10 October 2022



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OTCQB Listing Shares: THORF

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#### **Key Projects:**

• Gold

Ragged Range Pilbara WA

• Copper Alford East SA

• Uranium / Vanadium Colorado / Utah USA Company Announcements Office ASX Securities Limited, 20, Bridge Street, Sydney, N.S.W. 2000

# Kelly's Prospect, Ragged Range, WA 2,000m RC Drilling Program Commences

The directors of Thor Mining Plc ("Thor") (AIM, ASX: THR, OTCQB: THORF) are pleased to announce the commencement of a drilling program at the Company's 100% owned Kelly's Prospect within the Ragged Range Project, located in Eastern Pilbara, Western Australia.

## **Project highlights:**

- 2,000m reverse circulation ("RC") drilling program has commenced at the Kelly's Prospect, Ragged Range
- Drilling is designed to follow up on rock chip samples returning up to 15.5 g/t Au and 535g/t Ag, and a historic drill intercept of 1.5m @ 22.97g/t Au (DDHK2 drilled in 1969¹).
- Drilling is targeting the sheared contact of the Euro Basalt and Boobina Porphyry that forms a silicified ridge, extending over 1 km (Figure 1 and 2).
- The drilling program also includes 1-3 drillholes beneath high-grade copper workings Kelly's (produced 609t of cupreous ore with a grade of 19% Cu, mined 1955-1970)².



Photo Plate 1: Drilling at Kelly's Ridge Prospect, Ragged Range

### Nicole Galloway Warland, Managing Director of Thor Mining, commented:

"We are very pleased to report that a 2,000m drilling program is now underway at the Kelly's Prospect at Ragged Range. Historically, exploration activities across the area have only focused on copper, despite encouraging gold indications, such as a 1.5m @ 22.97g/t Au intercept drilled in 1969.

"This program intends to improve our understanding of the structural controls of the Prospect and follow up on our rock chip sampling, which took place earlier in 2022 and returned up to 15.5 g/t Au and 535g/t Ag.

"Meanwhile, in the US, the maiden 2,000m drilling program at priority targets across the Wedding Bell and Radium Mountain Projects is progressing well.

"We look forward to providing further updates in due course."



The Ragged Range Project, located in the prospective Eastern Pilbara Craton, Western Australia, is 100% owned by Thor Mining (covering E46/1190, E46/1262, E46/1355, E46/1340 and E46/1393 - Figure 2 and Figure 3).

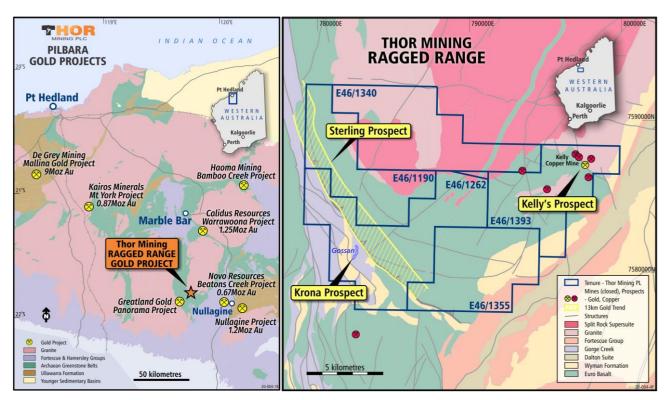


Figure 1: Location Plan

### **Drilling Program**

Exploration in the Kelly's area has historically focused on copper, with only minor attention placed on the gold potential, despite the presence of +2g/t gold in historical rock chips and a high-grade drill intersection of **1.5m** @ **22.97g/t Au** (DDHK2 drilled in 1969). Rock chip sampling on Kelly's Ridge by Thor in 2022 returned up to 15.5g/t gold, as well as anomalous Au-Ag-As-Bi and minor Cu and Pb (THR: ASX/AIM 25 July 2022) (Figure 2 and 3, and Photo 2).

The program is designed to test three areas: Kelly's Ridge, Kelly's NE and below the Kelly's Copper workings.



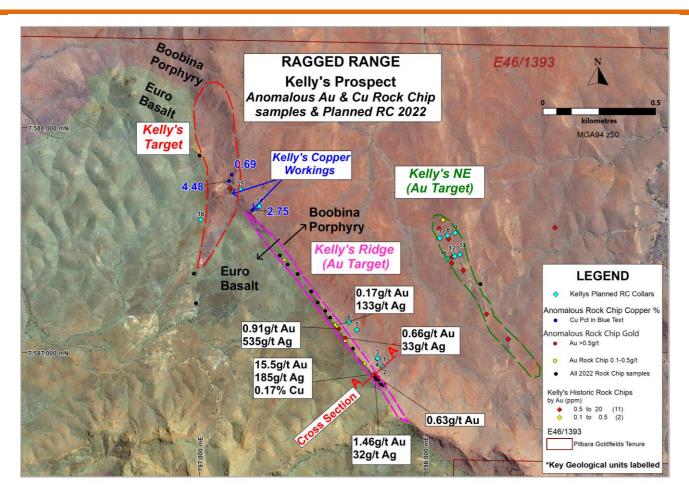


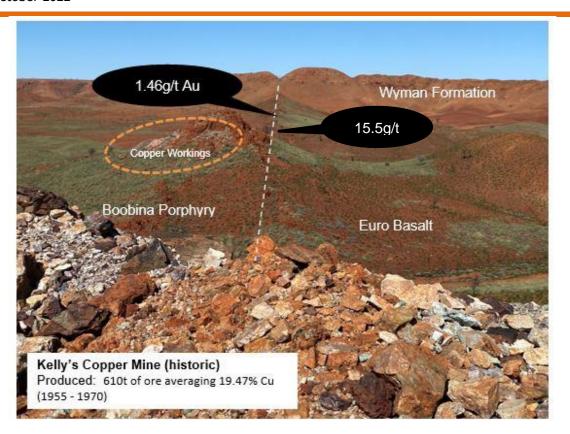
Figure 2: Kelly's Prospect, highlighting proposed drill collars and gold in rock chips.

### Kelly's Ridge

The Kelly's Ridge extends over 1km and is characterised by silicification and strong sericite alteration (Figure 2 and 3, Photo 2),

One historic diamond hole tested the Kelly's Ridge (DDHK2), intersecting 1.5m @ 22.97g/t gold, as well as a combination of either quartz veining, silicified zones, disseminated sulphide and veinlets over an approximate 27m zone down hole at the basalt-porphyry contact. No other gold assays in the hole are available besides this intersection, so it is unknown if there is any wider zone of lower grade gold mineralisation.

Drilling is designed to test the high-grade rock chips returning up to 15g/t Au and 535g/t Ag along the 1 km ridge and to test this historic drill interception at depth and along strike (figure 3).



**Photo 2:** Kelly's Ridge, showing high-grade gold intercepts along contact between Euro Basalt and Boobina Porphyry

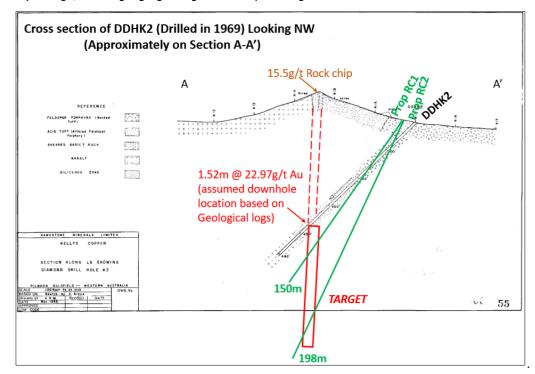


Figure 3: Kelly's Ridge cross section, showing proposed drill collars, historic drill intercept and high-grade rock chip

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### Kelly's NE

Two short lines will test the Kelly's NE area, with drilling below historic rocks chips that returned >0.2g/t (Figure 2). Drilling is assuming steep easterly (noted in mapping, northerly strike visible in airphoto) to steep subvertical (similar to Kelly's Ridge) dips.

### **Kelly's Copper Workings**

Two historical copper mines were worked on either end of the Boobina Porphyry; Copper Hills (producing 15,730 t of cupreous ore with a grade of 13% Cu, mined 1952-1963)<sup>3</sup> and Kelly's (producing: 609t of cupreous ore with a grade of 19% Cu, mined 1955-1970).

The north north-west trending mineralisation at Kelly's Copper Mine extending over 600 metres, is developed in quartz veins along shears cutting the Boobina Porphyry. The oxidised zone contains malachite, azurite, cuprite, chrysocolla, with further bornite and chalcocite in the supergene zone, with the primary zone containing pyrite, and chalcopyrite in quartz, sericite and chlorite.

Drilling in this area is designed to test beneath these historic high-grade workings to provide a representative sample of mineralisation, rock types, and alteration. The holes will extend through the volcanic porphyries into the basalt, testing the contact at depth for primary sulphide copper mineralisation.



**Photo 3:** Kelly's historic copper workings



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DJC Drilling Pty Ltd has been contracted to complete the RC drilling program. The 2,000m program is anticipated to take approximately two weeks, with samples being freighted to Bureau Veritas laboratory in Adelaide, SA, for analysis.

#### **References:**

- 1. DDHk2, drilled by Hawkstone 1969, Open File Annual Report
- 2. Kelly's: produced 609t of cupreous ore with a grade of 19% Cu, mined 1955-1970. https://www.mindat.org/loc-122951.html
- 3. Copper Hill: produced 15,730 t of cupreous ore with a grade of 13% Cu, mined 1952-1963 https://www.mindat.org/loc-122950.html

This announcement is authorised for release to the market by the Board of Directors.

For further information, please contact:

**THOR MINING PLC** 

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#### **Competent Persons Report**

The information in this report that relates to exploration results is based on information compiled by 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.

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

#### **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<sup>2</sup> of exploration licences with highly encouraging early stage gold and nickel results in the Pilbara region of Western Australia.



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

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.<sup>23</sup>

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 measured, indicated and inferred resources<sup>4</sup>, 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. <sup>5</sup>

#### **Notes**

- <sup>1</sup> <u>www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210127-maiden-copper.gold-estimate-alford-east-sa.pdf</u>
- <sup>2</sup> www.thormining.com/sites/thormining/media/pdf/asx-announcements/20172018/20180222-clarification-kapundacopper-resource-estimate.pdf
- <sup>3</sup> <u>www.thormining.com/sites/thormining/media/aim-report/20190815-initial-copper-resource-estimate---moonta-project--rns---london-stock-exchange.pdf</u>
- <sup>4</sup> www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210408-molyhil-mineral-resource-estimate-updated.pdf
- <sup>5</sup> www.thormining.com/sites/thormining/media/pdf/asx-announcements/20200129-mineral-resource-estimates---bonya-tungsten--copper.pdf



## 1 JORC Code, 2012 Edition – Table 1

## **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	Historic exploration data: Miralga Mining reported rock chip samples on 30m local grid, 1988 Hawkestone historic drill data, 1969 – not all details were reported. This is early exploration data appropriate for early exploration reporting
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 drilling - no other information reported
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	Historical data details not reported
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Historical data no detailed logging information reported.  No mineral resource estimation, mining studies or metallurgical studies have been conducted at this stage, but samples have been logged in sufficient detail to use for early exploration targeting.



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Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Rock chip and Drill data – historic data with no sample information reported
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For 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.</li> <li>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.</li> </ul>	Historic rock chips and Historic drill data – no assay details known
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Historic data – reported all significant rock chips and drill intersections There are no twinned drillholes.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Rock chip and Drill hole locations have been digitised from historic maps based on geological feature references – accuracy is moderate.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	Data spacing for preliminary exploration is deemed sufficient. Historic data - no sample compositing of data was conducted to Thor's knowledge.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	Rock-chip samples over 30m local grid. Historic drill hole oriented perpendicular to lithological contact.



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Sample security	•	The measures taken to ensure sample security.	Historic data unknown sample security levels
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	Historic data – not known.

## **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	Exploration results are reported on E46/1393 in Western Australia held 100% by Pilbara Goldfields Pty Ltd (wholly owned subsidiary of Thor Mining PLC). No known material issues exist with third parties, nor any impediments to operate.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Cominco and Hawkestone completed soil sampling between 1969-1972 Hawkestone - completed 1 drillhole into Kellys Ridge - DDHK2 in 1969. Maraliga Mining NL undertook a BLEG stream sediment and rock chip sampling program in 1988 Great Southern Mines N.L - 1994 — 1997 completed stream sediment sampling and sporadic soil sampling.
Geology	Deposit type, geological setting and style of mineralisation.	Yet to be determined
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Tables, plans and sections are included in the report.



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Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Historic data - no data aggregate intercepts reports No metal equivalents have been reported.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	All results are assumed to be true width but is not definitively known at this stage.
Diagrams	<ul> <li>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.</li> </ul>	Appropriate maps and sections are included in the report.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	All significant historic data 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.	No meaningful or material information has been omitted from this release.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step- out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Further rock chip sampling and drilling to be completed at Kelly's Prospect.