Non-balance Resources				
Carnallitite	c_2	54.4	5.77	10.6

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Criteria	Commentary
	The estimated historical resources according the resource estimation standard of the former GDR cannot be directly converted to resource categories according to international standards as significant differences, amongst others, by the assignment of resource areas to resource categories or incorporation of mining or metallurgical factors in resource estimation exist. Therefore, an Exploration Target estimate according to international standards has been prepared based on the historical exploration data. **Comparision to this Exploration Target Estimation** The area of both estimations is similar, but not equal (cf. Figure 2). Whereas the area of the historical resource (49.2 km^2) is focused on the area near Mühlhausen, the area of this Exploration Target estimation (54.4 km^2) is further extended to the NE including the remaining parts of the Mühlhausen-Nohra Mining Licence area, between the historical resource areas Mühlhausen and Keula. The historical resource estimation focused the upper hartsalz layer with a higher geological cut-off content per drill hole of 8.0% K_2O compared to this Exploration Target estimation (5 % K_2O). Additionally, the mineable cut-off parameters (e.g. roof beam) were applied in the historical resource estimation. Therefore, a much lesser tonnage for hartsalz was estimated. Carnallitite has been considered in the historical resource estimation only as much as needed for blending the hartsalz to maintain a minimum $MgCl_2$ content of crude salt to meet the tolerance range of the processing facilities. Therefore, only a part of the carnallitite in the NE part of the Mühlhausen sub-area was estimated, which result in a much lesser tonnage for carnallite in the historical resource estimation compared to this Exploration Target estimation.
Discussion of relative accuracy/confidence	Will be applied at a later project stage.

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	Commentary
Mineral Resource estimate for conversion to Ore Reserves	NOT APPLICABLE FOR THIS REPORT
Site visits	
Study status	
Cut-off parameters	
Mining factors or assumptions	
Metallurgical factors or assumptions	
Environmental	
Infrastructure	
Costs	
Revenue factors	
Market assessment	
Economic	
Social	
Other	
Classification	
Audits or reviews	
Discussion of relative accuracy/ confidence	

ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH
Arnstaedter Strasse 28, 99096 Erfurt, Germany

Phone: + 49 361 3810 500 Fax: +49 361 3810 505 e-mail: mining@ercosplan.com web: http://www.ercosplan.com

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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	Commentary
Indicator minerals	NOT APPLICABLE FOR THIS REPORT
Source of diamonds	
Sample collection	
Sample treatment	
Carat	
Sample grade	
Reporting of Exploration Results	
Grade estimation for reporting Mineral Resources and Ore Reserves	
Value estimation	
Security and integrity	
Classification	