



26 September 2019

## 18% INCREASE IN TUNGSTEN RESOURCES

### Highlights:

- **Bold Head scheelite deposit adds 18% to King Island Scheelite's Mineral Resource Estimate**
- **Indicated and Inferred Resources at Bold Head, reported in accordance with the 2012 edition of the JORC code, are estimated to be 1.76 million tonnes at a grade of 0.91% WO<sub>3</sub> (Cut-off 0.5%)<sup>1</sup>**
- **Combined total Inferred and Indicated resources for the Dolphin Project (including Bold Head) now 11.36 mt at a grade of 0.90% WO<sub>3</sub>**
- **Grade continues to be at top end of highest world standard**
- **The increased resources demonstrate the potential to extend the Dolphin mine life beyond the 8 years proposed in the Feasibility Study<sup>2</sup>**
- **The 7km periphery of the Grassy Granite is highly prospective for further scheelite resources**

King Island Scheelite Limited (**ASX: KIS**) ("the Company") is pleased to report the results of the recently completed Bold Head Scheelite Resource Estimation, carried out by external consultants Resource and Exploration Geology. The Bold Head Resources are additional to the existing Dolphin Scheelite Resource that underpins the *100% owned Dolphin Tungsten Project*.

#### **King Island Scheelite Chairman, Johann Jacobs, said:**

*"This is an exceptional result for KIS with the increased indicated and inferred resources adding significantly to our Total Mineral Resource and potentially increasing the mine life of our wholly owned Dolphin Tungsten Project. This positive result builds on our recently released Feasibility Study and revised Mineral Reserve Estimate and forms a significant part of our road map to recommencing production at Dolphin, targeted for 2021."*

The Bold Head Scheelite Deposit is a satellite deposit of the world class Dolphin Deposit located at Grassy on King Island, Tasmania (Figure 1). The Bold Head Deposit was discovered by Geopeko Ltd in 1968 and operated as a decline accessed room and pillar underground mine between 1974 and 1986. The mine produced 1.1Mt @ 0.71% WO<sub>3</sub> before being forced to close due to declining tungsten prices.

<sup>1</sup> Refer Competent Person's Declaration page 9.

<sup>2</sup> Refer Forward Looking Statements page 9.



Historically, Bold Head ore was treated at the Grassy Scheelite Concentration Plant located 3km to the south which also treated the larger Dolphin Orebody. Table 1 lists the Bold Head Mineral Resource and Table 2 the Total Mineral Resource of the King Island Scheelite Tungsten Project, including the previously released Dolphin Deposit Indicated Resource (ASX: KIS 21 September 2015).

The Company recently released a Feasibility Study and revised Mineral Reserve Estimate based on the resources of the Dolphin Orebody (ASX: KIS 3 June 2019). These Mineral Resources are inclusive of the proposed Dolphin Open Cut Probable Reserve of 3.0Mt @ 0.73% WO<sub>3</sub> (0.2% WO<sub>3</sub> cut off). The increased resources demonstrate the potential to significantly extend the mine life beyond the 8 years proposed in the Feasibility Study.

**Table 1. Bold Head Resource WO<sub>3</sub> > 0.5%**

Classification	Mtonnes	WO <sub>3</sub> %	TonnesWO <sub>3</sub>
Inferred	0.15	0.85	1,270
Indicated	1.61	0.92	14,810
<b>Total Resource</b>	<b>1.76</b>	<b>0.91</b>	<b>16,080</b>

**Table 2. King Island Scheelite Total Mineral Resource**

	Proposed Mining Method	Grade cut-off (WO <sub>3</sub> %)	Inferred (Mt)	Indicated (Mt)	Inferred & Indicated (Mt)	Grade WO <sub>3</sub> %	Tonnes WO <sub>3</sub>
Dolphin	Open-Cut	0.20		9.60	9.60	0.90	86,400
Bold Head	Underground	0.50	0.15	1.61	1.76	0.91	16,080
<b>Total Resource</b>	<b>Open-Cut and U/G</b>	<b>varies</b>	<b>0.15</b>	<b>11.21</b>	<b>11.36</b>	<b>0.90</b>	<b>102,480</b>

The complete Bold Head Scheelite resource estimate technical report, together with JORC (2012) Table 1, Section 1-3 are attached as Annexure A to this announcement.

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## Annexure A

### Bold Head Mineral Resource Estimate

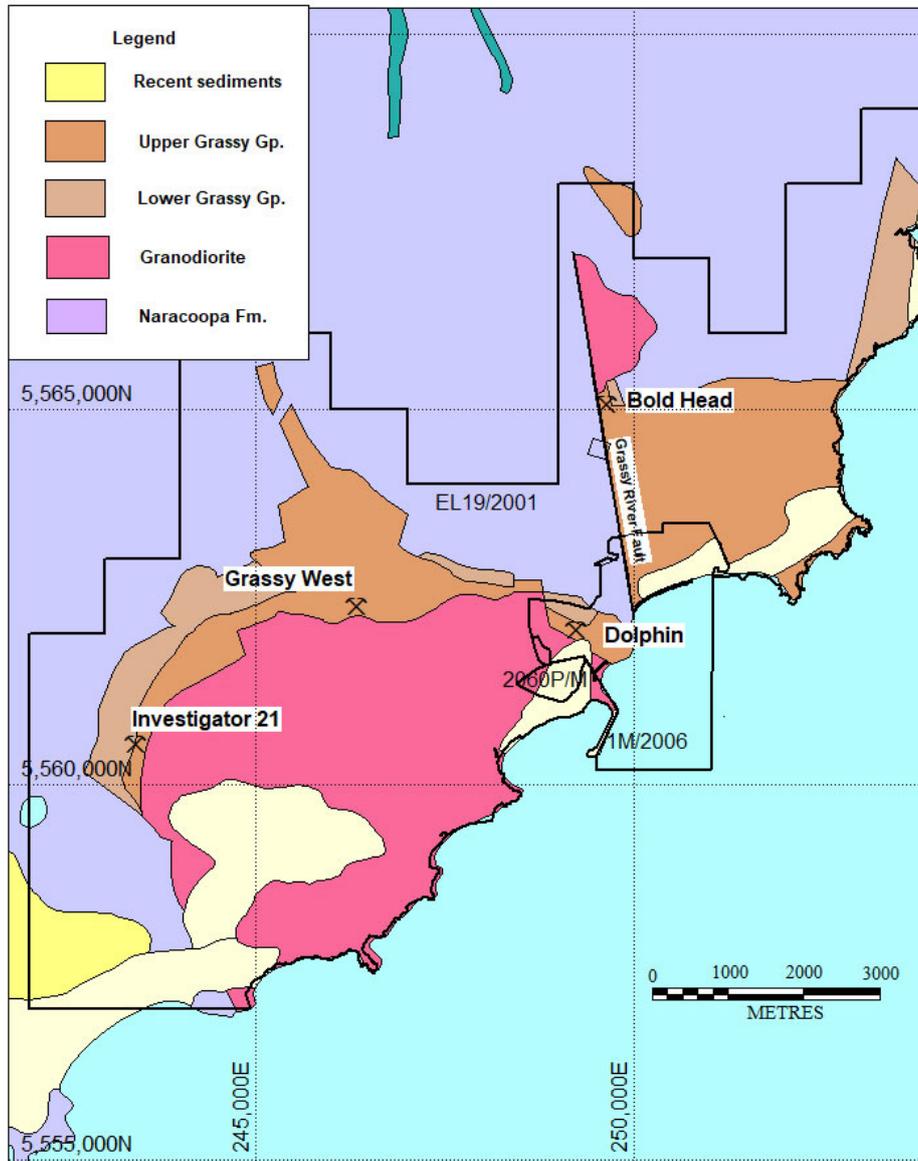
**Table 1. Bold Head Resource  $WO_3 > 0.5\%$**

Classification	Mtonnes	$WO_3$ %	Tonnes $WO_3$
Inferred	0.15	0.85	1,270
Indicated	1.61	0.92	14,810
<b>Total Resource</b>	<b>1.76</b>	<b>0.91</b>	<b>16,080</b>

**Table 2. King Island Scheelite Total Mineral Resource**

	Proposed Mining Method	Grade cut-off ( $WO_3$ %)	Inferred (Mt)	Indicated (Mt)	Inferred & Indicated (Mt)	Grade $WO_3$ %	Tonnes $WO_3$
Dolphin	Open-Cut	0.20		9.60	9.60	0.90	86,400
Bold Head	Underground	0.50	0.15	1.61	1.76	0.91	16,080
<b>Total Resource</b>	<b>Open-Cut and U/G</b>	<b>varies</b>	<b>0.15</b>	<b>11.21</b>	<b>11.36</b>	<b>0.90</b>	<b>102,480</b>

The Bold Head Deposit is hosted in Proterozoic calcareous volcanoclastic sediments near the base of the Grassy Group and is a direct analogue of the Dolphin Orebody. Scheelite mineralisation is associated with calc-silicate skarn developed adjacent to the contact of the Lower Grassy Group and the Silurian Bold Head Granodiorite. Stratabound mineralisation is localised in and around two main carbonate horizons termed B Lens and C Lens as well as occurring in calcareous volcanoclastic rocks known as the Banded Footwall Beds. Mineralisation is best developed at the top and bottom of carbonate horizons directly in contact with faults, particularly the Boundary Fault and No 2 Fault and to a lesser extent the Western Fault (Figures 2 and 3).



**Figure 1. KIS Tenements and Bold Head Location**



The host sequence is bound to the north, south and west by the Bold Head Granodiorite, and a major N-S trending reverse fault known as the Boundary Fault to the east. A major east-west trending ductile shear known as the Grahams Road Fault has attenuated and down warped the Grassy Group on its southern margin before truncation with the later granodiorite intrusion. These geological structures limit the potential for near mine resource extension drilling with the deposit constrained within a plunging basin of 650m strike length by 200m width. The deposit plunges south at approximately 20-30 degrees. The north-south striking No 2 Fault offsets the mineralised lenses by 20m and was a major conduit for mineralisation. Skarn mineralisation varies between 1 and 15m in width within both B and C lens. Minor resource extensions are possible on the extreme southern margin and in the northwest of the basin.

This resource estimation is based mainly on historic diamond drilling data, geological cross sections and mine infrastructure plans compiled by Geopeko Ltd and digitised and validated for this and the previous estimation. A total of 424 historic diamond drill holes for 32,388m were drilled by Geopeko during operation on 12.5m or 25m spaced systematic cross sections. Drilling consisted of NQ and BQ wireline and underground conventional drilling with the core split on 1m lengths and analysed in a mine site laboratory for  $WO_3$  and Mo by pressed powder X Ray fluorescence spectrometry (XRF). A limited validation drilling campaign of 8 diamond holes for 659.4m was completed in the upper mine in 2013. Drilling confirmed the style and tenor of mineralisation reflected in the historic data and confirmed modelled mineralisation. Historic and recent geological logging is of high quality completed by experienced geologists and field personnel. Drilling data, geological information and drilling density is considered adequate for the estimation of mineral resources according to the guidelines of the 2012 edition of the JORC Code.

The 2019 estimation is based on minimum mining widths of 3m @ 0.5%  $WO_3$ . Digital wire frame models of mineralised domains were created on 12.5m or 25m spaced east-west cross sections utilising drillhole data and historic mine sections. The mineralised domain models are considered appropriate in the context of the resource classifications applied to this estimate.

Drillhole data within wire framed domains were composited on 1m intervals. Univariate statistical analysis was completed on all domains. Sample populations were moderately skewed with only one domain required top cutting. Variogram modeling was completed on the four main mineralised fault blocks. Semi-variogram models were generally well constructed with a moderate nugget effect comprising approximately 20-30% of sill and ranges of approximately 20-25m.

A block modeled resource estimation was calculated using an ordinary kriged algorithm. The resource is reported as Indicated and Inferred Resources in accordance with the 2012 edition of the JORC Code (Table 1).

The resource has been classified as Inferred and Indicated Resource according to the 2012 edition of the JORC Code depending on the drill hole spacing and the confidence of the geological interpretation. Resources were classified as Indicated resource where they were within 20m of a drill hole. All other modelled mineralisation is classified as Inferred Resource. The geology and mineralisation of the

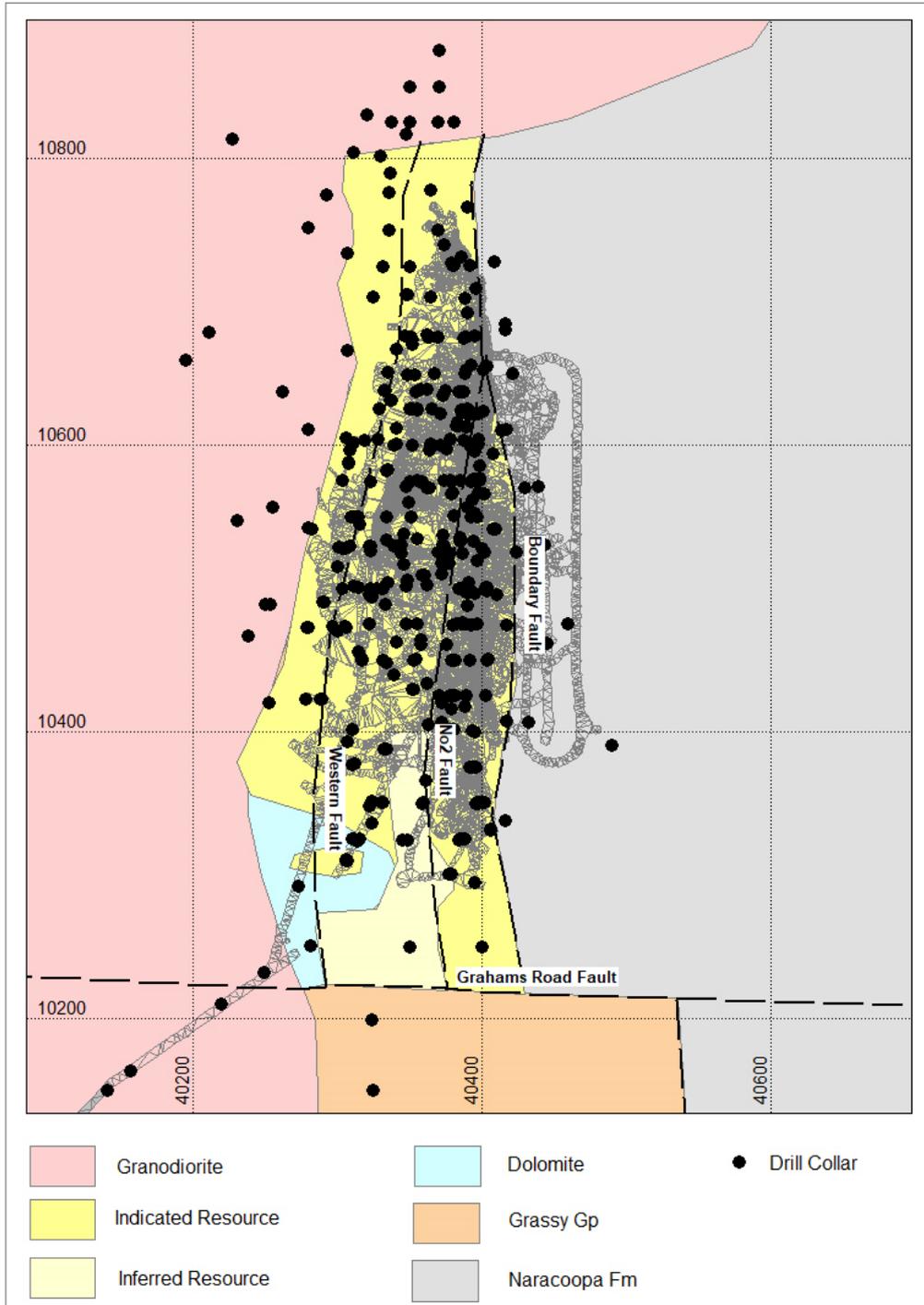


deposit are well understood from previous operations and there is a high degree of confidence in the mineralisation model. The 2019 resource estimation reconciles well with the historic resource/reserve statements completed on mine closure in 1986 (1.8Mt @ 0.8-0.9% WO<sub>3</sub>).

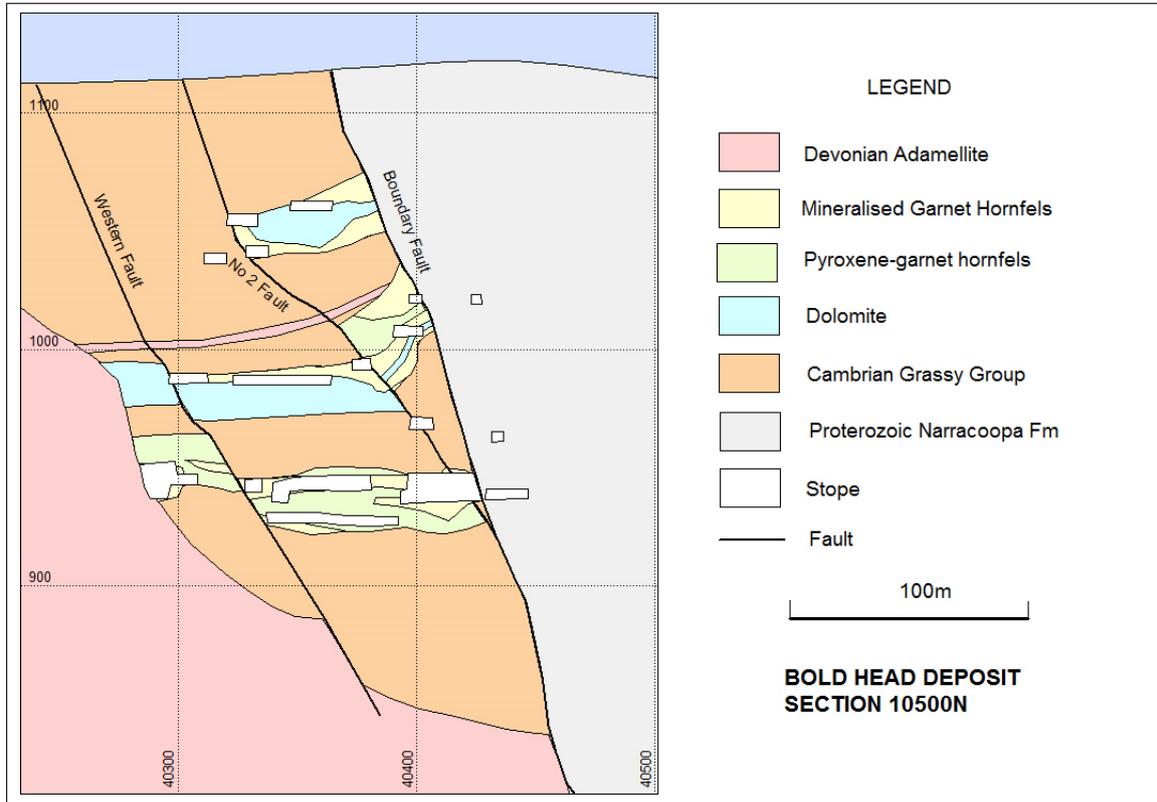
The digital compilation of historic drilling data, geological information and mine infrastructure has provided sufficient information to allow the assessment of the commercial viability of re-accessing the Bold Head Scheelite Mine.

A decline developed mostly on the eastern footwall of the deposit extends from surface to over 200m depth. Most mineralisation consists of remnant mineralisation in existing room and pillar cut and fill stopes with undeveloped mineralisation located at the deeper southern end of the deposit. Rehabilitation of the existing mine infrastructure is proposed with room and pillar mining operation resumed to recover the remaining mineralisation. Mineralisation would be transported to the proposed Dolphin Mine processing facility 3km to the south.

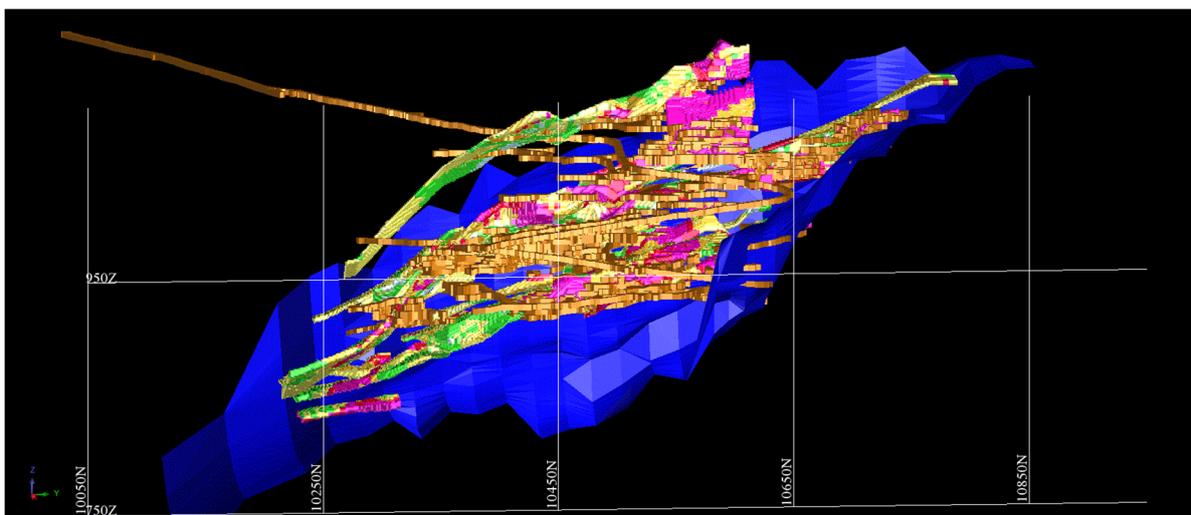
Recommendations for follow up work include ongoing validation and geotechnical drilling, mining studies and Reserve Estimation.



**Figure 2. Bold Head Schematic Geology, DDH locations and Mine Infrastructure**



**Figure 3. Bold Head cross section 10500mN.**



**Figure 4. Bold Head Blockmodel and mine infrastructure**



## Forward Looking Statements

Some statements in this report regarding estimates or future events are forward looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward looking statements include, but are not limited to, statements preceded by words such as “planned”, “expected”, “projected”, “estimated”, “may”, “scheduled”, “intends”, “anticipates”, “believes”, “potential”, “could”, “nominal”, “conceptual” and similar expressions. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results to differ from estimated results, and may cause the Company’s actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward looking statements. These risks and uncertainties include but are not limited to liabilities inherent in mine development and production, geological, mining and processing technical problems, competition for capital, acquisition of skilled personnel, incorrect assessments of the value of acquisitions, changes in commodity prices and exchange rate, currency and interest fluctuations, various events which could disrupt operations and/or the transportation of mineral products, including labor stoppages and severe weather conditions, the demand for and availability of transportation services, the ability to secure adequate financing and management’s ability to anticipate and manage the foregoing factors and risks. There can be no assurance that forward looking statements will prove to be correct.

Statements regarding plans with respect to the Company’s mineral properties may contain forward looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code (2012) and the current ASX Listing Rules. The Company believes that it has a reasonable basis for making the forward looking statements in the announcement, including with respect to any production targets and financial estimates, based on the information contained in this and previous ASX announcements

## Competent Person’s Declaration

The information in this announcement that relates to mineral resources is based on, and fairly represents, information and supporting documentation compiled by Mr. Tim Callaghan, an independent mining consultant working for Resource and Exploration Geology. Mr. Callaghan is a Member of the Australian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

## Statement of Independence

Tim Callaghan has no material interest or entitlement in the securities or assets of King Island Scheelite Pty Ltd or any associated companies.



<b>JORC Table 1, Section 1 Sampling Techniques and Data</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
Sampling Techniques	<ul style="list-style-type: none"> <li>• Nature and Quality of sampling (e.g. cut channels, random chips or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or hand held XRF instruments etc).</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. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverized to produce 30g 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 sampling types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>• The Bold Head Scheelite Skarn has been sampled through numerous historic underground and surface diamond drilling campaigns between 1968 and 1989 by the previous mine operators Geopeko Ltd.</li> <li>• A limited recent validation, diamond drilling campaign was completed by KIS in 2013 and 2014.</li> <li>• 424 historic diamond drill holes for 32,388.0m.</li> <li>• 8 recent drillholes for 659.4m.</li> <li>• Approximately 3 ft or 1m samples of 1-3kg were taken from diamond saw cut drill core whilst respecting geological boundaries.</li> </ul>



<b>JORC Table 1, Section 1 Sampling Techniques and Data</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
Drilling Techniques	<ul style="list-style-type: none"> <li>• Drill type (e.g. core, reverse circulation, open hole hammer, rotary air blast, auger, bangka, sonic etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face sampling bit or other type, where core is oriented and if so by what method.</li> </ul>	<ul style="list-style-type: none"> <li>• Generally NQ diamond core for surface drillholes and BQ or BQ equivalent for underground drill holes.</li> <li>• Core not oriented.</li> </ul>
Sample recovery	<ul style="list-style-type: none"> <li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>• Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred.</li> </ul>	<ul style="list-style-type: none"> <li>• Core reconstituted, marked up and measured for recovery in all drilling campaigns.</li> <li>• Recovery generally excellent (95-100%)</li> <li>• No relationship between recovery and grade was observed.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc) photography.</li> </ul>	<ul style="list-style-type: none"> <li>• Historic core geologically logged onto typed paper logs.</li> <li>• Recent core geologically logged onto excel spreadsheets by experienced geologists.</li> <li>• Standard lithology codes used for interpretation.</li> <li>• RQD and recoveries logged.</li> </ul>



JORC Table 1, Section 1 Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> <li>Historic and recent logs loaded into excel spreadsheets and uploaded into access database.</li> </ul>
Sub-Sample techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter or half taken.</li> <li>If non core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results of field duplicate/second half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>No record of historic sample preparation but assumed to be half diamond core as was standard industry practice for Geopeko operations.</li> <li>Half core split by diamond saw on 0.5 – 1.0m and 3ft samples while respecting geological contacts.</li> <li>Bagged core delivered to commercial Laboratories in Burnie (ALS)</li> <li>Half core crushed to 80% passing 2mm</li> <li>Crushed sample quartered to 500g and pulverised to pass 75 micron.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysics tools, spectrometers, hand held XRF</li> </ul>	<ul style="list-style-type: none"> <li>No record of QAQC procedures were available for historic sampling.</li> <li>Recent samples assayed for WO<sub>3</sub> and Mo by XRF at Burnie Research Laboratories (AMMTECH, ALS).</li> </ul>



JORC Table 1, Section 1 Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary
	<p>instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibration factors applied and their derivation etc.</p> <ul style="list-style-type: none"> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Historic samples assayed for WO<sub>3</sub> and Mo by XRF in on site mine laboratories with check samples assayed by Amdel.</li> <li>No formal QAQC analysis cited for recent validation drilling campaign.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel</li> <li>The use of twinned holes</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols</li> <li>Discuss any adjustment to assay data</li> </ul>	<ul style="list-style-type: none"> <li>No independent laboratory analyses completed.</li> <li>Minor verification of historic data with recent drilling campaigns.</li> <li>Primary assay data was received electronically and stored by consultant geologist.</li> <li>All electronic data uploaded to access database.</li> <li>Historic data loaded into Access database from paper logs.</li> <li>Data validation with Surpac software, basic statistical analysis and comparison with historic plans and sections.</li> </ul>



JORC Table 1, Section 1 Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> <li>Negative results for below detection limit assay data has been entered as 0.01%WO<sub>3</sub></li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys) trenches, mine workings and other locations used in mineral resource estimation</li> <li>Specification of grid system used</li> <li>Quality and accuracy of topographic control</li> </ul>	<ul style="list-style-type: none"> <li>All hole collar surveys by licensed surveyor.</li> <li>All coordinates in historic Bold Head Mine Grid BHMG</li> <li>RL's as MSL + 1000</li> <li>Down hole surveys by downhole camera</li> <li>Topographic dtm created from drill hole collars</li> </ul>
Data Spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for exploration results</li> <li>Whether data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource and Ore Reserve estimation procedures and classifications applied.</li> <li>Whether sample compositing has been applied</li> </ul>	<ul style="list-style-type: none"> <li>Sample spacing minimum 25 x 25m, 12.5m x 12.5m or better for most of the resource.</li> <li>Drill spacing is considered to be appropriate for the estimation of Measured and Indicated Mineral resources.</li> <li>Samples have been composited on 1m intercepts for the resource estimation.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent</li> </ul>	<ul style="list-style-type: none"> <li>The majority of DDH have been drilled east-west or vertical sub-perpendicular the gently dipping mineralisation.</li> </ul>



<b>JORC Table 1, Section 1 Sampling Techniques and Data</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
	<p>to which this is known, considering the deposit type.</p> <ul style="list-style-type: none"> <li>If the relationship between drilling orientation and the orientation of key mineralised structures is considered to have introduced sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole orientation is not considered to have introduced any material sampling bias.</li> </ul>
Sample Security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security</li> </ul>	<ul style="list-style-type: none"> <li>Recent samples ticketed and bagged on site.</li> <li>Delivered by courier to laboratories in Burnie.</li> <li>All historic data digitally captured and stored in customised access database</li> <li>Data integrity validated with Surpac Software for EOH depth and sample overlaps.</li> <li>Manual check by reviewing cross sections with the historic drafted sections and plans.</li> <li>Basic statistical analysis supports data validation</li> </ul>
Audits or Reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews of sampling data and techniques completed.</li> </ul>



<b>JORC TABLE 1, SECTION 2. REPORTING OF EXPLORATION RESULTS</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type reference, name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of tenure held at the time of reporting along with known impediments to obtaining a license to operate the area</li> </ul>	<ul style="list-style-type: none"> <li>ML1/2006 Grassy King Island EL19/2001 and MLA2030P/M are 100% owned by Australian Tungsten Pty Ltd, a wholly owned subsidiary of KIS</li> <li>The area is a historic scheelite mining district and there are no known or experienced impediments to operating a license in this area</li> <li>EL19/2001 hosting Bold Head requires annual renewal.</li> <li>State Royalties 5.35%, Osisko Royalty 1.5%, HNC Royalty 2% capped at \$3.9M</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgement and appraisal of exploration by other parties</li> </ul>	<ul style="list-style-type: none"> <li>The Dolphin Mine operated intermittently as an open cut and underground operation until its closure in 1990 by King Island Scheelite, Geopeko and North Ltd.</li> <li>The Bold Head Mine operated as an underground Mine from 1974 to 1986 before being closed due to low metal prices.</li> <li>Exploration and resource drilling completed by these previous companies.</li> <li>KIS commenced feasibility studies into reopening the operation in 2005.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation</li> </ul>	<ul style="list-style-type: none"> <li>The Bold Head Scheelite deposit is a metasomatic skarn hosted in hornfelsed Cambrian calcareous sedimentary rocks on the northern margin of the Grassy Granite, southeast King Island. The deposit forms a roof pendant located on the surface</li> </ul>



JORC TABLE 1, SECTION 2. REPORTING OF EXPLORATION RESULTS		
Criteria	JORC Code Explanation	Commentary
		of the granite. The skarn consists of layered and banded garnet skarn and pyroxene-garnet skarn replacing two principal carbonate horizons, B and C Lens. Scheelite occurs as coarse and fine disseminations in the skarn mineralogy.
Drill Hole Information	<ul style="list-style-type: none"> <li>• 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</li> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• downhole length and interception depth</li> <li>• hole length</li> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• This report refers to the Resource Estimation of the Bold Head Scheelite Deposit and is not a report on Exploration Results. The resource estimation is interpolated from 1m composited geochemical data associated with 440 diamond drillholes for 32847.4m on a 25m or 12.5m spacing. Tabulation of this data is not considered relevant to the understanding of this report. Appendix 1 contains drill collar information and mineralised intercepts for section 10500N as an example of some of the drill hole information used for this report.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>• In reporting of Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cutoff grades are usually material and should be stated.</li> <li>• Where aggregate intercepts include short lengths of high grade results and longer lengths of low grade results, the procedure used for aggregation should be stated and some</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable. This announcement refers to the Resource Estimation of the Bold Head Deposit and is not a report on Exploration Results.</li> <li>• Mineralised intercepts within &gt;0.5% WO<sub>3</sub> solid models have been composited on 1m lengths for grade interpolation.</li> <li>• A summary of resource validation drilling details has been previously reported in Mineral Resource Estimation Report (ASX: KIS April 2015).</li> </ul>



<b>JORC TABLE 1, SECTION 2. REPORTING OF EXPLORATION RESULTS</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
	<p>examples of such aggregations should be shown in detail</p> <ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralised zones were reported as length weighted intercepts.</li> <li>No metal equivalents have been used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. down hole length, true width not known)</li> </ul>	<ul style="list-style-type: none"> <li>Most drill holes have been drilled to intercept the deposit at high angles to best represent true widths of the mineralisation.</li> <li>Systematic resource drilling on 12.5 or 25m spaced east-west sections.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulated intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>See the body of this report for plans and section of the Bold Head Deposit.</li> <li>See plans and sections with the body of this report</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable. This report refers to the Mineral Resource Estimation of the Bold Head Deposit and does not contain any exploration Results. Previous validation drilling results released in ASX: KIS January 2014.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>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,</li> </ul>	<ul style="list-style-type: none"> <li>Bulk samples and diamond drill core have been selected for metallurgical test work.</li> <li>Technical studies on process plant design for the Dolphin and Bold Head deposits have been ongoing since 2015.</li> </ul>



<b>JORC TABLE 1, SECTION 2. REPORTING OF EXPLORATION RESULTS</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
	metallurgical results, bulk density, groundwater, geochemical and rock characteristics, potential deleterious or contaminating substances.	
Further work	<ul style="list-style-type: none"> <li>• The nature and scale of planned further work (e.g. test for lateral extensions or depth extensions or large scale step out drilling)</li> <li>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>• Further validation drilling is required to test down plunge mineralisation and digital mine model.</li> </ul>



<b>JORC TABLE 1, SECTION 3, REPORTING OF MINERAL RESOURCE ESTIMATIONS</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
Database Integrity	<ul style="list-style-type: none"> <li>Measures to ensure the data has not been corrupted by, for example transcription or keying errors, between its initial collection and its use for Mineral Resource estimation.</li> <li>Data Validation and procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>All data captured and stored in customised Access database.</li> <li>Recent digital data uploaded from laboratory reports to Access database.</li> <li>Data integrity validated with Surpac Software for EOH depth and sample overlaps and transcription errors.</li> <li>Historic data digitized by database consultants and uploaded to access database.</li> <li>Data validated against historic plans and sections</li> <li>Minor errors in data location, fixed in data base.</li> <li>Negatives in database converted to 0.01% WO<sub>3</sub> and Mo.</li> </ul>
Site Visits	<ul style="list-style-type: none"> <li>Comment on any site visits by the competent person and the outcome of any 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>Numerous site visits during various drilling campaigns since 2009.</li> </ul>
Geological Interpretation	<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 any assumptions made.</li> <li>The effect if any of alternative interpretations on Mineral Resource estimation</li> <li>The use of geology in guiding and controlling the Mineral Resource estimation</li> <li>The factors effecting continuity of both grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>High confidence in the geological model. High quality sectional interpretation from underground mapping and drill hole data by Geopeko Ltd.</li> <li>Diamond drillholes and sections used for geological domaining.</li> <li>No alternative geological interpretations were attempted.</li> <li>Geology model used for mineralised domain modeling.</li> <li>Brittle faulting and skarn mineralogy effect grade domaining.</li> </ul>



<b>JORC TABLE 1, SECTION 3, REPORTING OF MINERAL RESOURCE ESTIMATIONS</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
Dimensions	<ul style="list-style-type: none"> <li>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 Resource</li> </ul>	<ul style="list-style-type: none"> <li>Semi-continuous south shallow plunging and dipping stratabound mineralisation extends 550m in strike, by 200m width and dips from 110m above sea level in the north to 200m below sea level in the south.</li> </ul>
Estimation and Modelling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by products</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).</li> <li>In the case of blockmodel interpolation the block size in relation to the average sample spacing and search employed.</li> <li>Any assumptions behind modeling of selected mining units</li> <li>Any assumptions about correlation between variables</li> </ul>	<ul style="list-style-type: none"> <li>Block modeled estimation completed with Surpac™ software licensed to Tim Callaghan.</li> <li>Wire-framed solid models created from diamond drillholes and 12.5 or 25m sectional interpretation.</li> <li>Solid models snapped to drill holes</li> <li>Minimum mining width of 3m @ 0.5% WO<sub>3</sub></li> <li>Internal dilution restricted to 3m with allowances for geological continuity</li> <li>Data composited on 1m downhole lengths including WO<sub>3</sub> and Mo</li> <li>Top cutting based on CV and grade histograms for one C Lens domain only.</li> <li>Model extent of 10100N to 10900N, 40150E to 40550E, 700mRL to 1150mRL. Block dimensions of 5mN x 5mE x 5mRL block size with sub-celling to 1.25m.</li> <li>Variogram models well constructed with moderate to high nugget effect (50%) and moderate range of 15 to 30m to sill for most geological domains.</li> <li>Search ellipse set at 100m spherical range to ensure all blocks populated with minor anisotropy of 1:2</li> <li>Ordinary kriged block model constrained by geology solid model</li> <li>Block grades validated visually against input data</li> </ul>



<b>JORC TABLE 1, SECTION 3, REPORTING OF MINERAL RESOURCE ESTIMATIONS</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
	<ul style="list-style-type: none"> <li>• Description of how the geological interpretation was used to control the resource estimates.</li> <li>• Discussion of the basis for using or not using grade cutting or capping</li> <li>• The process of validation, the checking process used, the comparison of model data to drill hole data, and the use of reconciliation data if available.</li> </ul>	<ul style="list-style-type: none"> <li>• Good correlation with previous estimations</li> <li>• Very good correlation of depleted model with historic underground production</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>• Whether the tonnages were estimated on a dry basis or with natural moisture, and the method of determination of moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>• The estimate is based on a dry tonnage basis</li> </ul>
Cut-off Parameters	<ul style="list-style-type: none"> <li>• The basis of the adopted cutoff grades or cutoff parameters</li> </ul>	<ul style="list-style-type: none"> <li>• Cut off grades have been based on estimated mine grade break even costs. Operating costs and financial parameters were provided by external consultants and KIS. A break even cutoff grade of 0.5% WO<sub>3</sub> is calculated for reporting of underground resources.</li> <li>• 0.5% WO<sub>3</sub> cut off used for modelling and reporting.</li> </ul>
Mining Assumptions	<ul style="list-style-type: none"> <li>• 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 made when estimating Mineral Resources may not always be rigorous. When this is the case, this should</li> </ul>	<ul style="list-style-type: none"> <li>• Conventional decline accessed underground room and pillar mining. Ore production rate of 100-150ktpa from scoping studies.</li> </ul>



<b>JORC TABLE 1, SECTION 3, REPORTING OF MINERAL RESOURCE ESTIMATIONS</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
	<p>be reported with an explanation of the basis of the mining assumptions made.</p>	
Metallurgical assumptions	<ul style="list-style-type: none"> <li>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 made regarding metallurgical treatment processes and parameters made when estimating Mineral Resources may not always be rigorous. When this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>The proposed process plant is substantially the same as the historic operation which closed in 1992 with some modernisation of equipment and processes. Gravity flotation circuit achieving 74% recovery</li> <li>Numerous laboratory test programs have been completed since 2006 involving gravity, flotation, leaching and magnetic separation. These are the same unit processes used in the historical operations at Dolphin.</li> </ul>
Environmental assumptions	<ul style="list-style-type: none"> <li>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 for 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.</li> </ul>	<ul style="list-style-type: none"> <li>KIS has previously applied, and received approval from King Island Council in 2006, for the development of a large open pit and processing plant at the Dolphin mine site.</li> <li>Environmental Protection Notice 7442/2 issued by the EPA on 2 October 2017</li> <li>Council development applications approved.</li> </ul>



<b>JORC TABLE 1, SECTION 3, REPORTING OF MINERAL RESOURCE ESTIMATIONS</b>		
<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
Bulk Density	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed the basis for the assumptions. If determined the methods used, whether wet or dry, the frequency of measurements, the nature size and representativeness of the samples.</li> <li>The bulk density for bulk materials must have been measured by methods that adequately account for void spaces (vughs, porosity etc.), moisture and difference between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>Bulk density derived from historic operations (Balind 1989).</li> <li>Validation of density measurements made with 2014 -2015 Dolphin drill core using the Archimedes Method.</li> <li>Bulk density used as below:  B Lens = 3.1 C Lens = 3.4 Waste = 2.9</li> </ul>
Classification	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resource into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in continuity of Geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Persons view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>Confidence in the geological model, data quality and interpolation is considered to be sufficient for Mineral Resource located within 30m of sample data to be classified as Indicated Resource.</li> <li>Excellent correlation of grade with historic production provides confidence in the estimation.</li> <li>The resource classification appropriately reflects the views of the Competent Person</li> <li>None of the resource has been classified as Measured Resource due to a reliance on historic data and mine void models that cannot be adequately validated.</li> </ul>
Audits or Reviews	<ul style="list-style-type: none"> <li>The results of any Audits or Reviews of the Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews have been completed for this estimation</li> </ul>
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral</li> </ul>	<ul style="list-style-type: none"> <li>The geological model and data quality within 30m of level development is well understood and modeled.</li> </ul>



JORC TABLE 1, SECTION 3, REPORTING OF MINERAL RESOURCE ESTIMATIONS		
Criteria	JORC Code Explanation	Commentary
	<p>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 of the estimate.</p> <ul style="list-style-type: none"> <li>• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>• The effects of localised brittle faulting is well understood from underground mapping and drilling.</li> <li>• There is excellent confidence in the global tonnage estimation.</li> <li>• Grade and tonnage estimation has excellent reconciliation with the historic resource estimation on closure.</li> <li>• There is some local uncertainty in the accuracy of the digital mine model. This is unlikely to have a material effect on the resource estimation for feasibility studies.</li> </ul>

### Appendix 1. Section 10500 Drill hole intercepts

BHID	x bhg	y bhg	z bhg	depth m	azm bhg	dip	depth from	depth to	length	WO <sub>3</sub> %
BH277	40361.91	10502.68	1122	283.5	0	-90	63.14	69.69	6.55	0.14
							85.47	89.89	4.42	0.07
							151.32	154.5	3.18	0.50
							200.95	209.57	8.62	0.97
							220.14	228.29	8.15	0.74
BH269	40390.16	10488.32	1123.74	324.92	0	-90	123.07	128.77	5.7	0.24
							136.25	162.88	26.63	0.62
							163.92	165.33	1.41	0.66
							171.51	176	4.49	0.78
							217.3	219.2	1.9	1.46
BH500_1	40386.8	10499.7	1017.1	145.69	98.3	-78	4	12.51	8.51	1.74
							0	8.06	8.06	0.55
							0	12	12	0.66
							0	1	1	0.82
							0	5	5	0.52
							14	19	5	0.68
							25	34	9	1.88
							106	113	7	0.76
							123	126	3	0.77
							BH500_10	40388.98	10497.34	968.38
8.48	10	1.52	1.25							
BH500_12	40334.5	10504.4	964.6	23.43	175	-9	1.71	16.41	14.7	0.77
BH500_13	40303.5	10500	962.94	65.5	270	-76	0	0.65	0.65	0.13
							45	57.05	12.05	0.78
BH500_16	40322.9	10500.12	1042.48	24	83.3	-38	16.5	20.5	4	1.88
BH500_17	40347.44	10501.18	962.74	101.2	68.5	-75	49	53	4	0.42
BH500_18	40311	10501.5	962.6	85.8	86	-78	33	36.98	3.98	0.71
BH500_19	40403.3	10501	936.8	84.6	90	-66	33	37	4	0.71
BH500_20	40402.68	10500.62	936.8	72.8	270	-76	22	35	13	0.81
BH500_21	40314.2	10500.8	962.6	90.8	90	-72	0	2	2	0.76
							51	61	10	1.36
BH500_22	40410.22	10495.24	903.42	19	180	35	2.24	19	16.76	1.29
BH500_23	40403.1	10498.1	903.8	19	187.25	30	0	16.51	16.51	0.81
BH500_25	40358.58	10509.14	934.12	30	255.5	-58	20.3	30	9.7	0.43
BH500_26	40360.5	10508.8	907.5	29	202.5	-60	19	24	5	0.99
BH500_27	40394.9	10496.2	892.6	17	35.7	57	14	17	3	0.99
BH500_3	40384.2	10500	1017	84.73	282.3	-86	15	23	8	0.75
BH500_4	40383.9	10500.1	1017	156.97	272.7	-70	45.84	54	8.16	0.93
							18	25	7	0.32
							48	52.94	4.94	1.52
							107	118	11	0.37
							130	134	4	0.91
BH500_5	40331.4	10499.8	1028	148.12	268	-78	65	68.12	3.12	0.43
							106.07	109.11	3.04	0.87
BH500_6	40330.9	10499.8	1028	93.98	269	-50	82	85	3	0.85
BH500_9	40390.16	10497.84	968.5	44.85	88	-52	0	3	3	1.02