ASX Code: "THR"

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TUNGSTEN RESOURCE INCREASE OF 55% - PILOT MOUNTAIN , NEVADA USA

The Board of Thor Mining Plc ("Thor" or the "Company") (AIM, ASX: THR) is pleased to announce a 55% tungsten resource inventory increase at the Company's wholly owned Pilot Mountain tungsten project in Nevada, USA (figure 1), representing a maiden resource estimate for the Garnet prospect, and an increase in the resource estimate at Desert Scheelite.

Following drilling in March this year, an inferred resource estimate for the Garnet deposit has been completed comprising **1.83 million tonnes (Mt) at an average grade of 0.36% WO_3** (using cut-off grade of 1,000 ppm WO_3).

Further, a re-evaluation of the Desert Scheelite deposit has resulted in an upgrading of the resource estimate to **9.9 million tonnes at an average grade of 0.26% WO_3**, 19.39 gram/tonne Silver (Ag), and 0.14% copper (Cu) (using cut-off grade of 1,500 ppm WO_3, previously 2,000ppm).

The total Pilot Mountain resource inventory now stands at 11.73 Million tonnes at 0.28% WO_3 (Table 1).

Table 1: Pilot Mountain Resource Summary 2017 (JORC 2012) - 100% owned by Thor Mining Plc

		Resource	WO_3		Ag		Cu	
		MT	Grade %	Contained metal (t)	Grade g/t	Contained metal (t)	Grade %	Contained metal (t)
Garnet	**Indicated**		-	-				
	Inferred	1.83	0.36	6,590				
	Sub Total	**1.83**	**0.36**	**6,590**				
Desert Scheelite	**Indicated**	**8.41**	**0.27**	**22,700**	21.3	179	0.14	11,800
	Inferred	**1.49**	**0.23**	**3,430**	9.07	13	0.17	2,500
	Sub Total	**9.90**	**0.26**	**26,130**	**19.39**	**192**	**0.14**	**14,300**
Summary	**Indicated**	**8.41**	**0.27**	**22,690**				
	Inferred	**3.32**	**0.30**	**10,020**				
Pilot Mountain Total		**11.73**	**0.28**	**32,720**				

Note:

- *All figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding.*

Mr Mick Billing, Executive Chairman of Thor: "*This is a significant step forward for the Pilot Mountain project. The resource inventory still has considerable growth potential via the GunMetal and Good Hope deposits, as well as more potential upside at Desert Scheelite and Garnet"*

"Importantly, the grade of mineralisation at Pilot Mountain is relatively high and this underpins the robust nature of the project."

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Key Projects:
- **Tungsten**
  Molyhil NT
  Pilot Mountain USA

Figure 1. Pilot Mountain Location

Garnet Deposit

Six holes were drilled to validate historic drill data from Union Carbide Corp drilling undertaken in the 1970's (Figure 2). Significant intercepts include:

Hole 17GRRC01	3.8m @ 0.31%WO_3 and 2.2%Zn from 4.6m
	3.8m @ 0.72%WO_3 and 1.6%Zn from 45.0m
	5.3m @ 1.0%WO_3 and 0.9%Zn from 83.1m
Hole 17GRRC06	6.1m @ 0.24%WO_3 from 16.5m
	14.5m @ 0.31%WO_3, 0.3%Zn from 25.9m

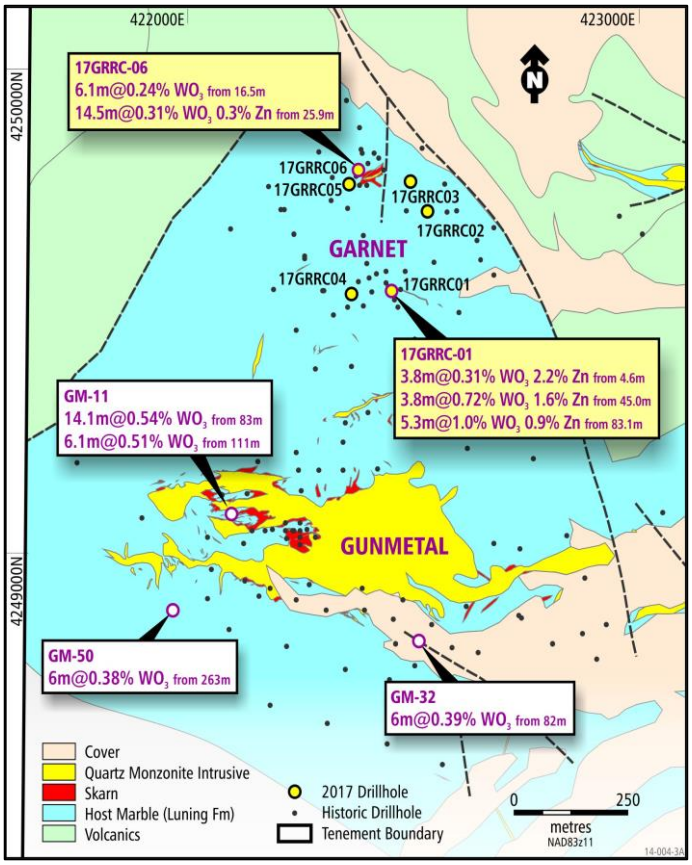

Figure 2: Map of the Garnet and Gunmetal prospect area. The 2017 Garnet drill holes tested less than a third of the total historic drill data over the entire Garnet and Gunmetal area.

Zinc grades from the 2017 drilling appear sufficient to produce a saleable bi-product to the Scheelite stream. Assays for zinc are not available in the historic database and the 2017 drilling zinc data alone is insufficient to estimate an inferred zinc resource. On the basis of the 2017 drill data, the following zinc **exploration target***has been derived for the Garnet deposit:

1.4 – 1.8 Mt at 0.5 to 1.0% Zinc

(7,000 - 18,000 tonnes contained Zn metal)

Further opportunities for the growth of the Garnet resource are being evaluated for follow up drilling.

***Exploration Targets** are conceptual in nature and there is insufficient data to define a Mineral Resource under the JORC Code. It is uncertain if further exploration will result in the determination of a Mineral Resource.*

Desert Scheelite Deposit

Following a review of the Desert Scheelite deposit and a comparison with the Garnet deposit where a WO_3 cut-off grade of 1,000ppm was applied, it was decided to amend the Desert Scheelite resource cut-off grade to 1,500ppm WO_3, from the previously applied 2,000ppm WO_3.

For further information, please contact:
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Competent Person's Report

The information in this report that relates to the Desert Scheelite and Garnet JORC Resource Estimates is based on information compiled by Mr. Stephen Godfrey, who is a Member of the Australian Institute of Geoscientists and Australasian Institute of Mining & Metallurgy and who has had sufficient experience which is relevant to the style of mineralization and type of deposit under consideration and to the activities which are being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' . Mr. Godfrey is an employee of Resource Evaluation Services and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to exploration results and exploration targets is based on information compiled by Richard Bradey, who holds a BSc in applied geology and an MSc in natural resource management and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Bradey is an employee of Thor Mining PLC. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Richard Bradey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

About Pilot Mountain

Thor's Pilot Mountain Project, acquired in 2014, is located approximately 200 kilometres south of the city of Reno and 20 kilometres east of the town of Mina located on US Highway 95.

The Pilot Mountain Project comprises four tungsten deposits: Desert Scheelite, Gunmetal, Garnet and Good Hope. All are in close proximity (~three kilometres) to each other and have been subjected

to small-scale mining activities at various times during the 20th century. Union Carbide acquired the project in 1978, for US$7.0 million (estimated at US$26million - US$40million in 2017 dollars), and conducted detailed exploration and feasibility activities until, following a global downturn in the tungsten industry in the 1980s, they suspended further work.

Figure 3: Drilling at Desert Scheelite

JORC Code, 2012 Edition – Table 1 report Garnet Resource Estimate

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 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 mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	The Garnet resource is defined by 6 Reverse Circulation holes drilled in 2017 and 73 holes drilled in the 1970s comprising 24 diamond drill holes 9 "rotary" holes and 40 drill holes undefined. The recent drilling used reverse circulation to obtain samples. 2kg subsamples were taken using rotary splitter for logging and laboratory analysis. Chip tray samples were collected logged and photographed. The recent Garnet drill holes were sampled at 2.5 foot intervals. The historic holes have samples recorded over intervals from 1 to 50 feet, most commonly 5 feet. Sampling and analysis for the 1970s drilling is unknown.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	The earlier 1970s drilling method is diamond and "rotary", believed to be percussion with anular return. The recent drilling was RC using a face sampling hammer
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise 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 due to preferential loss/gain of fine/coarse material.*	Sample recoveries have not been systematically quantified but anecdotally are consistently high.
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 or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	The 6 drill holes from 2017 program have information for collar, survey, assay, lithology, weathering. Geology of the hole cuttings was qualitative logged and photographed over the entire hole length. Older holes contain only collar survey and assay data with some geological logging of selected holes and intervals.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core 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 maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	2kg subsamples were taken using a rotary splitter. This size sample is considered representative considering the rock type and grain size.
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 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.* • *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.*	Assaying of the 2017 samples was conducted by ALS Global minerals Vancouver, BC, Canada. Sample and assay method has previously been approved by independent resource estimate practitioner. QA/QC protocol has been adopted using certified reference material; certified blank material and field duplicate samples inserted at a rate of 15% or better. Validation of the 1970s assay results was undertaken by twinning of the older holes with the recent drilling. The twin holes contain comparable lithologies and assay grades. One pair is anomalous due to a probable ground survey error.
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.*	Twin holes were used to successfully check the veracity of the historical drilling. The compiled drilling data was checked for internal consistency as part of the resource estimation. Database Analytical data for the 20017 program was validated against laboratory reports.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Hole collar co-ordinates are referenced to NAD 83 (zone 11N). Historic collar locations from 1970s were digitised from maps translated to NAD83. Locations were cross checked against several maps. For the 2017 drilling, downhole surveys have been conducted using north seeking

Criteria	JORC Code explanation	Commentary
		gyroscopic down hole tool. Collar locations have been determined by US registered surveyor using differential GPS The topography was based on a 1 m DEM. Drill hole collars were registered to the topographic surface to remove minor discrepancies.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	Exploration results are not being reported. Drill holes are inconsistently spaced at 10 m to 50 m on SE-NW sections nominally 100 m apart.
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 the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	The Garnet mineralisation is hosted in sub horizontal sediments dipping gently to the NNW. The sub vertical drilling provides representative sampling of the deposit.
Sample security	• *The measures taken to ensure sample security.*	Chain of custody details for the 1970s drilling are unavailable. The chain of custody for the 2011/2012 drill program at Desert Scheelite was reviewed on site by the CP delegate and deemed to be adequate. Similar procedures were in place for the Garnet drill program. Samples are under the supervision of the site geologist and stored in a secure, locked shed prior to shipment to the laboratory.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	At this stage of the project no other independent external audits have been undertaken.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title*	100% Thor Mining plc mineral leases cover the Desert Scheelite prospect area located on the eastern flank of Pilot Mountain, 250 km southeast of the city of Reno and 20km

Criteria	JORC Code explanation	Commentary
tenure status	*interests, historical sites, wilderness or national park and environmental settings.* • *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.*	east of the town of Mina, in Nevada, USA. No known impediments to licence an operation.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	The deposit discovery date is not known. The deposit was held by Duval in the early 1970s and subsequently by the Union Carbide Corporation (UCC) in the late 1970s Pre – 2012 data is treated as historic data and used as a guide only unless validated. Pre-existing data post-2012 complies with JORC 2012 code.
Geology	• *Deposit type, geological setting and style of mineralisation.*	Contact metamorphic skarn hosted tungsten.

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 (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole 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.*
		Details of the drilling used to define the resources are included in the resource estimation documentation.

Data aggregation methods	• *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.* • *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 some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Exploration results are not being reported.
Relationship between mineralisation	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect*	Exploration results are not being reported.

Criteria	JORC Code explanation	Commentary
widths and intercept lengths	*to the drill hole angle is known, its nature should be reported.* • *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').*	
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Exploration results are not being reported.
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.*	Exploration results are not being reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Exploration results are not being reported.
Further work	• *The nature and scale of planned further work (eg tests 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.*	Exploration results are not being reported.
Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section.)		
Database integrity	• *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.* • *Data validation procedures used.*	A check of the database against laboratory certificates was undertaken as part of the database validation. The internal referential integrity of the database was checked as part of the resource estimation.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	In 2012, a Golder Associates geologist was delegated by the Competent Person to inspect the Desert Scheelite site as part of the resource estimation process. A delegate was used due to logistical issues

Criteria	JORC Code explanation	Commentary
		at the time. The inspection reviewed the drilling and sampling process and confirmed the site and data were accurately represented in reports of prior owners and the drillhole database. The delegate visited all Pilot Mountain deposit sites at this time.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	The geology of the deposit was interpreted using logged lithology and sample analyses to define zones of mineralised skarn. The area is commonly faulted resulting and numerous discontinuous blocks. Detailed modelling of the fault blocks was not possible at the current drill spacing. The resource classification reflects this uncertainty. The geological interpretation along strike and up dip is confined by the drilling and model extent.
Dimensions	• *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.*	The deposit is identified in drilling over a 4 km by 4 km area. Discontinuous mineralisation has been identified over 80 m vertically from subcrop.
Estimation and modelling techniques	• *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.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulfur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.*	The Mineral Resource estimated was based on drill holes available as of 26 April 2017. Resources were estimated using an Inverse Distance cubed algorithm. Grades for Wo3, Mo, Zn, Pb and Cu were estimated. Only Wo3 had sufficient numbers of analyses to provide a reliable result. The estimation of the other analytes provides an indication of the grade that many be attained if further sampling was undertaken. A three-pass estimation plan was used with an octant based search. The second and third passes using progressively larger search neighbourhoods to enable the estimation of blocks which remained un-estimated following the preceding passes. Blocks based on geology and a single analysis result were assigned the grade of the analysis. Block discretisation was set to 3 (X) by 3

Criteria	JORC Code explanation	Commentary
	• *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	(Y) by 3 (Z) to estimate grades of 25 m by 25 m by 5 m parent blocks. Sub-cells of 5 m by 5 m by 1 m received the parent cell estimate. A minimum of 2 composites and a maximum of 32 composites (Pass 1) The same parameters were used for each analyte to maintain any statistical relationship between them. Length-weighting was applied to compensate for variations in composite length for the data used in the estimation. No high grade outlier samples were identified that required restraining or cutting. The estimation was constrained by the interpreted geology and performed by mineralised domain code which separates individual mineralised domains. The estimation was validated statistically comparing the average composite grade to the block estimate grades on a domain basis The model was also validated visually against the drill data. The validation showed the model to be a robust representation of the drill data and geological interpretation. The resource block model is Garnet_1705.bmf
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	Modelling of the mineralised zones used a nominal 2000 ppm WO3 edge cut off, but relied more on geology. The resource has been reported at a range of cut off grades. No mining or financial analysis has been undertaken on the deposit to validate this figure.
Mining factors or assumptions	• *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*	No mining assumptions have been incorporated into the resource estimate. The deposit contains near surface mineralisation and as such it could be anticipated that preliminary mining will be

Criteria	JORC Code explanation	Commentary
	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.	by open pit methods.
Metallurgical factors or assumptions	• *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 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.*	No metallurgical factors or assumptions have been incorporated into the resource estimate.
Environmental factors or assumptions	• *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.*	Preliminary investigations by the tenement holder have not identified any environmental impacts from conceptual mining operations which would influence the cost base or the viability of mining of these resources.
Bulk density	• *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.* • *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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	No Garnet samples have been assessed for dry bulk density. Dry Bulk Density values were obtained from 720 samples of core from the Desert Scheelite drilling program. These were statistically analysed by lithology and resource domains. Average in-situ dry bulk density values were assigned to the mineralised skarn (2.9 tm-3) and waste (2.5 tm-3) based on the Desert Scheelite data.

Criteria	JORC Code explanation	Commentary
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The Garnet resource estimation is classified as Inferred. Drill hole spacing and estimate confidence form the basis of the block classification. Uncertainty in the assigned bulk density also contributes.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	At this stage of the project no external audits have been undertaken.
Discussion of relative accuracy/ confidence	• *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.* • *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 should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The Competent Person considers the resource to be a robust global estimate of the data available. The integrity of the historical raw data cannot be guaranteed other than to state that the data is consistent with the recent drilling and the geology is consistent with the type and style of mineralisation. There is no production data against which to compare the estimate.

JORC Code, 2012 Edition – Table 1 report Desert Scheelite Resource 2014

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems*	The Desert Scheelite resource is defined by 86 diamond drill holes comprising 15 drilled in 2012 and the remainder drilled in the 1970s. The 2012 drill core was oriented. The 2012 drilling was sampled by half core. Core samples are weighed, dried and crushed to better than 70% passing a 2 mm screen. A split of up to 1000 g is taken and pulverised to better than 85% passing

Criteria	JORC Code explanation	Commentary
	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 (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.*	a 75 micron screen. This method is appropriate for rock chip or drill core samples. The pulp sample is digested in acid and analysed by inductively coupled plasma - atomic emission spectroscopy (ICP-AES). Sampling and analysis for the 1970s drilling is unknown.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Diamond drilled core was the drill method used for the 2011/2012 program. Tri-cone rotary drilling was used in the first 100 ft of holes with poor ground conditions. The earlier 1970s drilling method is unknown, but based on sample intervals is believed to be diamond coring also.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise 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 due to preferential loss/gain of fine/coarse material.*	Sample recovery is recorded for each logged interval. The core recovery is acceptable. Any relationship between core recovery and grade has not been investigated.
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 or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	The 15 drill holes from 2011/2012 have information for collar, survey, assay, lithology, geotech, weathering, structure, veining, and density. Older holes contain only collar survey and assay data. Geological logging data is based on full examination.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core 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 maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field*	The 2012 samples were half core cut and weighed. The core half with orientation markings was retained, the other half was submitted for analysis.

Criteria	JORC Code explanation	Commentary
	duplicate/second-half sampling. • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	
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 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.* • *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.*	Field standards and duplicates were submitted with the core 2012 samples. No material bias was detected in the standards. Duplicates samples showed good repeatability. Flex-It downhole survey measurements were validated in two holes using a Gyro survey tool and found to be consistent. Validation of the 1970s assay results was undertaken by twinning four of the older holes. The data quality for the estimation of WO3 is acceptable but further drill hole twinning is recommended to better determine the accuracy of historic silver (Ag) and copper (Cu) data.
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.*	A 5% check of the database against laboratory certificates and geological logs was undertaken Historical level plans and N-S cross sections of the resource detailing geology data and interpretation as well as assay results for drilling conducted by Union Carbide Corporation in the 1970s are available. They indicate a greater breadth of data collection and geological understanding than provided in the electronic database. The initial seven holes drilled by Black Fire Minerals in 2011/2012 were designed to verify a sample of the pre-existing drilling. The 2012 drilling is consistent with the 1970s data.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Hole collar co-ordinates are referenced to NAD 83 (zone 11N). Collar locations from 1970s were digitised from maps translated to NAD83. Any historic collars that could be located in addition to the 2011/2012 drilling were surveyed by differential GPS. The topography was based on 10 ft contours from the most recent USA topographic survey. The topographic surface was adjusted to the surveyed drill hole collars.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.*	Exploration results are not being reported. Drill holes are spaced roughly 30 feet apart on 100 foot spaced sections.

Criteria	JORC Code explanation	Commentary
	• *Whether sample compositing has been applied.*	
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 the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	The Desert Scheelite deposit trends dominantly east-west and dips variably 70-80º. The majority of holes have been drilled vertically resulting in a shallow core to mineralisation angle. The first seven of the 2011/2012 holes were also drilled vertically to validate the earlier drilling. The remaining eight 2011/2012 holes were angled to increase the mineralisation intersection angle providing a more representative sample..
Sample security	• *The measures taken to ensure sample security.*	Chain of custody details for the 1970s drilling are unavailable. The chain of custody for the 2011/2012 drill samples was reviewed on site by the CP delegate and deemed to be adequate.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	A 5% check of the database against laboratory certificates and geological logs was undertaken. The referential integrity of the database was confirmed prior to modelling the resource. At this stage of the project no other independent external audits have been undertaken

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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 the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The Pilot Mountain Project comprises 154 unpatented Mineral Claims over 12.9 km^2 located on the eastern flank of Pilot Mountain, 250 km southeast of the city of Reno and 20km east of the town of Mina, in Nevada, USA. At the time of writing the tenements are 100% controlled by Black Fire Minerals Limited.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	The Desert Scheelite deposit discovery date is not known. The deposit was drilled by Duval in the early 1970s and subsequently by the Union Carbide Corporation (UCC) in the late 1970s The program comprised 71 vertical holes which are assumed to be diamond core totalling approximately 14,600 m, on sections spaced at 50 -100 feet (~15 – 30 m), to depths as great as 300 m. The mineralisation was exposed by UCC in a small trial pit excavated in 1981 After acquiring the project in 2011 BFE completed a further 15 diamond core holes totalling 3,047 m. This program included

Criteria	JORC Code explanation	Commentary
		twinning, in-filling and angled holes which provided geological and statistical data verification, improved geological interpretation and enabled the estimation of resources and JORC-compliant reporting by Golder Associates, for BFE, in 2012.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Desert Scheelite deposit consists of skarn and calc-silicate altered marble bodies developed principally within the dominantly carbonate upper member of the Triassic Luning Formation, and to a lesser degree in thinner carbonate beds within the dominantly metaclastic middle and lower members of the Luning Formation. Intrusion of a biotite quartz monzonite stock during the Cretaceous led to contact metamorphism of adjacent carbonate units to marble and pelitic clastic units to hornfels. Mineralised skarn and calc-silicate altered rock was locally formed in marble and to a lesser extent in calcareous meta-clastics during the latter phases of emplacement of the stock.

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 (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole 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.*
		Exploration results are not being reported.
		
		Details of the drilling used to define the resources are included in the resource estimation documentation.

Data aggregation methods	• *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.* • *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 some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal*	Exploration results are not being reported.

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	equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	Exploration results are not being reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Exploration results are not being reported.
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.*	Exploration results are not being reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Exploration results are not being reported.
Further work	• *The nature and scale of planned further work (eg tests 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.*	Exploration results are not being reported.