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## THOR MINING PLC

Thor Mining PLC ("Thor" or the "Company")

# Development Plan Pilot Mountain Tungsten Project - Nevada USA

The Directors of Thor Mining PLC' ("Thor") (AIM, ASX: THR) are pleased to announce the Development Plan for the Company's recently acquired Pilot Mountain tungsten project, in the US state of Nevada.

The three stage development plan has been designed to optimise, develop and permit the existing Desert Scheelite resource and project Exploration Targets\* through to project development ready status.

\*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.

The Desert Scheelite Indicated + Inferred Resource comprises 6.8 million tonnes @ 0.31% WO<sub>3</sub>, 0.17% Copper, and 22.8g/t (grams/tonne) Silver, announced on 10 June 2014.

Table 1: Pilot Mountain Exploration Target summary

	Tonnage (Mt)	% WO <sub>3</sub>	Comment
Tier 1 Targets*	7.5 - 13.5	0.3 - 0.5	Based on historic drill intersections
Tier 2 Targets*	3.5 - 9.1	0.3 - 0.5	Based on favourable geology and proximity to known mineralisation.
Total Exploration Target*	11.0 - 23.0	0.3 - 0.5	Combined Tier 1 & 2

These targets are in addition to the Indicated and Inferred Resource Estimate at Desert Scheelite, below.

The Desert Scheelite Indicated + Inferred Resource comprises 6.8 million tonnes @ 0.31% WO3, 0.17% Copper, and 22.8g/t (grams/tonne) Silver, announced on 10 June 2014.

Table 2: Desert Scheelite Resource Estimate - Compliant with JORC 2012

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Desert	Resource	W	'O <sub>3</sub>	Ag		Cu	
Scheelite	Tonnes	Grade %	Contained	Grade	Contained	Grade	Contained metal
Scricciac			metal (t)	g/t	metal (t)	%	(t)
Indicated	6,090,000	0.31	18,900	24.2	150	0.16	10,000
Inferred	700,000	0.30	2,100	9.1	10	0.24	2,000
Total	6,790,000	0.31	21,000	22.8	160	0.17	12,000

Note: Resource 100% owned by Thor Mining PLC

Pilot Mountain situated in south-western Nevada comprises the Desert Scheelite, Gunmetal, Garnet and Good Hope deposits, all within a ~3 kilometre range of each other. A review of geological data including recently unearthed archive data has been undertaken to determine the project's development potential summarised in Table 1.

# http://www.rns-pdf.londonstockexchange.com/rns/4014Y\_1-2014-11-30.pdf

Figure 1: Pilot Mountain Exploration Target Plan

Tier 1 targets have demonstrated tungsten mineralisation based upon existing historic drill data generated largely by the Union Carbide Corporation in the 1970s. This data, however, is not adequate to support a resource estimate. Exploration Target values quoted above for Tier 1 areas have been derived from extrapolation of existing drill data.

Tier 2 targets do not have demonstrated tungsten mineralisation but are deemed prospective as a function of favourable geology and proximity to areas of known mineralisation. Exploration Target values quoted above for Tier 2 areas have been derived by comparison with similar Tier 1 target areas and factored for relative size. Testing of Tier 2 targets will comprise part of the second stage of the development plan.

### The three stage development plan will comprise;

1. Confirmatory drilling of Tier 1 targets, enabling updated resource estimate including Garnet and Gunmetal deposits, initial scoping studies, and advancement of project permitting.

- Expansion and infill of Tier 1 resource drilling and testing of Tier 2 targets. Upgrade of resource
  estimates to enable initial assessment of reserves. Continue project permitting, feasibility and
  associated studies.
- 3. Completion of resource drilling and studies for reserve estimate. Definitive feasibility study and project permitting.

Individual Exploration Targets and their derivation are provided below.

#### Mr Mick Billing, Executive Chairman of Thor Mining:

"The potential for the Pilot Mountain project to be ranked as one of the larger, non-Chinese, tungsten deposits should not be discounted. Previous exploration was halted due to market forces, rather than lack of targets. At Pilot Mountain, Thor has a number of "walk up" drill targets along with very interesting longer-term exploration opportunities. There is much to do, including follow up work on very promising metallurgical testwork as well as other environmental and other technical studies, however this has potential to become a project of considerable substance."

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Updates on the Company's activities are regularly posted on Thor's website <u>www.thormining.com</u>, which includes a facility to register to receive these updates by email.

# **Derivation of Exploration Targets**

Table 3 below lists the individual exploration targets that have been identified within the Pilot Mountain project area. Each target is described below.

Table 3: Pilot Mountain Exploration Targets

	Target Name	Abbreviation	Exp Target	Totals	
	Garnet	GR	2 -3 Mt @ 0.3 - 0.4% WO <sub>3</sub>		
	Gunmetal South	GMS	2 - 3 Mt @ 0.3 - 0.5% WO <sub>3</sub>	754-12514	
TIER 1 Exploration Targets	Desert Scheelite East	DSE	2 - 3 Mt @ 0.3- 0.5%WO <sub>3</sub>	7.5 to 13.5 Mt at 0.2- 0.4%WO <sub>3</sub>	
largets	Good Hope	GH	0.5-1.5Mt @ 0.4 - 0.5%WO <sub>3</sub>		
	Gunmetal Mine	GM	0.5-1Mt @ 0.4 - 0.5% WO <sub>3</sub>		
	Greasewood Spring	GWS	0.5-1.5Mt @ 0.2 - 0.4% WO <sub>3</sub>		
	Good Hope Zone	GHZ	1 - 2Mt @ 0.2 - 0.3% WO <sub>3</sub>		
	Desert Scheelite (dip extension)	DSD	0.5-1.5Mt @ 0.2-0.4% WO <sub>3</sub>		
	Gunmetal West	GMW	0.5-1Mt @ 0.2 - 0.4% WO <sub>3</sub>	3.5 to 9.1 Mt	
TIER 2 Exploration Targets	Garnet East	GRE	0.1-0.3Mt @ 0.2 - 0.4%WO <sub>3</sub>	at 0.2 -	
largets	Juniper	JNP	0.5-1.0Mt @ 0.2 - 0.3%WO <sub>3</sub>	011,01103	
	Desert Scheelite (West extension)	DSW	0.2 -0.5 Mt @ 0.2-0.4% WO <sub>3</sub>		
	Fjiordland	FJL	0.1 - 0.5Mt @0.2 - 0.3%WO <sub>3</sub>		
	Sage	SGE	0.1 - 0.3Mt @0.2 - 0.4% WO <sub>3</sub>		

 $\underline{http://www.rns-pdf.londonstockexchange.com/rns/4014Y\_2-2014-11-30.pdf}$ 

Figure 2: Pilot Mountain Tier 1 Targets

http://www.rns-pdf.londonstockexchange.com/rns/4014Y\_3-2014-11-30.pdf

Figure 3: Pilot Mountain Tier 2 Targets

#### Garnet

Widely spaced drilling outlines several areas of apparently coherent, sub horizontal tungsten mineralisation skarn hosted at shallow depth within a sequence of marble and hornfels. The mineralisation is dissected by a rectilinear series of intersecting major subvertical faults with minor vertical displacements. The mineralised horizons total 12 metres in width and occur over a thickness of 30 to 40 metres which is near surface towards the east with the cover increasing up to 40 metres towards the west.

Definition of ore blocks requires significant infill drilling with short vertical holes. Once the historic indications are confirmed, estimation ofresources, plus economic modelling can be undertaken.

Across the 700,000 square metre Garnet target area seven of the historic holes penetrate what is thought to be the full mineralised sequence comprising three mineralised horizons (the middle horizon is sometimes split to provide a fourth). Using these seven holes an average total mineralised thickness of  $12 \text{ metres at } 0.3\% \text{WO}_3$  was derived.

The Garnet Exploration Target value was derived from the mineralised thickness, the target area, an estimated bulk density of 2.8 and a conservative factor of 0.1 to allow for the improbability of the whole of a target area being mineralised.

The exploration target is therefore 2 -3 Million tonnes @ 0.3 - 0.4% WO<sub>3</sub>.

#### **Gunmetal South**

The Gunmetal South target area comprises 630,000 square metres of which 330,000 square metres has been tested by widely spaced drilling outlining multiple sub-horizontal zones of apparently coherent mineralisation within the metasediment. The mineralisation as currently drilled is constrained to the south and east by drilling, to the north by granite intrusions and to the west by an upward faulted block.

The Exploration Target provided is the resource estimate reported by Kaiser Engineering in 1981. This being a range of 2 - 3 million tonnes at 0.3% - 0.55% WO $_3$ . Validation of this estimate has been undertaken via the following estimate completed using the existing data and a series of detailed sections generated by Union Carbide. The mineralised area is approximately  $500 \times 250$  metres comprising a total mineralised thickness of approximately 7 metres with a bulk density of 2.8, resulting in a figure of 2.5 million tonnes.

There exists some limited scope for immediate extensions outside the currently drilled area butthis is not included in the target figure.

#### **Desert Scheelite**

The Desert Scheelite resource detailed in the Golder 2012 report is not included as an exploration target. The deposit remains open to E, W & at depth along its whole strike length. Extensions to mineralisation in each of these three directions are treated as individual targets and described separately below.

#### **Desert Scheelite East**

The most easterly hole into Deseret Scheelite mineralisation (DSDD 15) intersected exceptionally strong mineralisation of 13.9m averaging 0.89% WO3, 1.75% Cu at 180m below groundlevel and 130 metres below the base of unmineralised cover. There are currently no apparent reasons why this mineralisation should not continue. A recent geophysical survey (gravity and IP) over Desert Scheelite and adjacent plains to the east was undertaken which indicated no significant down thrusting has occurred to the east. An exploration target of 2 - 3 million tonnes at 0.3 to 0.5% WO $_3$  has been proposed based on an easterly extension equivalent to one third of the existing Desert Scheelite resource.

# **Good Hope**

The Good Hope mineralisation is little explored however historic drill hole RDH2 reported an intersection of  $36m@~0.41\%~WO_3$  from 3 metres, indicating significant potential, albeit at unknown hole orientation relative to the mineralisation. Initial indications from minimal surface outcrop in historic exploration gouges would suggest Good Hope mineralisation has a sub vertical orientation and compares more closely with the Desert Scheelite style of mineralisation than with Gun Metal / Garnet. The geology mapping at Good Hope indicates the presence of target lithologies comprising outcropping skarn and quartz monzonite within Luning Marble thus strong potential exists for economic quantities of tungsten mineralisation to occur at Good Hope.

The Good Hope Exploration Target of 0.5 - 1.5 million tonnes at 0.4% - 0.5% WO  $_3$  is based on one sixth to one quarter of the Desert Scheelite resource.

## **Gunmetal Historic**

Gunmetal Historic is the zone around the historic mining area. Geological mapping indicates extensive skarn and quartz monzonite outcropping within Luning Marble. Historic mining and drill intersections in this area indicate robust tungsten mineralisation such as GM11 with the following intersections

4.2m @0.61% WO $_3$  from 83m 8.1m @0.62% WO $_3$  from 88m 6.1m @0.51% WO $_3$  from 111m 2.8m @0.5% WO $_3$  from 121m

The extent of this mineralisation is likely to be controlled by the distribution of the intrusive which will also limit the size of the target. An Exploration Target of 0.5 - 1.0 million tonnes at 0.4 - 0.5% WO  $_3$  is proposed. The potential of near surface and opencut mining make this a Tier 1 target.

Tier 2 Exploration Targets do not have demonstrated tungsten mineralisation but are prospective as a function of their geology and/or proximity to areas of known mineralisation.

Desert Scheelite dip extension is the Tier 2 exception as it is based on existing data and is relatively low risk. This target is classified as Tier 2 because it occurs at depth and is unlikely to be drilled in the foreseeable future.

Exploration Target values for Tier 2 areas have been derived by comparison with Tier 1 target area and factored for relative size. Each Tier 2 Exploration Target is described individually below.

## **Greasewood Spring**

Greasewood Spring has comparable geology to Gunmetal Mine. There is wide spaced drilling of which only part of the data are available. The only mineralisation intersections recorded so far have been at depth.

The prospective geology including hornfels and skarn in addition to  $\sim$ 60% alluvial cover give this target area a reasonable level of prospectivity. The target value is derived from Gunmetal Historic scaled up to allow for the larger area of Greasewood Spring.

Drill target generation using geophysics, mapping and geochemistry work would be undertaken prior to any drilling in this area.

#### **Good Hope Zone**

The Good Hope Zone is a large area (247 Hectares) entirely under volcanic and alluvial cover. There are currently two gaps in this area of cover; the southern gap exposing the Desert Scheelite deposit, and the northern gap exposing tungsten mineralisation at Good Hope. (figure 3)

Between these two inliers at Good Hope and Desert Scheelite and beneath the shallow cover (in the order of 10s of metres thick) the geology comprises the target lithologies which have to date only been tested by three drill holes sited without benefit of contemporary geophysical targeting.

Application of contemporary systematic geophysical exploration techniques will be undertaken to develop targets in this area before any drilling is undertaken.

The Exploration Target for this area is set at 1 - 2 million tonnes at 0.2% - 0.3% WO<sub>3</sub>.

## **Desert Scheelite Dip Extension**

The Desert Scheelite Dip Extension is a relatively low risk target located down dip of the currently deepest drilling at less than 300 metres. By nature of its depth the target will be high cost to drill and unlikely to be drilled before commencement of mining of the current Desert Scheelite resource.

The Exploration Target is based on one sixth of the current DS resource.

# **Remaining Tier 2 Targets**

The remaining Tier 2 Exploration Targets; Gunmetal West, Garnet East, Juniper, Desert Scheelite West, Fjiordland and Sage all have target values of less than 1 million tonnes. They are considered prospective as a result of their geology predominantly including the presence of Luning Marble, and the interpreted proximity of quartz monzonite. As Tier 2 targets each of these would be subject to preliminary targeting ground work including mapping, geochemistry excluding areas of transported cover and geophysics to identify any drill targets.

This information is provided by RNS
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