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ASX Code: EMH

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**EUROPEAN METALS**

23 November 2016

## LITHIUM INDICATED RESOURCE AT CINOVEC INCREASED BY 420%

European Metals Holdings Limited (“**European Metals**” or “**the Company**”) (ASX and AIM: EMH) is pleased to announce an interim upgrade of its Mineral Resources at the Cinovec lithium/tin project in the Czech Republic. The upgrade has delivered a 420% increase in Indicated Mineral Resources, which, when combined with the Inferred Mineral Resources, results in a total resource of an estimated 6.46Mt of LCE.

The significant increase in the indicated portion of the Mineral Resource, and the resource in total, will have a positive impact for mine planning and the life of mine. In particular, the Mineral Resource will allow management to optimise the mine plan and maximise Cinovec’s financial returns and further progress in the ongoing pre-feasibility study, which is due for publication at the end of March next year.

The lithium (“Li”) and tin (“Sn”) resources have been updated using data from the latest drill holes released to market over the last 5 months. Resource classifications have been revised on the basis of the new data.

**Highlights:**

- **Lithium Indicated Resource increased 420% to 2.6 Mt LCE, contained in 232.8 Mt @ 0.45% Li<sub>2</sub>O (0.1% Li cutoff)**
- **Lithium Total Resource increased 11.8% to 6.46 Mt LCE, contained in 606.8 Mt @ 0.43% Li<sub>2</sub>O (0.1% Li cutoff)**
- **Tin Indicated Resource increased by 64% to 28.6 Mt @ 0.23% Sn, 0.54% Li<sub>2</sub>O (0.1% Sn cutoff) for 65.8 kt Sn, 0.38 Mt LCE**
- **Results from the drilling programme support the original Cinovec model. Management are confident that additional drilling will result in further significant resource upgrades.**
- **Lithium Exploration Target remains 350 to 450 Mt @ 0.39% to 0.47% for 3.4 Mt to 5.3 Mt of LCE.**

*European Metals Managing Director Keith Coughlan said, “This significant upgrade to the Cinovec Indicated lithium resource is particularly pleasing as it provides basis for the soon to be completed preliminary feasibility study. When the tonnage and grade for this material are compared to the previously calculated Inferred resource, neither grade nor tonnage changed much, highlighting the robustness of the resource and geological models, and continuity of the orebody. Drilling will continue until the end of the year at which point the model will be updated again.*

The substantial upgrade to the Indicated tin resource is also very encouraging, particularly in light of the rising tin price on LME throughout 2016. The tin credits at Cinovec will be significant for the project and greatly enhance the overall economics.

The pre-feasibility study is moving ahead rapidly and I look forward to releasing some exciting updates on this in the very near future.”

**Resource consultant Lynn Widenbar noted,** “The completion of 18 additional diamond drill holes between 2014 and 2016, in combination with historic geological data, has seen the generation of a new geological model of the greisen and granite distribution. This has been used to control a new, geostatistically based resource estimation. As a result, there has been an increase in confidence in the classification of the Mineral Resource in much of the central and south western parts of the Cinovec South Deposit. Approximately 40% of the Lithium Resource is now classified as Indicated, compared to 10% in the May 2016 Resource Model. The proportion of Indicated for the Tin Resource has increased from 20% to approximately 45%.”

### CAUTIONARY STATEMENT

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.

### Mineral Resource Upgrade

Independent expert Lynn Widenbar of Widenbar and Associates updated the Mineral Resource Estimates. Mr Widenbar has compiled all resource estimates at Cinovec to-date.

Total Indicated and Inferred lithium resources (see Table 1) at 0.1% Li cut-off are now:

- **606.8 Mt @ 0.43% Li<sub>2</sub>O for 6.46 Mt LCE**

Total Indicated and Inferred tin resources (see Table 1) at 0.1% Sn cut-off are now:

- **70.5 Mt @ 0.20% Sn, 0.53% Li<sub>2</sub>O for 141 kt Sn, 0.87 Mt LCE**

**Table 1: Cinovec Project Mineral Resource Estimate November 2016**

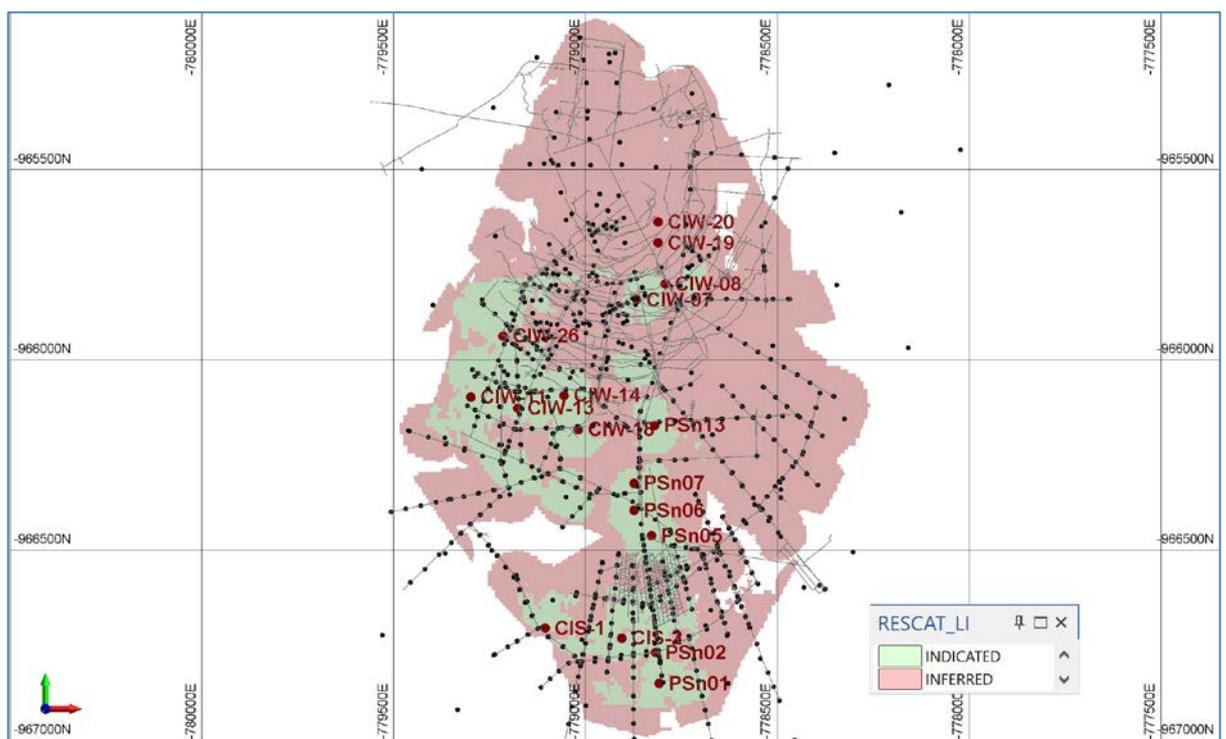
		Cinovec Lithium Mineral Resource					
Category		Gross					
	Cut-off Li %	Tonnes (Mt)	Li %	Li <sub>2</sub> O%	LCE	Sn %	Sn t
Indicated	0.4	11.1	0.46	0.99	271,792	0.08	8,880
	0.3	39.0	0.38	0.82	788,869	0.09	35,100
	0.2	102.7	0.29	0.62	1,585,349	0.06	61,620
	0.1	232.8	0.21	0.45	2,602,308	0.04	93,120
Inferred	0.4	6.3	0.47	1.01	157,614	0.07	4,410
	0.3	25.6	0.37	0.80	504,194	0.07	17,920
	0.2	126.9	0.26	0.56	1,756,271	0.05	63,450
	0.1	374.0	0.19	0.41	3,782,524	0.04	149,600

		Cinovec Tin Mineral Resource					
Category		Gross					
	Cut-off Sn %	Tonnes (Mt)	Sn %	Sn t	Li %	Li <sub>2</sub> O%	LCE
Indicated	0.4	2.8	0.67	18,760	0.29	0.62	43,223
	0.3	5.1	0.52	26,520	0.29	0.62	78,727
	0.2	10.4	0.38	39,520	0.27	0.58	149,470
	0.1	28.6	0.23	65,780	0.25	0.54	380,594
Inferred	0.4	1.6	0.71	11,360	0.25	0.54	21,292
	0.3	3.2	0.52	16,640	0.24	0.52	40,881
	0.2	9.2	0.34	31,280	0.24	0.52	117,532
	0.1	41.9	0.18	75,420	0.22	0.47	490,674

**Notes:**

1. Mineral Resources are not reserves until they have demonstrated economic viability based on a feasibility study or pre-feasibility study.
2. Mineral Resources are reported inclusive of any reserves and are prepared by Widenbar in accordance with the guidelines of the JORC Code (2012).
3. The effective date of the Mineral Resource is November 2016.
4. All figures are rounded to reflect the relative accuracy of the estimate.
5. The operator of the project is Geomet s.r.o., a wholly-owned subsidiary of EMH. Gross and Net Attributable resources are the same.
6. Any apparent inconsistencies are due to rounding errors.
7. LCE is Lithium Carbonate Equivalent and is equivalent to  $\text{Li}_2\text{CO}_3$ .

The Cinovec database used for the Mineral Resource Estimate incorporates information derived from almost 800 historic underground and surface diamond drill holes, historic underground channel sampling as well as the 18 surface diamond holes drilled to date by European Metals. A total of 71,312 assay intervals are now included in the database. Figure 1 is a map showing the location of holes drilled by European Metals relative to historic drill holes and underground workings.



**Figure 1: Plan view of Cinovec Project drill hole locations, historic underground workings, Li Indicated and Inferred Resource.**

Historically, core samples were either split or consumed entirely, with intervals ranging from 0.03 to 10.5m; more than 99.75% of historic drill samples fall in a range between 0.1 and 3m long. Historic channel samples were collected across 1m intervals. Samples collected from 2014, 2015 and 2016 holes drilled by European Metals comprised half core and honoured geological contacts and mineralised domains, ranging from 0.5 to 2.1m long.

Historic analytical methods included XRF and wet chemical techniques; samples collected from the new holes were analysed by fusion or 4 acid digest with ICP finish. Assay data were composited to 1m intervals prior to Mineral Resource estimation.

Sample spacing used in Mineral Resource estimation for tin ranges from continuous channel sampling up to approximately 100m. The range reflects the density of historical work - samples are very closely spaced in areas of underground development and trial mining, less so in areas sampled only by surface or underground drill holes.

Sample spacing used for lithium Mineral Resource estimation is wider, as development samples were not assayed for lithium; sample spacing typically ranges from 50m to 200m. Note that only blocks in the lithium model which had an average distance to samples used of less than 90m were assigned to the Mineral Resource, with the remainder considered to form part of an Exploration Target.

At a 0.1% Li cutoff, the Exploration Target is:

- **350 to 450 Mt @ 0.39 to 0.47% Li<sub>2</sub>O for 3.4 to 5.3 Mt LCE**

The Sn-W-Li mineralisation is hosted in an alkalic granite dome of late Variscan age. Tin and tungsten occur mainly in oxide minerals (cassiterite and wolframite). Lithium occurs mainly in zinnwaldite, a Li-rich muscovite. Quartz veining and greisenisation is associated with the mineralisation.

A geological domain model was constructed using Leapfrog software with solid wireframes representing greisen, granite, greisenised granite and the overlying barren rhyolite. This was used to both control interpolation and to assign density to the model.

Analysis of sample lengths indicated that compositing to 1m was necessary. Search ellipse sizes and orientations for the estimation were based on drill hole spacing, the known orientations of mineralisation and variography. An “unfolding” search strategy was used which allowed the search ellipse orientation to vary with the locally changing dip and strike.

After statistical analysis, a top cut of 5% was applied to Sn% and W%; no top cut is applied to Li%. Sn%, W% and Li% were then estimated by Ordinary Kriging within the geological solids.

The primary search ellipse was 150m along strike, 150m down dip and 7.5m across the mineralisation. A minimum of 4 composites and a maximum of 8 composites were required. A second interpolation with search ellipse of 300m x 300m x 12.5m was carried out to inform blocks to be used as the basis for an exploration target. Block size was 5m (E-W) by 10m (N-S) by 5m

Validation of the final resource has been carried out in a number of ways including section comparison of data versus model, swathe plots and production reconciliation.

Densities applied for Mineral Resource tonnage calculations are based on historical bulk density measurements of 2.57 for granite and 2.70 for greisen, confirmed by laboratory measurements in 2016.

The impact of the new European Metals drill holes on the geological model and the block model have been reviewed. Globally the geology and resource model are similar to the previous (May 2016) model, with only relatively minor local changes to grade distributions. The increase in confidence resulting from the new drill data has allowed additional areas of the block model to be upgraded in classification from Inferred to Indicated.

## **BACKGROUND INFORMATION ON CINOVEC**

### **PROJECT OVERVIEW**

#### **Cinovec Lithium/Tin Project**

European Metals owns 100% of the Cinovec lithium-tin deposit in the Czech Republic. Cinovec is an historic mine incorporating a significant undeveloped lithium-tin resource with by-product potential including tungsten, rubidium, scandium, niobium and tantalum and potash. Cinovec hosts a globally significant hard rock lithium deposit with a total Indicated Mineral Resource of 49.1Mt @ 0.43% Li<sub>2</sub>O and an Inferred Mineral Resource of 482Mt @ 0.43% Li<sub>2</sub>O containing a combined 5.7 million tonnes Lithium Carbonate Equivalent.

This makes Cinovec the largest lithium deposit in Europe and the fourth largest non-brine deposit in the world.

Within this resource lies one of the largest undeveloped tin deposits in the world, with total Indicated Mineral Resource of 15.7Mt @ 0.26% Sn and an Inferred Mineral Resources of 59.7 Mt grading 0.21% Sn for a combined total of 178kt of contained tin. The Mineral Resource Estimates have been previously released on 18 May 2016. The deposit has previously had over 400,000 tonnes of ore mined as a trial sub-level open stope underground mining operation.

A Scoping Study conducted by specialist independent consultants indicates the deposit could be amenable to bulk underground mining. Metallurgical test work has produced both battery grade lithium carbonate and high-grade tin concentrate at excellent recoveries with the Scoping Study. Cinovec is centrally located for European end-users and is well serviced by infrastructure, with a sealed road adjacent to the deposit, rail lines located 5 km north and 8 km south of the deposit and an active 22 kV transmission line running to the historic mine. As the deposit lies in an active mining region, it has strong community support.

## **CONTACT**

For further information on this update or the Company generally, please visit our website at [www.europeanmet.com](http://www.europeanmet.com) or contact:

**Mr. Keith Coughlan**  
**Managing Director**

## **COMPETENT PERSON**

Information in this release that relates to exploration results is based on information compiled by European Metals Director Dr Pavel Reichl. Dr Reichl is a Certified Professional Geologist (certified by the American Institute of Professional Geologists), a member of the American Institute of Professional Geologists, a Fellow of the Society of Economic Geologists and is a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and a Qualified Person for the purposes of the AIM Guidance Note on Mining and Oil & Gas Companies dated June 2009. Dr Reichl consents to the inclusion in the release of the matters based on his information in the form and context in which it appears. Dr Reichl holds CDIs in European Metals.

The information in this release that relates to Mineral Resources and Exploration Targets has been compiled by Mr Lynn Widenbar. Mr Widenbar, who is a Member of the Australasian Institute of Mining and Metallurgy, is a full time employee of Widenbar and Associates and produced the estimate based on data and geological information supplied by European Metals. Mr Widenbar has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the JORC Code 2012 Edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Widenbar consents to the inclusion in this report of the matters based on his information in the form and context that the information appears.

## **CAUTION REGARDING FORWARD LOOKING STATEMENTS**

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the company and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the company’s business and operations in the future. The company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the company or management or beyond the company’s control.

Although the company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

#### **LITHIUM CLASSIFICATION AND CONVERSION FACTORS**

Lithium grades are normally presented in percentages or parts per million (ppm). Grades of deposits are also expressed as lithium compounds in percentages, for example as a percent lithium oxide (Li<sub>2</sub>O) content or percent lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>) content.

Lithium carbonate equivalent (“LCE”) is the industry standard terminology for, and is equivalent to, Li<sub>2</sub>CO<sub>3</sub>. Use of LCE is to provide data comparable with industry reports and is the total equivalent amount of lithium carbonate, assuming the lithium content in the deposit is converted to lithium carbonate, using the conversion rates in the table included below to get an equivalent Li<sub>2</sub>CO<sub>3</sub> value in percent. Use of LCE assumes 100% recovery and no process losses in the extraction of Li<sub>2</sub>CO<sub>3</sub> from the deposit.

Lithium resources and reserves are usually presented in tonnes of LCE or Li.

To convert the Li Inferred Mineral Resource of 532Mt @ 0.20% Li grade (as per the Competent Persons Report dated May 2016) to Li<sub>2</sub>O, the reported Li grade of 0.20% is multiplied by the standard conversion factor of 2.153 which results in an equivalent Li<sub>2</sub>O grade of 0.43%.

The standard conversion factors are set out in the table below:

**Table: Conversion Factors for Lithium Compounds and Minerals**

<b>Convert from</b>		<b>Convert to Li</b>	<b>Convert to Li<sub>2</sub>O</b>	<b>Convert to Li<sub>2</sub>CO<sub>3</sub></b>
Lithium	Li	<b>1.000</b>	2.153	5.323
Lithium Oxide	Li <sub>2</sub> O	0.464	<b>1.000</b>	2.473

## WEBSITE

A copy of this announcement is available from the Company's website at [www.europeanmet.com](http://www.europeanmet.com).

## TECHNICAL GLOSSARY

The following is a summary of technical terms:

<b>"carbonate"</b>	refers to a carbonate mineral such as calcite, CaCO <sub>3</sub>
<b>"cut-off grade"</b>	lowest grade of mineralised material considered economic, used in the calculation of Mineral Resources
<b>"deposit"</b>	coherent geological body such as a mineralised body
<b>"exploration"</b>	method by which ore deposits are evaluated
<b>"g/t"</b>	gram per metric tonne
<b>"grade"</b>	relative quantity or the percentage of ore mineral or metal content in an ore body
<b>"Indicated" or "Indicated Mineral Resource"</b>	as defined in the JORC and SAMREC Codes, is that part of a Mineral Resource which has been sampled by drill holes, underground openings or other sampling procedures at locations that are too widely spaced to ensure continuity but close enough to give a reasonable indication of continuity and where geoscientific data are known with a reasonable degree of reliability. An Indicated Mineral Resource will be based on more data and therefore will be more reliable than an Inferred Mineral Resource estimate
<b>"Inferred" or "Inferred Mineral Resource"</b>	as defined in the JORC and SAMREC Codes, is that part of a Mineral Resource for which the tonnage and grade and mineral content can be estimated with a low level of confidence. It is inferred from the geological evidence and has assumed but not verified geological and/or grade continuity. It is based on information gathered through the appropriate techniques from locations such as outcrops, trenches, pits, working and drill holes which may be limited or of uncertain quality and reliability
<b>"JORC Code"</b>	Joint Ore Reserve Committee Code; the Committee is convened under the auspices of the Australasian Institute of Mining and Metallurgy
<b>"kt"</b>	thousand tonnes
<b>"LCE"</b>	the total equivalent amount of lithium carbonate (see explanation above entitled Explanation of Lithium Classification and Conversion Factors)
<b>"lithium"</b>	a soft, silvery-white metallic element of the alkali group, the lightest of all metals
<b>"lithium carbonate"</b>	the lithium salt of carbonate with the formula Li <sub>2</sub> CO <sub>3</sub>
<b>"Measured" or Measured Mineral Resources"</b>	Measured: a mineral resource intersected and tested by drill holes, underground openings or other sampling procedures at locations which are spaced closely enough to confirm continuity and where geoscientific data are reliably known; a measured mineral resource estimate will be based on a substantial amount of reliable data, interpretation and evaluation which allows a clear determination to be made of shapes, sizes, densities and grades. Indicated: a mineral resource sampled by drill holes, underground openings or other sampling procedures at locations too widely spaced to ensure continuity but close enough to give a reasonable indication of continuity and where geoscientific data are known with a reasonable degree of reliability; an indicated resource will be based on more data, and therefore will be more reliable than an

	inferred resource estimate. Inferred: a mineral resource inferred from geoscientific evidence, underground openings or other sampling procedures where the lack of data is such that continuity cannot be predicted with confidence and where geoscientific data may not be known with a reasonable level of reliability
<b>“metallurgical”</b>	describing the science concerned with the production, purification and properties of metals and their applications
<b>“Mineral Resource”</b>	a concentration or occurrence of material of intrinsic economic interest in or on the Earth’s crust in such a form that there are reasonable prospects for the eventual economic extraction; the location, quantity, grade geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge; mineral resources are sub-divided into Inferred, Indicated and Measured categories
<b>“mineralisation”</b>	process of formation and concentration of elements and their chemical compounds within a mass or body of rock
<b>“Mt”</b>	million tonnes
<b>“ppm”</b>	parts per million
<b>“recovery”</b>	proportion of valuable material obtained in the processing of an ore, stated as a percentage of the material recovered compared with the total material present
<b>“stope”</b>	underground excavation within the orebody where the main production takes place
<b>“t”</b>	a metric tonne
<b>“tin”</b>	A tetragonal mineral, rare; soft; malleable: bluish white, found chiefly in cassiterite, SnO <sub>2</sub>
<b>“treatment”</b>	Physical or chemical treatment to extract the valuable metals/minerals
<b>“tungsten”</b>	hard, brittle, white or grey metallic element. Chemical symbol, W; also known as wolfram
<b>“W”</b>	chemical symbol for tungsten

#### ADDITIONAL GEOLOGICAL TERMS

<b>“apical”</b>	relating to, or denoting an apex
<b>“cassiterite”</b>	A mineral, tin dioxide, SnO <sub>2</sub> . Ore of tin with specific gravity 7
<b>“cupola”</b>	A dome-shaped projection at the top of an igneous intrusion
<b>“dip”</b>	the true dip of a plane is the angle it makes with the horizontal plane
<b>“granite”</b>	coarse-grained intrusive igneous rock dominated by light-coloured minerals, consisting of about 50% orthoclase, 25% quartz and balance of plagioclase feldspars and ferromagnesian silicates
<b>“greisen”</b>	A pneumatolitically altered granitic rock composed largely of quartz, mica, and topaz. The mica is usually muscovite or lepidolite. Tourmaline, fluorite, rutile, cassiterite, and wolframite are common accessory minerals
<b>“igneous”</b>	said of a rock or mineral that solidified from molten or partly molten material, i.e., from a magma
<b>“muscovite”</b>	also known as potash mica; formula: KAl <sub>2</sub> (AlSi <sub>3</sub> O <sub>10</sub> )(F,OH) <sub>2</sub> .
<b>“quartz”</b>	a mineral composed of silicon dioxide, SiO <sub>2</sub>
<b>“rhyolite”</b>	An igneous, volcanic rock of felsic (silica rich) composition. Typically >69% SiO <sub>2</sub>
<b>“vein”</b>	a tabular deposit of minerals occupying a fracture, in which particles may grow away from the walls towards the middle
<b>“wolframite”</b>	A mineral, (Fe,Mn)WO <sub>4</sub> ; within the huebnerite-ferberite series
<b>“zinnwaldite”</b>	A mineral, KLiFeAl(AlSi <sub>3</sub> O <sub>10</sub> (F,OH) <sub>2</sub> ; mica group; basal cleavage; pale violet, yellowish or greyish brown; in granites, pegmatites, and greisens



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The information contained within this announcement is considered to be inside information, for the purposes of Article 7 of EU Regulation 596/2014, prior to its release.

**Table 1**
**Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>In 2014, the Company commenced a core drilling program and collected samples from core splits in line with JORC Code guidelines.</li> <li>Sample intervals honour geological or visible mineralization boundaries and vary between 50cm and 2 m. Majority of samples is 1 m in length</li> <li>The samples are half or quarter of core; the latter applied for large diameter core.</li> <li>Between 1952 and 1989, the Cinovec deposit was sampled in two ways: in drill core and underground channel samples.</li> <li>Channel samples, from drift ribs and faces, were collected during detailed exploration between 1952 and 1989 by Geoindustria n.p. and Rudne Doly n.p., both Czechoslovak State companies. Sample length was 1 m, channel 10x5cm, sample mass about 15kg. Up to 1966, samples were collected using hammer and chisel; from 1966 a small drill (Holman Hammer) was used. 14179 samples were collected and transported to a crushing facility.</li> <li>Core and channel samples were crushed in two steps: to -5mm, then to -0.5mm. 100g splits were obtained</li> </ul>

Criteria	JORC Code explanation	Commentary
<p><i>Drilling techniques</i></p>	<ul style="list-style-type: none"> <li>• <i>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).</i></li> </ul>	<p>and pulverized to -0.045mm for analysis.</p> <ul style="list-style-type: none"> <li>• In 2014, three core holes were drilled for a total of 940.1m. In 2015, six core holes were drilled for a total of 2,455.0m. In 2016, eight core holes were drilled for a total of 2,795.6m.</li> <li>• In 2014 and 2015, the core size was HQ3 (60mm diameter) in upper parts of holes; in deeper sections the core size was reduced to NQ3 (44mm diameter). Core recovery was high (average 98%). In 2016 up to four drill rigs were used, and select holes employed PQ sized core for upper parts of the drillholes.</li> <li>• Historically only core drilling was employed, either from surface or from underground.</li> <li>• Surface drilling: 80 holes, total 30,340 meters; vertical and inclined, maximum depth 1596m (structural hole). Core diameters from 220mm near surface to 110 mm at depth. Average core recovery 89.3%.</li> <li>• Underground drilling: 766 holes for 53,126m; horizontal and inclined. Core diameter 46mm; drilled by Craelius XC42 or DIAMEC drills.</li> </ul>
<p><i>Drill sample recovery</i></p>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core recovery for historical surface drill holes was recorded on drill logs and entered into the database.</li> <li>• No correlation between grade and core recovery was established.</li> </ul>
<p><i>Logging</i></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• In 2014-2016, core descriptions were recorded into paper logging forms by hand and later entered into an Excel database.</li> <li>• Core was logged in detail historically in a facility 6 km from the mine site. The following features were logged and recorded in paper logs: lithology, alteration (including intensity divided into weak, medium and strong/pervasive), and occurrence of ore minerals expressed in %, macroscopic description of congruous intervals and structures and core recovery.</li> </ul>

Criteria	JORC Code explanation	Commentary
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• In 2014-16, core was washed, geologically logged, sample intervals determined and marked then the core was cut in half. In 2016 larger core was cut in half and one half was cut again to obtain a quarter core sample. One half or one quarter samples was delivered to ALS Global for assaying after duplicates, blanks and standards were inserted in the sample stream. The remaining drill core is stored on site for reference.</li> <li>• Sample preparation was carried out by ALS Global in Romania, using industry standard techniques appropriate for the style of mineralisation represented at Cinovec.</li> <li>• Historically, core was either split or consumed entirely for analyses.</li> <li>• Samples are considered to be representative.</li> <li>• Sample size and grains size are deemed appropriate for the analytical techniques used.</li> </ul>
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• In 2014-16, core samples were assayed by ALS Global. The most appropriate analytical methods were determined by results of tests for various analytical techniques.</li> <li>• The following analytical methods were chosen: ME-MS81 (lithium borate fusion or 4 acid digest, ICP-MS finish) for a suite of elements including Sn and W and ME-4ACD81 (4 acid digest, ICP-AES finish) additional elements including lithium.</li> <li>• About 40% of samples were analysed by ME-MS81d (ME-MS81 plus whole rock package). Samples with over 1% tin are analysed by XRF. Samples over 1% lithium were analysed by Li-OG63 (four acid and ICP finish).</li> <li>• Standards, blanks and duplicates were inserted into the sample stream. Initial tin standard results indicated possible downgrading bias; the laboratory repeated the analysis with satisfactory results.</li> <li>• Historically, tin content was measured by XRF and using wet chemical</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>methods. W and Li were analysed by spectral methods.</p> <ul style="list-style-type: none"> <li>Analytical QA was internal and external. The former subjected 5% of the sample to repeat analysis in the same facility. 10% of samples were analysed in another laboratory, also located in Czechoslovakia. The QA/QC procedures were set to the State norms and are considered adequate. It is unknown whether external standards or sample duplicates were used.</li> <li>Overall accuracy of sampling and assaying was proved later by test mining and reconciliation of mined and analysed grades.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>During the 2014-16 drill campaigns the Company indirectly verified grades of tin and lithium by comparing the length and grade of mineral intercepts with the current block model.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>In 2014-16, drill collar locations were surveyed by a registered surveyor.</li> <li>Down hole surveys were recorded by a contractor.</li> <li>Historically, drill hole collars were surveyed with a great degree of precision by the mine survey crew.</li> <li>Hole locations are recorded in the local S-JTSK Krovak grid.</li> <li>Topographic control is excellent.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Historical data density is very high.</li> <li>Spacing is sufficient to establish an inferred resource that was initially estimated using MICROMINE software in Perth, 2012.</li> <li>Areas with lower coverage of Li% assays have been identified as exploration targets.</li> <li>Sample compositing to 1m intervals has been applied mathematically prior to estimation but not physically.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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</i></li> </ul>	<ul style="list-style-type: none"> <li>In 2014-16, drill hole azimuth and dip was planned to intercept the mineralized zones at near-true thickness. As the mineralized zones dip shallowly to the south, drill holes were vertical or near vertical and</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>assessed and reported if material.</i>	<p>directed to the north. Due to land access restrictions, certain holes could not be positioned in sites with ideal drill angle.</p> <ul style="list-style-type: none"> <li>• The Company has not directly collected any samples underground because the workings are inaccessible at this time.</li> <li>• Based on historic reports, level plan maps, sections and core logs, the samples were collected in an unbiased fashion, systematically on two underground levels from drift ribs and faces, as well as from underground holes drilled perpendicular to the drift directions. The sample density is adequate for the style of deposit.</li> <li>• Multiple samples were taken and analysed by the Company from the historic tailing repository. Only lithium was analysed (Sn and W too low). The results matched the historic grades.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• In the 2014-16 programs, only the Company's employees and contractors handled drill core and conducted sampling. The core was collected from the drill rig each day and transported in a company vehicle to the secure Company premises where it was logged and cut. Company geologists supervised the process and logged/sampled the core. The samples were transported by Company personnel in a Company vehicle to the ALS Global laboratory pick-up station. The remaining core is stored under lock and key.</li> <li>• Historically, sample security was ensured by State norms applied to exploration. The State norms were similar to currently accepted best practice and JORC guidelines for sample security.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Review of sampling techniques possible from written records. No flaws found.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location and ownership including agreements or material issues with</i></li> </ul>	<ul style="list-style-type: none"> <li>• Cinovec exploration rights held under three licenses Cinovec</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<p>(expires 30/07/2019), Cinovec 2 (expires 31/12/2020) and Cinovec 3 (expires 31/10/2021). 100% owned, no native interests or environmental concerns. A State royalty applies metals production and is set as a fee in Czech crowns per unit of metal produced.</p> <ul style="list-style-type: none"> <li>There are no known impediments to obtaining an Exploitation Permit for the defined resource.</li> </ul>
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>There has been no acknowledgment or appraisal of exploration by other parties.</li> </ul>
<p><i>Geology</i></p>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Cinovec is a granite-hosted tin-tungsten-lithium deposit.</li> <li>Late Variscan age, post-orogenic granite intrusion Tin and tungsten occur in oxide minerals (cassiterite and wolframite). Lithium occurs in zinwaldite, a Li-rich muscovite</li> <li>Mineralization in a small granite cupola. Vein and greisen type. Alteration is greisenisation, silicification.</li> </ul>
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>Reported previously.</li> </ul>
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and</i></li> </ul>	<ul style="list-style-type: none"> <li>Reporting of exploration results has not and will not include aggregate intercepts.</li> <li>Metal equivalent not used in reporting.</li> <li>No grade truncations applied.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>some typical examples of such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>Intercept widths are approximate true widths.</li> <li>The mineralization is mostly of disseminated nature and relatively homogeneous; the orientation of samples is of limited impact.</li> <li>For higher grade veins care was taken to drill at angles ensuring closeness of intercept length and true widths</li> <li>The block model accounts for variations between apparent and true dip.</li> </ul>
<p><i>Diagrams</i></p>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Appropriate maps and sections have been generated by the Company, and independent consultants. Available in customary vector and raster outputs, and partially in consultant's reports.</li> </ul>
<p><i>Balanced reporting</i></p>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Balanced reporting in historic reports guaranteed by norms and standards, verified in 1997, and 2012 by independent consultants.</li> <li>The historic reporting was completed by several State institutions and cross validated.</li> </ul>
<p><i>Other substantive exploration data</i></p>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Data available: bulk density for all representative rock and ore types; (historic data + 92 measurements in 2016 from current core holes); petrographic and mineralogical studies, hydrological information, hardness, moisture content, fragmentation etc.</li> </ul>
<p><i>Further work</i></p>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Grade verification sampling from underground or drilling from surface. Historically-reported grades require modern validation in order to improve the resource classification.</li> <li>The number and location of sampling sites will be determined from a 3D wireframe model and geostatistical considerations reflecting grade continuity.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>The geologic model will be used to determine if any infill drilling is required.</li> <li>The deposit is open down-dip on the southern extension, and locally poorly constrained at its western and eastern extensions, where limited additional drilling might be required.</li> <li>No large scale drilling campaigns are required.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Assay and geologic data were compiled by the Company staff from primary historic records, such as copies of drill logs and large scale sample location maps.</li> <li>Sample data were entered in to Excel spreadsheets by Company staff in Prague.</li> <li>The database entry process was supervised by a Professional Geologist who works for the Company.</li> <li>The database was checked by independent competent persons (Lynn Widenbar of Widenbar &amp; Associates, Phil Newell of Wardell Armstrong International).</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>The site was visited by Mr Pavel Reichl who has identified the previous shaft sites, tails dams and observed the mineralisation underground through an adjacent mine working.</li> <li>The site was visited in June 2016 by Mr Lynn Widenbar, the Competent Person for Mineral Resource Estimation. Diamond drill rigs were viewed, as was core; a visit was carried out to the adjacent underground mine in Germany which is a continuation of the Cinovec Deposit.</li> </ul>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative</li> </ul>	<ul style="list-style-type: none"> <li>The overall geology of the deposit is relatively simple and well understood due to excellent data control from surface and underground.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>interpretations on Mineral Resource estimation.</i></p> <ul style="list-style-type: none"> <li><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li><i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<ul style="list-style-type: none"> <li>Nature of data: underground mapping, structural measurements, detailed core logging, 3D data synthesis on plans and maps.</li> <li>Geological continuity is good. The grade is highest and shows most variability in quartz veins.</li> <li>Grade correlates with degree of silicification and greisenisation of the host granite.</li> <li>The primary control is the granite-country rock contact. All mineralization is in the uppermost 200m of the granite and is truncated by the contact.</li> </ul>
<p><i>Dimensions</i></p>	<ul style="list-style-type: none"> <li><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Cinovec South deposit strikes north-south, is elongated, and dips gently south parallel to the upper granite contact. The surface projection of mineralization is about 1 km long and 900 m wide.</li> <li>Mineralization extends from about 200m to 500m below surface.</li> </ul>
<p><i>Estimation and modelling techniques</i></p>	<ul style="list-style-type: none"> <li><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model</i></li> </ul>	<ul style="list-style-type: none"> <li>Block estimation was carried out in Micromine using Ordinary Kriging interpolation.</li> <li>A geological domain model was constructed using Leapfrog software with solid wireframes representing greisen, granite, greisenised granite and the overlying barren rhyolite. This was used to both control interpolation and to assign density to the model (2.57 for granite, 2.70 for greisen and 2.60 for all other material).</li> <li>Analysis of sample lengths indicated that compositing to 1m was necessary.</li> <li>Search ellipse sizes and orientations for the estimation were based on drill hole spacing, the known orientations of mineralisation and variography.</li> <li>An “unfolding” search strategy was used which allowed the search ellipse orientation to vary with the locally changing dip and strike.</li> <li>After statistical analysis, a top cut of 5% was applied to Sn% and W%; no top cut is applied to Li%.</li> <li>Sn% and Li% were then estimated by</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>data to drill hole data, and use of reconciliation data if available.</i></p>	<p>Ordinary Kriging within the mineralisation solids.</p> <ul style="list-style-type: none"> <li>• The primary search ellipse was 150m along strike, 150m down dip and 7.5m across the mineralisation. A minimum of 4 composites and a maximum of 8 composites were required.</li> <li>• A second interpolation with search ellipse of 300m x 300m x 12.5m was carried out to inform blocks to be used as the basis for an exploration target.</li> <li>• Block size was 5m (E-W) by 10m (N-S) by 5m</li> <li>• Validation of the final resource has been carried out in a number of ways including section comparison of data versus model, swathe plots and production reconciliation.</li> </ul>
<p><i>Moisture</i></p>	<ul style="list-style-type: none"> <li>• <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Tonnages are estimated on a dry basis using the average bulk density for each geological domain.</li> </ul>
<p><i>Cut-off parameters</i></p>	<ul style="list-style-type: none"> <li>• <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• A series of alternative cutoffs was used to report tonnage and grade: Sn 0.1%, 0.2%, 0.3% and 0.4%. Lithium 0.1%, 0.2%, 0.3% and 0.4%.</li> </ul>
<p><i>Mining factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>• <i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Mining is assumed to be by underground methods. A Scoping Study has determined the optimal mining method.</li> <li>• Limited internal waste will need to be mined at grades marginally below cutoffs. Mine dilution and waste are expected at minimal levels and the vast majority of the Mineral Resource is expected to convert to an Ore Reserve.</li> <li>• Based on the geometry of the deposit, it is envisaged that a combination of drift and fill mining and longhole open stoping will be used.</li> </ul>
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>• <i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters</i></li> </ul>	<ul style="list-style-type: none"> <li>• Recent testwork on 2014 drill core indicates a tin recovery of 80% can be expected.</li> <li>• Testwork on lithium is complete, with 70% recovery of lithium to lithium carbonate product via flotation concentrate and</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	<p>atmospheric leach.</p> <ul style="list-style-type: none"> <li>Extensive testwork was conducted on Cinovec South ore in the past. Testing culminated with a pilot plant trial in 1970, where three batches of Cinovec South ore were processed, each under slightly different conditions. The best result, with a tin recovery of 76.36%, was obtained from a batch of 97.13t grading 0.32% Sn. A more elaborate flowsheet was also investigated and with flotation produced final Sn and W recoveries of better than 96% and 84%, respectively.</li> <li>Historical laboratory testwork demonstrated that lithium can be extracted from the ore (lithium carbonate was produced from 1958-1966 at Cinovec).</li> </ul>
<p><i>Environmental factors or assumptions</i></p>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Cinovec is in an area of historic mining activity spanning the past 600 years. Extensive State exploration was conducted until 1990.</li> <li>The property is located in a sparsely populated area, most of the land belongs to the State. Few problems are anticipated with regards to the acquisition of surface rights for any potential underground mining operation.</li> <li>The envisaged mining method will see much of the waste and tailings used as underground fill.</li> </ul>
<p><i>Bulk density</i></p>	<ul style="list-style-type: none"> <li><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>Historical bulk density measurements were made in a laboratory.</li> <li>The following densities were applied: <ul style="list-style-type: none"> <li>2.57 for granite</li> <li>2.70 for greisen</li> <li>2.60 for all other material</li> </ul> </li> </ul>
<p><i>Classification</i></p>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>Whether appropriate account has been taken of all relevant factors (ie relative</i></li> </ul>	<ul style="list-style-type: none"> <li>Following a review of a small amount of available QAQC data, and comparison of production data versus estimated tonnage/grade</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p> <ul style="list-style-type: none"> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<p>from the resource model, and given the close spacing of underground drilling and development, the majority of the Tin resource was originally classified in the Inferred category as defined by the 2012 edition of the JORC code.</p> <ul style="list-style-type: none"> <li>• The new 2014 and 2016 drilling has confirmed the Tin mineralisation model and a part of this area has been upgraded to the Indicated category.</li> <li>• The Li% mineralisation has been assigned to the Inferred category where the average distance to composites used in estimation is less than 100m. Material outside this range is unclassified but has been used as the basis for an Exploration Target.</li> <li>• The new 2014 and 2016 drilling has confirmed the Lithium mineralisation model and a part of this area has been upgraded to the Indicated category.</li> <li>• The Competent Person (Lynn Widenbar) endorses the final results and classification.</li> </ul>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Wardell Armstrong International, in their review of Lynn Widenbar's initial resource estimate stated "the Widenbar model appears to have been prepared in a diligent manner and given the data available provides a reasonable estimate of the drillhole assay data at the Cinovec deposit".</li> </ul>
<p><i>Discussion of relative accuracy/confidence</i></p>	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation</i></li> </ul>	<ul style="list-style-type: none"> <li>• In 2012, WAI carried out model validation exercises on the initial Widenbar model, which included visual comparison of drilling sample grades and the estimated block model grades, and Swath plots to assess spatial local grade variability.</li> <li>• A visual comparison of Block model grades vs drillhole grades was carried out on a sectional basis for both Sn and Li mineralisation. Visually, grades in the block model correlated well with drillhole grade for both Sn and Li.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>should include assumptions made and the procedures used.</i></p> <ul style="list-style-type: none"> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Swathe plots were generated from the model by averaging composites and blocks in all 3 dimensions using 10m panels. Swath plots were generated for the Sn and Li estimated grades in the block model, these should exhibit a close relationship to the composite data upon which the estimation is based. As the original drillhole composites were not available to WAI. 1m composite samples based on 0.1% cut-offs for both Sn and Li assays were</li> <li>• Overall Swathe plots illustrate a good correlation between the composites and the block grades. As is visible in the Swathe plots, there has been a large amount of smoothing of the block model grades when compared to the composite grades, this is typical of the estimation method.</li> </ul>