

19 April 2018

## THOR MINING PLC

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### Key Projects:

- **Tungsten**  
*Molyhil NT*  
*Pilot Mountain USA*
- **Copper**  
*Kapunda SA*

## Company Announcements Office

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### BONYA TUNGSTEN & COPPER PROSPECTS – ADJACENT MOLYHIL ARAFURA RESOURCES DECLINES TO EXERCISE ITS PRE-EMPTIVE RIGHT

The Board of Thor Mining Plc ("Thor") (AIM, ASX: THR) is pleased to provide an update to the announcement on 28 March 2018, of the conditional acquisition of an interest, from Rox Resources Limited (ASX: RXL), in tenements hosting outcropping tungsten deposits in the Bonya Creek area, along with a high grade copper deposit, approximately 30 kilometres from Molyhil in Australia's Northern Territory.

Thor have been advised that the 60% holder of exploration licence EL29701, Arafura Resources Limited (Arafura) (ASX: ARU), has declined to exercise its pre-emptive right to match the offer by Thor. On completion of the acquisition and execution of the proper assumption documentation, subject to normal Northern Territory stamping and ministerial approval processes, Thor and Arafura will be in Joint Venture in respect of this tenement with Thor holding a 40% interest.

### Highlights

- Thor to acquire 40% interest in exploration licence EL29701 which hosts 13 outcropping tungsten deposits, plus 1 copper deposit with exciting previous drilling results;
- Thor to acquire 100% interest in exploration licence EL29599 considered prospective for copper exploration;
- Project area exploration target\* of 3.0 - 4.9 million tonnes @ 0.3% - 0.5% WO<sub>3</sub>;
- Total consideration of A\$550,000 in Thor shares, subject to 90day trading restriction;
- Multiple substantiated walk up drill targets;
- Project area boundary approximately 20kms from Molyhil;
- No tungsten exploration on the project area in the past 35+ years.

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

### Mick Billing, Executive Chairman, commented:

*"This latest news on the Bonya acquisition is great news for the Molyhil development, and for Thor investors. The proximity of the Bonya deposits to Molyhil, and the potential to boost both scale and operating life should add significantly to the projected economic returns".*

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“Historic drilling and trenching has confirmed tungsten mineralisation on several deposits at Bonya, however there has been no tungsten focussed exploration on the tenement in over 35 years. Provided some of these known prospects mature, along with others which we expect to develop, it is more than likely that Molyhil production life and throughput volume should increase substantially.”

“The potential for small but high grade copper deposits is also very attractive with the proposed processing plant at Molyhil highly likely to be also suitable for copper flotation”

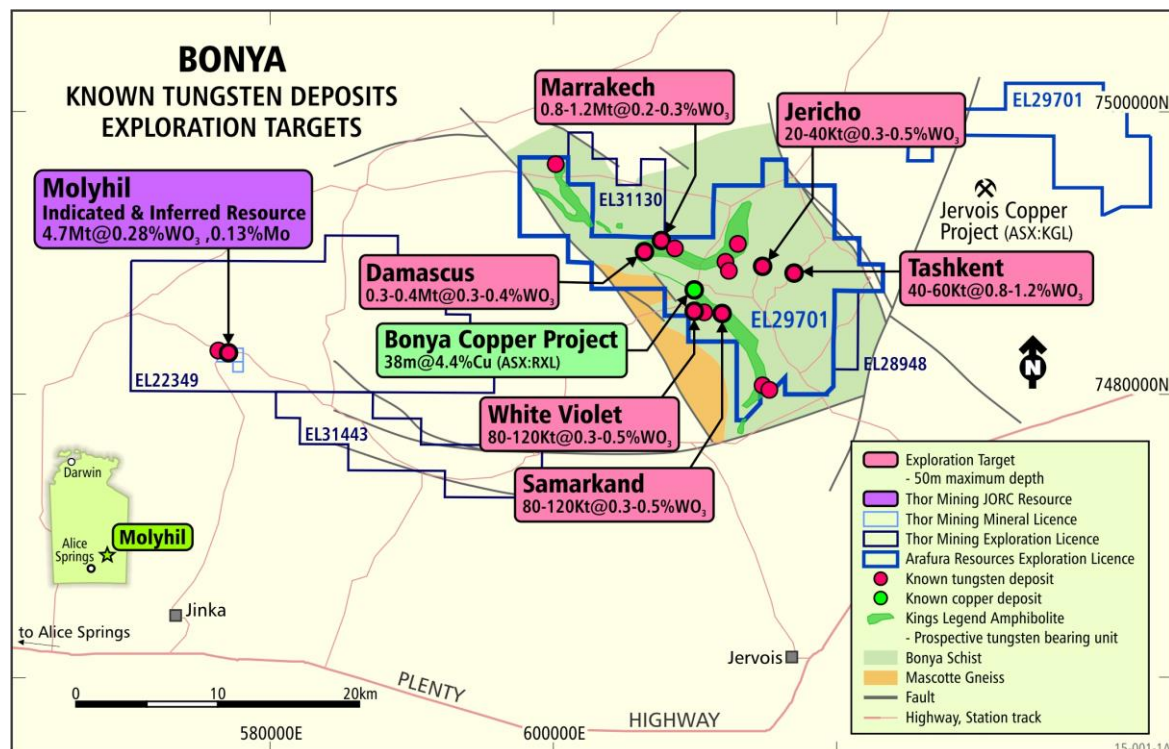


Figure 1: Tier 1 & 2 prospects situated to the east of Molyhil

### Agreement Structure and Commercial Terms

Under the terms of the agreement, Thor will, for consideration of A\$550,000 in fully paid Thor shares, acquire

- a 40% interest in Exploration Licence EL29701; and
- 100% interest in Exploration Licence EL29599.

The consideration shares are to be valued according to the average of:

- the 5 day VWAP (volume weighted average price) on ASX for the 5 days preceding execution of the terms sheet,
- and the 5 day VWAP for the 5 days preceding satisfaction of all conditions precedent to the sale.

The issue of these securities is expected to be within existing approval levels under ASX listing rule LR7.1.

Under the terms of the existing Joint Venture Agreement between Rox and Arafura, both parties are required to contribute to exploration activities. In the event that one party elect not to contribute to agreed exploration programs then normal dilution provisions apply.

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**Table 1: Bonya Scheelite Exploration Target\* Potential Summary**

Source Rank	Tonnage (Mt)	% WO <sub>3</sub>	Comment
Tier 1	0.2 – 0.3	0.3 – 0.5	Targets based on 1970s costean sampling and drilling.
Tier 2	1.2 - 1.9	0.2 – 0.4	Outcropping satellite targets which have been mapped and described but have no drill or sample data
Tier 3	1.6 – 2.7	0.3 – 0.5	Exploration targets based on proximity to known mineralisation, favourable geology and/or geophysical signature.
<b>Total Exploration Target*</b>	<b>3.0 - 4.9</b>	<b>0.3 – 0.5</b>	<b>Combined Tier 1,2 &amp; 3</b>

**Table 2: Bonya Range Tungsten Exploration Target Summary**

Rank	Prospect	Exploration Target	Comment
1	White Violet	80-120Kt @ 0.3-0.5%WO <sub>3</sub>	Target based on 1970s costean sampling and drilling Ransom 1978 (3,330t/m x 30m)
1	Samarkand	80-120Kt @ 0.3-0.5%WO <sub>3</sub>	Target based on 1970s costean sampling and drilling Ransom 1978 (2,500t/m x 40m)
1	Jericho (south)	20-40Kt @ 0.5-0.6% WO <sub>3</sub>	Target based on 1970s costean sampling and drilling Ransom 1978 (670t/m x 40m)
<b>Total Tier 1 Exploration Target</b>		<b>0.2–0.3Mt @ 0.3-0.5%WO<sub>3</sub></b>	
2	Jericho (north)	40-60Kt @ 0.2-0.3% WO <sub>3</sub>	Target based on qualitative description – Ransom 1978 (1,344t/m x 40m)
2	Marrakesh	0.8-1.2Mt @ 0.2-0.3%WO <sub>3</sub>	Target based on qualitative description – Ransom 1978 (21,000t/m x 50m)
2	Tashkent	40-60Kt @ 0.8-1.2% WO <sub>3</sub>	Target based on qualitative description – Ransom 1978 (1,120t/m x 40m)
2	Asmara	40-60Kt @ 0.2-0.3% WO <sub>3</sub>	Target based on qualitative description – Ransom 1978 (comparable size to Jericho Nth)
2	City of Medina	20-40Kt @ 0.3-0.5% WO <sub>3</sub>	Target based on qualitative description – Ransom 1978 (comparable size to Jericho Sth)
2	Negev	20-40Kt @ 0.2-0.3% WO <sub>3</sub>	Target based on qualitative description – Ransom 1978
2	Damascus	0.3-0.4Mt @ 0.3-0.4%WO <sub>3</sub>	Target based on qualitative description – Ransom 1978 (8,400t/m x 40m)
<b>Total Tier 2 Exploration Target</b>		<b>1.2–1.9Mt @ 0.2-0.4%WO<sub>3</sub></b>	
3	Kings Legend	0.5-0.7Mt @ 0.3-0.5%WO <sub>3</sub>	10 km strike length of Kings Legend Amphibolite with multiple tested tungsten occurrences.
3	Mascotte	0.1-0.2Mt @ 0.3-0.5%WO <sub>3</sub>	Outcropping Samarkand Pegmatite
3	Green Hoard	0.2-0.4Mt @ 0.3-0.5%WO <sub>3</sub>	Over 5 km outcropping Kings Legend Amphibolite with demonstrated Cu/WO <sub>3</sub> mineralisation.

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3	Twins Bore	0.2-0.5Mt @ 0.3-0.5%WO <sub>3</sub>	14 x 4 km zone with multiple outcrops Samarkand Pegmatite along anticlinal axis from known pegmatite hosted tungsten mineralisation.
3	Kurt	0.4-0.6Mt @ 0.3-0.5%WO <sub>3</sub>	Over 5 km outcropping Kings Legend Amphibolite with demonstrated Cu/WO <sub>3</sub> mineralisation at multiple locations.
3	Baikal	0.2-0.5Mt @ 0.3-0.5%WO <sub>3</sub>	12 x 4 km zone with multiple outcrops Samarkand Pegmatite along anticlinal axis. Multiple known pegmatite hosted tungsten mineralisation.
Total Tier 3 Exploration Target		1.6–2.7Mt @ 0.3-0.5%WO <sub>3</sub>	
Rank 1: Known mineralisation with data Rank 2: Known mineralisation with description Rank 3: Potential for mineralisation			

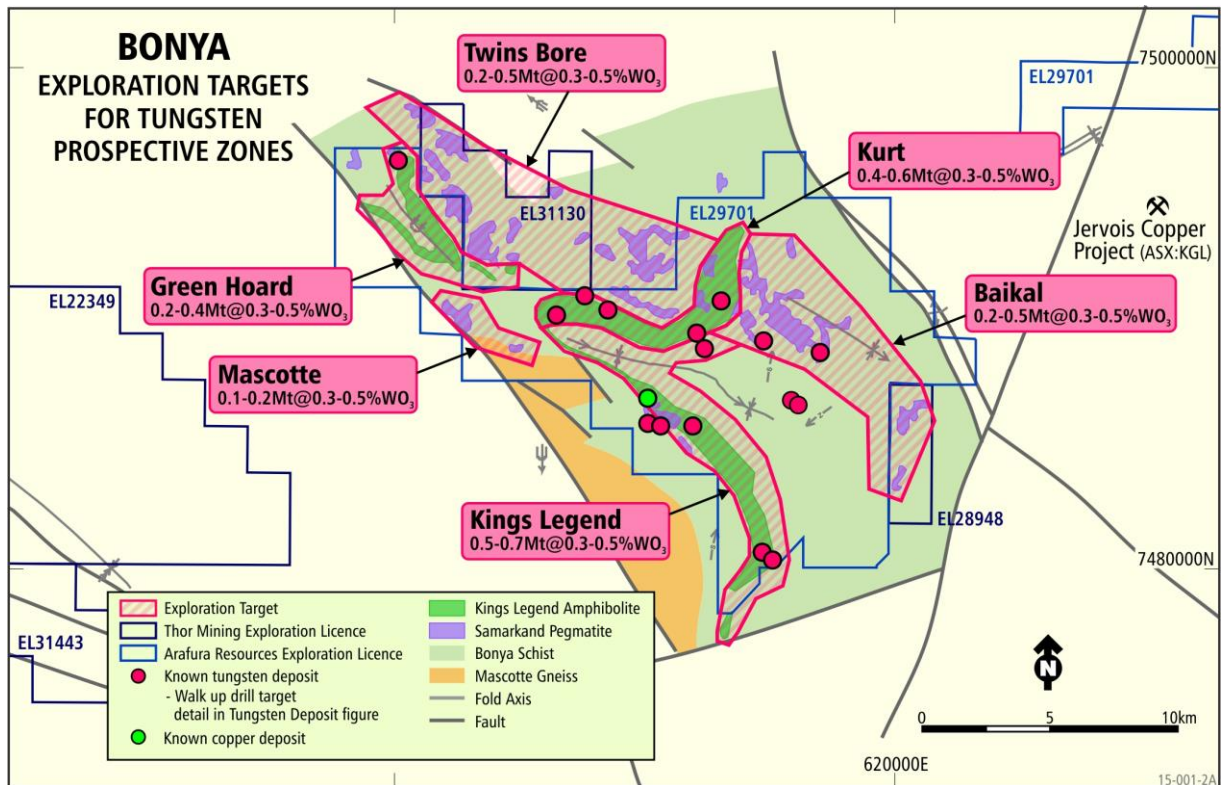


Figure 2: Exploration Targets for Tier 3 prospective zones at Bonya

**Tier 1 Prospects**

Tier 1 Prospects have demonstrated tungsten mineralisation based upon existing quantitative data and are considered the most amenable to inclusion in the Molyhil project by way of proximity to the existing resource or ease of mining via shallow depth of mineralisation.

**White Violet**

White Violet comprises a 150 metre long outcrop of scheelite mineralised calc-silicate, amphibolite and marble (Ransom, 1978). The prospect was trenched and sampled (Paine, 1971) and subsequently drilled

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(Central Pacific Minerals, 1972) by a shallow (<30m) open hole percussion program which had limited success due to poor sample return as a result of broken ground. The average prospect grade was estimated to be 0.4% WO<sub>3</sub> however the one successful drill hole WV-PH24, recovered 3 metres at 0.77% WO<sub>3</sub> from 10 metres down hole and a further 3 metres at 1.85% WO<sub>3</sub> from 18 metres down hole. Depth extension was considered to present the best growth opportunity for the prospect as the strike potential is constrained by lensing out at either end observed in good outcrop (Ransom 1978). The Exploration Target for this prospect is derived from the historic mapping and sample data which using bulk density of 2.8 t/m<sup>3</sup> results in 3,330 tonnes per vertical metre (TVM). A depth of 30 metres was used based on robust mineralisation intersected at 21 metres by WV-PH24. This Exploration Target is considered very conservative as there is no indication that mineralisation does not extend to considerable depth.

### **Samarkand**

Samarkand comprises variably mineralised calc-silicate 10 to 20 metres wide over 3,000 metres strike length (Ransom, 1978). Central Pacific undertook a trenching and open hole percussion drill program in 1972 which targeted a 60 metre section referred to as Lens 1 and a separate 150 metre section referred to as Lens 1A. The following intersections were reported from that program:

- Trench Cut 2: 8.8 m @ 0.65% WO<sub>3</sub>
- SAM-PH100: 2m @ 2.77%WO<sub>3</sub> from 6 metres down hole
- SAM-PH59: 4m @ 0.81%WO<sub>3</sub> from 30m down hole
- SAM-PH63: 3m @ 0.59%WO<sub>3</sub> from 17m down hole and,
- SAM-PH63: 1m @ 0.63%WO<sub>3</sub> from 37 metres down hole
- SAM-PH67(B): 1m @ 2.77%WO<sub>3</sub> from 5 metres down hole

The Exploration Target is based on 800 tonnes per vertical metre (tvm) for Lens1 and 1,700 tvm for Lens1A projected to a depth of 40 metres.

### **Jericho**

Jericho is situated to the north of Bonya Creek. The prospect is crosscut by an east west trending pegmatite intrusion with the southern section being smaller and higher grade than the northern section. In 1972 Petrocarb undertook a trial mine in the southern section of the prospect and some drill results are reported from this time. The southern mineralised zone is reported to have a 40 metre strike length with an average width of 5 metres. Three of the drill holes (SJ 1, 3, & 6) each had 1 metre intervals of 1% WO<sub>3</sub> within broader lower grade zones. Ransom reported an estimated overall grade of approximately 1% WO<sub>3</sub>. A range of 0.5 – 0.6% WO<sub>3</sub> has been used for the Exploration Target grade and a tonnage range of 20,000 – 40,000 tonnes is based on 600 tvm to a depth of 50 metres (Hole SJ6 intersected mineralisation at 40 metres).

### **Tier 2 Prospects**

Tier 2 Prospects comprise known tungsten mineralisation but where the existing data is of a qualitative nature. Tier 2 prospects are still considered amenable to inclusion in the Molyhil project by way of proximity to the existing resource and or ease of mining via shallow depth of mineralisation.

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Seven Tier 2 targets have been included in this evaluation. All of them outcrop at the ground surface providing good exposure for mapping and grade estimation. The following descriptions are taken from Ransom 1978.

**Marrakesh**

Marrakesh is the largest of the Tier 2 targets with an estimated 21,000 tvm based on a surface expression of 50 x 150 metres and bulk density of 2.8 tonnes per cubic metre.

**Damascus**

Damascus comprises variably mineralised calc-silicate similar to Samarkand. The prospect zone is 5 to 10 metres wide over 300 metre strike length.

**Tashkent**

Tashkent is currently a smaller target but appears to be of high grade. It is described as two calc-silicate units with disseminated scheelite mineralisation. The first unit is over 70 metre strike length with an overall estimated grade of 1% WO<sub>3</sub> and large patches of very rich coarse grain scheelite. The second unit is 2 metres wide and extends over 150 metres disappearing under cover to the east. In one location the grade appears to average better than 1.5 % WO<sub>3</sub>.

**Jericho North**

Jericho North lies adjacent to Jericho South separated by an east west trending pegmatite intrusion. They are essentially the same prospect but are dealt with separately as the northern half is larger, lower grade and does not have the same level of data. The target size has been taken from historic mapping and a nominal low grade applied.

**Other Tier 2 Prospects**

City of Medina, Asmara and Negev comprise the remaining Tier 2 prospects. Each have documented tungsten mineralisation which outcrops at the ground surface but require further evaluation.

**Tier 3 Prospects**

Tier 3 targets comprise exploration targets based on prospective geology and or geophysical signature. Tungsten mineralisation has not as yet been demonstrated to exist at these targets but sufficient confidence exists for testing to be conducted.

All of the Tungsten prospects (Tiers 1 & 2) identified so far in the Bonya region have outcropping mineralisation discovered by surface prospecting between 1929 and 1972. Significant potential exists for the discovery of blind deposits by application of contemporary exploration practices in the Tier 3 prospect areas.

The individual Tier 3 prospects are described in Table 2 above. Exploration Target ranges for the prospects have been derived by association with other nearby tungsten occurrences.

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### Copper Potential

Drilling by Rox in 2014 <https://www.asx.com.au/asxpdf/20141216/pdf/42vhwx4qf6f5y.pdf> resulted in a number of high grade copper assays from the historic Bonya mine including:

BYRC008	11m @ 4.4%Cu from 30m, including 3m @ 6.1%Cu from 33m
BYRC009	38m @ 4.4%Cu from 60m, including 6m @ 8.8%Cu from 60m, and 8m @ 7.9%Cu from 82m
BYRC012	9m @ 3.8%Cu from 97m, including 3m @ 8.2%Cu from 97m
BYRC014	8m @ 7.6%Cu from 97m, including 3m @ 12.0%Cu from 101m, and 13m @ 5.4%Cu from 111m, including 9m @ 7.4%Cu from 114m
BYRC015	9m @ 2.8%Cu from 100m, including 4m @ 3.9%Cu from 101m
BYRC018	5m @ 9.1%Cu from 109m, including 3m @ 13.4%Cu from 109m, and 11m @ 3.9%Cu from 121m

For further information, please contact:

#### THOR MINING PLC

Mick Billing Executive Chairman

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### Competent Person's Report

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

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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) is a resources company quoted on the AIM Market of the London Stock Exchange and on ASX in Australia.*

*Thor holds 100% of the advanced Molyhil tungsten project in the Northern Territory of Australia, for which an updated feasibility study in 2015<sup>1</sup> suggested attractive returns.*

*Thor also holds 100% of the Pilot Mountain tungsten project in Nevada USA which has a JORC 2012 Indicated and Inferred Resources Estimate<sup>2</sup> on 2 of the 4 known deposits.*

*Thor is also acquiring up to a 60% interest Australian copper development company Environmental Copper Recovery SA Pty Ltd, which in turn holds rights to earn up to a 75% interest in the mineral rights and claims over the portion of the historic Kapunda copper mine in South Australia recoverable by way of in situ recovery.*

*Thor has a material interest in US Lithium Pty Limited, an Australian private company with a 100% Interest in a Lithium project in Nevada, USA.*

*Finally, Thor also holds a production royalty entitlement from the Spring Hill Gold project<sup>3</sup> of:*

- *A\$6 per ounce of gold produced from the Spring Hill tenements where the gold produced is sold for up to A\$1,500 per ounce; and*
- *A\$14 per ounce of gold produced from the Spring Hill tenements where the gold produced is sold for amounts over A\$1,500 per ounce.*

### Notes

- <sup>1</sup> Refer ASX and AIM announcement of 12 January 2015
- <sup>2</sup> Refer AIM announcement of 22 May 2017 and ASX announcement of 23 May 2017
- <sup>3</sup> Refer AIM announcement of 26 February 2016 and ASX announcement of 29 February 2016