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Thor Mining PLC
08 April 2021

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# THOR MINING PLC
# MOLYHIL PROJECT
## Mineral Resource Estimate Updated

The directors of Thor Mining Plc ("Thor" or the "Company") (AIM, ASX: THR, OTCQB: THORF), the diversified resource company, are pleased to provide an update to the Mineral Resource Estimate of its 100% owned critical minerals tungsten asset, the Molyhil Project ("Molyhil"), in the Northern Territory of Australia.

**Highlights:**

- The Molyhil Mineral Resource Estimate now comprises Measured, Indicated, and Inferred Mineral Resources totalling **4.4 million tonnes at 0.27% $WO_3$ (Tungsten trioxide), 0.10% Mo (Molybdenum), 0.05% Cu (Copper) and 17.75% Fe (Iron) using a 0.07% $WO_3$ cut-off (Table A).**
- New **Measured** classification in the upper portion of the Southern Lode
- Concurrent 3D geological modelling identifies priority drill targets to increase resource.
- New exploration targets identified near the existing resource.
- July 2020 - the Northern Territory government announced that the Molyhil Project had been awarded Major Project Status
- Next Steps: Geotechnical drilling for pit wall optimisation, ore sorting review, and drill testing of priority resource and regional targets.
- Continued discussions with potential financiers and joint venture partners to advance the project

***Mick Billing, Executive Chairman of Thor Mining, commented:***

"*This revised Mineral Resource Estimate using Support Matrix Kriging has generated a more robust resource with the upper portion of the Southern Lode now classified as Measured, the minimum standard required by many project financiers.*

"*The Thor team is encouraged by the 3D geological model and the drill targets it has generated. With the steady recovery of the tungsten price, the testing of these targets, in conjunction with the proposed geotechnical drilling and ore sorting review, are anticipated to significantly enhance the economic outcomes of the Project.*

"*Global commodity pricing for both tungsten and molybdenum have shown encouraging improvement since recent lows during the period of August to November 2020 and, with post-Covid-19 global growth recovery and increased global infrastructure spending, Thor's Directors expect this to continue.*"

**T**hor Mining PLC (Thor) commissioned a review of the in situ mineral resource estimate for the 100% owned Molyhil Deposit. The resource was estimated for tungsten and molybdenum with ancillary iron and copper.

Previous resource estimations completed by mining consultants RPM Global in October 2019 have used modifying factors to accommodate the differences between the different sample types used in the estimation - reverse circulation ("RC") drilling, diamond drilling and bulk sampling. This is considered by Thor to be an unsatisfactory solution. The current estimation uses Mixed Support Kriging to manage the differences in tungsten ($WO_3$) and molybdenum (Mo) grades in the RC drilling, diamond drilling and bulk sampling.
https://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20191011-molyhil-mineral-resource-estimate-enhanced.pdf
The estimation of $WO_3$ and Mo using Mixed Support Kriging was undertaken by Golder Associates ("Golder"). Estimation of Fe and Cu by Ordinary Kriging was undertaken by Resource Evaluation Services ("RES")

**PROJECT TENURE**
Molyhil is located 220 kilometres north-east of Alice Springs (320 km by road) within the prospective polymetallic province of the Proterozoic Eastern Arunta Block in the Northern Territory (place name 'Moly Hill'). The mine is located on Jervois Station and is east of the Elua Range. Tungsten and molybdenum mineralisation was originally discovered at Molyhil in 1973.

**MINERAL RESOURCE STATEMENT OVERVIEW**
Pursuant to ASX listing rule 5.8.1, and in addition to the JORC tables (attached) the Company provides the following in respect to the Molyhil Mineral Resource Estimate.

**Molyhil Mineral Resource Estimate and Reporting Criteria**

The Molyhil Mineral Resource Estimate was compiled in accordance with the guidelines of the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC, 2012).

The data for the Molyhil Mineral Resource Estimate was prepared and validated by Thor Mining under the supervision of Nicole Galloway Warland who is a Member of the Australian Institute of Geoscientists. Ms Galloway Warland has sufficient relevant experience to be considered a "Competent Person" as defined by the JORC Code (2012).

The resource estimate for $WO_3$ and Mo was undertaken by Johan van Zyl, Senior Geostatistician with Golder Associates, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr van Zyl has sufficient relevant experience to be considered a "Competent Person" as defined by the JORC Code (2012).

The resource estimate for Fe and Cu was undertaken by Stephen Godfrey, Principal Resource Geologist with Resource Evaluation Services (RES), who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member the Australian Institute of Geoscientists. Mr Godfrey has sufficient relevant experience to be considered a "Competent Person" as defined the JORC Code (2012).

Measured, Indicated and Inferred Resources have been identified for Molyhil. A summary of the Mineral Resource Estimate is provided in Table A.

***Table A:*** *Molyhil Mineral Resource Estimate by JORC (2012) classification as at March 31 2021, reported at a cut-off grade of 0.07% $WO_3$ Tungsten which is consistent with the assumed open cut mining technique.*

| Classification | '000 Tonnes | $WO_3$ | | Mo | | Cu | | Fe |
|---|---|---|---|---|---|---|---|---|
| | | Grade % | Tonnes | Grade % | Tonnes | Grade % | Tonnes | Grade % |
| Measured | 464 | 0.28 | 1,300 | 0.13 | 600 | 0.06 | 280 | 19.12 |
| Indicated | 2,932 | 0.27 | 7,920 | 0.09 | 2,630 | 0.05 | 1,470 | 18.48 |
| Inferred | 990 | 0.26 | 2,580 | 0.12 | 1,170 | 0.03 | 300 | 14.93 |
| **Total** | **4,386** | **0.27** | **11,800** | **0.10** | **4,400** | **0.05** | **2,190** | **17.75** |

*Note:*

- § *Figures are rounded to reflect appropriate level of confidence. Apparent differences may occur due to rounding.*
- § *Cut-off of 0.07% $WO_3$*
- § *100% owned by Thor Mining Plc*
- § *To satisfy the criteria of reasonable prospects for eventual economic extraction, the Mineral Resources have been reported down to 200 mRL which defines material that could be potentially extracted using open pit mining methods.*

<u>Geology and Geological Interpretation</u>

The Molyhil tenements straddle the boundary between the Neoproterozoic Georgina Basin and the Palaeoproterozoic Strangways Metamorphic Complex. The area is dominated by the east to southeast trending Delny Shear Zone, subdividing the Strangways Metamorphic Complex into two units - the Strangways Metamorphic Complex to the north and the Kanandra Granite to the south.

The Jinka Granite crops out to the east where its northern boundary is faulted against Georgina Basin sediments. A west to south-westerly trending extension to the Entire Point Shear Zone also marks the northerly extent of the younger Harts Range Group rocks.

The Molyhil Deposit consists of two adjacent outcropping iron-rich skarn bodies, the northern 'Yacht Club' lode and the 'Southern' lode. Both lodes are marginal to a granite intrusion; both lodes contain scheelite ($CaWO_4$) and molybdenite ($MoS_2$) mineralisation. Both the outlines of the lodes and the banding within the lodes strike approximately north and dip steeply to the east. The lodes are arranged in an en-echelon manner.

Interpretation of mapping and drill-hole logging suggests that the lodes are two fault-displaced sections of an original single mineralised skarn unit. The mineralisation is coarse-grained and its distribution is irregular. Two broad lithological variations are present within the skarn (Barraclough, 1979):

- "Black Rock Skarn": a dark calc-silicate rock containing a high proportion of magnetite, pyrite, and iron-rich minerals such as andradite-garnet, actinolite, and ferro-amphibole. It is irregularly mineralised with scheelite, molybdenite, and chalcopyrite. The mineralisation is, in general, both coarse-grained and heterogeneous. Decimetre wide bands rich in molybdenite and/or scheelite are separated by metre scale bands of apparently barren black rock skarn; and
- Unmineralised skarn: a pale green calc-silicate rock containing diopsidic pyroxene and garnet. This variation is defined as granitic hornfels by Thor geologists.

Within each of the two distinct skarn lodes the "Black Rock Skarn" portion forms a relatively coherent layer-parallel unit. The skarn lodes are ellipsoidal with a north-south long axis and a steep east dip. Drill intercepts indicate that they have greater depth than length. Neither of the mineralised lodes is closed at depth. The north end of the Southern lode appears to be faulted off by a northwest trending southwest dipping structure. Minor faults with various orientations cut and displace both skarn banding and mineralisation.

Drilling Technique and Hole Spacing

A total of 19,165 m of drilling from 162 drill holes was available for this MRE. Mineralisation interpretations were informed by RC, diamond drilling and underground shafts/winzes for 4,822 m of sampling intersecting the MRE.

Sample Method

Diamond Drillhole Sampling
Diamond drilling is standard HQ size with oriented core. Core samples were collected from cut half core with the cut line perpendicular to the core orientation line. The majority of RC drilling used a 5" face sampling bit with drill material passing through a cyclone and industry standard sample splitter.

RC Drillhole Sampling
Sampling has been mainly undertaken at 1 m intervals for both drill core and RC holes. There are minor 2 m and 4 m samples as well as some shorter than, and longer than, 1 m core sample intervals. These intervals would have been dictated by geological boundaries and/or visible mineralisation.

Shaft and Winze Sampling
Three shafts were sunk. The north shaft was sunk to 24 m with samples collected over 2 m vertical intervals. A 26 m crosscut was driven from the 20-22 m level. The Central shaft was sunk to 33 m and crosscut 36 m from the 30-32 m level. The South shaft was sunk to 39 m with a 40 m crosscut from 35-37 m. The crosscuts were sampled at 2 m intervals (CRM, 2005).

Sampling and Sub Sampling

Sample data was composited to one metre for statistical and geostatistical analysis and grade estimation. Analysis was undertaken on the four analytes, $WO_3$, Mo, Fe and Cu. The composites were flagged to the geological interpretations and statistical analysis performed by domain. A 3D block model was constructed with parent block dimensions 10 m NS by 5 m EW by 5 m vertical and sub-cells of 2.5 m by 1.25 m by
1.25 m. The parent block size was selected on the basis of being approximately 40% of the average drill hole spacing. No assumptions were made on selective mining units.

Cut-Off Grades

The deposit mineralisation was constrained by wireframes constructed using a 10-15% Iron Oxide cut-off grade with a minimum intercept of 2 m required. The wireframes were applied as hard boundaries in the estimate. Three dimensional mineralised wireframes were used to domain the mineralised data.

The Mineral Resource has been reported at a tungsten cut-off grade of 0.07% $WO_3$ based on parameters defined by an Ore Reserve update in 2017 and RES's experience in these types of deposits.

Estimation Methodology

A Surpac block model was used for the mineral resource estimate with a block size of 10 m N by 5 m E and 5 m in elevation with sub-cells of 2.5 m by 1.25 m by 1.25 m. No rotation was applied to the block model as the overall strike of mineralisation is north-south.

For $WO_3$ and Mo, Mixed Support Kriging ("MSK") was used to estimate blocks in the Southern Lode to approximately 70 m below surface. The remaining blocks were estimated with Ordinary Kriging ("OK"). For Cu and Fe all blocks were estimated with OK. Multi pass estimates with subsequent passes relaxing the estimation parameters ensure all blocks were estimated.

The influence of extreme grade values was addressed by reducing high outlier values by applying high grade cuts to the data. These cut values were determined through statistical analysis.

Classification Criteria

The current resource estimation is classified as Measured, Indicated, and Inferred. The classification of the mineral resource estimation is based principally on the confidence in the geological interpretation and the density of data; sample spacing, continuity of the interpreted zones and geostatistical measurement of estimation errors.

In previous resource estimates no Measured material was defined due to the uncertainty surrounding the factors used to adjust the estimated grades. With the MSK estimate replacing the factored estimate the confidence in the upper portion of the Southern Lode as Measured.

Mineralised areas below the 200 mRL were not classified as further work is required to determine economic grade cut-offs below this level. A Feasibility Study completed in January 2018 identified this material as economic for underground mining techniques subject to further geotechnical work.

https://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20172018/20180115-asx-mh-ore-reserve-clarification.pdf

### Mining and Metallurgy

The Molyhil Deposit occurs in two adjacent skarn bodies that contain outcropping molybdenite and scheelite mineralisation. Since mid-2004 it has been the subject of systematic test work comprising geophysical exploration, diamond and RC drilling programmes, surface and underground bulk sampling, metallurgical test work and a geotechnical study. Based on this work the Mineral Resource Estimate reported has reasonable prospects for economic extraction by open cut mining methods, using a tungsten cut-off of 0.07% $WO_3$ (above 200 mRL).

### Eventual Economic Extraction

To satisfy the criteria of reasonable prospects for eventual economic extraction, the Mineral Resources have been reported down to 200 mRL which defines material that could be potentially extracted using open cut mining methods.

Thor completed a Feasibility Study in August 2018. This study confirmed that the project is technically and economically viable and has a 7-year life with strong financial returns and rapid capital payback.

https://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20182019/20180823-asx-molyhil-dfs.pdf

## EXPLORATION POTENTIAL

In parallel to the Mineral Resource Estimation work Thor engaged Independent consultant Jennifer Gunter, Virga Pty Ltd to undertake 3D geological modelling of the Molyhil Project. 3D Modelling encompassed interpretation and modelling of all available geological, geochemical and geophysical information including MRE wireframes.

The 3D modelling has identified two prominent structures - Yacht Club fault and South Offset fault . At this stage, these faults are interpretative and need validation however based on the geological timing of these faults they may have a significant impact on mineralization, creating targets for potential extensions.

Modelling of the 3D magnetics and the position of the modelled South Offset Fault, strongly implies an offset of the magnetic material associated with the mineralisation, identifying the potential for a magnetic anomaly, south of the fault. Although there are a few drillholes to the south of the South Offset Fault, these have not intersected the magnetic body.

Molyhil deposit is a strong regional anomaly in RTP magnetics, with the 3D magnetics modelling closely correlating to the mineralised wireframes. Based on this modelling several regional magnetic targets have been identified for follow up exploration.

## NEXT STEPS

To enhance the Project economics the following activities are to be undertaken:

1. Geotechnical drilling for pit slope optimisation:
   The pit walls are within competent granite, and Thor have identified the potential via targeted geotechnical drilling to increase the pit slope angles from 48 degrees which, if successful, would ultimately reduce the waste to ore ratio and hence operating costs. This would allow economic mining deeper in the open pit, and also reduce the footprint of the waste storage dump.
   https://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20182019/20180823-asx-molyhil-dfs.pdf
2. Ore sorting review:
   X-Ray (XRT) ore sorting was at two sizes, initially set at -55 mm to +25 mm, and -25 mm to +10 mm; this technology has since been improved, allowing sorting with improved precision and also allowing sorting of finer particles, warranting further testing.
3. Depth Potential - MRE Classification:
   The Measured, Indicated and inferred Mineral Resource Estimate is currently based only on mineralisation above 200 mRL; drilling at depth in conjunction with pit design and optimisation has the potential to grow the mineral resource estimate at depth.

   Based on Feasibility Study completed in 2018 mineralised areas below the 200 mRL appear economic for mechanised underground mining techniques however requires further geotechnical work to determine economic grade cut-offs below this level
   https://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20172018/20180115-asx-mh-ore-reserve-clarification.pdf

4. Drilling Targets:
   Drill test geological and magnetic anomalies identified within the area of mineralisation.
5. Regional Exploration:

Follow up the priority regional magnetic targets with geochemical analysis.

6. Revise Feasibility Study based on the outcomes of the activities listed above.

**MARKET OUTLOOK FOR TUNGSTEN and MOLYBDENUM**

**Tungsten**

The majority of tungsten resources are located in China, Canada, Russia and the United States, with the main consumer of tungsten China (about 50% of global tungsten demand), followed by the USA and Europe.

The outstanding and unique physical properties of tungsten (melting point/hardness/tensile strength) and lack of substitutes makes tungsten critical in industrial, oil & gas, mining and agricultural applications and as such is considered a strategic commodity in the USA, China & the European Union.

In February 2018 the United States, Department of the Interior confirmed that tungsten remains on the Federal Register of commodities classified as critical by the Unites States Government.

Hard metals account for around half of the tungsten consumption; with steels and alloys sector consuming about 25%.

Chinese restrictions on its tungsten industry (concerning mining, exports, foreign investment) brought changes to world supply pattern.

Production outside China is expected to increase, with new projects being started, and closed facilities reopening.

Tungsten prices are expected, by Thor directors to rise steadily in 2021 on expectations of a recovery in the global economy and as COVID production cuts take effect on supply and demand. Tungsten consumption is closely linked to the global economy's development, as tungsten carbide, alloy and chemicals are widely used in the construction, electronics, mining, automotive and petrochemical industries.

**Molybdenum**

Molybdenum is a key component of many of the higher quality stainless steels, along with nickel and can be substituted for a portion of the nickel component when nickel prices are elevated. In consequence, when nickel prices climb, often molybdenum pricing will follow. Much of global molybdenum supply is as co-product from a number of large porphyry copper mining operations. Supply, therefore, can be somewhat non-elastic with over-supply in times where demand is weak, and conversely under-supply when demand is high.

The information contained within this announcement is deemed to constitute inside information as stipulated under the UK Market Abuse Regulation. Upon the publication of this announcement, this inside information is now considered to be in the public domain.

**- Ends -**


**For further information on the Company, please visit [www.thormining.com](http://www.thormining.com) or contact the following:**

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**Competent Persons Report**

*The resource estimates were classified in accordance with the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC, 2012).*

*The data for the Molyhil mineral resource estimation was prepared and validated by Thor Mining under the supervision of Nicole Galloway Warland who holds a BSc Applied geology (HONS) and who is a Member of The Australian Institute of Geoscientists. Ms Galloway Warland is an employee of Thor Mining PLC. She has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she 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'. Nicole Galloway Warland consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.*

*The resource estimate for $Wo_3$ and Mo has been undertaken by Johan van Zyl, Senior Geostatistician with Golder Associates, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr van Zyl has sufficient relevant experience to be considered a "Competent Person" as defined the JORC Code (2012).*

*The resource estimate for Fe and Cu has been undertaken by Stephen Godfrey, Principal Resource Geologist with Resource Evaluation Services, who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member the Australian Institute of Geoscientists. Mr Godfrey has sufficient relevant experience to be considered a "Competent Person" as defined the JORC Code (2012).*

*Updates on the Company's activities are regularly posted on Thor's website www.thormining.com, which includes a facility to register to receive these updates by email, and on the Company's twitter page @ThorMining.*

### About Thor Mining PLC

Thor Mining PLC (AIM, ASX: THR; OTCQB: THORF) is a diversified resource company quoted on the AIM Market of the London Stock Exchange, ASX in Australia and OTCQB Market in the United States.

The Company is advancing its diversified portfolio of precious, base, energy and strategic metal projects across USA and Australia. Its focus is on progressing its copper, gold, uranium and vanadium projects, while seeking investment/JV opportunities to develop its tungsten assets.

Thor owns 100% of the Ragged Range Project, comprising 92 $km^2$ of exploration licences with highly encouraging early stage gold and nickel results in the Pilbara region of Western Australia, for which drilling is planned in the first half of 2021.

At Alford East in South Australia, Thor is earning an 80% interest in copper deposits considered amenable to extraction via Insitu Recovery techniques (ISR). In January 2021, Thor announced an Inferred Mineral Resource Estimate of 177,000 tonnes contained copper & 71,000 oz gold[1].

Thor also holds a 30% interest in Australian copper development company EnviroCopper Limited, which in turn holds rights to earn up to a 75% interest in the mineral rights and claims over the resource on the portion of the historic Kapunda copper mine and the Alford West copper project, both situated in South Australia and both considered amenable to recovery by way of ISR.[2,3]

Thor holds 100% interest in two private companies with mineral claims in the US states of Colorado and Utah with historical high-grade uranium and vanadium drilling and production results.

Thor holds 100% of the advanced Molyhil tungsten project, including indicated and inferred resources[4], in the Northern Territory of Australia, which was awarded Major Project Status by the Northern Territory government in July 2020.

Adjacent to Molyhil, at Bonya, Thor holds a 40% interest in deposits of tungsten, copper, and vanadium, including Inferred resource estimates for the Bonya copper deposit, and the White Violet and Samarkand tungsten deposits.[5]

Thor holds 100% of the Pilot Mountain tungsten project in Nevada, USA which has a JORC 2012 Indicated and Inferred Resources Estimate on 2 of the 4 known deposits.[6]

*Notes*

1 *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210127-maiden-copper.gold-estimate-alford-east-sa.pdf*

2 *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20172018/20180222-clarification-kapunda-copper-resource-estimate.pdf*

3 *www.thormining.com/sites/thormining/media/aim-report/20190815-initial-copper-resource-estimate---moonta-project---rns---london-stock-exchange.pdf*

4 *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20191011-molyhil-mineral-resource-estimate-enhanced.pdf*

5 *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20200129-mineral-resource-estimates---bonya-tungsten--copper.pdf*

6 *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20162017/20170522-tungsten-resource-increase.pdf*

*www.thormining.com/sites/thormining/media/pdf/asx-announcements/20182019/20181214-pilot-mountain-resource-update.pdf*

## Compliance with the JORC Code Assessment Criteria

The JORC Code (2012) describes a number of criteria, which must be addressed in the documentation of Mineral Resource estimates, prior to public release of the information. These criteria provide a means of assessing whether or not the data inventory used in the estimate is adequate for that purpose. The resource estimate stated in this document was based on the criteria set out in Table 1 of that Code. These criteria have been discussed in the main body of the document and are summarised below. Only sections relevant to the reported resource have been addressed. The JORC Code Assessment Criteria in the following table are italicised.

### Section 1 Sampling Techniques and Data

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

| 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* | · The mineralised lodes at the Molyhil deposit were sampled using surface diamond drill holes, percussion holes, and underground shaft and cross-cut bulk sampling. Drilling was conducted primarily on nominal 25m by |

| | | |
|---|---|---|
| | *down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<br>· *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>· *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>· *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.* | 25m line spacing, reduced in areas to 12.5m by 12.5m and drilled on the GDA94 National Grid system.<br>· Three winzes (2m x 1.2m) totalling 96m and three cross-cuts (2.1m x 1.2m) totalling 102m were sunk into the orebody. The winzes and cross-cuts were all sampled at 2m intervals.<br>· Drill holes used in the resource estimate included 15 diamond holes, 89 percussion holes, and 3 underground shafts with associated cross-cuts for a total of 14,906.9m within the resource wireframes. The supplied database contained a total of 162 drill hole records for a total of 19,163.25m of drilling. Holes were generally angled at -60° towards the west (average of 252° azimuth) to optimally intersect the mineralised zones.<br>· All accessible drill hole collars and starting azimuths and downhole deviations were accurately re-surveyed by Direct Systems surveyors in 2011. Dip and azimuth values were measured at 10m intervals down hole using North Seeking Gyro equipment.<br>· Drilling was conducted by Petrocarb, Tennant Creek Gold and by Thor. Petrocarb drilling prior to 2005 was not included in the data used for the Mineral Resource Estimate. Diamond drilling used a 63.5mm core diameter (HQ) with sampling at varying intervals based on geological boundaries. Half-split core was sampled and sent for analysis. RC drilling used a 5" face sampling bit, a cyclone and an industry standard riffle splitter. All samples were sent for preparation (crushing and pulverising) and analysed using the XRF method at various laboratories including ALS Perth, Amdel Adelaide and Genalysis Perth. |
| *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 or percussion/RC drilling were the primary techniques used at Molyhil. Diamond holes make up 12% of the total metres drilled with a core diameter of 63.5mm. Hole depths ranged from 55m to 207m. Percussion/RC drilling makes up 88% of the total holes drilled with depths ranging from 12m to 502m. Shaft or cross-cut sampling accounts for less than 1% of sample results in the database. |
| *Drill sample recovery* | · *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>· *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>· *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.* | · Recoveries from diamond core were only recorded when there was significant core loss, examination of the photographs of the core trays indicates that overall recovery was very good. All diamond core was oriented where possible<br>· Diamond core was reconstructed into continuous runs for orientation marking with depths checked against core blocks.<br>· Most percussion samples were visually checked for recovery and moisture content and the data recorded. The recorded recovery figures averaged 84%, with most samples recorded as being dry.<br>· No relationship was noted between recorded sample recovery and grade, however comparison of RC assays for tungsten and molybdenum with underground bulk sampling and diamond core indicates there may be a reduction in RC sample grades of tungsten and molybdenum due to excessive partitioning |

| | | |
|---|---|---|
| | | of both scheelite and molybdenite material into the outside return. It was also noted from the bulk sampling program completed by Thor in 2006 that higher grade molybdenum ore was softer and produced more fine material than harder, barren material. Pilot holes drilled by RAB drilling rigs also noted poor sample quality and low recoveries. This sampling bias due to preferential loss of fine material has possibly resulted in a corresponding reduction in grade of tungsten and molybdenum of the sample |
| *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.*<br>· *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>· *The total length and percentage of the relevant intersections logged.* | · All holes were field logged by company geologists to a high level of detail.<br>· Although the core was oriented it was not routinely logged for RQD, or number and type of defects. The supplied database contained tables with some information vein shearing and vein percent with observations but no alpha/beta angles, dips, azimuths, and true dips.<br>· All drill samples were logged for lithology, rock type, colour, mineralisation, alteration, and texture. Logging is a mix of qualitative and quantitative observations. It has been standard practice by Thor (since 2005), that all diamond core be routinely photographed.<br>· All drill holes were logged in full. |
| *Sub-sampling techniques and sample preparation* | · *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>· *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>· *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>· *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>· *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.*<br>· *Whether sample sizes are appropriate to the grain size of the material being sampled.* | · Diamond core was cut in half using a core saw with half core submitted for assay.<br>· Percussion/RC drill samples were collected at 1m intervals. Samples were collected at the drilling rig and split with a riffle splitter at the drill site. Samples were predominantly dry. Drilling was through bedrock from surface. Sampling used industry standard techniques.<br>· Thor has used systematic standard and pulp duplicate sampling since 2005. Detailed data from the 2011 program indicates that a sequence of every 25th sample was submitted as a standard, a different sequence of every 25th sample was inserted as a field duplicate and a third sequence of every 25th sample was inserted as a blank. This resulted in 3 samples in every 25 being a QAQC sample (approximately 12% of all samples).<br>· Sample sizes (3-5kg for core and 2-5kg for chips) are considered appropriate to correctly represent the W and Mo mineralisation based on: the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and assay value ranges for W and Mo. |
| *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.*<br>· *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,* | · The assay method used for all drill samples was XRF. The lower detection limit is in the order of 0.01% to 0.005% for Fe or 0.005% to 0.0001% for Mo or W and well within the level of accuracy or grade cut-off required for the resource estimate.<br>· No geophysical tools were used to determine any element concentrations used in this resource estimate.<br>· The various programs of QAQC carried out by Thor over the years have produced |

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| | etc.Ba, Mo<br>· *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.* | results which support the sampling and assaying procedures used at the various deposits.<br>· A total of 6 different certified reference materials representing a variety of grades from 0.12% to 0.28% for W and 0.09% to 0.48% for Mo were inserted regularly during the 2011 drilling program for a total of 67 samples. Results highlighted that the sample assays are within accepted values, showing no obvious bias.<br>· A total of 88 blank samples were submitted during the 2011 drill program and results show that sample contamination has been mostly contained.<br>· Field duplicate analyses (a total of 68) mostly honour the original assay for Fe however show some widely scattered field duplicate results for W, Mo and Cu indicating a high natural grade variability. |
| *Verification of sampling and assaying* | · *The verification of significant intersections by either independent or alternative company personnel.*<br>· *The use of twinned holes.*<br>· *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>· *Discuss any adjustment to assay data.* | · RPM independently verified significant intersections of mineralisation. The 2011 site visit inspected 2011 drill core and noted similar identification of geological features. Resource mineralisation outlines were agreed upon by RPM and Thor geologists.<br>· Analysis of twinned RC vs. diamond holes and RC vs. underground cross-cuts (bulk samples) has identified there is a reduction in RC sample grade for W and Mo. Excessive partitioning of both scheelite and molybdenite material into the outside return air stream during the RC drilling procedure could result in a reduction in grade of tungsten and molybdenum of the sample. This has not been proven. It was also noted from the bulk sampling program that higher grade molybdenum ore was softer and produced more fine material than harder, barren material. Pilot holes drilled by RAB drilling rigs also noted poor sample quality and low recoveries.<br>· RES made a detailed comparison of the 2012 database to the current, 2020, database to ensure no data corruption had occurred. |
| *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.*<br>· *Specification of the grid system used.*<br>· *Quality and adequacy of topographic control.* | · Drill hole collars and starting azimuths have been accurately re-surveyed by independent surveyors using a DGPS instrument. Down hole dip values and azimuths were recorded at 10m intervals using digital equipment such as a north-seeking gyro instrument.<br>· Drill hole locations were positioned using the MGA Grid System.<br>· The topographic surface over the Molyhil deposit was provided to RPM by Thor. Drill hole collars have been used to create a more accurate surface immediately above the mineralised lodes. |
| *Data spacing and distribution* | · *Data spacing for reporting of Exploration Results.*<br>· *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* | · Drill holes have been located at a nominal 25 m by 25 m spacing throughout the mineralised lodes at Molyhil, and mainly drilled steeply westward to intersect steeply east-dipping, moderately south-plunging skarn bodies. Some broader spaced drilling has been undertaken away from near-surface mineralisation. |

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| | *applied.*<br>· *Whether sample compositing has been applied.* | · The main mineralised domains have demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resource, and the classifications applied under the 2012 JORC Code.<br>· Data density is sufficient to define reasonably structured variograms for each element.<br>· Samples have been composited to 1m lengths for analysis. |
| *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.*<br>· *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.* | · Drill holes are orientated predominantly to an azimuth of 252° and drilled at an angle of -60° to the west which is approximately perpendicular to the orientation of the mineralised trends.<br>· The orientation of the drilling is at a high angle to the strike and dip of the mineralisation and is unlikely to have introduced any sampling bias due to orientation. |
| *Sample security* | · *The measures taken to ensure sample security.* | · No information is available with respect to the sample security for historical drilling. |
| *Audits or reviews* | · *The results of any audits or reviews of sampling techniques and data.* | · A review of sampling techniques and data was carried out during a site visit conducted in October 2011. The conclusion was that sampling and data capture was to industry standards.<br>· RES reviewed the Molyhil model and dataset in 2020 and recommended the investigation of alternative estimation techniques to remove the 'factor' from the MRE. |

## Section 2 Reporting of Exploration Results

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

| Criteria | JORC Code explanation | Commentary |
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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.*<br>· *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 tenements at Molyhil comprise EL22349, ML23825, ML24429 and ML25721. For all tenements Thor Mining PLC hold 100% Project Equity.<br>· Thor has completed the Public Environmental Report for the Molyhil Tungsten and Molybdenum Project. This report has been accepted by the Department of Regional Development, Primary Industry, Fisheries and Resources in the Northern Territory<br>· This report was approved on the 15th July 2007 by the DRDPIFR (NT), who also confirmed in December 2011 that the approval remains current. The report is available on request.<br>· Thor Mining PLC has also obtained all the required agreements between the Traditional Owners of the land, and Thor Mining PLC, to enable the Molyhil Operations to proceed with the recognition and support of the Traditional Owners.<br>· The Tripartite Deed records the terms of the Agreement between the parties in accordance with the Native Title Act and is between the Arrapere People, the Central Land Council and |

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| | | Thor Mining PLC.<br>· There are no known impediments to obtaining a licence to operate in the area. |
| *Exploration done by other parties* | · *Acknowledgment and appraisal of exploration by other parties.* | · Tungsten and molybdenum mineralisation was originally discovered at Molyhil in 1973. The Molyhil deposit was initially drilled in 1977 with further drilling carried out in 1981. The work was carried out by Fama Mines Pty Ltd, Petrocarb NL, Nicron resources NL and Geopeko. Between 1975 and 1976 approximately 20kt of molybdenum and tungsten mineralisation were mined from the northern Yacht Club skarn body to a depth of approximately 25m. |
| *Geology* | · *Deposit type, geological setting and style of mineralisation.* | · The Molyhil deposit consists of two adjacent outcropping iron rich skarn bodies, marginal to a granite intrusion, that contain scheelite (tungsten mineralisation as $CaWO_4$) and molybdenite (molybdenum as $MoS_2$) mineralogy. Both the outlines of, and the banding within, the skarn bodies strike approximately north-south and dip steeply to the east. The bodies are arranged in an en échelon manner, the northeast body being named the Yacht Club and the southwest body the Southern. |
| *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:*<br>o *easting and northing of the drill hole collar*<br>o *elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar*<br>o *dip and azimuth of the hole*<br>o *down hole length and interception depth*<br>o *hole length.*<br>· *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.* | · A complete table of all relevant drill holes is attached to the Mineral Resource report as Appendix A.<br>· Mining and drilling information prior to 2004, water bore and RAB drilling assay results were excluded from the resource estimate. This reflected concerns relating to the completeness and accuracy of historical information and the quality of RAB drill samples.<br>· In the opinion of Thor, material drill results have been adequately reported previously to the market as required under the reporting requirements of the ASX Listing Rules |
| *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.*<br>· *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.*<br>· *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.* | · Drill holes were orientated predominantly to an azimuth of 252° and angled to a dip of -60°, which is |

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| *widths and intercept lengths* | · *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>· *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').* | approximately perpendicular to the orientation of the mineralised trends. |
| *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.* | · Three winzes totalling 96 m and three cross-cuts totalling 102 m were excavated into the orebody.<br>· Historically three trenches were excavated into the surface of the orebody. |
| *Further work* | · *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>· *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.)

| Criteria | JORC Code explanation | Commentary |
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| *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.*<br>· *Data validation procedures used.* | · Drilling data was initially captured on paper logs and manually entered into a database. Thor carried out internal checks to ensure the transcription was error free. Laboratory assay results were loaded as electronic files direct from the laboratory so there was little potential for transcription errors.<br>· The data base was systematically audited by Thor geologists. All drill logs were validated digitally by the database geologist once assay results were returned from the laboratory.<br>· RPM also performed data audits in Surpac and checked collar coordinates, down hole surveys and assay data for errors. No errors were found. |
| *Site visits* | · *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>· *If no site visits have been undertaken indicate why this is the case.* | · Mr Craig Allison and Mr Joe McDiarmid of RPM in October 2011. The site visit was undertaken with Mr Richard Bradey, Exploration Manager for Thor. Historical mining areas and drill holes were |

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| | | inspected and are spatially similar to localities plotted on company maps. The site visit review concluded current geological models are supported by drilling and that drill data collection to the date of the site visit has been undertaken to industry standards.<br>· The two geotechnical holes from 2019 were drilled under the supervision of Mr Richard Brady, Exploration Manager with Thor at the time.<br>· The current Exploration Manager, Nicole Galloway Warland made a site visit 8 October 2020.Golder and RES have not made site visits. |
| *Geological interpretation* | · *Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.*<br>· *Nature of the data used and of any assumptions made.*<br>· *The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br>· *The use of geology in guiding and controlling Mineral Resource estimation.*<br>· *The factors affecting continuity both of grade and geology.* | · The Molyhil deposit consists of two adjacent outcropping iron rich skarn bodies, enclosed in granite, that contain scheelite and molybdenite mineralisation. Both the outlines of, and the banding within the bodies strike approximately north south and dip steeply to the east. The bodies are arranged in an en-echelon manner, the northeast body being named the Yacht Club and the southwest body the Southern.<br>· The geology of the Molyhil deposit is well understood.<br>· Drill hole logging by Thor geologists, through direct observation of drill core and percussion samples have been used to interpret the geological setting. The bedrock is exposed by surface trenches and limited underground openings.<br>· The continuity of the main mineralised lodes is clearly observed by relevant grades within the drill holes. The close spaced drilling and trench and underground sampling suggest the current interpretation is robust. The nature of the lodes would indicate that alternate interpretations would have little impact on the overall Mineral Resource estimate.<br>· Mineralisation is coarse-grained and its distribution is irregular. Two broad lithological variations are present within the skarn.<br>· "Black rock skarn": Mineralised, selectively mined on the basis of colour, a calc-silicate containing a high proportion of magnetite, pyrite, and iron-rich minerals such as andradite-garnet, actinolite, and ferro-amphibole.<br>· Unmineralised skarn: Pale green coloured calc-silicate, containing diopsidic pyroxene and garnet.<br>· The interpretations have been useful in predicting the continuity of the mineralisation for the Mineral Resource estimate. |
| *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 Molyhil resource area extends over a combined strike length of 300 m from 19,850 mN to 20,150 mN, a width of 250 m from 9,950 mE to 10,200 mE and includes the vertical extent of 290 m from 410 mRL to 120 mRL. |
| *Estimation and* | · *The nature and appropriateness of the* | · Three dimensional mineralised |

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| *modelling techniques* | *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.*<br>· *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*<br>· *The assumptions made regarding recovery of by-products.*<br>· *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*<br>· *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br>· *Any assumptions behind modelling of selective mining units.*<br>· *Any assumptions about correlation between variables.*<br>· *Description of how the geological interpretation was used to control the resource estimates.*<br>· *Discussion of basis for using or not using grade cutting or capping.*<br>· *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.* | wireframes were used to domain the mineralised data. Sample data was composited to 1m down hole lengths using the 'best fit' method. Intervals with no assays were excluded from the estimate.<br>· For $WO_3$ and Mo, Mixed Support Kriging ("MSK") was used to estimate blocks in the Southern Lode to approximately 70 m below surface. The remaining blocks were estimated with Ordinary Kriging ("OK"). For Cu and Fe all blocks were estimated with OK.<br>· The influence of extreme grade values was addressed by reducing high outlier values by applying high grade cuts to the data. These cut values were determined through statistical analysis<br>· No assumptions regarding recovery of by-products from the mining and processing of the Molyhil resource has been made.<br>· No estimation of deleterious elements was carried out. Fe, W, Mo and Cu were the major variables interpolated into the block model.<br>· Multi pass estimates with subsequent passes relaxing the estimation parameters ensure all blocks were estimated.<br>· No assumptions were made regarding the recovery of by-products with the exception of limited test work results for the recovery of Cu from the molybdenum concentrate.<br>· The parent block dimensions used were 10m NS by 5m EW by 5m vertical with sub-cells of 2.5m by 1.25m by 1.25m. The parent block size was selected on the basis of being approximately 40% of the average drill hole spacing.<br>· No assumptions were made on selective mining units.<br>· The deposit mineralisation was constrained by wireframes constructed using a 10-15% Iron Oxide cut-off grade with a minimum intercept of 2m required. The wireframes were applied as hard boundaries in the estimate.<br>· High Grade top cuts were applied variously across the analytes and domains.<br>· Validation of the estimate included:<br>o A qualitative assessment completed by slicing sections through the block model in positions coincident with drilling.<br>o A quantitative assessment of the estimate completed by comparing the average grades of the composite file input against the block model output for all the resource objects.<br>o A trend analysis completed by comparing the interpolated blocks to the sample composite data within the main lodes (swath analysis). This analysis was completed for intervals of northings and elevations across the deposit. Validation plots showed good correlation between the composite grades and the block model grades. |
| *Moisture* | · *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.* | · Tonnages and grades were estimated on a dry in situ basis. |

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| *Cut-off parameters* | · *The basis of the adopted cut-off grade(s) or quality parameters applied.* | · The nominal cut-off grade of 10-15% Iron Oxide was used to define the boundaries of the skarn zones, it was determined from analysis of log probability plots of all samples at the deposit. This cut-off was used to define the mineralised wireframes.<br>· The resource was reported at 0.05 % and 0.07 % $WO_3$ cut off grades for comparison to previous and other similar resources. |
| *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 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.* | · The results of an independent estimate of Open Cut Ore Reserves indicate that the deposit could potentially be mined using medium scale open pit techniques. |
| *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.* | · Metallurgical and mineralogical analysis has been conducted on drill samples taken from exploration programs. The metallurgical work has demonstrated successful molybdenum and tungsten recovery using a combination of gravity extraction and flotation processes.<br>· Testwork has demonstrated production of a low grade copper concentrate in addition to tungsten (as WO3) and molybdenum (as MoS2) concentrates.<br>· In the current flowsheet, following comminution, molybdenum is floated, then copper is subsequently extracted via flotation of the pyrite flotation tail. Following these steps, a rougher scheelite is then recovered, again via flotation. The rougher scheelite concentrate is then upgraded using the Modified Petrov flotation model incorporating preheating the rougher product to 90ºC.<br>· The current flowsheet also incorporates Xray ore sorting after the secondary screening stage. |
| *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.* | · No assumptions have been made regarding possible waste and process residue disposal options. |
| *Bulk density* | · *Whether assumed or determined. If assumed, the basis for the assumptions.* | · The bulk density at Molyhil is mainly reflective of the magnetite content of the |

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| | *If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*<br>· *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.*<br>· *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | rock type. A regression plot of iron assay and bulk density test work shows a well correlated, generally linear relationship and covers a wide range of iron grades. The bulk density equation presented below was also used for this estimate. The minimum bulk density value possible from the equation is 2.78 which is considered reasonable.<br>· Bulk Density = (0.0152 x converted model value $Fe_2O_3$) + 2.7826 (CRM, 2006)<br>· The bulk density equation was applied to the mineralised lode domain as it was only this part of the model where iron was estimated. An average bulk density of 2.75 $tm^{-3}$ was applied to the background domain. |
| *Classification* | · *The basis for the classification of the Mineral Resources into varying confidence categories.*<br>· *Whether appropriate account has been taken of all relevant factors (ie 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).*<br>· *Whether the result appropriately reflects the Competent Person's view of the deposit.* | · Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). The resource was classified as Measured, Indicated and Inferred Mineral Resource on the basis of data quality, sample spacing, lode continuity and confidence in the grade estimation. |
| *Audits or reviews* | · *The results of any audits or reviews of Mineral Resource estimates.* | · RES reviewed the Molyhil model and dataset in 2020 and recommended the investigation of alternative estimation techniques to remove the 'factor' from the MRE.<br>· A review of the input data, estimation methods and results was conducted by RPM in December 2013 and September 2019, to ensure compliance with the JORC Code 2012. RPM also verified the technical inputs, methodology, parameters, and results of the estimate |
| *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.*<br>· *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.*<br>· *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | · The use of Mixed Support Kriging in the upper part of the Southern Lode allows for the differences in the different sampling techniques. This has improved the confidence in the estimate of this part of the ore body allowing its classification in part as Measured.<br>· The Mineral Resource statement relates to global estimates of tonnes and grade.<br>· No detailed production data was available for comparison. |

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