KING ISLAND SCHEELITE
ASX : KIS

9 December 2020

DOLPHIN TUNGSTEN PROJECT

METALLURGICAL TESTWORK RESULTS IN SIGNIFICANT IMPROVEMENTS IN RECOVERIES AND GRADE

Highlights:

- **Metallurgical test-work has resulted in a revised process flow-sheet being included in the Company's Revised Feasibility Study**
- **Significant improvements achieved include:**
  - **Expected recovery of 18.9% of the WO_3 units fed to the plant by re-processing coarse gravity tails using a Multi Gravity Separator (MGS)[1]**
  - **Increased overall WO_3 recovery of around 3.5% over the life of mine compared with the 2019 Gravity/Flotation flow-sheet.**
  - **Improvement in final product grade to 63.3% WO_3 improves pricing of the scheelite concentrate**
  - **Decrease in processing plant Opex of 10% due to large reduction in flotation plant reagent costs**
- **Scale-up viability to be tested on a larger bulk sample in early 2021**
- **Revised Feasibility Study to be finalised this month**

King Island Scheelite Limited (**ASX: KIS**) ("KIS" or "the Company") is pleased to advise of material improvements to the proposed flow-sheet for its Dolphin Tungsten Project in King Island, Tasmania.

Metallurgical Test-work

The metallurgical test-work undertaken by ALS in Burnie, Tasmania during the past several months utilised a pilot-scale Multi Gravity Separator (MGS). The machine was set up in a variety of

[1] Refer to Forward looking statements and competent persons' statement p4

configurations (Rougher, Cleaner etc) and undertook multiple runs on Dolphin feed material of various sources, but mainly selected tailings streams from the coarse gravity circuit.

The MGS test-work has shown that the equipment can be utilised to separate heavy scheelite particles in the -38 µm to -20 µm size range, which are not recoverable in the coarse gravity circuit using conventional spirals and tables. Importantly, the MGS separation also rejects lighter calcite particles, enabling efficient flotation of the MGS concentrate with recoveries and grades that have rarely been achieved in a calcite-rich feed to previous flotation circuits.

The flowsheet that KIS proposes to implement at its Dolphin Project will include a bank of MGS processing units fed by around 50% of the gravity tails streams to produce an intermediate rougher concentrate. This rougher concentrate will be cleaned to a marketable grade using a small flotation plant of approximately 10% of the throughput capacity of the flotation plant proposed in the 2019 Feasibility Study.

A number of optimisations have been run to finalise the fine gravity circuit configuration. The results have been consistent and to date have achieved a recovery of an additional 18.9% of the WO_3 units fed to the plant by reprocessing the coarse gravity tails in the MGS. The test-work was based on a head-feed sample grade of 0.73 % WO_3 (being the average grade of the Dolphin open-cut reserve).

This additional recovery augments the recovery from the coarse gravity plant that has undergone extensive metallurgical test-work in the past 3 years and is currently expected to produce 60% of the WO_3 units fed to the plant. The proposed flow sheet thus provides a total of 78.9% tungsten metal recovery.

A concentrate grade of the combined gravity product (coarse gravity – spirals and tables and fine gravity – MGS) is 63.3% WO_3 - a high grade concentrate expected to be of significant value to customers.

Commercial scale-up

The results achieved in the pilot scale (notional 200 kg/hr) machine are extremely encouraging and have prompted the Company to verify the scale-up factors in a full-scale commercial machine using its own ore. KIS is currently in negotiation with a UK-based equipment manufacturer regarding renting or pre-purchasing a commercial-grade machine to evaluate a larger bulk sample in early 2021.

Revised Feasibility Study

As announced in the Company's September quarterly report, the KIS technical team and its consultants have been working to finalise a Revised Feasibility Study (RFS) on its Dolphin Project, which will include:

- The benefits of the revised flow sheet outlined above.

- An extension of mine life from an underground mine developed from a portal on the final highwall of the open-cut mine.
- An optimised open cut mining schedule.
- Various other enhancements of the project that have been identified in the past 18 months.

The Company expects to finalise and release its RFS work to the market this month.

This announcement has been authorised for release by the Directors of King Island Scheelite Ltd.

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Competent Persons' Declarations

The information in this announcement that relates to metallurgy and processing, and fairly represents, information and supporting documentation compiled by Mr. Alvin Johns, an independent mining consultant working for Asther Pty Ltd. Mr. Johns 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). Mr. Johns has reviewed the contents of this news release and consents to the inclusion in this announcement of all technical statements associated with metallurgical testwork and process design, based on the information in the form and context in which they appear.

The information in this report that refers to Exploration Results and Mineral Resource Estimations is based on information compiled by geology consultant Mr. Tim Callaghan who is a Member of The Australasian Institute of Mining and Metallurgy ("AusIMM"). Mr Callaghan has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserve. Mr Callaghan consents to the inclusion in the report of matters based on his information in the form and context it appears.

Forward Looking Statements

Some statements in this report regarding estimates or future events are forward looking statements. They include indications of, and guidance on, metallurgical or process 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 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 labour 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.

JORC (2012) Table 1 report

Section 1 Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Sampling Techniques	• Nature and Quality of sampling (e.g. cut channels, random chips or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or hand held XRF instruments etc.). • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • 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.	• The Dolphin Scheelite Skarn has been sampled through numerous historic underground and surface diamond drilling campaigns between 1947 and 1989 by the previous mine operators. • Recent diamond drilling campaigns were completed by KIS in 2005, 2006, 2011, 2013 and 2014. • 636 historic diamond drill holes for 56,667.8m • 113 recent drillholes for 9,975.8m. • Approximately 3 ft or 1m samples of 1-3kg were taken from diamond saw cut drill core whilst respecting geological boundaries.
Drilling Techniques	• 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	• Generally, NQ diamond core for surface drillholes and BQ or BQ equivalent for underground drill holes. • Core not oriented.

Criteria	JORC Code Explanation	Commentary
Sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximize sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred.	• Core reconstituted, marked up and measured for recovery in all drilling campaigns • Generally excellent (95-100%) • No relationship between recovery and grade was observed
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • Whether logging is qualitative of quantitative in nature. Core (or costean, channel etc.) photography.	• Historic core geologically logged onto typed paper logs. • Recent core geologically logged onto excel spreadsheets by experienced geologists. • Standard lithology codes used for interpretation. • RQD and recoveries logged • Historic and recent logs loaded into excel spreadsheets and uploaded into access database.
Sub-Sample techniques and sample preparation	• If core, whether cut or sawn and whether quarter of half taken. • If non core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub sampling stages to maximize representivity of samples. • Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results of field duplicate/second half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled	• No record of historic sample preparation • Half core split by diamond saw on 0.5 – 1.0m samples while respecting geological contacts. • Bagged core delivered to commercial Laboratories in Burnie (BRL, AMMTECH, ALS) • Half core crushed to 80% passing 2mm • Crushed sample quartered to 500g and pulverized to pass 75 micron.

Criteria	JORC Code Explanation	Commentary
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysics tools, spectrometers, hand held XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibration factors applied and their derivation etc. • 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.	• No record of QAQC procedures were available for historic sampling. • Recent samples assayed for WO_3 and Mo by XRF at Burnie Research Laboratories (AMMTECH, ALS). • Historic samples assayed for WO_3 and Mo by XRF in on site mine laboratories with check samples assayed by Amdel. • No formal QAQC analysis cited for recent validation drilling campaign.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel • The use of twinned holes • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols • Discuss any adjustment to assay data	• No independent laboratory analyses completed. • Minor verification of historic data with recent drilling campaigns. • Twinned Metallurgical holes show excellent correlation with primary hole. • Primary assay data was received electronically and stored by consultant geologist. • All electronic data uploaded to access database • Historic data loaded into Access database. • Data validation with Surpac software, basic statistical analysis and comparison with historic plans and sections. • Negative results for below detection limit assay data has been entered as 0.01%WO_3
Location of data points	• 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 • Specification of grid system used • Quality and accuracy of topographic control	• All hole collar surveys by licensed surveyor. • All coordinates in historic mine grid ISG and GDA94 • RL's as MSL • Down hole surveys by downhole camera •

Criteria	JORC Code Explanation	Commentary
Data Spacing and distribution	• Data spacing for exploration results • 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. • Whether sample compositing has been applied	• Sample spacing approximately 20 x 20m or better for much of the resource. • Drill spacing is considered to be appropriate for the estimation of Measured and Indicated Mineral resources. • Samples have been composited on 1m intercepts for the resource estimation.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • 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.	• The majority of DDH have been drilled north-south or vertical sub-perpendicular the gently dipping mineralisation. • Drill hole orientation is not considered to have introduced any material sampling bias.
Sample Security	• The measures taken to ensure sample security	• Post 2005 samples ticketed and bagged on site. • Delivered by courier to laboratories in Burnie. • All historic data digitally captured and stored in customised access database • Data integrity validated with Surpac Software for EOH depth and sample overlaps. • Manual check by reviewing cross sections with the historic drafted sections and plans. • Basic statistical analysis supports data validation
Audits or Reviews	• The results of any audits or reviews of sampling techniques and data	• No audits or reviews of sampling data and techniques completed.

SECTION 2, REPORTING OF EXPLORATION RESULTS		
Criteria	**JORC Code Explanation**	**Commentary**
Mineral tenement and land tenure status	• Type reference, name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of tenure held at the time of reporting along with known impediments to obtaining a license to operate the area	• ML 2080P/M Grassy and King Island EL19/2001 • The ML and EL are 100% owned by Australian Tungsten Pty Ltd, a subsidiary of KIS • The area is a historic scheelite mining district and there are no known or experienced impediments to operating a license in this area • EL19/2001 requires annual renewal. • State Royalties 5.35%, Osisko Royalty 1.5%, HNC Royalty 2% capped at $3.9M
Exploration done by other parties	• Acknowledgement and appraisal of exploration by other parties	• 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. • Exploration and resource drilling completed by these previous companies. • KIS commenced feasibility studies into reopening the operation from 2005 until the present.
Geology	• Deposit type, geological setting and style of mineralisation	• The Dolphin 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 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.

Criteria	JORC Code Explanation	Commentary
Drill Hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes • easting and northing of the drill hole collar • elevation or RL of the drill hole collar • dip and azimuth of the hole • downhole length and interception depth • hole length • 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	• Not applicable. This announcement refers to the Reserve Estimation and Feasibility study of the Dolphin Project and is not a report on Exploration Results. • Drill hole information previously reported in Mineral Resource Estimation Report (ASX:KIS April 2015).
Data aggregation methods	• 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. • 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 examples of such aggregations should be shown in detail • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Not applicable. This announcement refers to the Reserve Estimation and Feasibility study of the Dolphin Project and is not a report on Exploration Results. • A summary of resource validation drill intercepts has been previously reported in Mineral Resource Estimation Report (ASX:KIS April 2015). • Mineralised zones were reported as length weighted intercepts.

Criteria	JORC Code Explanation	Commentary
Relationship between mineralisation widths and intercept lengths	• 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. • 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)	• Most drill holes have been drilled to intercept the deposit at high angles to best represent true widths of the mineralisation. • Systematic resource drilling on 20m sections.
Diagrams	• 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.	• See the body of this report for plan and section of the Dolphin Deposit. • Detailed plans and sections previously reported in Mineral Resource Estimation Report (ASX:KIS April 2015).
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/ or widths should be practiced to avoid misleading reporting of Exploration Results	• Not applicable. This report is a Mineral Reserve Estimation and does not contain any exploration Results. • Exploration Results previously reported in Mineral Resource Estimation Report (ASX:KIS April 2015).
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to); geological observations, geophysical survey results, geochemical survey results, bulk samples – size and method of treatment, metallurgical results, bulk density, groundwater, geochemical and rock characteristics, potential deleterious or contaminating substances.	• Bulk samples and diamond drill core have been selected for metallurgical test work. Bulk samples were hand selected from outcropping mineralisation in the historic dolphin open cut for the various mineralised domains. • Summary details of test work are located in JORC Table 1 Section 4 of this report.

Criteria	JORC Code Explanation	Commentary
Further work	• The nature and scale of planned further work (e.g. test for lateral extensions or depth extensions or large scale step out drilling) • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Further resource extension drilling west and south east of Indicated Resource. • Resource plans and sections previously reported in Mineral Resource Estimation Report (ASX:KIS April 2015).