

# **INVESTOR PRESENTATION**

Drilling for epithermal-porphyry gold-copper in the East Lachlan

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Managing Director

*31 July 2024* 



# CORPORATE OVERVIEW



Capital Structure	
Shares on Issue (ASX Code: WTM)	180M
Board and Management	approx. 6.4% fully diluted
Share price (at 26 July 2024)	0.29cps
Market Capitalisation	\$52M
Cash at bank (at 30 June 2024)	\$2.6M
Listed Investment LSE:TGR	\$0.9m <sup>1</sup>

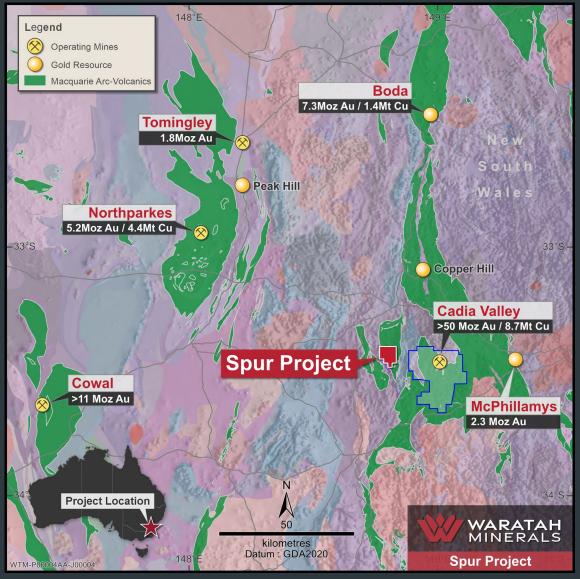
Significant Shareholders			
Gladstone Mining/Tonkin SMSF			10.0%
Yanbulla Mining			8.3%
lCopper			6.3%
Lotaka			5.4%
Farjoy		\ //	5.1%
Top 20 Shareholders			52.8%

# Why Macquarie Arc / East Lachlan?

## **Home of Giant Mineral Systems**

- Home to Australia's premier gold-copper porphyry district and largest gold mine at Cadia Valley (ASX:NEM)
- Significant recent investment by majors, ~\$210m in JVs in 12 months
- Ongoing discovery success, Boda (ASX:ALK), Cowal (ASX:EVN)
- Scope to deploy new discovery strategy based on:
  - 1) target wallrock / early intrusive complex margin setting (wallrock-style epithermal-porphyry)
  - 2) target link between epithermal and porphyry mineralisation, Cowal/E41 (Zukowski et al 2014), Boda (ASX ALK 15 August 2017)





Total metal endowment determined from Phillips 2017, Newcrest 2023, CMOC 2023, Evolution 2023, Alkane 2023, Regis 2023



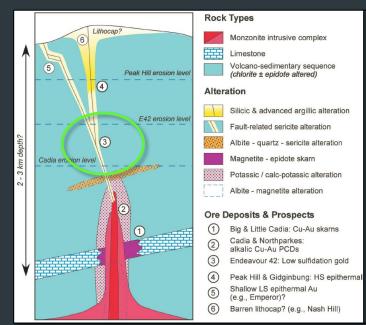


## 1) - Targeting Wallrock Epithermal-Porphyry Gold-Copper

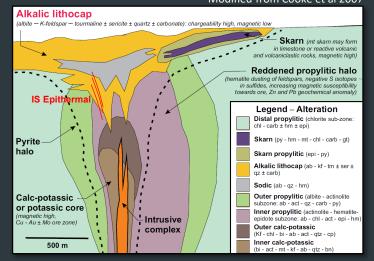
Historic porphyry exploration in the belt has targeted intrusion-hosted mineralisation,
 i.e. drill the mag high, however most high value deposits are wallrock-hosted

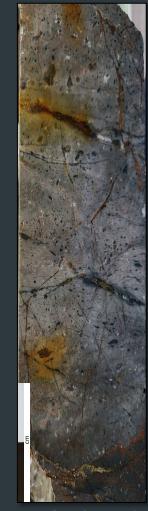
## 2) - Targeting Epithermal-Porphyry Link

- link between epithermal and porphyry mineralisation, Cowal/E41 (ASX:EVN, Zukowski et al 2014), Boda (ASX ALK 15 August 2017)
- i.e. the surface expression of major East Lachlan porphyry systems can be an epithermal gold system higher erosional level in large zoned system
- Epithermal gold
- Brucejack 22.5Mt @ 10g/t Au, 67.5g/t Ag (7.2Moz Au, 48.8Moz Ag, Newcrest 2021)
- Fruta del Norte 18Mt @ 8.68g/t Au, 11.4g/t Ag (5Moz Au, 6.6Moz Ag, Lundin Gold 2022)
- Cowal 305Mt @ 0.98g/t Au (9.6Moz, Evolution 2023)
- Upper levels of Boda (ASX ALK 15 August 2017)
- Porphyry gold-copper
- Cadia Valley >50Moz Au, 9.5Mt Cu (Newmont 2023, Harris et al 2020)
- Cowal exploration 'E41/E42 epithermal deposits appear to be spatially and temporally associated with alkalic magmatism. High-temperature alteration inc. hematite reddening may be providing a vector toward a porphyry center' (Zukowski 2014)



### Modified from Cooke et al 2007





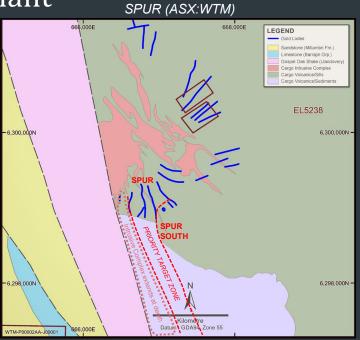
K-spar + albite + silica + tourmaline alteration, 2g/t Au, 0.14% Cu (Alkalic lithocap porphyry alteration, SD010 – 196m)

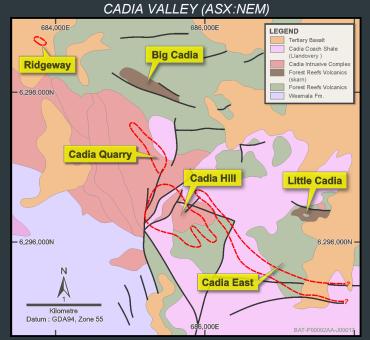


## WARATAH MINERALS

## Tier 1 Cadia Valley Gold-Copper Project (ASX:NEM)

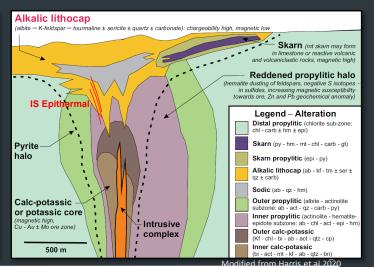
- Location 5 km west of Cadia Valley Project (Alkalic Au-Cu Porphyry, >50Moz / 9.5Mt Cu, ASX:NEM¹)
- Dominantly 'wallrock' systems / outside early intrusive complex
- Fertile rocks East Lachlan Macquarie Arc Molong Belt
- Targeting epithermal gold-copper as an upper-level feature of a porphyry system





Modified from Holliday et al 2002

EXPLORATION CRITERIA	Cadia Valley ASX:NEM	Spur Project ASX:WTM
East Lachlan - Macquarie Arc - Central Molong Belt	✓	<b>✓</b>
Margin of major multiphase intrusive complex	✓	✓
Equivalent stratigraphic position in Late Ordovician-Silurian rocks	✓	✓
Presence of kspar-albite-hematite- tourmaline/alkalic porphyry alteration associated with Au-Cu mineralisation	✓	<b>✓</b>
Presence of oxidised skarn (oxidised ore fluids + preservation potential)	✓	✓

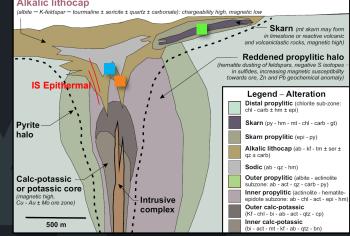






- Early-stage alkalic porphyry alteration (Gold-Copper):
  - 'Red-rock' hematite (inner-propylitic)
  - Epidote + pyrite ± magnetite ± hematite skarn
  - alteration with affinities to upper-level alteration at the nearby Ridgeway and Cadia East porphyry goldcopper deposits (ASX WTM 10 April 2024)
- Potential for significant shallow gold resources and affinities WTM 10 April 2024)

### Alkalic Epithermal-Porphyry Exploration Model



SPD001 - 253m, strong k-feldspar alteration (Inner Propylitic Porphyry Alteration)

SPD001 - 265m, strong, veincontrolled. k-feldspar alteration (Inner Propylitic Porphyry Alteration)

SD010 - 160m, massive hematite + silica (red-rock) alteration, pyritechalcopyrite stringers, 0.82g/t Au (Inner Prop Porphyry)

SD010 – 196m, massive kspar + albite + silica + tourmaline alteration + pyrite-chalcopyrite stringers, 2g/t Au, 0.14% Cu (Alkalic lithocap Porphyry)

SPD001 - 24.2m, hematite + epidotepyrite skarn, 22m @ 1.92g/t Au from 11m, inc 5m @ 6.69g/t Au (Oxidised Retrograde Skarn)

## Targeting Epithermal-Porphyry Gold-Copper

- Stratabound K-feldspar-albite-tourmaline porphyry
- with the nearby Cadia Valley gold-copper skarn deposits (ASX

### Modified from Harris et al 2020

# SPUR PROJECT- Late-stage epithermal gold

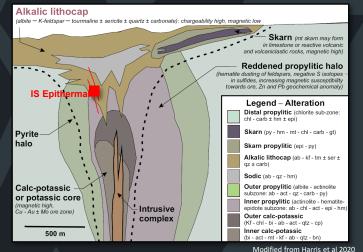


### LATE STAGE EPITHERMA

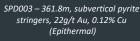
## **Targeting Epithermal-Porphyry Gold-Copper**

- Late-stage Epithermal (Gold):
  - Quartz + magnetite + pyrite ± chalcopyrite veins
  - Pyrite ± Pyrrhotite ± chalcopyrite veins / stringers/ disseminated
  - 86m @ 1.56g/t Au, 536ppm Cu from 85m (SD010)
  - 11m @ 10.82g/t Au from 154m (SPRC002)
  - 89m @ 1.73g/t Au, 0.08% Cu from 115m (SPRC007)
  - 17m @ 3.27g/t Au, 0.18% Cu from 32m (SPRC011)

### Alkalic Epithermal-Porphyry Exploration Model









SPD003 – 419.8m, pyrite stringer stockwork/multiple vein sets associated with silica alteration, 1.42g/t Au (Epithermal)

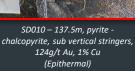
quartz + magnetite + pyrite vein,

3.6g/t Au

(Epithermal)



SD010 – 115.3m, quartz + ankerite + pyrite vein, 3.6g/t Au, 0.2% Cu (Epithermal)

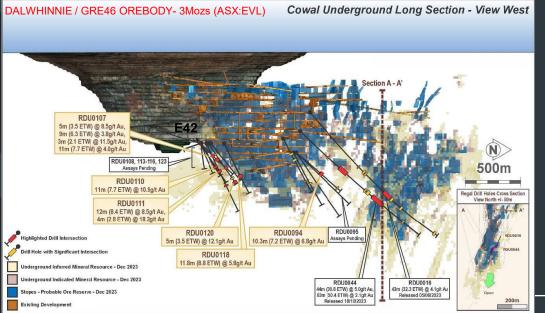


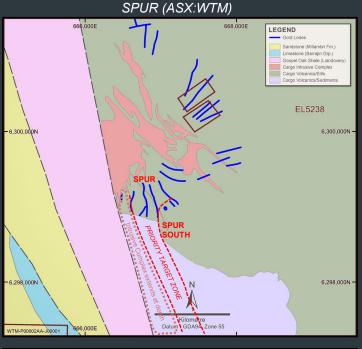
# SPUR PROJECT – The epithermal link

## WARATAH MINERALS

## Strong similarities with Cowal Gold Corridor (ASX:EVN)

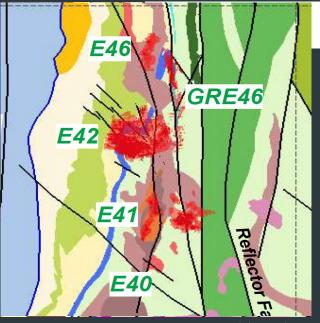
- Cowal (ASX:EVL, > 11Mozs Au) early hematite-albite porphyry alteration with late epithermal veining (E41, Zukowski et al, 2014)
- Similar early-stage discovery intercepts to Dalwhinnie (Cowal) discovery in 2018 (ASX EVL 4 September 2018)
- Cowal 305Mt @ 0.98g/t Au (9.6Moz, Evolution 2023)
- Dalwhinnie (Cowal) Discovery- 7.5m @ 10g/t Au (1535DD330, ASX EVL 4 Sept 2018)
- Spur 11m @ 10.82g/t Au from 154m, inc. 7m @ 16.78g/t Au from 154m (SPRC002)



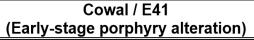


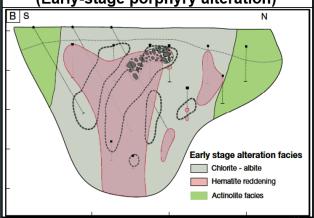
EXPLORATION CRITERIA	Cowal ASX:EVM	Spur Project ASX:WTM
East Lachlan - Macquarie Arc	✓	✓
Margin of major multiphase intrusive complex	✓	✓
Equivalent stratigraphic position in Ordovician-Silurian rocks	✓	✓
Presence of early-stage albite-hematite alkalic porphyry alteration	✓	✓
Gold in epithermal veins/pyrite stringers	✓	✓

### COWAL GOLD CORRIDOR (ASX:EVL)



Milojkovic et al 2022





# SPUR PROJECT – Strong Exploration Results

## Targeting Epithermal-Porphyry Gold-Copper

89m @ 1 73g/t Au 0 08% Cu from 115m

### HIGH-GRADE EPITHERMAL GOLD AT SPUR

inc. also also	57m @ 2.50g/t Au, 0.11% Cu from 115m 16m @ 5.59g/t Au, 0.32% Cu from 156m 9m @ 9.33g/t Au, 0.38% Cu from 163m`	SPUR SPUR SPUR
SPRC011 Inc.	46m @ 1.72 g/t Au, 0.08% Cu from 9m 17m @ 3.27g/t Au, 0.18% Cu from 32m	SPUR SOUTH
SPRC002	11m @ 10.82g/t Au, 0.12% Cu from 154m	SPUR EAST
inc	7m @ 16.78g/t Au, 0.18% Cu from 154m	SPUR EAST
SPD002	44m @ 1.06g/t Au from 153m	SPUR
inc	5m @ 4.37g/t Au from 157m	SPUR
also	2.2m @ 5.42g/t Au from 183.8m	SPUR
SPD003	71.9m @ 1.23g/t Au, 0.1% Cu from 21.1m	SPUR
inc	16m @ 3.78g/t Au, 0.26% Cu from 35m	SPUR
also	1.25m @ 20.99g/t Au, 1.86% Cu from 35m	SPUR

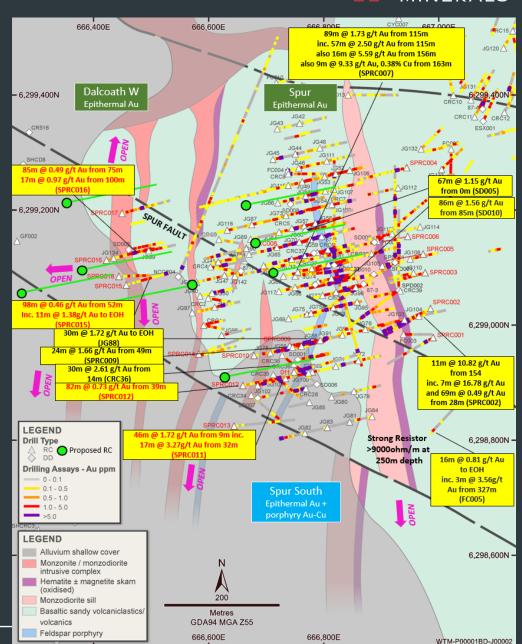
### **NEW EPITHERMAL-PORPHYRY ZONES AT DALCOATH WEST**

SPRC015	98m @ 0.46g/t Au from 52m to EOH	SPUR EAST
incl	14m @ 1.21g/t Au from 58m	SPUR EAST

## STOCKWORK EPITHERMAL GOLD ASSOCIATED WITH SILICEOUS ALTERATION AND LARGE RESISTOR TARGET AT SPUR SOUTH

SPD003	10m @ 2.40g/t Au from 354m	SPUR SOUTH
inc	3m @ 7.50g/t Au from 361m	SPUR SOUTH
also	1m @ 22g/t Au, 0.12% Cu from 361m	SPUR SOUTH
SPD003	2.9m @ 1.01g/t Au from 419m to EOH	SPUR SOUTH







SPUR SOUTH



## **Targeting Epithermal-Porphyry Gold-Copper**

### HIGH-GRADE EPITHERMAL GOLD AT SPUR

SPRC007	89m @ 1.73g/t Au, 0.08% Cu from 115m	SPUR
inc.	57m @ 2.50g/t Au, 0.11% Cu from 115m	SPUR
also	16m @ 5.59g/t Au, 0.32% Cu from 156m	SPUR
also	9m @ 9.33g/t Au, 0.38% Cu from 163m`	SPUR

SPRC011 46m @ 1.72 g/t Au, 0.08% Cu from 9m Inc. 17m @ 3.27g/t Au, 0.18% Cu from 32m

SPRC002 11m @ 10.82g/t Au, 0.12% Cu from 154m SPUR EAST inc 7m @ 16.78g/t Au, 0.18% Cu from 154m SPUR EAST

SPD002 44m @ 1.06g/t Au from 153m **SPUR** 5m @ 4.37g/t Au from 157m **SPUR** inc also 2.2m @ 5.42g/t Au from 183.8m **SPUR** 71.9m @ 1.23g/t Au, 0.1% Cu from 21.1m SPD003 **SPUR** 16m @ 3.78g/t Au, 0.26% Cu from 35m inc SPUR 1.25m @ 20.99g/t Au, 1.86% Cu from 35m also **SPUR** 

### NEW EPITHERMAL-PORPHYRY ZONES AT DALCOATH WEST

 SPRC015
 98m @ 0.46g/t Au from 52m to EOH
 SPUR EAST

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 14m @ 1.21g/t Au from 58m
 SPUR EAST

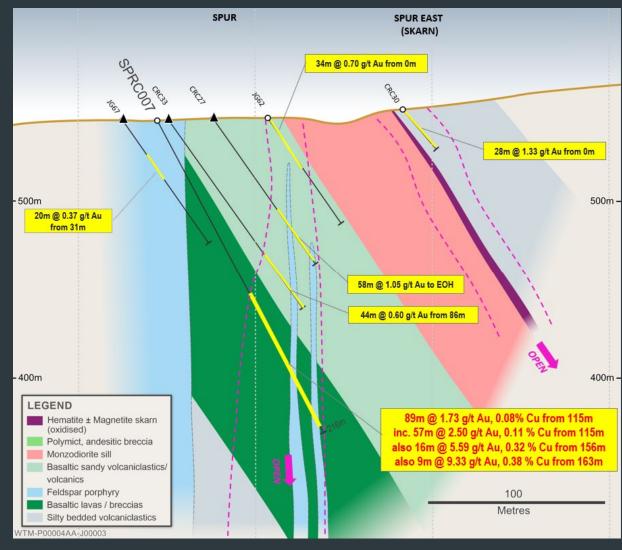
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 SPUR SOUTH



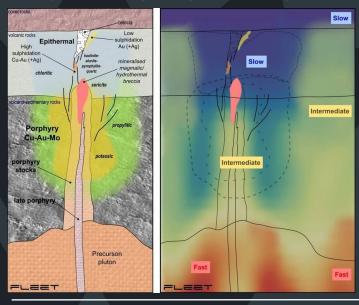
ASX WTM 17 June 2024, ASX WTM 2 July 2024, ASX WTM 30 July 2024

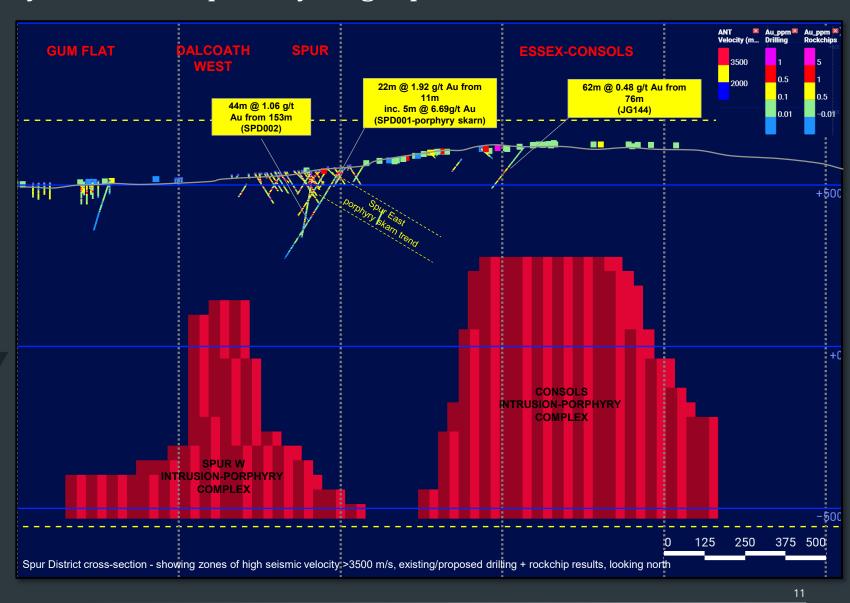


# SPUR PROJECT- ANT Geophysics defines priority target positions

# Defining priority target zones / margins of intrusive complexes

- Ambient Noise Tomography (ANT) geophysics has defined multiple additional large intrusive-porphyry target zones, define margins at high res to >1km depth
- Dataset extends priority target zone/margins of early intrusive complexes >10km of strike
- Fleet Space Technologies, https://www.fleetspace.com/



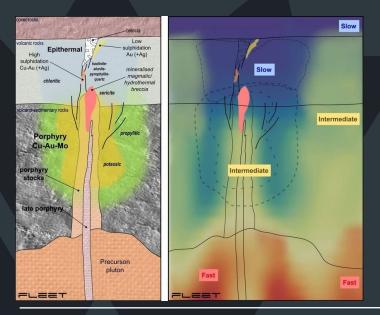


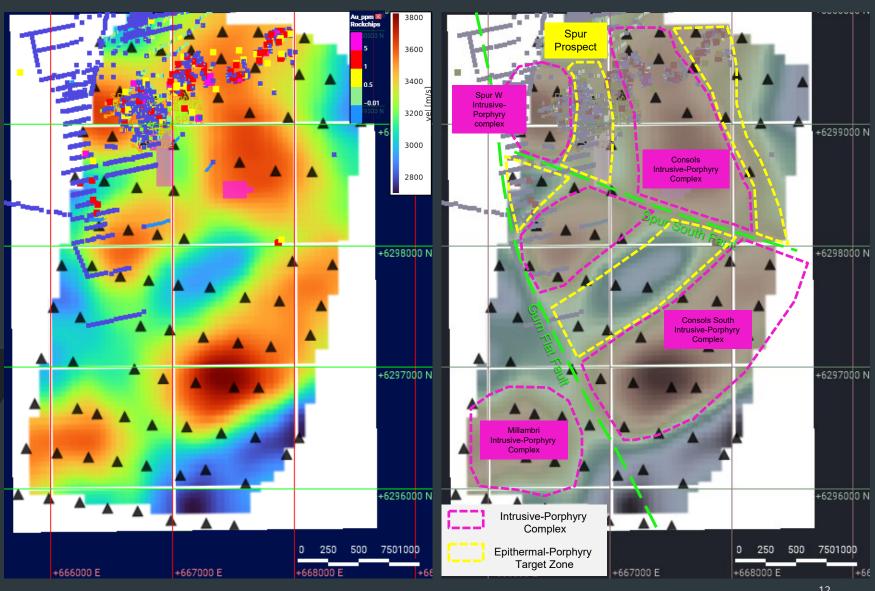


# SPUR PROJECT- ANT Geophysics defines large scale district potential

## Highlighting large scale potential in 3D

- Ambient Noise Tomography (ANT) geophysics has defined multiple additional large intrusive-porphyry target zones, define margins at high res to >1km
- Dataset extends priority target zone/margins of intrusive complexes >10km of strike
- Fleet Space Technologies, https://www.fleetspace.com/





# RAMPING UP ACTIVITY AND NEWSFLOW





ACTIVITY SUMMARY							
	ACTIVITY	SEPT QT	R	DEC QTR	MA	ARCH QTR	
	Drilling – RC/DD						
ROJECT	Relogging historic						
SPUR PROJECT	Target Definition, inc. geophys						
	Research - CODES						
STAWEL PROJECT	Target Definition, inc. geophys						
	Drilling - AC						

Estimates of times are indicative and are subject to change





## **Near term discovery catalysts**

- ongoing drilling activity into fertile epithermal-porphyry gold-copper system

## **Gold-Copper focus**

- strong macro market thematic

## **High-value targets**

- epithermal – porphyry gold-copper, 5km west of the Cadia Valley Project boundary, in tier 1 Macquarie Arc

## A different targeting approach

- 1) targeting wallrock / early intrusive complex margin setting (wallrock-style epithermal-porphyry)
- 2) targeting link between epithermal and porphyry mineralisation, Cowal/E41 (Zukowski et al 2014), Boda (ASX ALK 15 August 2017)

## **Strong and supportive register**

- Tight structure, top 20 = 53%, leveraged to discovery event



## REFERENCES

- Alkane 2023., Resource and Reserve Statement FY23, 13 September 2023
- CMOC 2023., China Molybdenum Company Limited, 2022 Annual Report, http://www.cmocinternational.com/
- Evolution., 2023, https://evolutionmining.com.au/reservesresources/
- Evolution., 2024, Cowal Site Visit Presentation, 20 June 2024, ASX
- Golden Cross Resources., 7 February 2012, 10 February 2012, 16 March 2012, 3 April 2012, 16 March 2012, 21 May 2012, 29 January 2013
- Hart, C.J.R., 2007, Reduced intrusion-related gold systems, in Goodfellow, W.D., ed., Mineral deposits of Canada: A Synthesis of Major Deposit Types, District
- Harris, Cooke, Cuison, Groome, Wilson, Fox, Holliday, Tosdal., 2020. Geologic Evolution of Late Ordovician to Early Silurian Alkalic Porphyry Au-Cu Deposits at Cadia, New South Wales, Australia, SEG Special Publication 23
- Holliday and Cooke 2007., Advances in Geological Models and Exploration Methods for Copper + Gold Porphyry Deposits "Proceedings of Exploration 07: Fifth Decennial International Conference on Mineral Exploration"
- Holliday, Wilson, Blevin, Tedder, Dunham, Pfitzner, 2002., Porphyry gold-copper mineralisation in the Cadia District, eastern Lachlan Fold let, New South Wales, and its relationship to shoshonitic magmatism, Mineralium Deposita (2002) 37: 100–116
- Leslie, 2021., Metallogeny of the Cowal district, New South Wales, Australia, PhD, University of Tasmania / CODES
- Lundin Gold, 2022, Reserves and Resources Statement, https://lundingold.com/fruta-del-norte/reserves-and-resources/
- Miller and Wilson, 2004, Stress Controls on Intrusion-Related Gold Lodes, Wonga Gold Mine, Economic Geology Journal, Vol 99
- Milojkovic, Reid, Green, Clifford, Browne, Biggam, Fredericksen, Andrew, Barker, 2022. Geology of the Cowal Gold Mine and Discovery of the Dalwhinnie Ore Zone, Evolution Mining, https://geohug.rocks/

- Newcrest 2021, Newcrest agrees to acquire Pretium Resources Mining, ASX, 9 November 2021
- Newmont 2023, Mining Annual Mineral Resources and Ore Reserves Statement, https://operations.newmont.com/reserves-and-resources
- Phillips, G N (Ed), 2017. Australian Ore Deposits (The Australasian Institute of Mining and Metallurgy: Melbourne)
- Regis Resources 2023., Annual Mineral Resource and Ore Reserve Statement 20 June 2023
- ASX BAT 19 December 2023 Completion of Spur Acquisition
- ASX WTM 23 January 2024 Spur drilling commences
- ASX WTM 10 April 2024 Epithermal and Porphyry Skarn Gold at Spur
- ASX WTM 24 May 2024 ANT Results
- ASX WTM 17 June 2024 Outstanding gold results from Spur East
- ASX WTM 2 July 2024 Further high-grade results from Spur
- ASX WTM 30 July 2024 High-grade results & drilling recommences at Spur



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Waratah Minerals confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the market announcements continue to apply and have not materially changed. Waratah Minerals confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

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