

# **WESTERN MINES GROUP**

# EXPLORING A MAJOR KOMATIITE NICKEL SYSTEM UNDER COVER

RIU RESURGENCE CONFERENCE 23-24 NOVEMBER 2022

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Western Mines Group

ASX: WMG www.westernmines.com.au



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#### COMPETENT PERSON STATEMENT

Dr Caedmon Marriott who is a member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists, is Managing Director of the Company. Caedmon has sufficient experience that is relevant to the styles of mineralisation and type of deposits under consideration, and to the activity being undertaken, 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'. Caedmon consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.

#### MONETARY VALUES

Unless otherwise stated, all dollar values are in Australian Dollars (A\$). The information in this presentation remains subject to change without notice.

# **COMPANY OVERVIEW**

# **WESTERN MINES GROUP**

- High-impact exploration focused on Ni-Cu-PGE and Au
- 8 projects all located in Western Australia
- Multiple "company making" opportunities 2 current priority projects:
  - Mulga Tank (Ni-Cu-PGE) major Ni-Cu-PGE project undercover, Phase 2 diamond drilling program commencing end of November
  - Jasper Hill (Au) 3km mineralised trend gold with walk up drill targets adjacent to historical gold mines
- Tight capital structure exceptionally leveraged to exploration success
- Experienced and successful board and management exploration team lead by WA nickel expert Dr Ben Grguric
- Compelling valuation MCap ~\$6.9m / EV ~\$4m versus peers at 3-5x



"An exploration driven company looking to create value through discovery"

Western Mines Group Ltd	ASX:WMG
Shares Outstanding	49,050,001
Share Price (22/11/22)	\$0.14
Market Capitalisation	\$6.87 Million
<b>Cash</b> (22/11/22)	\$2.73 Million
Unlisted Options (\$0.30 strike)	21,850,000

Equentia Natural Resources	9.0%
llwella	5.4%
Top 20 Shareholders	49.8%
Directors and Management	7.5%

# SIGNIFICANT NEAR TERM NEWS FLOW | LOW EV | EXCITING RISK-REWARD

# MULGA TANK (Ni-Cu-PGE)

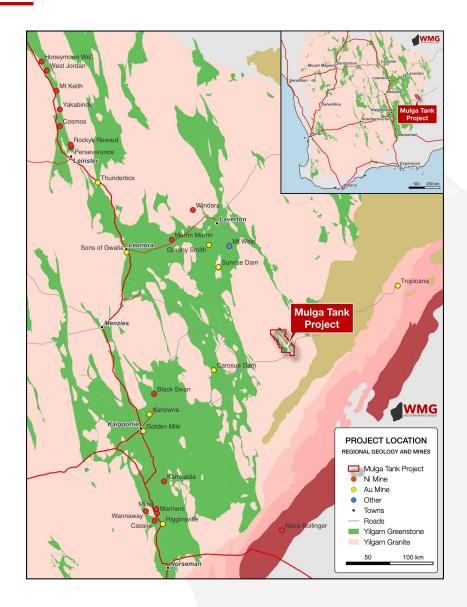


## WORLD CLASS NICKEL PROVINCE

- Western Australia's Yilgarn Craton one of the world's major nickel provinces
- World-class examples of komatiite-hosted nickel deposits Kambalda (35Mt @ 3.1% Ni), Perseverance (50Mt @ 2.3% Ni) and Mt Keith (643.7Mt @ 0.58% Ni)

# **MULGA TANK PROJECT**

- Frontier exploration play for major komatiite-hosted Ni-Cu-PGE deposits under cover
- Strategically assembled 395km<sup>2</sup> position on the under-explored Minigwal Greenstone Belt
- Mulga Tank Ultramafic Complex (WMG 100%) comparable scale (29km<sup>2</sup>) to the Kambalda Dome camp
- Tenure under-explored to date significant potential for exploration upside
- Highly prospective for Ni-Cu-PGE massive sulphide mineralisation
- Unlock with modern techniques and fundamental geology



# **BELT SCALE OPPORTUNITY**



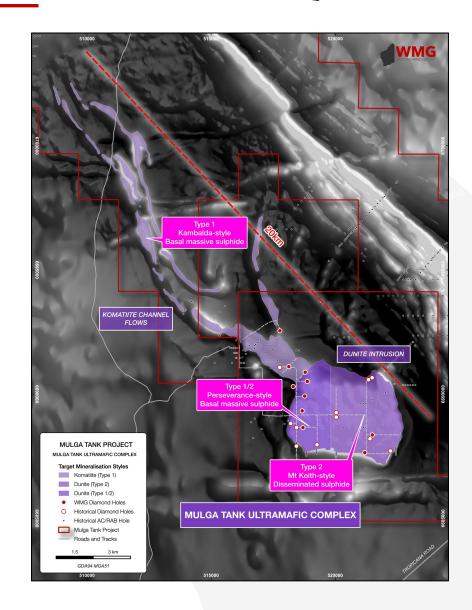
## POTENTIAL MAJOR KOMATIITE NICKEL SYSTEM UNDER COVER

- Minigwal Greenstone Belt and Mulga Tank Ultramafic Complex under explored due to ~60m sand cover
- Limited diamond drilling has penetrated ultramafic system nearly all holes show komatiite/dunite hosted Ni-Cu-PGE sulphide mineralisation
- Large meso-adcumulate dunite body (~14km<sup>2</sup>) with interpreted komatiite channel flows extending NW over >12km

## ALL CRITCAL ELEMENTS OF A LARGE-SCALE WORKING SYSTEM

<b>Critical Process</b>	Description	Evidence	
Source	Komatiite magma	<b>S</b>	
Pathway	Transport of komatiite magma through the crust	<b>S</b>	
Sulphur saturation	Addition of sulphur and sulphur saturation of undersaturated magma	<b></b>	
Chemical and physical trap	Sequestering metals into sulphides	<b>S</b>	
Physical concentration	Concentration of metal-rich sulphides into deposits	?	

Adapted from GSWA, Komatiite-Hosted Ni-Cu-PGE Deposits: A Mineral Systems Analysis, LL Grech, 2022





• Type 2 Mt Keith-style disseminated sulphide potential

# PENTLANDITE EVERYWHERE

- Type 1 Perseverance-style massive sulphide potential
- MTD016 **MTD013** Readings Depth: 281.8 ulphides (pentla

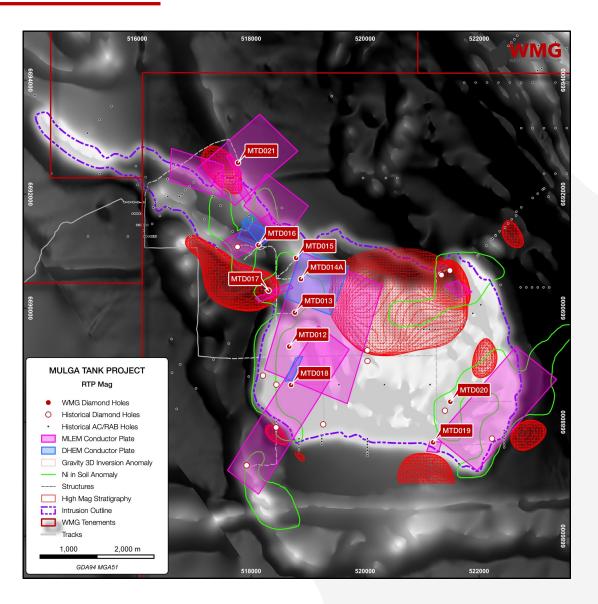
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# SYSTEMATIC EXPLORATION APPROACH



## **VECTORING TOWARDS NICKEL MINERALISATION**

- Exploration team lead by WA nickel expert Dr Ben Grguric
- Building a robust exploration model for the discovery of multiple nickel sulphide deposits at Mulga Tank
- Combined geophysical, geological and geochemical vectoring
- Historical datasets (magnetics, EM, HeliSAM, DHEM, pXRF, soil partial leach)
- WMG recent high resolution ground gravity and high powered MLEM surveys
- Only 12 historical drill holes deeper than 150m
- WMG Phase 1 diamond drilling April to July 2022 10 holes for 3,990m
- Phase 2 commencing end November 2022

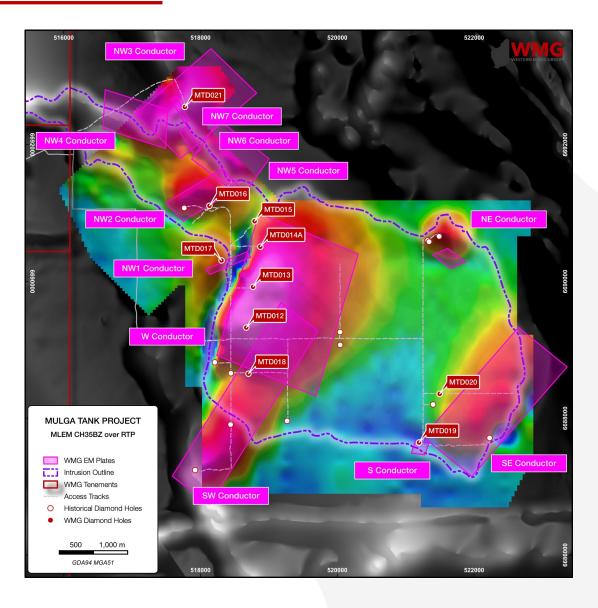




# VISIBLE NICKEL SULPHIDES IN SIX OUT OF TEN HOLES

- Phase 1 drilling program April to July 2022 10 holes for 3,990m
- Tested a range of geological and geophysical targets

HoleID	Target	Description	
MTD012	Geology	Testing western margin of the intrusion between holes MTD003, MTD005 and the W Conductor	
MTD013	EM	Testing basal contact of western margin at top of W Conductor	
MTD014	EM	Testing basal contact of western margin at top of W Conductor	
MTD015	Geology	Longitudinal geological section through the neck of the Panhandle at top of the W Conductor, to confirm intrusive or extrusive related model of intrusion geometry, with implications for belt wide targeting	
MTD016	Geology/EM	Following up on high grade result of remobilised sulphides in hole MTD006 0.25m at 3.8% Ni, 0.7% Cu and 0.7g/t PGE, up dip of NW2 Conductor and along northern margin of gravity high body	
MTD017	EM	Discrete EM anomaly along margin of coincident gravity high body in unusual orientation on western margin of intrusion	
MTD018	Geology/EM	Testing down dip MTD003 intersection of 1m at 1.13% Ni and 0.49g/t Pd on the basehides contact with coincident EM anomaly	
MTD019	EM	Discrete EM anomaly on southern margin of the intrusion in highly favourable basal contact position	
MTD020	Geology	Testing down dip of hole MTD011 that showed multiple zones of nickel sulphide mineralisation	
MTD021	EM	Testing up dip component of NW3 Conductor	

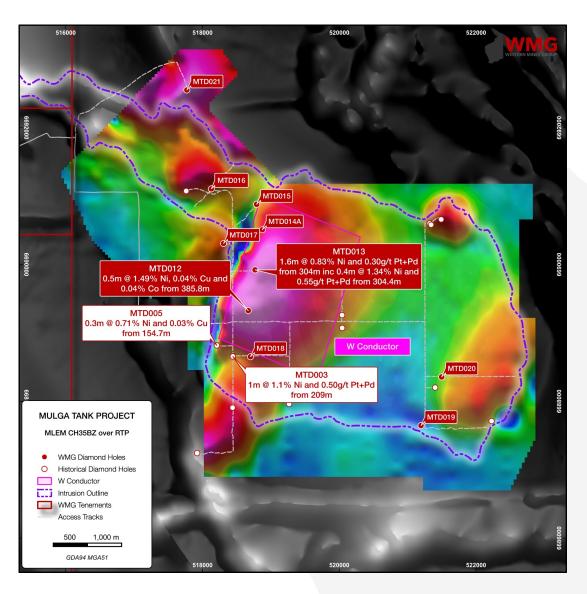


# **WESTERN MARGIN**



## **REMOBILISED NICKEL SULPHIDE VEINING**

- Holes MTD012 and MTD013 tested up dip of major *W Conductor* EM anomaly
- Multiple zones of remobilised visible nickel sulphide veins
- Hole MTD012: 0.5m at 1.49% Ni, 0.04% Cu and 0.04% Co from 385.8m
- Holes MTD013: 1.6m at 0.83% Ni and 0.30g/t Pt+Pd from 304m inc. 0.4m at 1.34% Ni, 0.04% Co and 0.55g/t Pt+Pd from 304.4m
  0.4m at 1.29% Ni and 0.43g/t Pt+Pd from 153.6m
- Initial appraisal of sulphide veins suggests likely physically remobilised from a massive sulphide source
- Type 1 Perseverance-style target
- Follow-up MTD022 at depth

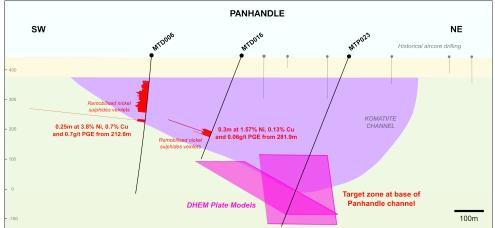


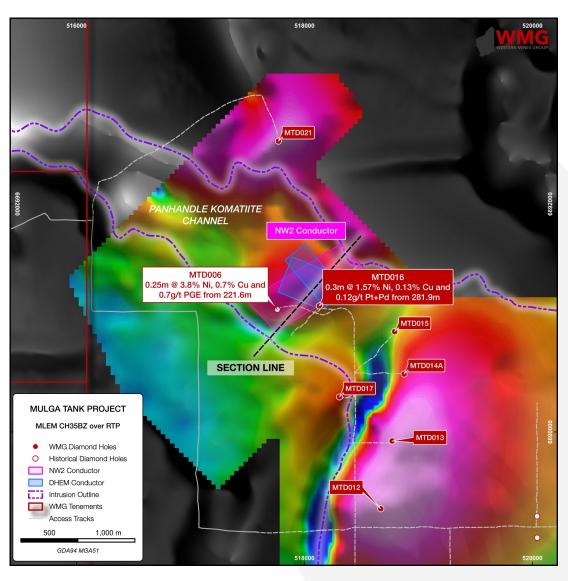
# PANHANDLE



## **KOMATIITE CHANNEL WITH NICKEL SULPHIDES**

- Panhandle feature interpreted komatiite channel extending NW Type 1 Kambalda-stye
- Historical MTD006: 0.25m at 3.80% Ni, 0.7% Cu and 0.7g/t PGE from 385.8m
- Holes MTD016: 0.9m at 1.06% Ni, 0.06% Cu and 0.05g/t Pt+Pd from 281.6m inc. 0.3m at 1.57% Ni, 0.13% Cu and 0.12g/t Pt+Pd from 281.9mm
- DHEM strong offhole high-conductance target (~4,000-7,000S) to north of hole





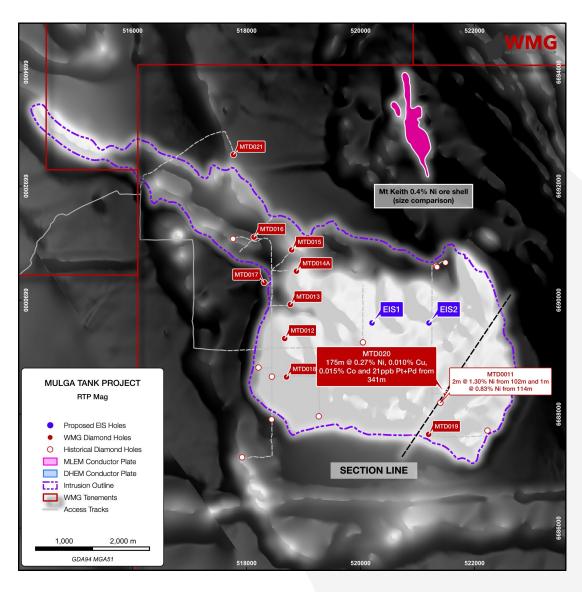
# **MULGA TANK DUNITE**



### **DISSEMINATED SULPHIDES OVER >300M**

- Hole MTD020 intersected >300m of disseminated magmatic sulphides within high MgO adcumulate-extreme adcumulate dunite
- Potential for large-scale Type 2 Mt Keith-style mineralisation

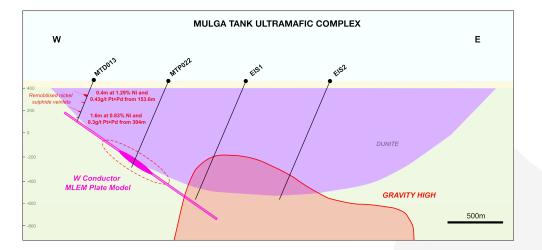


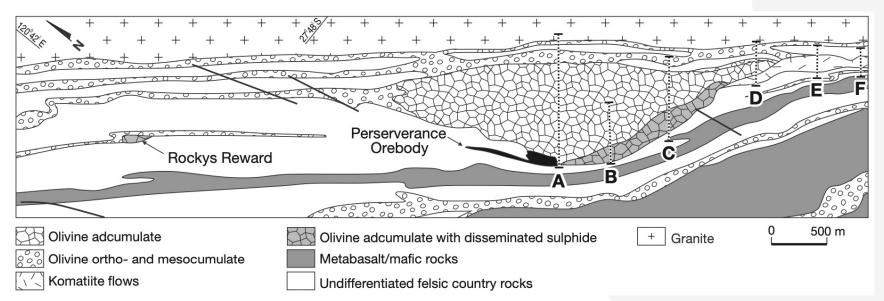




## **EVIDENCE OF LARGE-SCALE WORKING SYSTEM**

- Successful EIS award of \$220,000 towards two deep diamond holes
- Aim to capture complete cross-section of the dunite intrusion
- Meso-adcumulate dunite body of comparable size/scale to Perseverance and Mt Keith
- Unlock knowledge of the intrusion and test major targets





# **PHASE 2 DIAMOND DRILLING**



### FOLLOW-UP PROGRAM COMMENCING THIS WEEK

- Phase 2 ~5,000m diamond program
- 2 deep EIS holes

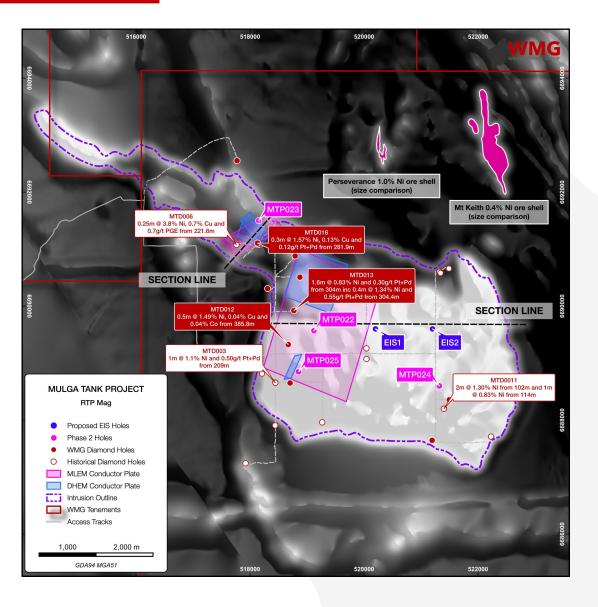
### **TYPE 1 MASSIVE SULPHIDE TARGETS**

- DHEM multiple high conductance offhole anomalies
- Remobilised sulphide veins and W Conductor

### **TYPE 2 DISSEMINATED SULPHIDE TARGETS**

• MTD020 extensive disseminated sulphide

HoleID	Target	Description
MTP022	EM	Testing centre of the W Conductor at depth between MTD012 and MTD013
MTD023	EM/Geology	Testing Panhandle offhole conductor between MTD006 and MTD016
MTD024	Geology	Follow-up on hole MTD020
MTD025	EM	Testing MTD018 offhole conductor
EIS1	Geology/EM	EIS deep hole testing base of <i>W Conductor</i> and centre of complex
EIS2	Geology/Gravity	EIS deep hole testing centre of gravity high and base of complex



# **SUMMARY**



### **EXCITING DISCOVERY OPPORTUNITY**

- We believe there are multiple nickel deposits to be found at Mulga Tank
- We strive to do high-quality technical exploration work
- We are frugal with overheads to maximise exploration spend and minimise equity dilution
- We want to change shareholders lives through share price increase not be a lifestyle
- We offer a compelling risk vs reward and leverage to exploration success

### FOR FURTHER INFORMATION PLEASE CONTACT

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# DIRECTORS





### Rex Turkington Non-Executive Chairman

Rex is a highly experienced corporate advisor and economist who has worked extensively in the Australian financial services and stockbroking industry, specialising in the natural resources sector and participating in numerous initial public offerings and capital raising for ASX listed companies. Rex is currently Managing Director of South Pacific Securities, an advisory company offering corporate finance and investor relations advice to listed companies. He was previously Chairman of Key Petroleum (ASX:KEY) and Non-Executive Director of TNG Limited (ASX:TNG). Rex is a graduate of the Australian Institute of Company Directors (GAICD) and an associate of the Financial Services Institute of Australia (AFINSIA).



### Dr Caedmon Marriott Managing Director

Caedmon has over 18 years experience in mineral exploration and equity capital markets. Caedmon was previously Managing Director of Western Australian gold and nickel explorer Aldoro Resources (ASX:ARN) and prior to that Managing Director of private exploration company Hanno Resources, responsible for establishing and managing the company's frontier exploration strategy in Western Sahara. Prior to Hanno, Caedmon worked as a buy-side mining analyst at GLG Global Mining Fund, Och-Ziff Capital and JPMorgan Natural Resources Fund. He holds a PhD in Geology, is a Chartered Financial Analyst and a member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and the Australian Institute of Geoscientists (MAIG).

### Francesco Cannavo Non-Executive Director

Frank is an experienced public company director and entrepreneur with significant business and investment experience across a number of industries, including mining and natural resources. He has a strong network of investors and industry contacts throughout the Asia-Pacific region and has extensive experience in capital raising, investments and initial public offerings. Frank has been instrumental in assisting several listed and unlisted companies achieve their growth strategies through the raising of capital and the acquisition of assets. Frank is currently a Non-Executive Director of Golden Mile Resources (ASX:G88).



#### Dr Benjamin Grguric Technical Director

Ben has extensive experience in mineral exploration and scientific research, with direct involvement in a number of gold and nickel discoveries over the last 30 years. Ben is considered a leading expert on WA nickel sulphide exploration with over 50 peer-reviewed scientific papers. Ben spent his early career with WMC Resources/BHP, in particular at the Mt Keith Nickel Operation, managing brownfield and greenfield nickel sulphide exploration in Western Australia. As Geoscience Manager – Australia for Norilsk Nickel, Ben was responsible for exploration strategy across their portfolio of WA nickel assets and directly involved in the discovery of the West Jordan Type 2 nickel sulphide deposit. Ben holds a PhD in Earth Sciences and is a fellow of the Australian Institute of Geoscientists (FAIG) and the Society of Economic Geologists (FSEG).

#### **Exploration | Capital Markets**

#### **Business Development | Capital Markets**

**Exploration | Corporate Management** 

Capital Markets | Corporate Management