



# Investigator Resources Ltd

## Molyhil Project Update

Left: Powellite/Scheelite mineralisation under UV light Right: Molyhil Site



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The information in this presentation relating to exploration results is based on information compiled by Mr Jason Murray who is a full time employee of Investigator Resources Limited. Mr Murray is a member of the Australasian Institute of Mining and Metallurgy. Mr Murray has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Murray consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The information in this presentation that relates to Mineral Resources Estimates at the Paris Silver Project is extracted from the release titled "Paris Mineral Resource Estimate Update" dated 5 July 2023 and is available to view on the Company's website <u>www.investres.com.au</u>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this presentation that relates to Pre-Feasibility Study undertaken on the Paris Silver Project is extracted from the release titled "Paris PFS Delivers Outstanding Results" dated 30 November 2021 and is available to view on the Company's website <u>www.investres.com.au</u>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the results in the relevant market announcement continue to apply and have not materially changed.

The information in this presentation that relates to Mineral Resources Estimates at the Molyhil Tungsten/Molybdenum Project is extracted from Thor Energy's ASX release titled "Mineral Resource Estimate Update, Molyhil Project" dated 8 April 2021 and is available to view on Thor Energy's website <u>www.thorenergyplc.com</u>. The Company understands that the Molyhil Mineral Resource Estimate was compiled in accordance with the guidelines of the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC, 2012) and that the data for the Molyhil Mineral Resource Estimate was prepared and validated by Thor Energy under the supervision of Nicole Galloway Warland, a Member of the Australian Institute of Geoscientists. Thor Energy considered that Ms Galloway Warland had sufficient relevant experience to be considered a "Competent Person" as defined by the JORC Code (2012). The resource estimate for WO<sub>3</sub> and Mo was undertaken by Johan van Zyl, Senior Geostatistician with Golder Associates, a Member of the Australasian Institute of Mining and Metallurgy. Mr van Zyl was considered by Thor Energy to have sufficient relevant experience to be considered a "Competent Person" as defined by the JORC Code (2012). The resource estimate for Fe and Cu was undertaken by Stephen Godfrey, Principal Resource Geologist with Resource Evaluation Services, a Fellow of the Australasian Institute of Mining and Metallurgy and a Member the Australian Institute of Geoscientists. Mr Godfrey was considered by Thor Energy to have sufficient relevant experience to be considered relevant experience to be considered a "Competent Person" as defined by the JORC Code (2012). The resource estimate for Fe and Cu was undertaken by Stephen Godfrey, Principal Resource Geologist with Resource Evaluation Services, a Fellow of the Australasian Institute of Mining and Metallurgy and a Member the Australian Institute of Geoscientists. Mr Godfrey was considered by Thor Energy to have sufficient relevant experience to be considered a "Compete

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# Molyhil Project Update



- Introduction to Investigator Resources
- Molyhil Project Diversification
- Molyhil Project Evaluation Opportunities Identified
  - Resource and Processing
  - Exploration Potential
- Molyhil Mineral Resource Estimate Review
- NT Collaborative Geophysics Grant Coverage
- Gravity and Exploration Potential



Who are Investigator **Resources?** 

Below: Ag\$/oz vs IVR share price **Right: IVR SA tenements** 



#1 – As announced to the ASX 5 July 2023 #2 - As announced to the ASX 30 Nov 2021

- South Australia 8,000km<sup>2</sup>
- Paris Silver Project
  - 57Moz Silver + 99kt Lead JORC (2012) Resource #1
  - PFS completed (NPV8 \$202M, IRR 47.8%)<sup>#2</sup>
  - DFS in progress
- Broad tenement holding
  - Silver/Gold/Copper/Base Metals Focus
- 2 tenement packages under farm-out
- **Experienced board**
- Lean & Focused Team







## **Diversification – Molyhil Tungsten/Molybdenum Project - NT**

- 3 stage Earn-In to Joint Venture with Thor Energy (ASX:THR)
  - Stage 1 \$1M over 18 months to earn 25% Molyhil interest (& 40% Bonya)
- 2021 Resource Estimate<sup>#3</sup> to be updated
- 2018 DFS <sup>#4</sup> requires revalidation
- Molyhil granted NT "Major Project" status
- Historic Production Strong geological background
- NT government mining investment supportive
- Good Landowner and Community relationships to build on
- Resource drilling completed December 2023
- Revised Mineral Resource Estimate April 2024

#3 – As reported by THR to the ASX 8 Apr 2021#4 – Reported by THR to the ASX 23 Aug 2018

Category	ʻ000 Tonnes	WO3 Grade %	Tonnes	Mo Grade %	Tonnes	Cu Grade %	Tonnes	Fe Grade %
Measured	464	0.28	1,300	0.13	600	0.06	280	19.12
Indicated	2,932	0.27	7,920	0.09	2,630	0.05	1,470	18.48
Inferred	990	0.26	2,580	0.12	1,170	0.03	300	14.93
Total	4,386	0.27	11,800	0.1	4,400	0.05	2,190	17.75

 Table 2: Molyhil Mineral Resource Estimate JORC (2012) classification as reported by Thor Energy to the ASX on 8 April 2021. Reported at a cut-off grade of 0.07% WO<sub>3</sub> Tungsten.

(Note: Total values may differ due to minor rounding errors in the estimation process, Mineral Resource reported to a 200mRL level which was used to define material that could be potentially extracted using open pit mining methods)





# Molyhil Project

# Opportunities Identified

Right: Wolframite with chlorite alteration (Molyhil) Below: Safety upgrades on site by Investigator.



- Resource drilling, remodel and re-estimation
  - Density improvement
  - Modelling method given heterogeneity
- Metallurgical process refinement
  - Ore Sorting
  - Process flowsheet modifications (early magnetic separation)
- Exploration potential
  - Strong geological context locally and regionally in mapping
  - Focus has been almost exclusively on Molyhil







# Molyhil Project

## 100k Geology

Skarn deposit within Deep Bore Metamorphics (calc-silicates) and Marshall Granite. Significant Fe input (magnetite/actinolite) suggesting additional source than just metasomatism of granite?



# Molyhil

# **Resource Review**

#### Below: Historic Molyhil SG regression





- Density multiplier effect on a resource estimate.
- Prior Molyhil estimations relied on pynconometer SG from 69 samples ۲ derived from 2 RC drillholes.
- Density applied via an iron regression tied to the above values. (note not all samples assayed for Fe, limited to <50% Fe)
- Total of 17 Diamond Drill holes since 2004 in resource with no SG data collected offering a valuable and cheap source of additional data.
- March 2023 IVR collected ~1,200 SG measurements on historic core.

#### Outcomes

- Clear and distinct density contrast between logged units
- Tungsten mineralisation not totally constrained to Black Rock Skarn

Granite	Calc-Silicate	Skarn
2.71	3.00	3.7
All numbers as $\sigma/cc^3$		

All numbers as gree



# Molyhil MRE Review

Below: Resource core selected for SG measurement Right: Composited IVR SG by hole (Blue) vs historic regression SG (Orange)

- 2023 Resource drilling 12 +1 Diamond Holes
  - Additional SG data to support 2024 MRE
  - Additional assay and QAQC to support MIK re-estimation
  - Twin holes to validate historic questions on RC vs DD recoveries.
- ~3,400 new SG measurements from historic and new holes with strong focus on getting maximum coverage in mineralization (skarn/calc-silicates).
- ~1,070 new multi-element assays to include in resource estimation and provide greater input into future waste characterisation and other work components.
- Data incorporated into new models with key delivery of MRE late April 2024



## CAN YOU SEE THE FOREST?

Left TMI Magnetics with drill coverage Right: Regional gravity (2km stations)



- Molyhil has been the primary focus particularly since 2004
- Limited regional exploration restricted to a number of aircore/RAB programs
- Focus on "Black Rock Skarn" within Deep Bore Metamorphics Magnetite...so magnetics appear to have been key geophysical tool used to identify "the next Molyhil"
- BUT if tungsten mineralization not 1:1 association with magnetite skarn...



# Molyhil Exploration

Below: Bornite observed in exploration drill hole



• Targeted area that had 7 aircore/RAB holes to max 13.5m depth.

INVESTIGATOR RESOURCES

- BOH logging referenced "black rock skarn" and low level W anomalism in xrf reported.
- Never followed up.

#### **Outcome:**

- Trace skarn near top of hole
- First instance of Mafic in lower hole proximal to Molyhil metadolerite equated to Carmencita/Kings Legend units....source of Fe and Cu in system? Trace Bornite!



## **NT Collaborative Geophysics Grant**



- Broad gravity survey at varying spacing to improve prior 2km x 2km spacing (20x40, .
- Tight spacing over Molyhil, Broader spacing within tenement



Left: 1VD regional gravity with infill survey Right: Bouger gravity with model isoshell anomalies

# Molyhil Gravity

Below: Gravity Station Layout Right: Gravity section Molyhil

575000.00

........ ...........

#### Strong correlation between detailed gravity over Molyhil and SG inputs and geological modelling.





7482950 N

500

400

300

400 E

577249 E

## **Gravity - Exploration Potential**



Right: Mag Model 150m depth slice with density body overlay Below: Mag Model (blue) with density body overlay section.



- Clear defined targets associated with offsets in magnetics and gravity highs.
- Opens opportunity for Molyhil analogies and Copper targets.





# Thankyou

#### Acknowledgements:

Investigator Team: C.Crespan, E.Fabreschi, A.Alesci, J.Penglis

Thor Energy and prior Companies and individuals who contributed vast amounts of data and knowledge into Molyhil understanding.

CLC and Arraperre People (including the community of Atitjere who assisted with the recent drill program logistically).

Jervois Station for assistance, local knowledge and earthmoving.

NTGS for prior work in the region, sensational collaborative grants initiative, in addition to supportive conversations and insights into the region, and enthusiasm.

DITT for supportive assistance for a new company entering the Territory space.

Lindsay Johannsen – discoverer of Molyhil

The many technical personnel who added to a vast dataset over a long period of time that has contributed to knowledge of Molyhil

## **Appendix 1 – Paris Mineral Resource Estimate**<sup>#7</sup>



Category	Mt	Ag ppm	Pb %	Ag Mozs	Pb Kt
Indicated	17	75	0.5	41	85
Inferred	7.2	67	0.42	16	14
Total	24	73	0.41	57	99

**Table 1:** 2023 Paris Silver Project Mineral Resource estimate (25g/t silver cut-off grade).

 (Note: Total values may differ due to minor rounding errors in the estimation process)

#### NOTE:

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#7 – As released to the ASX on 5 July 2023

## Appendix 2 – Molyhil Earn-In to JV Agreement\*\*



#### **General Terms**

• 3 stage Earn-In to Joint Venture with Thor Mining (ASX:THR)

#### • Stage 1:

- Payment to Thor of \$100,000 on execution of Heads of Agreement documentation
- Expenditure of \$1M over 18 months (includes \$100k HoA fee above) to earn a 25% interest in the Molyhil Tungsten Project and associated tenements, and all of Molyhil's 40% interest in the adjacent Bonya tenement (EL29107 in JV with Arafura (ASX:ARU))
- If expenditure of \$1M is not met within 18 months, balance to be paid to Thor
- On formation of the Joint Venture (25:75 IVR:THR) IVR to issue Thor \$250,000 in IVR shares (at the higher of 15-day VWAP or \$0.05)
- Stage 2:
  - Expenditure of a further \$2M over 3 years to earn a further 26% interest in the Molyhil Project and associated tenements (51:49 IVR:THR)
- Stage 3:
  - Expenditure of a further \$5M over 3 years to earn a further 19% interest in the Molyhil Project and associated tenements (80:20 IVR:THR)
  - On formation of the 80:20 Joint Venture IVR to issue Thor \$250,000 in IVR shares (at the higher of 15-day VWAP or \$0.05)
- On formation of the 80:20 Joint Venture Thor can elect to contribute on a pro-rata basis or dilute. If diluted below 10% then Thor's interest reverts to an NSR.

#8 – As released to the ASX on 24 November 2022

## **Appendix 3 – Molyhil Mineral Resource Estimate**<sup>#9</sup>



Category	ʻ000 Tonnes	WO3 Grade %	Tonnes	Mo Grade %	Tonnes	Cu Grade %	Tonnes	Fe Grade %
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#9– As released to the ASX by Thor Energy on 8 April 2021

# So what is so fascinating about tungsten?....

# • Just about everything needs a little bit of tungsten....

- Used in aero-space, military, steel hardening,
- cutting, drilling, electronics and jewellery
- An essential industrial metal unique hardness
- Highest melting point of all metals - 3,422 deg C
- Specific Gravity ~19.3
- Classified as a Critical Mineral worldwide
- Potential application in enhancing lithium batteries
- Supply historically dominated by China & Russia

