THOR MINING PLC

26 November 2019

#### THOR MINING PLC

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AIM & ASX Listings: Shares: THR

Directors:
Michael Billing
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#### **Key Projects:**

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

Company Announcements Office ASX Securities Limited, 20, Bridge Street, Sydney, N.S.W. 2000

#### COMPLETION OF DRILLING – BONYA PROJECT

The directors of Thor Mining Plc ("Thor") (AIM, ASX: THR) are pleased to advise completion of the second round of drilling at the Bonya project, adjacent Molyhil, in the Northern Territory of Australia (Figure 1).

The Bonya project is held in joint venture between Arafura Resources Limited (60%) and Thor (40%) with Thor acting as manager, and each party contributing to the cost according to their equity.

A total of eleven holes were drilled at White Violet, and a further eight holes at Samarkand to complete the program with 1,386 metres drilled in total.

The following results obtained via portable X-Ray Fluorescence ("XRF") determination should be considered preliminary and subject to confirmation by subsequent geochemical analysis. The geochemical analysis results may vary from those obtained from XRF.

#### **HIGHLIGHTS:**

- Tungsten-bearing mineralisation at White Violet extended by 40 metres to both the east and west with a total strike length of 120 metres and vertical depth of 110 metres.
- High grade tungsten intercepts previously reported at White Violet from holes 19RC034, 19RC035, 19RC037, and 19RC039 (ref announcement of 11 November 2019).
- Four metres @ 0.23% WO<sub>3</sub> from 10 metres from Samarkand hole 19RC044.
- Four metres @ 0.27% Cu from 19 metres from Samarkand hole 19RC045.
- Seven metres @ 0.33% WO $_3$  from 44 metres, and two metres @ 0.86% WO $_3$  from 79 metres, plus 10 metres @ 0.53% Cu from 26 metres from Samarkand hole 19RC046.
- One metre @ 1.35% WO₃ from 19 metres from Samarkand hole 19RC048.

#### Mr Mick Billing, Executive Chairman, commented:

"We are very pleased to see preliminary good grades of both tungsten and copper, particularly at shallow depths at Samarkand, following excellent earlier reported preliminary results at White Violet."

"Our consistent objective for drilling at Bonya is to add to the Molyhil area mining inventory, and aim for a minimum life of ten years open pit mining and processing. These results, subject to assay and follow up resource work, are a very positive step towards that objective."



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Drill samples have been despatched for formal laboratory analysis. Preliminary XRF results, including previously announced for the White Violet deposit, are summarised for each hole in Table A. Hole collar locations for the Samarkand deposit drilling are provided in Figure 2.

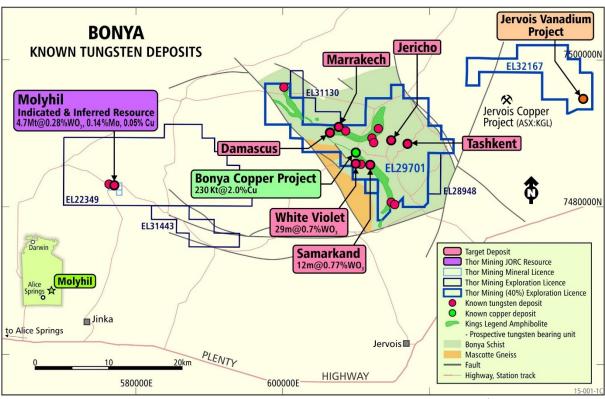


Figure 1: Tenement map showing Molyhil and Bonya deposits including drilling highlights from April 2019

Table A: Summary of White Violet & Samarkand preliminary XRF results

Hole ID	Prospect	East GDA94 Zone53	North GDA94 Zone53	Elev ASL (m)	Azi	Dip	Depth (m)	Preliminary XRF Intercept Summary	Est true width (m)
19RC034	White Violet	609,684	7,486,03	403	192	-45	51	20m @ 0.24% WO <sub>3</sub> from 2m including 8m @ 0.38% Cu from 3m	17m 6m
19RC033	White Violet	609,693	7,486,068	403	192	-70	178.2	$2m \ @ \ 0.11\% \ WO_3 \ from \ 136m \ and \ 2m \ @ \ 0.16\% \ WO_3 \ from \ 144m \ and \ 1m \ @ \ 0.58\% \ WO_3 \ from \ 156m$	1.5m 1.5m 0.6m
19RC035	White Violet	609,663	7,486,045	401	192	-50	81	$11m @ 0.19\% WO_3$ from 1m and 4m @ 0.11% WO <sub>3</sub> from 15m and 8m @ 0.24% WO <sub>3</sub> from 26m	8m 2.5m 6m
19RC036	White Violet	609,665	7,486,062	400	192	-65	138	$4m \ @ \ 0.52\% \ WO_3 \ from \ 51m \ and \ 11m \ @ \ 0.11\% \ WO_3 \ from \ 85m \ and \ 5m \ @ \ 0.33\% \ WO_3 \ from \ 115m \ and \ 3m \ @ \ 0.5\% \ WO_3 \ from \ 128m$	2.5m 7m 3m 6m 2m
19RC037	White Violet	609,641	7,486,070	397	192	-65	96	14m @ 0.23% WO <sub>3</sub> from 65m and 8m @ 0.63% Cu from 62 m	9m 5.5m
19RC042	White Violet	609,710	7,486,033	406	192	-50	60	18m @ 0.26% WO₃ from 18m	15m



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Hole ID	Prospect	East GDA94 Zone53	North GDA94 Zone53	Elev ASL (m)	Azi	Dip	Depth (m)	Preliminary XRF Intercept Summary	Est true width (m)
19RC038	White Violet	609,713	7,486,047	406	192	-60	93	3m @ $0.45\%$ WO <sub>3</sub> from 42m and 1m @ $0.62\%$ WO3 from 50m and 4m @ $0.23\%$ WO <sub>3</sub> from 55m	2m 0.5m 2.5m
19RC039	White Violet	609,732	7,486,026	409	192	-55	42	$2$ m @ $0.71\%$ WO $_3$ from 11m and 5m @ $0.33\%$ WO $_3$ from 17m	1.5m 3m
19RC040	White Violet	609,757	7,486,026	409	192	-55	48	1m @0.47% WO₃ and 2.2% Cu from 22m	0.5m
19RC041	White Violet	609,782	7,486,031	408	192	-55	30	no significant intercept	-
19RC043	White Violet	609,640	7,486,069	397	192	-45	52	no significant intercept	-
19RC044	Samarkand	612,111	7,485,391	429	045	-50	78	4m @ 0.23% WO <sub>3</sub> from 10m	3m
19RC045	Samarkand	612,089	7,485,404	424	045	-55	51	4m @ 0.27% Cu from 19m	3m
19RC046	Samarkand	612,086	7,485,400	424	045	-75	99	10m @ 0.53% Cu from 26m and 7m @ 0.33% WO <sub>3</sub> from 44m and 2m @ 0.86% WO <sub>3</sub> from 79m	7m 5m 1.5m
19RC047	Samarkand	612,071	7,485,420	424	045	-75	30	Hole re-drilled as 19RC049	-
19RC048	Samarkand	612,073	7,485,423	424	045	-55	63	1m @ 1.35% WO <sub>3</sub> from 19m	0.6m
19RC049	Samarkand	612,071	7,485,420	424	045	-75	90	no significant intercept	-
19RC050	Samarkand	612,065	7,485,451	426	045	-50	55	4m @ 0.1% WO <sub>3</sub> from 10m	3m
19RC051	Samarkand	612,133	7,485,344	422	045	-55	51	3m @ 0.29% WO <sub>3</sub> from 5m	2.5m

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Figure 2: Samarkand drill collar location plan

For further information, please contact:

### **THOR MINING PLC**

Mick Billing, Executive Chairman +61 8 7324 1935

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="mailto:@ThorMining.">@ThorMining.</a>

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### **Competent Persons 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.

#### **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 August 2018¹ suggested attractive returns.

Adjacent Molyhil, at Bonya, Thor holds a 40% interest in deposits of tungsten, copper, and vanadium, including an Inferred resource for the Bonya copper deposit<sup>2</sup>.

Thor also holds 100% of the Pilot Mountain tungsten project in Nevada USA which has a JORC 2012 Indicated and Inferred Resources Estimate<sup>3</sup> on 2 of the 4 known deposits. The US Department of the Interior has confirmed that tungsten, the primary resource mineral at Pilot Mountain, has been included in the final list of Critical Minerals <sup>6</sup>2018.

Thor is also acquiring up to a 30% interest 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 in South Australia recoverable by way of in situ recovery<sup>4</sup>, and also holds rights to earn a 75% interest in portion of the Moonta Copper project also in South Australia, and is considered amenable to recovery by way of in situ recovery<sup>5</sup>.

Thor has an interest in Hawkstone Mining Limited, an Australian ASX listed company with a 100% Interest in a Lithium project with a JORC compliant resource in Arizona, USA.

Finally, Thor also holds a production royalty entitlement from the Spring Hill Gold project<sup>6</sup> of:

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

#### Notes

<sup>&</sup>lt;sup>1</sup> Refer ASX and AIM announcement of 23 August 2018

<sup>&</sup>lt;sup>2</sup> Refer ASX and AIM announcement of 26 November 2018

<sup>&</sup>lt;sup>3</sup> Refer AIM announcement of 13 December 2018 and ASX announcement of 14 December 2018

<sup>&</sup>lt;sup>4</sup> Refer AIM announcement of 10 February 2016 and ASX announcement of 12 February 2018

<sup>&</sup>lt;sup>5</sup>Refer AIM announcement of 5 March 2019 and ASX announcement of 6 March 2019

<sup>&</sup>lt;sup>6</sup>Refer AIM announcement of 26 February 2016 and ASX announcement of 29 February 2016.

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# JORC Code, 2012 Edition – Table 1 report template

## **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>	Reverse Circulation drilling with face sampling hammer was used to obtain one metre interval samples.  Subsamples of approximately 2-3kg were taken from each interval using riffle splitter for geochemical analysis. XRF subsamples and chip tray samples were collected, logged and photographed.  Industry standard QAQC protocol was adopted with reference material inserted every fifth sample.
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	Reverse circulation drilling with face sampling hammer.
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>	Samples were weighed from a selection of holes to gauge sample recovery. Samples were consistently within the range of 15 to 20kg and consistent across different rock units.
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>	Hole cuttings were logged geologically and photographed for the entire length of each hole.  Mineralised and unmineralised zones were easily determined from geological observations and XRF determination.

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Criteria	JORC Code explanation	Commentary
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/secondhalf sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Subsamples for independent laboratory analyses were taken by riffle splitter.  The majority of samples were dry. Wet samples were noted in the logs.  Sample size of 2-3kg is appropriate for RC samples with a maximum particle size of 6mm.  For preliminary XRF determination not to be used for resource estimation — a further subsample of 30g was taken which is not considered truly representative.
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>	Laboratory geochemical assay results are still pending. Industry standard sample preparation finishing with sample pulverisation to 80% passing 75µm. with assay by peroxide fusion and ICP-MS. The technique is considered appropriate for the analyte suite. Industry standard QA/QC protocol is implemented in the assay process.
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>	Significant intersections reported correspond with visual indications in samples. No further independent verification has been undertaken.
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>	All hole collar locations will be surveyed by licenced survey contractor for mineral resource estimation.  North seeking gyro will be used for downhole survey.  Grid system used is GDA94, zone 53.
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> </ul>	Drill holes are spaced at 40 metre centres on 25 metre spaced drill sections. This spacing is considered appropriate for resource estimation in this style of mineralisation.  Samples have not been composited.



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Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Whether sample compositing has been applied.</li> <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>	Hole orientations are appropriate for the orientation of target mineralised zones. Estimated true widths are stated in the report intercept summary table.
Sample security	The measures taken to ensure sample security.	The project is located in a remote region. No unauthorised company personnel visited the site during operations. Assay samples were collected from each hole immediately after drilling. Samples were transported for safe storage at a base camp before being securely packaged for transport to the laboratory. All submitted assay samples were receipted by the laboratory.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	None

## **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>	The Bonya deposits are located on EL29701 jointly held by Arafura Resource Limited (60%) and Thor Mining PLC(40%) with Thor acting as manager  EL29701 is a mature exploration licence subject to ongoing biennial renewal.
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Previous drilling was undertaken by Central Pacific Minerals NL in 1971 using open hole percussion with limited success. There are no complete records of the historic drilling.
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	Contact metamorphic skarn hosted scheelite.



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Drill hole	
Information	

- A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:
  - easting and northing of the drill hole collar
  - elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar
  - dip and azimuth of the hole
  - down hole length and interception depth
  - hole length.
- If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.

This information is tabulated in detail within the announcement

### Data aggregation methods

- In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.
- Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.
- The assumptions used for any reporting of metal equivalent values should be clearly stated.

Where sample intervals vary, reported average grades are length weighted. No grades were cut

A 3-metre maximum waste width and cut-off grade of 0.08% WO $_3$  was used in determining aggregated mineralisation intervals.

no high-grade intervals were highlighted.

No metal equivalents were reported.

### Relationship between mineralisation widths and

- These relationships are particularly important in the reporting of Exploration Results.
- If the geometry of the mineralisation with respect to the drill hole angle is known, its

Estimated true widths are provided for each reported interval. Mineralisation intercept angles are in the order of 60 degrees. Correction to true widths is in the order of 50 to 65% of drill widths.