ASX Code: "THR"

19 March 2021

THOR MINING PLC

Registered Numbers:
United Kingdom 05276 414
Australia 121 117 673

Registered Office:
58 Galway Avenue
MARLESTON, SA, 5035
Australia

Ph: +61 8 7324 1935
Fx: +61 8 8351 5169

Email:
corporate@thormining.com

Website:
www.thormining.com

Twitter
@ThorMining

Enquiries:
Mick Billing
Executive Chairman
Thor Mining PLC
+61 8 7324 1935

Nominated Advisor
Jessica Cave
WH Ireland Ltd
+44 (0) 20 7220 1666

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

Directors:
Michael Billing
Mark Potter
Mark McGeough

Key Projects:
- **Gold**
  Ragged Range Pilbara WA
- **Copper**
  Kapunda SA
  Alford West SA
- **Uranium / Vanadium**
  Colorado / Utah USA
- **Tungsten**
  Molyhil NT
  Pilot Mountain USA

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

US URANIUM-VANADIUM PROJECT

Exploration Update

The Directors of Thor Mining PLC ("Thor" or the "Company") (AIM, ASX: THR, OTCQB: THORF), the diversified resource company, are pleased to report that three priority targets have been identified for drilling at its 100% owned Wedding Bell and Radium Mountain Project, located in the historic uranium-vanadium mining district within the Uravan mineral belt, south west Colorado (Figure 1).

Highlights:

- Project prospective for "Salt wash" type sandstone hosted mineralisation within the high-grade uranium-vanadium Uravan mineral belt.
- Three priority target areas identified - Section 23, Groundhog and Rim Rock (Figure 1 and 2).
- Field sampling by Thor returned assay results of high-grade uranium (up to **1.25% U_3O_8**) and vanadium (up to **3.47% V_2O_5**) as announced on 21 July 2020.
- Historic uranium-vanadium mining jurisdiction, within close proximity to well-developed infrastructure.
- Close to the White Mesa mill which has historically acted as toll milling plant
- Shallow depth of prospective uranium-vanadium fluvial sandstone hosted uranium is conducive to testing with low-cost reverse circulation ("RC") drilling.
- We aim to quickly and inexpensively see if there is mineralisation which may require further investigation
- Drilling is scheduled to commence in May 2021, once permitting is complete.

Mick Billing, Executive Chairman of Thor Mining, commented:

"With uranium prices at current levels, we are pleased to be in a position to commence drilling at our Colorado uranium-vanadium project once permitting is complete. Based on the historic mining in the region and our due diligence, we are excited to be testing this prospective area which is known to host high-grade uranium deposits.

"In particular, Section 23 appears to have not been drill tested by previous mining companies despite the geological setting which appears very similar to that of the nearby historical high-grade production areas, hopefully providing Thor with a potential opportunity to make a significant new discovery.

"Thor is led by a management and technical team with proven uranium credentials, working closely with our US team.

"We look forward to updating investors on the progress of this project in due course."

PROJECT LOCATION AND HISTORY

The US Uranium-Vanadium Project comprising Vanadium King, Radium Mountain, and the Wedding Bell group of claims, lies within the 110km long Uravan mineral belt extending across Colorado and Utah, USA (Figure 1).

The Uravan mineral belt and adjacent uranium-vanadium mining districts of the Colorado Plateau are reported to have produced, over the past 100 years, in excess of 85million lbs U_3O_8 and over 660 million lbs of V_2O_5 from the Salt Wash Sandstone member of the Jurassic, Morrison Formation (Figure 3). The average production grades from the Uravan mineral belt from the 1940s to January 1979 are reported be 0.25% U_3O_8 and 1.29% V_2O_5 (Thamm. et al., 1981[b]).

[b] www.osti.gov/servlets/purl/6512174

The Uravan mineral belt is a historic uranium-vanadium mining jurisdiction, close to well-developed infrastructure. A processing plant which has historically taken ore from the region on a toll treatment basis is located near Blanding, Utah within relatively close proximity to Thor's claims (Figure 1).

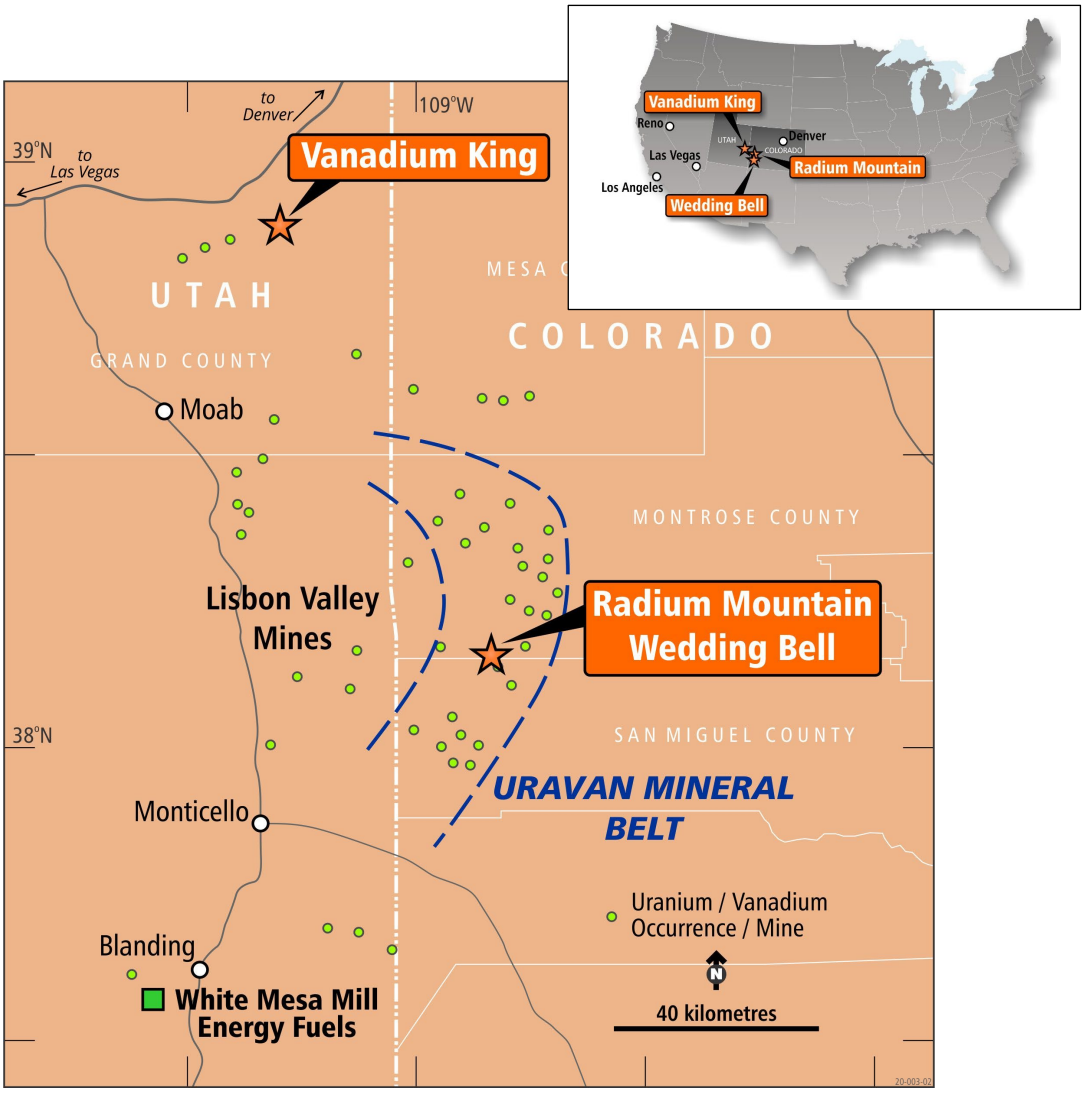


Figure 1: Uravan Mineral Belt Location Map

PROJECT TENURE

On September 10, 2020, the Company advised it had completed the acquisition of 100% of the shares in American Vanadium Pty Ltd, a private Australian company, which in turn owns 100% each of the shares in Colorado company, Standard Minerals INC ("Standard"), and Utah company, Cisco Minerals INC ("Cisco"). https://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20200910-us-uranium-and-vanadium-completion-of-acquisition.pdf

Colorado Claims

Standard holds 199 contiguous Bureau of Land Management ("BLM") claims in south-west Colorado, and within the Uravan mineral belt (Figure 2 and 3). The claims include the Wedding Bell and Radium Mountain groups of mines which are reported to have operated during the First World War and again in the second half of the 20th century (*USGS Professional paper 300*[a]). The Colorado Claims are Thor's initial area of focus.

[a]https://pubs.er.usgs.gov/publication/pp300

Utah Claims

Cisco holds 100 BLM claims in south east Utah, approximately 40km north of the town of Moab. There is no evidence of historical mining activities, however there is reporting of significant uranium and vanadium mineralised body(ies) from drilling activities by Hunt Oil, Mineral Division, in 1980 and 1981, reported by Terra Ventures (TSX-V: TAS) in a report dated May 21, 2007.

https://www.thormining.com/sites/thormining/media/miscellaneous/terra-ventures-20070521.pdf

Thor Mining wishes to reiterate that the Hunt Oil estimate 1980 – 81 does not comply with either the JORC or NI 43-101 guidelines for mineral resource reporting and is therefore not a valid resource estimate. The Hunt Oil estimate does however provide substantial indication of widespread uranium-vanadium mineralisation in the Cisco mineral claims in a similar geological setting to multiple deposits elsewhere in the region including the previously mined Colorado mineral claims included in this acquisition.

Available data to date of the Vanadium King (Utah) historical drilling suggest that the drilling programs focussed upon mineralisation in the upper Brushy Basin Member of the Jurassic Morrison Formation. The deeper and normally higher-grade Salt Wash Member remains substantially untested – a focus for future work by Thor.

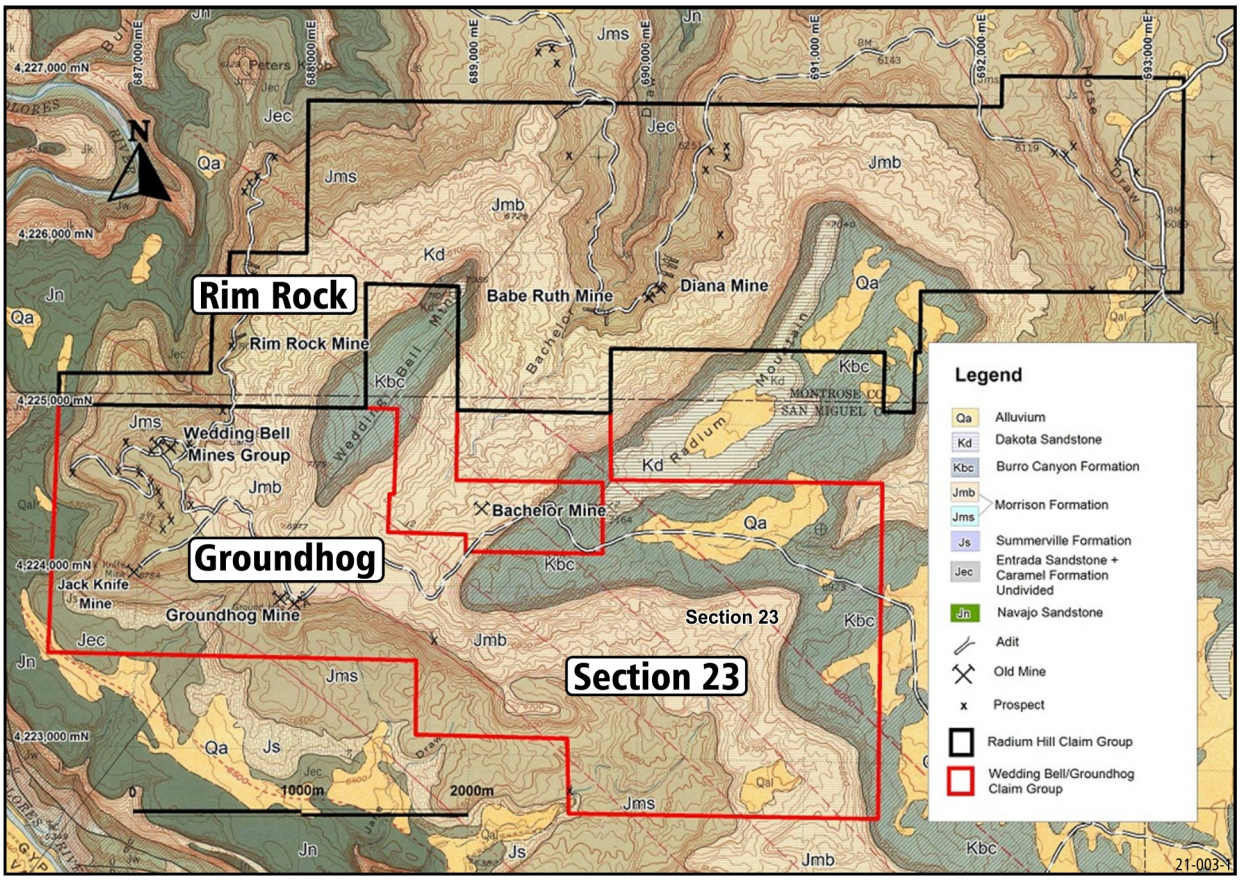


Figure 2: Map of Colorado Project showing priority areas – Section 23, Groundhog and Rim Rock 2

GEOLOGY AND MINERALISATION

The uranium-vanadium deposits hosted mainly in the Salt Wash member of the Morrison Formation on the Colorado Plateau are classified by the International Atomic Energy Agency (IAEA) as "Saltwash type" sandstone hosted uranium deposits (Figure 2 & 3). They are considered unique amongst the sandstone-hosted type of deposits in that they are predominantly vanadium (V_2O_5) with accessory uranium (U_3O_8). They occur as tabular bodies in reduced sequences of highly oxidised, feldspar-rich sandstones that have substantial fossilised plant material. High-grade uranium and vanadium occur together, although vanadium has a much larger halo. Based on production figures, the vanadium exceeds uranium in ratios ranging from 3:1 to 10:1 with the ratio increasing southward; averaging 5:1 in the Wedding Bell/Groundhog area.

Larger deposits are found in paleochannels (braided streams formed in the Jurassic period) where accumulations of plant material led to more reduced conditions being retained over time. The Salt Wash member consists of interbedded fluvial sandstone and floodplain-type mudstone. The Salt Wash member is gently folded into a shallow dome meaning it is often close to surface or exposed. The sandstone beds form cliffs or rims with the mudstone units forming slopes (Photo A and B). The upper most sandstone contains the majority of the ore deposits.

Uranium occurs primarily as uraninite and coffinite, while vanadium is mostly found in the mineral montroseite and vanadium rich alumino-silicates. At surface, the yellow uranium-vanadate carnotite is easily spotted (Photo C).

The high-grade uranium orebodies can be traced following the oxidation/reduction front (red to grey colours in the sandstone) to define a deposit. The section through the Bitter Creek Mine (Figure 4) shows the stratabound nature of the deposit. The grade of the uranium mineralisation may vary considerably over short distances (metres), however at a larger scale (+100m and kilometres) the mineralisation is persistent and predictable both laterally and along the channel.

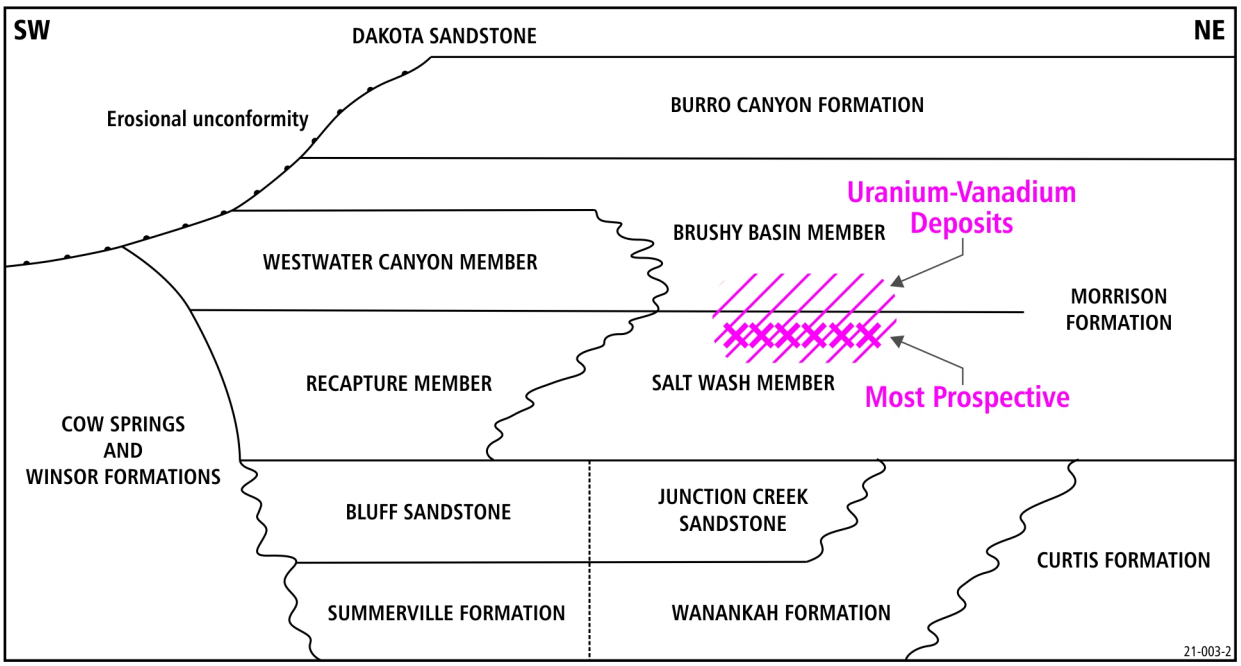


Figure 3: Simple Stratigraphy of the Uravan Mineral Belt showing the prospective Morrison Formation.

Photo A & B: Prominent uranium rich sandstone 'rims' of the Salt Wash Member, Morrison Formation

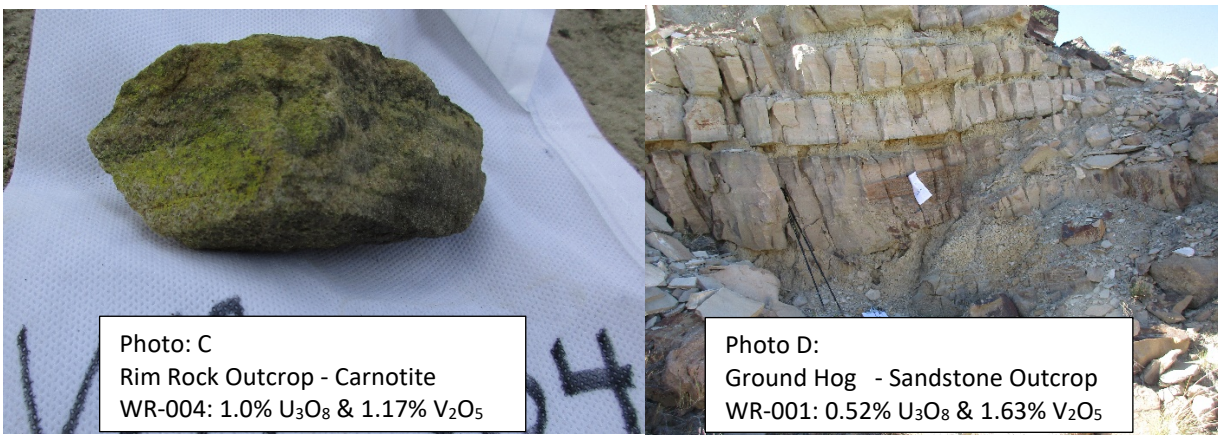
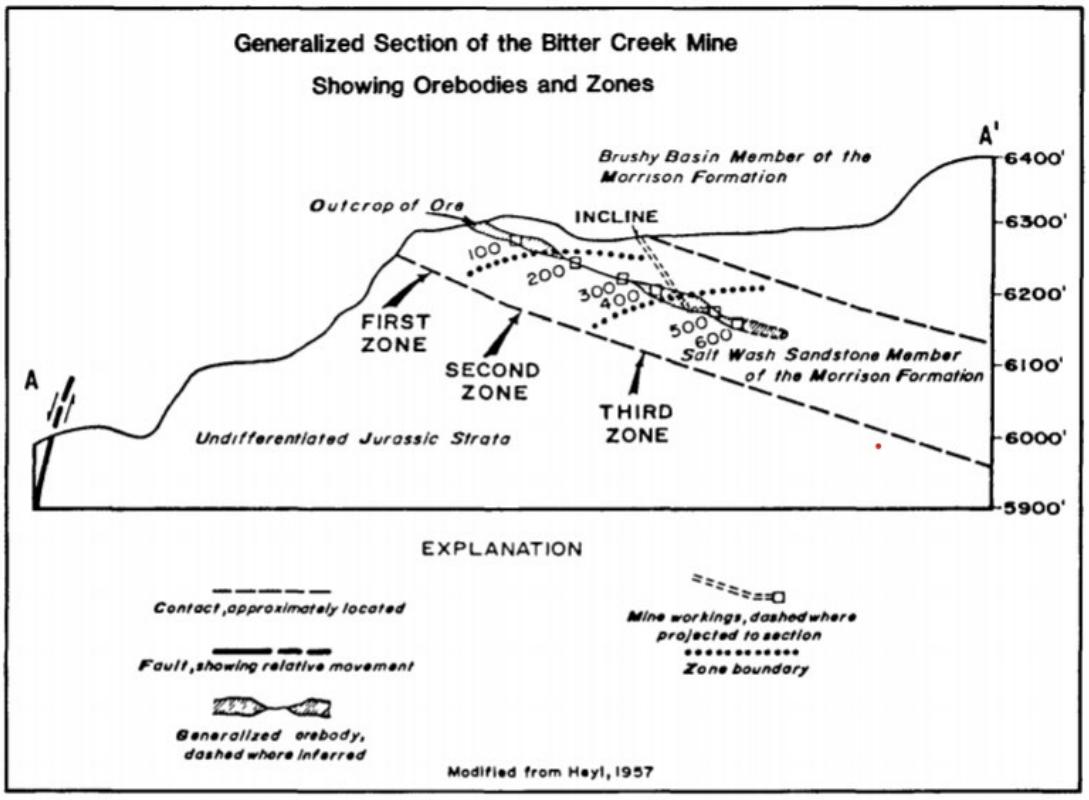


Figure 4: Section from Bitter Creek Mine showing uranium orebodies



DRILLING PROGRAM

High-grade assay results from due diligence work completed by Thor, returning up to 1.25% U_3O_8 and 3.47% V_2O_5, confirm uranium and vanadium mineralisation within the Salt Wash Member of the Morrison Formation, which is consistent and typical of the historical production in the Wedding Bell and Radium Mountain areas of the Uravan mineral belt.

Following this work, three priority areas within the Colorado Project were highlighted for drill testing – Section 23, Rim Rock, and Ground Hog (Figure 2 and 3). The drill program comprises 15 holes at an average depth of 80-100m for a total meterage of 1500m. Due to the shallow depth, low-cost RC drilling will be implemented. Drilling is scheduled for April/May 2021, subject to permits and weather.

Historic literature describes four prominent sandstone layers in the Salt Wash Member of the Morrison Formation in the Wedding Bell group of mines area of the project claim blocks (Figure 3). The Wedding Bell group of mines is said to occur in the third sandstone unit located about 100m up from the base of the Salt Wash (estimated to be 125m thick in this area). This target sandstone is reported to be 10 to 20m thick in the Wedding Bell area. The Rim Rock Mine can be visually traced, from a distance, to be at this same third sandstone level as the Wedding Bell group of mines. The vast bulk of production of uranium in the project area has come from these two mine groups. Therefore, the top quarter of the Salt Wash Member, enclosing the third sandstone unit of the Salt Wash, is the primary target of this proposed drilling program. Sedimentary units in the project area strike northwest and dip 2 - 2.5 degrees to the northeast, with mineralization trending east -west matching the strike of the fluvial channels in the Salt Wash. This is oblique to the north-south Uravan mineral belt trend.

Section 23 (Figure 2), in the southeast corner of the Wedding Bell claims has been identified by Thor Mining and World Industrial Minerals LLC (US Consulting team) as the highest priority drill target in the Colorado Uranium-Vanadium Project. This area represents the only large area in the claim block that has been precluded from historic drilling and mine production with no evidence found to indicate the area does not host a continuation of Salt Wash uranium-vanadium mineralisation. Proposed drill holes for this area are designed to target potential mineralisation in the third sandstone unit that estimated to be within 30-40m depth, stratigraphically, of the mapped contact with the upper Brushy Basin Member of the Morrison Formation.

The **Rim Rock Mine area** (Figure 2) represents the second priority drill target. The proposed drill holes are designed to straddle the ESE projection of the sampled Rim Rock Mine whose adit opening is located to the west. The Rim Rock Mine was the largest uranium-vanadium producer in the project area. When the adit area was sampled, a laterally continuous layer of vanadium mineralization was identified, including:

- 0.89% U_3O_8 and 1.68%V_2O_5 - WR-004
- 0.14 % U_30_8 and 1.9% V_20_5 - WR-017
- 0.05% U_3O_8 and 2.14% V_2O_5 - WR0018

https://www.thormining.com/sites/thormining/media/pdf/asx-announcements/20200721-high-grade-uranium-assays.colorado-field-sampling.pdf

It is hoped that this same layer or a stratigraphically equivalent layer of mineralisation can be intercepted by the proposed drill holes. Vanadium layers, such as this one, relatively low in uranium content (by the standards of historical uranium mining in the Uravan District), were usually ignored by the miners.

Drilling proposed at the **Ground Hog Mine area** (Figure 2) is designed to test for any lateral continuation of mineralisation parallel to the east-west mineralization mined to the south.

MARKET OUTLOOK FOR URANIUM AND VANADIUM

Uranium

The spot price of uranium currently sits at US$27.30/lb of U_3O_8 (www.kitcometals.com/), although most uranium sales are conducted contractually without reference to the spot price. Market forecasters anticipate an accelerated rise in uranium prices in the short to mid-term. This is based on ongoing annual supply deficits and the rationalization of capacity by the major producers, along with production cutbacks due to the COVID-19 pandemic.

In addition, the 'green wave' is impacting the uranium sector with the world turning towards nuclear energy: to generate power in safe, reliable, carbon-free nuclear reactors. There is an ever increasing demand for clean baseload electricity while delivering safe, reliable solutions to today's clear-air crisis.

The US is the world's biggest uranium consumer, importing approximately 95% of its uranium, with nuclear reactors providing approximately 30% of American baseload electricity needs, and accounts for more than half of all carbon free power generation in the USA. With President Biden's energy policy and the US re-signing the Paris Agreement under which the country pledged to cut carbon emissions by 26% over 2005 levels by 2025, nuclear energy, hence uranium is forecast to be in significant short supply.

In the event of a geopolitial rift with China or Russia, it is likely that America will focus on producion of uranium domestically for its security of supply of carbon free electric power. The US Congress has recognized this need and recently funded a program to buy domestic uranium.

Thor are very encouraged by the recent bipartisan approval of the Nuclear Infrastructure Act 2020 by the US Senate Committee on Environment and Public Works (EPW).

https://www.epw.senate.gov/public/index.cfm/2020/12/committee-approves-nuclear-infrastructure-legislation-at-business-meeting

Key remarks by Senator Barrasso include:

> *"The American Nuclear Infrastructure Act will promote U.S. international leadership, preserve America's nuclear fuel supply chain, prevent more carbon emissions from entering our atmosphere, and it will protect our economic, our energy, and our national security.*
>
> *"American uranium should fuel America's nuclear reactors.*
>
> *"The American Nuclear Infrastructure Act establishes a national uranium reserve.*
>
> *"The reserve will ensure that America is not dependent on our rivals for our nuclear fuel.*

Vanadium

The price of vanadium currently sits at US$18.30/Kg of V_2O_5 in fused flake (metals.argusmedia.com/). Vanadium remains a steel-driven market, however a key catalyst to watch out for is the battery segment, as vanadium has high potential in energy storage. Vanadium redox batteries (VRFBs) saw a regain of interest with low vanadium prices. Any breakthrough could increase demand significantly and contribute to a tighter market/prices in coming years.

Authorised by Mick Billing, Chairman and Chief Executive officer

For further information, please contact:

THOR MINING PLC

Mick Billing, Executive Chairman
+61 8 7324 1935

Competent Person's 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, which includes a facility to register to receive these updates by email, and on the Company's twitter page @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.

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^2 of exploration licences with highly encouraging early stage gold and nickel results in the Pilbara region of Western Australia, for which drilling is planned in the first half of 2021.

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

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.[2][3]

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 indicated and inferred resources[4], 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.[5]

Thor holds 100% of the Pilot Mountain tungsten project in Nevada, USA which has a JORC 2012 Indicated and Inferred Resources Estimate on 2 of the 4 known deposits.[6]

Notes

[1] *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210127-maiden-copper.gold-estimate-alford-east-sa.pdf*

[2] *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20172018/20180212-asx-kapunda-resource.pdf*

[3] *www.thormining.com/sites/thormining/media/aim-report/20190815-initial-copper-resource-estimate---moonta-project---rns---london-stock-exchange.pdf*

[4] *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20191011-molyhil-mineral-resource-estimate-enhanced.pdf*

[5] *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20200129-mineral-resource-estimates---bonya-tungsten--copper.pdf*

[6] *www.thormining.com/sites/thormining/media/pdf/asx-announcements/20162017/20170522-tungsten-resource-increase.pdf*

www.thormining.com/sites/thormining/media/pdf/asx-announcements/20182019/20181214-pilot-mountain-resource-update.pdf