

25 July 2022

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AIM & ASX Listings:  
Shares: THR  
OTCQB Listing  
Shares: THORF

Directors:  
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Mark McGeough

**Key Projects:**

- **Gold**  
*Ragged Range Pilbara WA*
- **Copper**  
*Alford East SA*
- **Uranium / Vanadium**  
*Colorado / Utah USA*
- **Tungsten**  
*Molyhil NT*

**Company Announcements Office**

**ASX Securities Limited,  
20, Bridge Street,  
Sydney, N.S.W. 2000**

**Ragged Range Project, WA**

**Sampling Update**

**High-grade Copper and Gold found at the Sterling and Kelly's Prospects**

The directors of Thor Mining Plc ("Thor") (AIM, ASX: THR, OTCQB: THORF) are pleased to provide an exploration update on sampling and mapping programs which have been completed at the Company's 100% owned Ragged Range Project, located in Eastern Pilbara, Western Australia.

**Project highlights:**

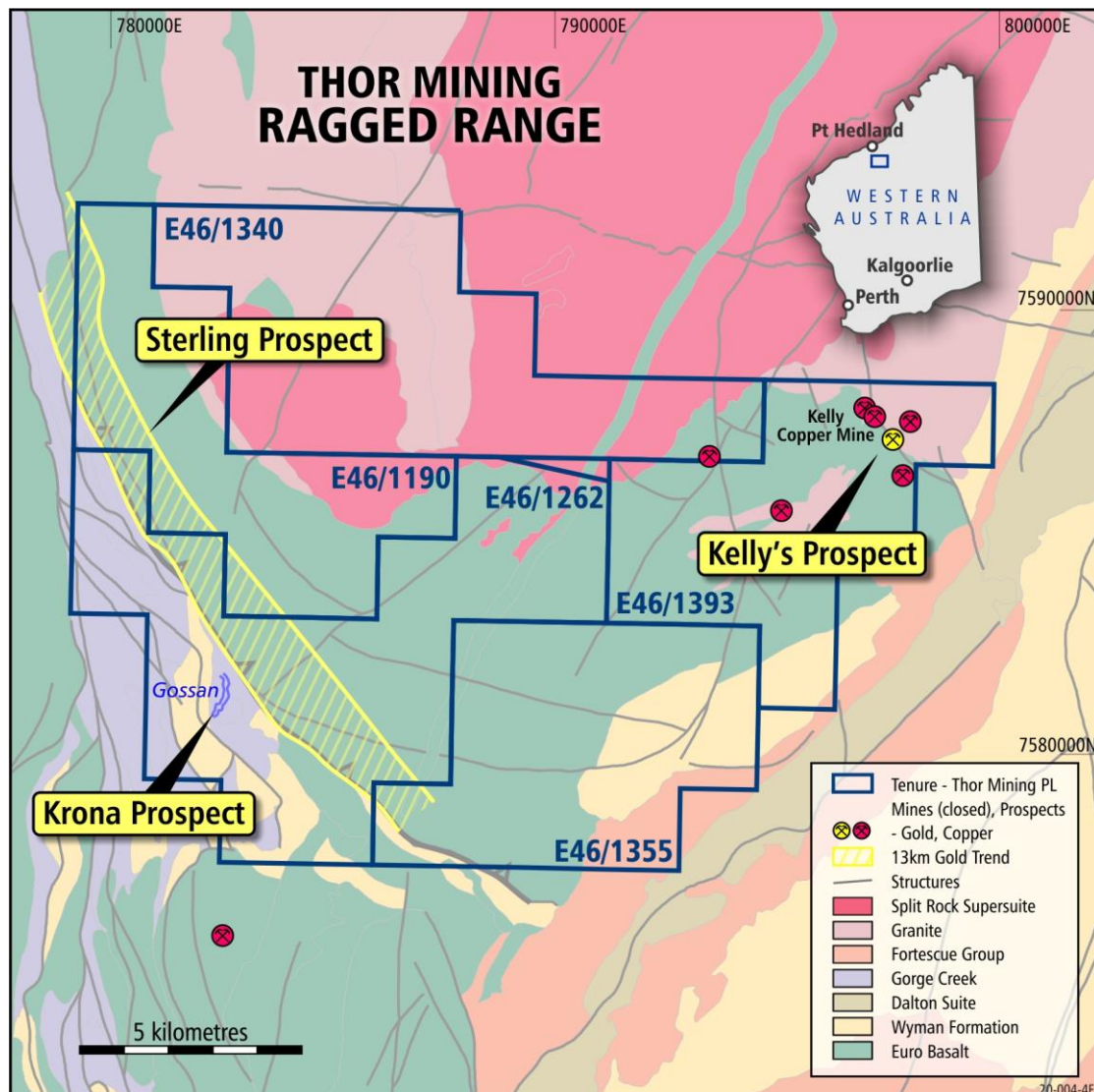
- Three programs of reconnaissance mapping with rock chip and stream sediment sampling completed over the Ragged Range Project.
- Rock chip sampling over the 13km-long Sterling Prospect returned up to **6g/t Au** in rock chip (R00053-Photo 1) along newly identified cross structures that strike oblique to the regional faulted contact - Norman Cairn Fault – between the Dalton Suite and Euro Basalts (Figure 2).
- At the Kelly's Prospect, anomalous gold (up to **1.46g/t**) and copper (**4.8% Cu**) have been identified along the northwest trending, 1.2km long x 25m wide ridge at the contact of Euro Basalt and Boobina Porphyry (Figure 2).
- Heritage Survey with the Nyamal Native Title group was completed over the Kelly's Prospect in preparation for drill testing.
- Geological mapping and sampling will continue over the Project as the Company validates its structural and mineralising geological models.
- All samples from the recently completed RC drilling program have now been received by the laboratory, and we await assay results.

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

*"These latest highly encouraging sampling results, including high-grade copper and gold, from three consecutive programs at Ragged Range continue to build on and develop our geological understanding, with particular emphasis on structural controls on mineralisation at both the Sterling gold prospect and Kelly's copper-gold prospect."*

*"Sampling is to continue with an airborne magnetics survey over the Kelly's copper-gold prospect and the north-eastern portion of the tenure scheduled for late July, to assist with lithological and structural interpretations."*

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**Figure 1:** Ragged Range Tenement Location Map showings priority prospects.

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 recently granted E46/1393, Figure 1).

### Sampling Programs

In parallel with the recently completed RC drilling at the Sterling and Krona Prospects (ASX:THR 11 July 2022), three rock chip and stream sediment sampling programs across the Ragged Range Project area were undertaken.

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The geological mapping and sampling programs were designed to:

- Further develop and validate Thor’s geological model by identifying key mineralising structures and gold distribution at the Sterling prospect.
- Sample historic copper working at Kelly’s Prospect to gain a greater understanding of the controlling structures, the tenor of gold mineralisation associated with the visible copper and /or geochemical lithological boundaries.
- Review lithological boundaries and potential alteration signatures using newly acquired ASTER data.
- Identify potential outcropping lithium-caesium-tantalum (LCT) enriched pegmatites.

97 rock chip samples and 24 stream samples were collected in total (of which 57 rock chips and 12 stream sample results have been received back from the laboratory to date), highlighting significant gold and copper mineralisation and assisting with the structural interpretation of key controlling structures at Sterling and Kelly’s Prospects (Figure 2 and Table X).

No outcropping LCT-enriched pegmatites have been identified to date however, lithium exploration will continue with stream and soil sampling within the 10km goldilocks zone around the prospective Mondana Monzogranite, part of the Split Rock Supersuite. Encouraging anomalous pathfinders in some samples warrant further investigation.



**Photo 1:** Rock chip sample R0053- quartz vein in sheared and foliated ultramafics



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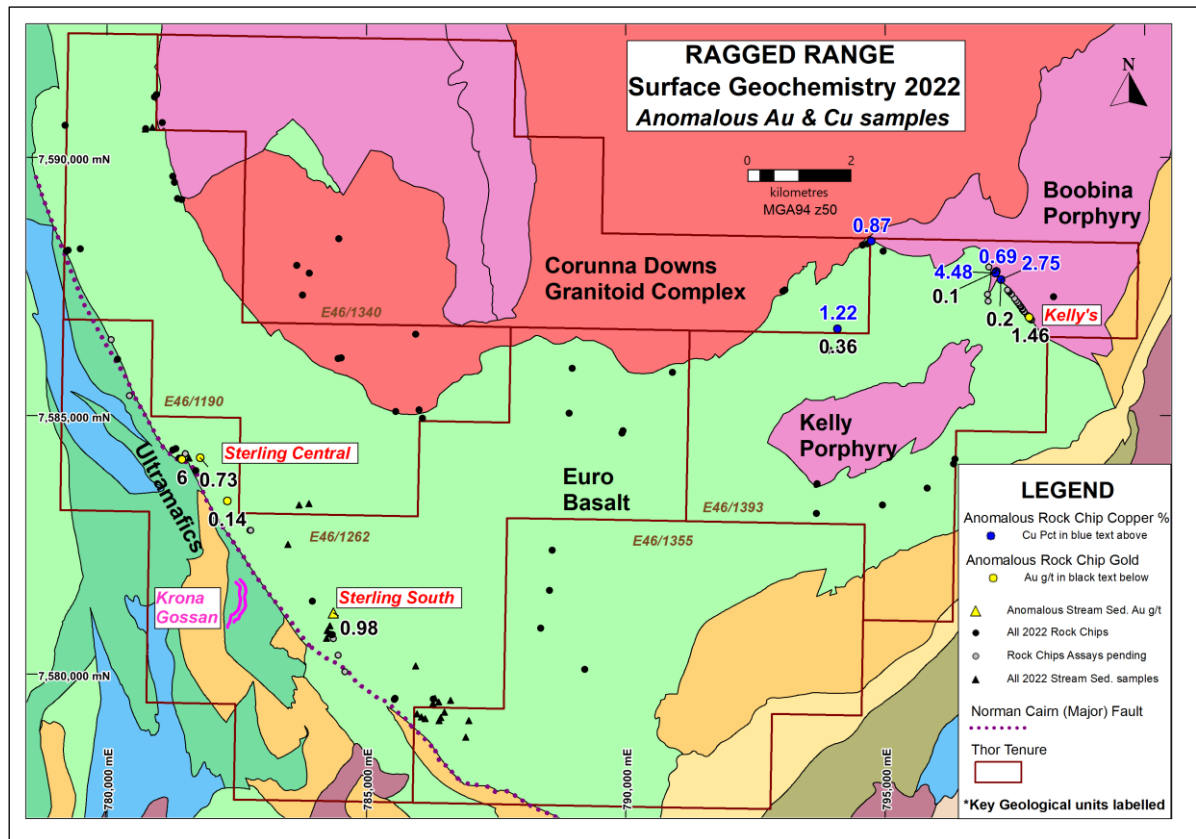


Figure 2: Sample location map.

Table A: Significant samples above 0.1g/t Au and 0.6% Cu

PROSPECT	SAMPLE ID	EASTING	NORTHING	g/t GOLD	% COPPER	Sample Type
Kelly's	R00013	797776	7586901	1.46		Rock Chip
Kelly's	R00014	794733	7588377		0.87	Rock Chip
Kelly's	R00015	797143	7587790	0.1	0.69	Rock Chip
Kelly's	R00016	797131	7587762		4.48	Channel Chip
Kelly's	R00017	797234	7587632	0.2	2.75	Channel Chip
Kelly's	R00042	794076	7586684	0.36	1.22	Channel Chip
Sterling	R00053	781441	7584154	6.0		Rock chip
Sterling	R00055	781797	7584185	0.73		Rock Chip
Sterling	R00056	782316	7583348	0.14		Rock Chip
Sterling	ST0002	784364	7581183	0.98		Stream

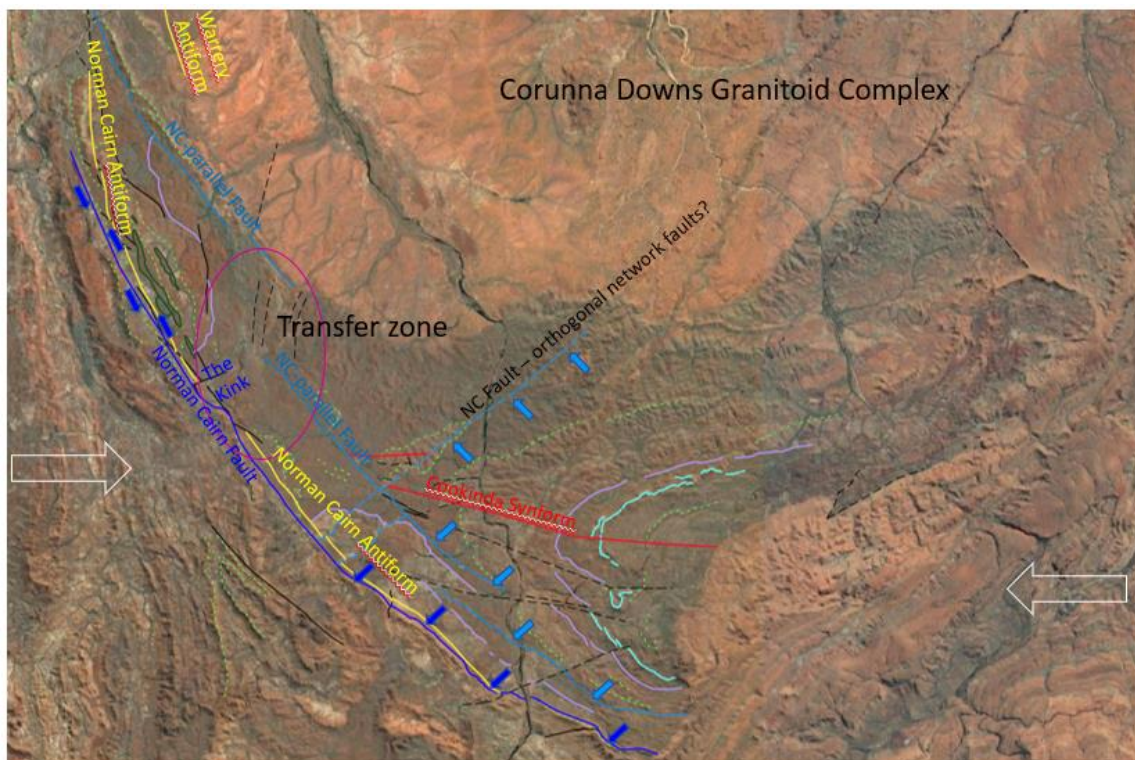
Project - GDA94 Zone 50

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**Sterling Prospect**

The focus to date at Sterling Prospect has been on the 13km gold corridor defined by stream and soil samples along the north-northwest thrust faulted contact between the Dalton Suite ultramafics and the Euro Basalt (Norman Cairn Fault). After a detailed geological and structural review of the complex folding and faulting within the ultramafics and basalts by consultant geologist Jennifer Gunter, Virga Consulting Pty Ltd, several priority areas and potential dilutional zones have been highlighted, warranting ground truthing, sampling, and follow up drill testing (Figure 3). Close to one of these new structural target areas (called R27), a coarse stream sediment sample (ST0002) reported 0.98g/t Au with one grain of gold noted in the pan. This target and others were tested as part of the recently completed RC drilling program (ASX: THR 11 July 2022).

The 6g/t Au sample (R00053- Photo 1) lies within the “Kink zone”: in Central Sterling, an area of complex faulting and significant dilation. This gold sample was collected within an outcropping quartz breccia vein associated with an oblique fault system to the regional Norman Cairn Fault (Figure 2 and 3).



**Figure 3:** Faulting and folding structural interpretation overlaying landsat image.

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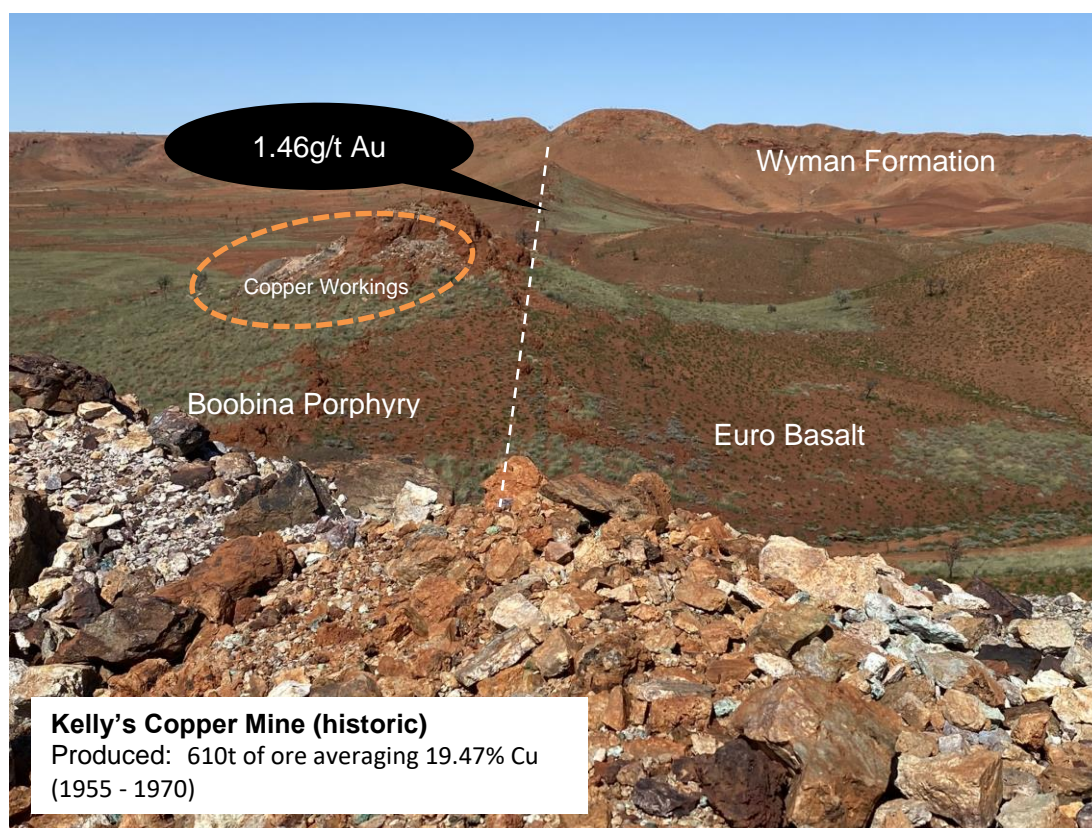
### Kelly's Prospect

The Kelly's Prospect consists of a few small, high-grade historic copper workings; they appear to be associated with shear zones cross-cutting the northwest trending Boobina Porphyry/Euro Basalt boundary (figure 1).

At Kelly's Mine, historic production<sup>1</sup> between 1955-1970, although small, was of very high grade – 610t of ore averaging 19.47% Cu (Figure 1 and Photo plate 2).

Exploration to date has been sporadic, with no systematic approach over the area. Thor's sampling program to date has targeted areas along strike of known mineralisation, zones of alteration, shears/faults and zones of brecciation, including sampling along the northwest trending, 1.2km long x 25m wide ridge between Euro Basalt and Boobina Porphyry (Photo 2). Both anomalous gold (up to **1.46g/t**) and copper (up to **4.28% Cu**) have been identified.

A Heritage Survey with the Nyamal Native Title Claimant Group was completed over the Kelly's Prospect in early July in preparation for drill testing.



**Photo 2:** Kelly's Prospect looking southeast showing ridge between Boobina Porphyry and Euro Basalt

<sup>1</sup> <https://www.mindat.org/loc-122951.html>



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**Next Steps:**

- Await RC drilling assay results - anticipated in August.
- Downhole Electromagnetic Survey (DHEM) on Krona drillhole.
- Airborne magnetic survey over the north-eastern portion of tenure, scheduled for late July.
- Continue to review and model historic data over the Kelly's area in preparation for drill testing.
- Await the full set of rock chip sample data, especially covering the Kelly's South ridge where 1.46g/t Au was reported.
- Continue reconnaissance sampling over ground in the northern portion of tenure for prospective lithium-caesium-tantalum enriched (LCT) pegmatites.

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 [www.thormining.com](http://www.thormining.com), which includes a facility to register to receive these updates by email, and on the Company's twitter page [@ThorMining](https://twitter.com/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.

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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.

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.

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### Notes

<sup>1</sup> [www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210127-maiden-copper.gold-estimate-alford-east-sa.pdf](http://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210127-maiden-copper.gold-estimate-alford-east-sa.pdf)

<sup>2</sup> [www.thormining.com/sites/thormining/media/pdf/asx-announcements/20172018/20180222-clarification-kapunda-copper-resource-estimate.pdf](http://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20172018/20180222-clarification-kapunda-copper-resource-estimate.pdf)

<sup>3</sup> [www.thormining.com/sites/thormining/media/aim-report/20190815-initial-copper-resource-estimate---moonta-project---rns---london-stock-exchange.pdf](http://www.thormining.com/sites/thormining/media/aim-report/20190815-initial-copper-resource-estimate---moonta-project---rns---london-stock-exchange.pdf)

<sup>4</sup> [www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210408-molyhil-mineral-resource-estimate-updated.pdf](http://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](http://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20200129-mineral-resource-estimates---bonya-tungsten--copper.pdf)



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## 1 JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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>	<p>The programme comprised BLEG stream sediment sampling - assayed for Au by the 1kg BLEG method and fire assay FA001.</p> <p>Rock chip sampling was based on geological outcrops, with analysis for Au by 25g fire assay FA001 and multi-element by MA101 four acid digest.</p>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	Not applicable – no drilling reported
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	Not applicable – no drilling reported
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	No logging was undertaken. Lithological description recorded for all samples collected
Sub-sampling techniques	<ul style="list-style-type: none"> <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</li> </ul>	<p>Samples were screened in the field as described in “Sampling Techniques” above.</p> <p>The sample sizes are as per industry standard for stream</p>

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Criteria	JORC Code explanation	Commentary
and sample preparation	<p><i>appropriateness of the sample preparation technique.</i></p> <ul style="list-style-type: none"> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>sediment geochemistry.</p> <p>Field duplicates and blank samples were submitted for assay with the other samples.</p>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<p>The proposed assay method is appropriate for preliminary exploration.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<p>Not undertaken</p>
Location of data points	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<p>Hand held GPS – MGA94 zone 50 (GDA)</p>
Data spacing and distribution	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<p>Not applicable – no resource is being reported</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	<p>Orientational bias is not applicable to stream and rockchip sampling at this stage</p>
Sample security	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<p>Geochemistry samples were trucked back from Nullagine to the Bureau Veritas Adelaide, SA</p>

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Sample Security levels are considered appropriate for preliminary surface geochemistry assessment.

Audits or reviews

- The results of any audits or reviews of sampling techniques and data.

None undertaken

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>• The security of 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 E46/1190, E46/1262, E46/1393 in Western Australia held 100% by Pilbara Goldfields Pty Ltd, Thor Mining PLC.
Exploration done by other parties	<ul style="list-style-type: none"> <li>• Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Sporadic surface geochemistry over tenure carried out by Great Southern Mines up to 1997. No previous lithium exploration.
Geology	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	Yet to be determined
Drill hole Information	<ul style="list-style-type: none"> <li>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <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>	No drilling has been undertaken or reported



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<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>assumptions used for any reporting of metal equivalent</i></li> <li><i>The values should be clearly stated.</i></li> </ul>	Only rock chip and stream assays have been reported. There has been no data aggregation.
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>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’).</i></li> </ul>	No drilling has been undertaken or reported
<i>Diagrams</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	A sample location plan including current 1:100k scale geology has been provided
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	All results have been reported
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	All data have been reported
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	It is anticipated that follow up and reconnaissance geochemistry (rockchip, soil & stream) and geological mapping will be undertaken over tenure , including Sterling and Kelly’s prospects.

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Criteria	JORC Code explanation	Commentary
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	All data have been reported
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	It is anticipated that follow up and reconnaissance geochemistry (rockchip, soil & stream) and geological mapping will be undertaken over tenure, including Sterling and Kellys prospects.