

# **QUARTERLY ACTIVITIES REPORT MARCH 2023**

# **HIGHLIGHTS**

- Phase 2 diamond drilling program continued at Mulga Tank Ni-Cu-PGE Project
- Three further holes completed including first co-funded EIS deep hole MTD023
- Assay results from holes MTD022 and MTD023 confirm the discovery of an extensive working nickel sulphide mineral system with extensive intersections of Type 2 Mt Keith-style disseminated mineralisation:

MTD022 114m at 0.31% Ni, 121ppm Co, 33ppm Cu from 124m

inc. 14m at 0.48% Ni, 171ppm Co 152ppm Cu, with 0.66% S from 168m and 88m at 0.3% Ni, 118ppm Co, 8ppm Cu, 10ppb Pt+Pd from 460m

MTD023 78m at 0.28% Ni, 131ppm Co, 70ppm Cu, 32ppb Pt+Pd from 118m

inc. 20m at 0.38% Ni, 137ppm Co, 57ppm Cu, 45ppb Pt+Pd from 176m and 306m at 0.26% Ni, 130ppm Co, 47ppm Cu, 24ppb Pt+Pd from 402m and 221.5m at 0.25% Ni, 116ppm Co, 68ppm Cu, 23ppb Pt+Pd from 794.5m inc. 11.5m at 0.37% Ni, 134ppm Co, 75ppm Cu, 43ppb Pt+Pd from 794.5m and 88m at 0.44% Ni, 151ppm Co, 85ppm Cu, 38ppb Pt+Pd from 1,212m

CUMULATIVE 693.5m at 0.28% Ni, 128ppm Co, 61ppm Cu, 27ppb Pt+Pd

- Mineralogical work confirms abundant high-tenor disseminated pentlandite with minimal pyrrhotite and pyrite (hole MTD022)
- Aqua regia testwork suggests high percentage of nickel in sulphide form versus silicate nickel (holes MTD012, MTD020, MTD022, MTD023)
- Satellite based remote sensing work has identified potential lithium and REE pegmatite targets at Pinyalling and alteration based gold targets at Jasper Hill - field visits planned
- Capital raise of \$2,726,630 after period end to expanding and accelerate drilling at Mulga Tank

Western Mines Group Ltd (WMG or Company) (**ASX:WMG**) is pleased to provide shareholders with the following Quarterly Activities Report, and accompanying Appendix 5B, for what has been another very productive quarter of exploration for the Company.

WMG's main focus for the period continued to be the flagship Mulga Tank Ni-Cu-PGE Project where we are beginning to unlock what could be a major nickel sulphide mineral system. After an end of year break, the Phase 2 drilling program recommenced on 11 January with three further diamond drill holes completed during the period, including the first Exploration Incentive Scheme (EIS) deep hole MTD023 to a depth of 1,401m.

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Shares on Issue: 57.82m Share Price: \$0.78 Market Cap: \$45.10m Cash: \$4.03m (28/04/23)

# **ASX RELEASE | QUARTERLY ACTIVITIES REPORT MARCH 2023**



Visual observations and assay results were received for holes MTD022 and MTD023 during the quarter. Assay results from EIS hole MTD023 confirmed the discovery of an extensive nickel sulphide mineral system within the Mulga Tank Ultramafic Complex. Multiple broad intersections of disseminated nickel sulphide mineralisation were seen down the hole which cumulatively totalled **693.5m at 0.28% Ni, 128ppm Co, 61ppm Cu, 27ppb Pt+Pd** (ASX, MTD023 Assays Confirm Discovery of Significant Nickel System, 5 April 2023).

Further assay results were received for MTD022 and Phase 1 hole MTD012 which also showed disseminated magmatic sulphide mineralisation (ASX, MTD022 Assays Confirm Broad Disseminated Mineralisation, 20 February 2023) with relatively shallow intersections of:

MTD022 114m at 0.31% Ni, 121ppm Co, 33ppm Cu from 124m

inc. 14m at 0.48% Ni, 171ppm Co, 152ppm Cu with 0.66% S from 168m

MTD012 50m at 0.32% Ni, 124ppm Co, 25ppm Cu, 12ppb Pt+Pd from 177m

inc. 16m at 0.38% Ni, 132ppm Co, 38ppm Cu, 16ppb Pt+Pd from 197m

Whilst the visual and geochemical results clearly indicate extensive disseminated nickel sulphide mineralisation, highlighted by accompanying elements such as Cu, Pt, Pd and S, various other work has been undertaken to confirm nickel in sulphide association.

Mineralogical thin section work for a number of samples from hole MTD022 confirms the presence abundant high-tenor disseminated pentlandite in the samples, with little-to-no pyrrhotite and pyrite observed (ASX, MTD022 Mineralogical Work Confirms Abundant Pentlandite, 8 February 2023).

A comparison of nickel assay results by four acid versus aqua regia digest was undertaken for holes MTD012, MTD022 and MTD023, and previously for MTD020 (ASX, Aqua Regia Testwork Confirms Nickel Sulphide Association, 6 April 2023). Four acid is considered a near total digestion technique that breaks down most silicate and oxide minerals whereas aqua regia is considered a partial digestion technique that does not dissolve silicate minerals but does dissolve soluble sulphide minerals. The results of the comparison testwork suggests a high percentage of nickel in sulphide form versus silicate nickel, with intervals from all holes showing better than 97% similarity in results.

During the quarter the Company also completed field reconnaissance work and a high-resolution ground magnetic survey at the Youanmi Gold Project, looking to advance this project to drill ready status. Satellite based remote sensing work, targeting both gold and lithium pegmatite mineralisation, was also completed at the Jasper Hill and Pinyalling Projects. An initial site visit to Pinyalling is planned during the current period to ground-truth interesting initial results. Limited exploration work was undertaken on the Company's other projects during the period whilst the Company focused on the Mulga Tank drilling program.



# **MULGA TANK**

The Mulga Tank Project comprises exploration licences E39/2132 and E39/2223 (granted during the period) and exploration licence application E39/2299, covering the Minigwal Greenstone Belt, 190km east-northeast of Kalgoorlie. The Minigwal Greenstone Belt is a NNW trending linear sequence of predominantly mafic and ultramafic lithologies; it is very under explored due to the presence of shallow sand cover and presents a "frontier" exploration opportunity for major Ni-Cu-PGE and orogenic gold deposits.

WMG is currently undertaking a six-hole diamond drilling program, totalling 4,000-5,000m, to test a number of follow-up targets based on the results of the Company's first drilling program and ongoing exploration targeting work (ASX, Phase 2 Drilling has Commenced at Mulga Tank, 28 November 2022). The program includes two deep co-funded EIS holes to be drilled with the aid of WMG's EIS award (ASX, WMG Wins \$220,000 EIS Award to Drill Mulga Tank, 17 October 2022).

Following the Company's recent capital raise (ASX, Capital Raise to Expand Mulga Tank Drilling, 13 April 2023) and encouraging exploration results (ASX, MTD023 Assays Confirm Discovery of Significant Nickel Sulphide System, 5 April 2023) this program has been expanded to 14 holes with eight additional drill hole locations selected (ASX, MTD026 Update and Expansion of Mulga Tank Drilling, 27 April 2023). Further drill holes will continue to be added to the program with ongoing targeting work as the Company systematically explores the Mulga Tank Complex with the capital available.

# **GEOCHEMICAL ASSAY RESULTS**

The first hole of the Phase 2 program MTD022 was completed in mid-December (ASX, Nickel Sulphide Mineralisation Seen in Hole MTD022, 14 December 2022) and the second hole MTD023 (EIS1) in early March (ASX, Completion of EIS Hole MTD023, 6 March 2023). Assay results for both of these holes were received during the period.

MTD022 and MTD022W1 intersected a ~506m thick package of high MgO adcumulate dunite ultramafic containing disseminated magmatic sulphides (trace to 2%) that in places coalesced into interstitial blebs (3 to 5% sulphide). The sulphides started from ~120m downhole, with multiple broad +10m zones with pXRF readings >0.4% Ni - a good indication of potentially shallow Type 2 Mt Keith-style mineralisation (ASX, Nickel Sulphide Mineralisation Seen in Hole MTD022, 14 December 2022).

MTD022 assay results show adcumulate-extreme adcumulate dunite down the length of the hole, averaging 46.6% MgO, 0.29%  $Al_2O_3$  (volatile free) and 0.29% Ni for all samples assayed over 474.2m. A number of intersections show good evidence for disseminated Mt Keith-style nickel mineralisation and a "live" magmatic sulphide mineral system, including the relatively shallow intercept:

MTD022 114m at 0.31% Ni, 121ppm Co, 33ppm Cu from 124m

inc. 14m at 0.48% Ni, 171ppm Co, 152ppm Cu with 0.66% S from 168m

A number of remobilised massive nickel sulphide veinlets were observed towards the base of holes MTD022 and MTD022W1. Assay results confirm Ni-Cu-PGE mineralisation in the veinlets:

MTD022 0.5m at 1.42% Ni, 518ppm Cu, 372ppm Co, 0.41g/t Pt+Pd from 553m

MTD022W1 0.15m at 2.73% Ni, 812ppm Cu, 595ppm Co, 0.10g/t Pt+Pd from 525.15m



MTD023 intersected a cumulative ~1,200m thickness of high MgO adcumulate dunite ultramafic across two sequences each >500m. Both of these sequences were mineralised, with >600m containing disseminated magmatic sulphides (trace to 2%) that in a number of places coalesced into interstitial blebs (3 to 5% sulphide) and even approaching net textured (~10% sulphide). At the base of the hole multiple intersections of remobilised massive nickel sulphide veinlets were observed (ASX, Completion of EIS Hole MTD023, 6 March 2023).

MTD023 assay results show prospective high-temperature adcumulate-extreme adcumulate dunite host rock down the length of the hole, averaging 46.8% MgO, 0.24% Al<sub>2</sub>O<sub>3</sub> (volatile free), over a cumulative 1,157m. Multiple broad intersections of disseminated nickel mineralisation with elevated Ni and S, in combination with highly anomalous Cu and PGE, show strong evidence for an extensive "live" magmatic sulphide mineral system.

Significant mineralised intersections include:

# MTD023

78m at 0.28% Ni, 131ppm Co, 70ppm Cu, 32ppb Pt+Pd from 118m inc. 20m at 0.38% Ni, 137ppm Co, 57ppm Cu, 45ppb Pt+Pd from 176m and 306m at 0.26% Ni, 130ppm Co, 47ppm Cu, 24ppb Pt+Pd from 402m and 221.5m at 0.25% Ni, 116ppm Co, 68ppm Cu, 23ppb Pt+Pd from 794.5m inc. 11.5m at 0.37% Ni, 134ppm Co, 75ppm Cu, 43ppb Pt+Pd from 794.5m and 88m at 0.44% Ni, 151ppm Co, 85ppm Cu, 38ppb Pt+Pd from 1,212m

Which cumulatively total:

693.5m at 0.28% Ni, 128ppm Co, 61ppm Cu, 27ppb Pt+Pd

The assay results confirm Ni-Cu-PGE mineralisation in the remobilised massive nickel sulphide veinlets seen in the hole including:

MTD023

1.5m at 1.88% Ni, 670ppm Co, 429ppm Cu, 76ppb Pt+Pd from 402m inc. 1m at 2.20% Ni, 779ppm Co, 490ppm Cu, 86ppb Pt+Pd from 402.5m

The assay results for MTD023 demonstrate extensive zones of highly anomalous Cu and PGE's in combination with elevated S, and a S:Ni ratio greater than 0.5. These zones correlate well with the visible sulphides observed in the geological logging and together provide strong evidence for nickel in sulphide.

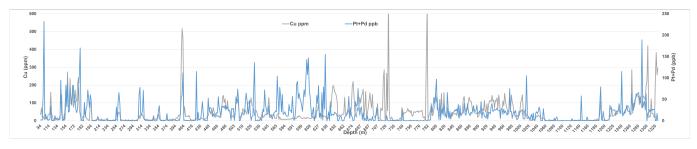


Figure 1: MTD023 Cu and Pt+Pd

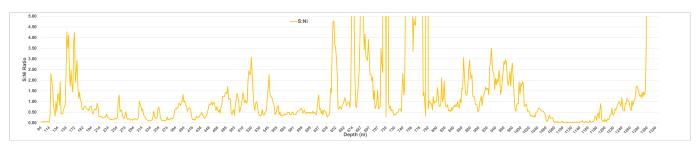


Figure 2: MTD023 S:Ni Ratio www.westernmines.com.au



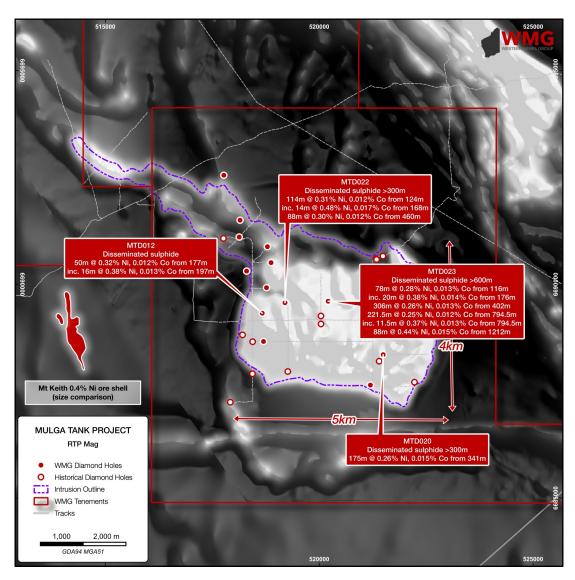


Figure 3: Assay results for disseminated sulphide mineralisation in the Mulga Tank Ultramafic Complex

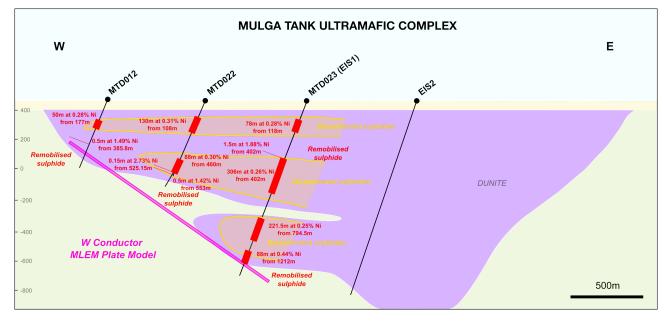


Figure 4: Cross Section through the centre of the Mulga Tank Ultramafic Complex



# FOUR ACID AND AQUA REGIA DIGEST COMPARISON

Samples from selected intervals of mineralisation seen in holes MTD012, MTD022 and MTD023 were submitted for further analysis by aqua regia digest in addition to the standard four acid digest analysis. Similar comparison work was previously undertaken on the broad intersection of mineralisation seen in hole MTD020 (ASX, MTD020 Assays Confirm Extensive Working Mineral System, 7 November 2022).

Four acid digestion uses a combination of nitric, perchloric and hydrofluoric acid with a final dissolution stage using hydrochloric acid. This digestion breaks down most silicate and oxide minerals allowing for the "near-total" analysis of most minerals. In comparison, aqua regia digestion is a partial digestion technique using nitric and hydrochloric acid. Aqua regia is less aggressive and does not dissolve silicate minerals and, as such, silicate associated nickel minerals such as that within olivine should not be dissolved to any significant degree.

A semi-quantitative assessment or comparison can be conducted on the two techniques to indicate the proportion of nickel mineralisation associated with sulphide (and potentially iron), relative to that of nickel in silicate (which is typically unrecoverable during beneficiation processing).

The results of this comparison testwork demonstrate very encouraged results for the intervals selected with better than 97% similarity in results across all holes - indicating nickel is predominantly associated with sulphide mineralisation.

	From	From	From	From	From		Interval		Four Acid				Aqua	Regia		
HoleID	(m)	To (m)	(m)	Ni (%)	Co (ppm)	Cu (ppm)	Ni (%)	Ni AR/ 4A	Co (ppm)	Co AR/ 4A	Cu (ppm)	Cu AR/ 4A				
MTD012	177	227	50	0.32	124	25	0.31	97.1%	115	92.8%	25	100.0%				
MTD022	108	192	84	0.32	128	49	0.32	99.9%	123	96.0%	49	100.0%				
MTD023	118	196	78	0.28	131	70	0.27	97.2%	124	94.3%	70	99.8%				

Table 1: Summary of four acid (4A) versus aqua regia (AR) assay results

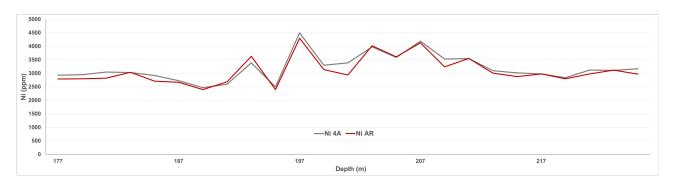


Figure 5: MTD012 Comparison of four acid (4A) versus aqua regia (AR) assay results



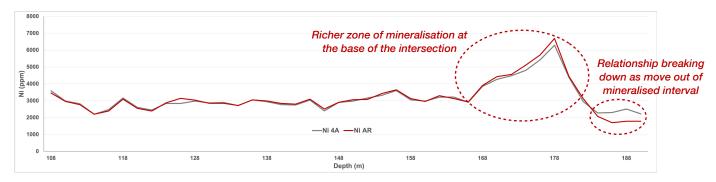


Figure 6: MTD022 Comparison of four acid (4A) versus aqua regia (AR) assay results

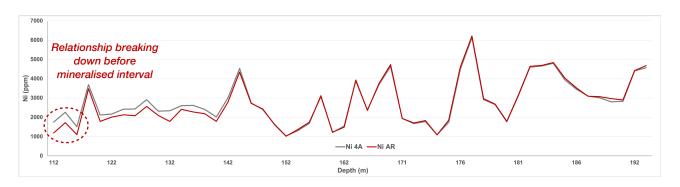


Figure 7: MTD023 Comparison of four acid (4A) versus aqua regia (AR) assay results

The results from the two techniques show a high correlation and very similar values for nickel. Combined with the observation of high S:Ni ratios, the results suggest a high percentage of nickel in sulphide form versus silicate nickel.

# MINERALOGICAL INVESTIGATION WORK

During the period the Company completed mineralogical thin and polished section work on samples of core from hole MTD022 in order to characterise the rock types and sulphide species observed (ASX, MTD022 Mineralogical Work Confirms Abundant Pentlandite, 8 February 2023).

Four samples of core were collected from different depths down the hole and prepared for mineralogical section analysis and identification of sulphide species present. Results of this work confirms the presence of abundant high-tenor disseminated pentlandite in the samples, with little-to-no pyrrhotite and pyrite observed. This has very positive implications for the potential of an extensive working mineral system for Type 2 Mt Keith-style disseminated nickel sulphide mineralisation. Combined with observations from previous holes there is evidence of a significant mineralisation "footprint" across the Mulga Tank Ultramafic Complex.

The observation of abundant coarse pentlandite in hole MTD022 is positive for the potential of the Mulga Tank complex to host an extensive working mineral system for Type 2 Mt Keith-style disseminated nickel sulphide mineralisation and supports the conclusion of the aqua regia versus four acid assay results.



# Hole MTD022 Mineralogical Investigation 120.15m: Abundant pentlandite blebs with the usual magnetite rims and crossbars 279.15m: Moderately abundant pentlandite with microveinlets of heazlewoodite. No magnetite rims. 337.1m: Sparse sulphide blebs which are predominantly heazlewoodite.

Table 2: Polished section descriptions for hole MTD022 (pn=pentlandite, mill=millerite, hz=heazlewoodite, mt=magnetite) Field of view either 1.2mm or 0.6mm

446m: Very coarse sulphide blebs in ultramafic. Blebs consist of pentlandite with veinlets of millerite and minor magnetite.



# RECENT DRILLING RESULTS

Hole MTD024 was also completed during the quarter and MTD025 shortly after the period end (ASX, Completion of Hole MTD024 at Mulga Tank, 28 March 2023; MTD025 Extends Nickel Mineralisation, 17 April 2023). Drilling is current at around 402m depth in hole MTD026 (ASX, MTD026 Update and Expansion of Mulga Tank Drilling, 27 April 2023).

Hole MTD024 was designed to test DHEM and MLEM geophysical anomalies in the *Panhandle* area of the Mulga Tank Ultramafic Complex. The *Panhandle* is interpreted to represent komatiite flow sequences extending from the main body of the Complex.

MTD024 intersected a ~450m assemblage of komatiite ultramafic and interbedded basalts, cherts and sulphidic black shales. The hole supports WMG's geological model for the Complex and *Panhandle* area, however the highly variable sequence of flows suggests the hole targeted a distal flank environment away from a main komatiite channel. An intersection of remobilised nickel sulphide blebs and veinlets was seen at 573m depth but DHEM and MLEM geophysical anomalies tested by the hole are thought to be explained by intersections of semi massive pyrrhotite seen within black shales at target depths of 515m and 659m.

Hole MTD025 was designed to test a DHEM geophysical anomaly and follow-up on Phase 1 hole MTD018. The DHEM survey identified a strong (~5,000-15,000S) shoot-like offhole anomaly.

MTD025 intersected a ~446m thick package of high MgO adcumulate dunite ultramafic. Two shallow intervals of disseminated magmatic sulphides (trace to 1%) were seen in the top 200m of the hole, in a similar zone to that seen in previous holes MTD012, MTD022 and MTD023. pXRF readings >0.4% Ni confirm likely Mt Keith-style disseminated nickel mineralisation and potentially extend this shallow zone ~600m south from hole MTD012.

Three intersections of high-tenor remobilised massive nickel sulphide were observed (confirmed by spot pXRF readings up to 18.3% Ni). These remobilised sulphide intersections (5-20cm in width) clearly demonstrate nickel sulphides infilling faults and fractures having likely remobilised from a nearby massive sulphide source (Perseverance-style basal massive sulphide). None of these remobilised intersections appear to explain the shoot like DHEM anomaly and a follow-up DHEM survey of this hole is planned.

Drilling of hole MTD026 is still in progress and is currently at a depth of 402m. To date the hole has intersected ~340m of high MgO dunite ultramafic. Shallow intervals of disseminated magmatic sulphides (trace to 2%) that in places coalesced into interstitial blebs (3 to 5% sulphide) and even approaching net textured (5 to 10% sulphide) were seen in the top 250m of the hole - in a similar zone to nearby holes MTD020 and MTD023. These observations appear to extend the footprint of this zone of shallow mineralisation over ~3.2km, across the majority of the Mulga Tank Complex.

Multiple intersections of high-tenor remobilised massive nickel sulphide blebs and veining were observed (confirmed by spot pXRF readings up to 12.2% Ni) in the top 250m, in some of the shallowest and frequent examples of this phenomenon seen so far. This interesting observation, in a new previously undrilled area, supports the potential for multiple massive sulphide sources or deposits within the Complex (Perseverance-style basal massive sulphide) and not just limited to the Western Margin where previously encountered.



# **DHEM SURVEY RESULTS**

A DownHole Electromagnetic (DHEM) survey crew travelled to site at the end of March to survey holes MTD022, MTD023 and MTD024. Rather disappointingly several factors were encountered that led to none of the holes being surveyed satisfactorily:

Hole MTD022 was found to be blocked at 406m and was unable to be surveyed to the depth of the basal contact and remobilised sulphide veinlets seen at 525m and 553m depth down hole.

The crew's 1,500m winch line suffered a kink at the previous job and >250m had to be removed, meaning hole MTD023 could only be surveyed to a depth of ~1,200m down hole, again not reaching the basal contact and zones of remobilised sulphides

Hole MTD024 was found to be blocked at 80m and could not be surveyed at all.

These incidents have led to a rethink and overhaul of how WMG conducts DHEM going forward, with the help of our drillers BlueSpec. This was trialed in hole MTD023, which could have been successfully surveyed as an open hole without blockages with a longer winch. DHEM will likely become an increasingly important technique in the hunt for the source/s of remobilised massive nickel sulphide material seen in numerous drill holes.

# **EXPANSION PLANS**

Following a recent successful capital raise (ASX, Capital Raise to Expand Mulga Tank Drilling, 13 April 2023) the Company plans to expand and accelerate drilling at the Mulga Tank Project. A further eight holes have been planned to extend the original Phase 2 drilling program. These holes will begin to systematically test for both the extent of shallow disseminated sulphide mineralisation in undrilled areas of the Complex and also follow up on remobilised nickel sulphide veining seen in a number of holes along the Western Margin of the Complex. Additional drill holes will continue to be added to the program with ongoing targeting work and as results are received. Drilling is currently expected to continue at least through to the end of the year.

MTP026 - located on the eastern side of the Complex in an area that has had no previous drilling. The hole will test a coincident gravity and magnetic high, and minor MLEM anomaly, as well as for the presence of disseminated mineralisation in this area.

MTP027 - located halfway between MTD022 and MTD023 (EIS1). This hole attempts to infill the observed zones of disseminated mineralisation seen in holes MTD022 and MTD023 whilst also further testing the basal contact of the Western Margin for massive sulphide deposits.

MTP028 to MTP030 - a fence of approximately 500m spaced holes running east-west between MTD025 and MTD026 parallel to holes MTD022, MTD023 and MTP027. Aims to test a large undrilled part of the Complex and infill an area bounded by observations of disseminated nickel sulphide mineralisation in WMG and historical drilling.

MTP031 to MTP033 - a fence of approximately 300m spaced holes running north-south along the Western Margin of the Complex. Holes MTP032 and MTP033 aim to test the basal contact at depth beneath holes MTD012, MTD022 and MTD025, which encountered remobilised nickel sulphide veining, whilst also infilling the area between lines MTD012 to MTD023 and MTP028 to MTP030 for shallow disseminated mineralisation.



Hole MTP031 steps out to the north also testing the basal contact beneath hole MTD013 and looking for extensions of the richer shallow disseminated sulphide zone seen in hole MTD022.

HoleID	Target	Description
EIS2	Geology/Gravity	EIS deep hole testing major gravity high and centre of the Complex
MTP026	Geology/Gravity	Testing coincident gravity and magnetic high in an undrilled area of the Eastern Margin of the Complex
MTP027	Geology	Follow-up between MTD022 and MTD023 which showed extensive disseminated nickel sulphide mineralisation and remobilised sulphide at depth
MTP028 MTP029 MTP030	Geology	Infilling undrilled area of the Complex between MTD025 and MTD026 to test extent of shallow disseminated sulphide mineralisation
MTP031	Geology/EM	Testing the western basal contact at depth beneath MTD013 which showed remobilised nickel sulphide veining
MTP032	Geology/EM	Testing the western basal contact at depth beneath MTD012 and MTD022 which both showed remobilised nickel sulphide veining
MTP033	Geology/EM	Testing the western basal contact at depth beneath MTD012 and MTD025 which both showed remobilised nickel sulphide veining

Table 3: Descriptions of Current Planned Drill Holes at Mulga Tank

# **DISCUSSION**

The quarter was a successful one for the Company where we are now beginning to unlock what could be a major nickel sulphide mineral system at Mulga Tank. MTD023 was designed to test the centre of the Mulga Tank Ultramafic Complex, drilling the inferred deepest part, in order to gain geological understanding of the body. It could well become the pivotal "discovery" hole of the project.

The geochemical assay results, along with previous results from holes MTD020 and MTD022 (ASX, MTD020 Assays Confirm Extensive Working Mineral System, 7 November 2022; MTD022 Assays Confirm Broad Disseminated Mineralisation, 20 February 2023), conclusively confirm the presence of an extensive magmatic nickel sulphide mineral system within the Mulga Tank Ultramafic Complex. Four broad horizons of disseminated sulphide mineralisation were observed over a cumulative ~693m downhole thickness. This scale of mineralisation suggests the potential for large volumes of nickel sulphide to be hosted within the Mulga Tank dunite body.

The uppermost, relatively shallow intersection of mineralisation seen between 118m to 196m depth (78m at 0.28% Ni from 118m, including 20m at 0.38% Ni from 176m) is particularly interesting given it appears to correspond well with similar mineralisation at this depth seen in holes MTD012 and MTD022 approximately 1,600m apart. This may hint at the lateral extent and potential size of this mineral system and confirm the "flat lying, right way up" model of the complex. This mineralisation in the top 200 vertical metres could potentially be amenable to large scale open pit mining, especially considering the top 50-70m of sand cover is essentially "free-dig", easily removable overburden.

Recent observations from hole MTD026, drilled midway between holes MTD020 and MTD023, appear to extend the footprint of this zone of shallow mineralisation over ~3.2km, across the majority of the Mulga Tank Complex. Whilst, these holes require significant infill drilling, which our expansion plans begin to systematically target, a very significant nickel sulphide mineral system is potentially emerging at Mulga Tank.



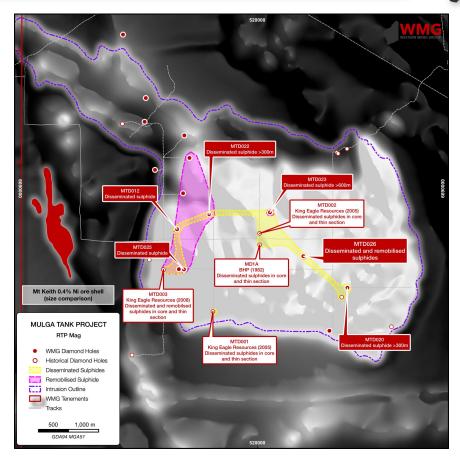


Figure 8: Mulga Tank Diamond Drill Holes Indicating Disseminated Sulphide Mineralisation

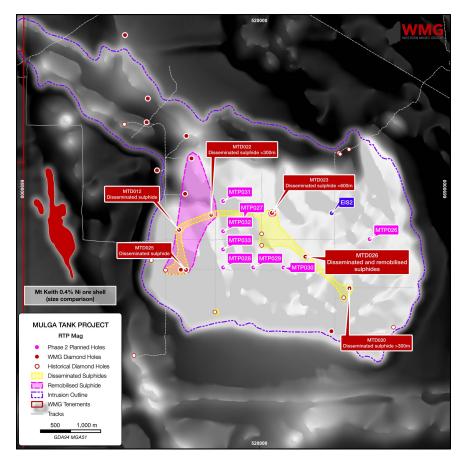


Figure 9: Mulga Tank Current Planned Diamond Drill Holes



# **JASPER HILL**

The Jasper Hill Project comprises exploration licences E39/2073, E39/2079 and prospecting licence application P39/6267. The project is located approximately 80km southeast of Laverton and covers part of the poorly exposed Merolia Greenstone Belt, a NNW trending belt, up to 20km wide, that can be traced over 110km in a SSE direction from the Burtville Mining Centre. The project area is lightly explored, due to being partly under shallow cover, but is contiguous to the historical producing mines of Lord Byron (160,000oz at 1.0g/t Au) and Fish (87,000oz at 4.1g/t Au).

Jasper Hill is the Company's primary gold project containing a mineralised gold trend over 3km strike. Further field reconnaissance work involving geological mapping, ground-truthing the results of the high-resolution ground magnetic survey over part of tenement E39/2073 and locating significant aboriginal heritage sites was conducted during the period. The Company plans to complete a litho-structural interpretation and drill targeting work, to advance the project ready for an initial RC drilling program.

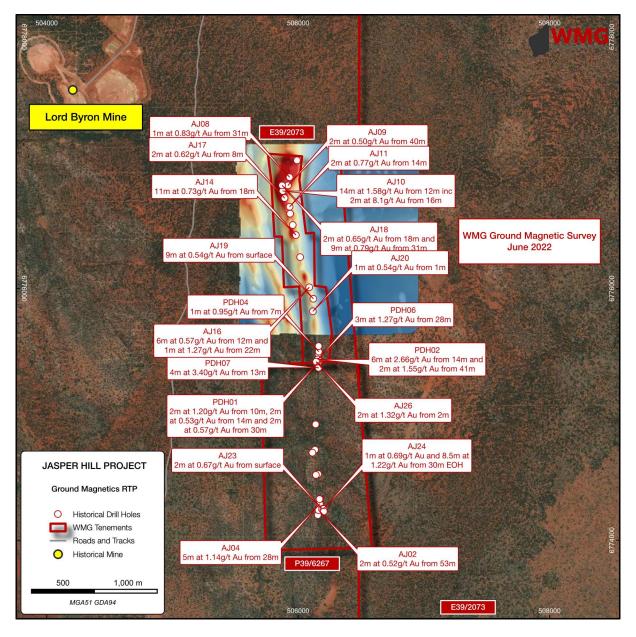


Figure 10: WMG ground magnetic survey and significant historical drill intersections (E39/2073 and P39/6267)



The Company recently engaged remote sensing specialists Earthscan Pty Ltd to complete satellite based remote sensing work over the project area, using ASTER multispectral imagery. This work was completed during the period and was principally focused on mapping alteration signatures of possible gold targets. Numerous new and existing alteration targets were identified by the work which will be ground-truthed during the next field visit.

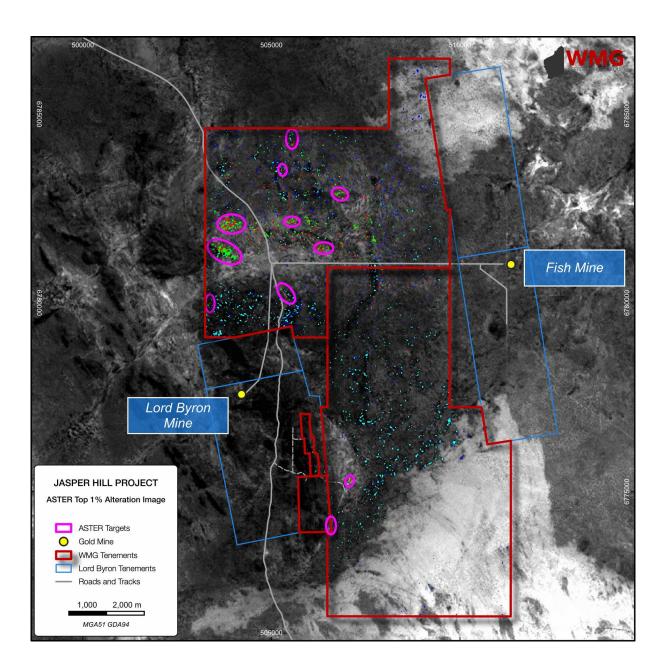


Figure 11: Jasper Hill ASTER alteration targets (E39/2073, E39/2079, P39/6267)



# **PINYALLING**

The Pinyalling Project comprises exploration licence E59/2486 covering 55km². The project is located approximately 25km NW of Paynes Finds and lies at the south-eastern end of the Yalgoo-Singleton Greenstone Belt, within an area known as the Warriedar Fold Belt that comprises a folded sequence of gabbro and dolerite intercalated with basalt, ultramafics, sediments and BIF. The Warriedar Fold Belt hosts a number of historic gold workings at the Pinyalling Mining Centre, 3km north of the tenement area, as well as the Baron Rothschild prospect drilled by Thundelarra Exploration during the 1990s.

The Company recently engaged remote sensing specialists Earthscan Pty Ltd to complete satellite based remote sensing work over the project area, using ASTER multispectral imagery. This work was completed during the period and was principally focused on mapping pegmatite sequences that could potentially host lithium mineralisation. The Company notes the upswing in lithium focused exploration in the area at Golden State Mining's (ASX:GSM) nearby Paynes Find Lithium Project (ASX:GSM, Lithium Exploration and Drilling Update, 22 December 2022). An initial field reconnaissance visit is planned to ground-truth these interesting early results.

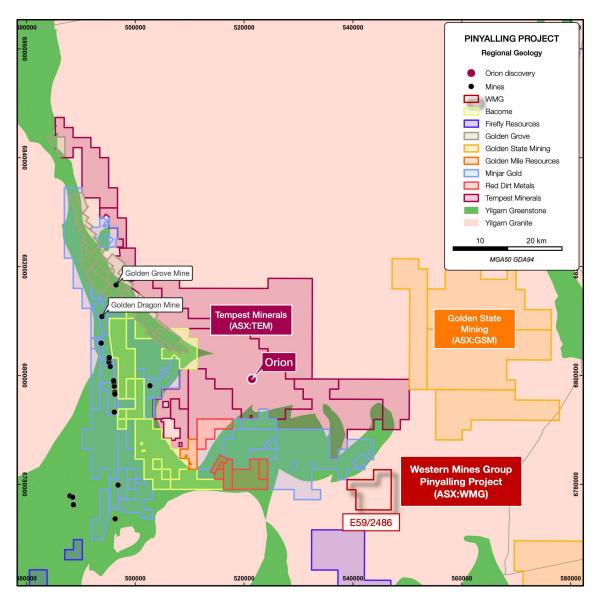


Figure 12: Location of Pinyalling Project



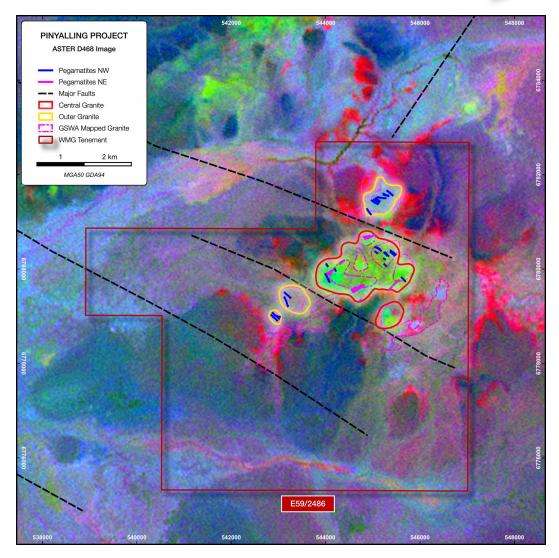


Figure 13: Pinyalling ASTER image with mapped granite and pegmatites

# **PAVAROTTI**

The Pavarotti Project comprises exploration licence E77/2478 and exploration licence application E77/2746. The project is located approximately 50km north-northeast of Southern Cross and lies on the western side of the Koolyanobbing Greenstone Belt, a northwest trending sequence of mafic and ultramafic volcanic and intrusive rocks with lesser sediments intercalated with BIF horizons forming prominent ridges. The BIF horizons have been exploited since the 1960s, with several open pit iron ore mines that are currently owned by Mineral Resources (ASX:MIN).

Historical rock chip samples from Jock's Fury show anomalous results of up to 0.74% Ni, 0.11% Cu and 0.22g/t Pt+Pd over 140m strike. BHP drilled several shallow holes at Jocks Fury in the late 1960's including H202 intersecting 4.6m at 1.28% Ni, 597ppm Cu, 293ppm Co from 42.7m to the end of hole (EOH) and H273 intersecting 16.8m at 0.78% Ni, 360ppm Cu, 285ppm Co from 12.2m, including 3.1m at 1.60% Ni, 865ppm Cu, 700ppm Co from 24.4m.

Limited exploration work was done on the project during the quarter. The Company continues to wait on the grant of tenement application E77/2746, containing Jock's Fury, in order to commence exploration.



# YOUANMI

The Youanmi Project comprises exploration licence E57/1119 and prospecting licence P57/1450. The project is located 70km southwest of Sandstone and lies on the eastern side of the Youanmi Greenstone Belt, along the major Youanmi Shear.

The tenements are just 2km to 7km from the historic Youanmi Gold Mining Centre, which has produced over 600,000oz of gold since its discovery in the late 1800's, currently owned by Rox Resources (ASX:RXL) and Venus Metals (ASX:VMC). The area has seen a resurgence in exploration activity with the recent discovery of the high-grade Penny North (ASX:RMS) and Grace (ASX:RXL) deposits along the Youanmi Shear.

A site visit for field reconnaissance and a high-resolution ground magnetic survey we completed during the quarter. Data from this fieldwork will feed into the Company's ongoing exploration targeting.

# **ROCK OF AGES**

The Rock of Ages Project comprises prospecting licence P38/4203 and is located approximately 32km southeast of Laverton. The project lies on the Laverton Greenstone Belt, around 4.5km south of the historical Burtville Mining Centre. The tenement contains the historical Rock of Ages workings, a series of shallow mine workings over approximately 600m strike, associated with quartz veining and ferruginous cherts, within felsic volcanic schists. Historical records indicate 2,074oz Au was mined from the workings between 1902 and 1911 at an average grade of 50g/t Au.

No exploration work was done on the project during the quarter. The Company completed an initial drilling program at the project in September 2021 which identified some encouraging high-grade gold intersections including **RARC005 5m at 3.12g/t Au** from 91m, including **1m at 10.85g/t Au** from 91m and **RARC006 3m at 2.66g/t Au** from 85m, including **1m at 6.82g/t Au** from 86m, and **1m at 1.88g/t Au** from 58m (*Further Assays Confirm High-Grade Gold at Rock of Ages, 21 December 2021*).

Mineralisation remains open at depth and along strike to the north and south and shows evidence for up to 5 stacked gold lodes that appear to correlate well between drill holes.

# **MELITA**

The Melita Project comprises exploration licence E40/379, covering an area of approximately 105km<sup>2</sup>. The project is located 20km south-southeast of Leonora and to the north of the Kookynie, Niagara and Orient Well-Butterfly gold mining centres, in the heart of the WA Goldfields. The Kookynie area has seen recent upswing in exploration activity, with WMG's Melita Project surrounded by the likes of Genesis Minerals (ASX:GMD), Saturn Metals (ASX:STN), Azure Minerals (ASX:AZS), KIN Mining (ASX:KIN) and the recently listed Mt Malcolm Mines (ASX:M2M) and Iris Metals (ASX:IR1).

Limited exploration was done on the project during the quarter. The Company continues to review initial soil geochemical and ground magnetic data collected during a series of field campaigns over the last three quarters (ASX, Major Field Program Commences at Melita, 11 August 2021; Completion of Initial Field Program at Melita, 16 September 2021).



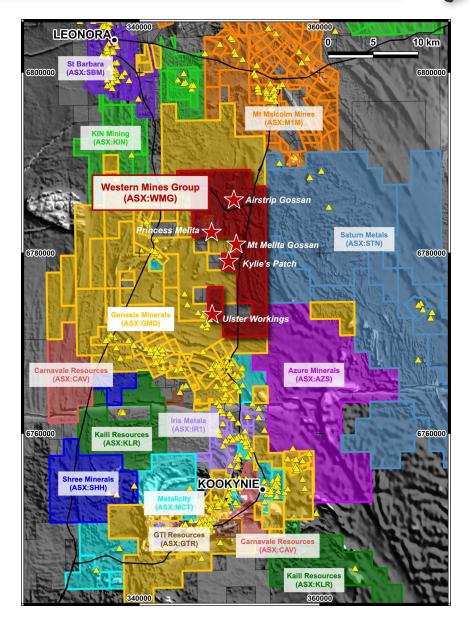


Figure 14: Location of Melita Project

# **BROKEN HILL BORE**

The Broken Hill Bore Project comprises exploration licence E31/1222 and is located approximately 160km northeast of Kalgoorlie, near Edjudina. The Edjudina region hosts a number of significant gold deposits such as Northern Star's (ASX:NST) Carosue Dam Project, the Edjudina Gold Camp, 9km south of the project and the Patricia workings along strike. The Yarri and Porphyry Gold Camps are located in the Murrin Domain 18km to the west and the Deep South Deposits in the Linden Domain to the north east.

No exploration work was done on the project during the quarter.

For further information please contact: Dr Caedmon Marriott

Managing Director
Tel: +61 475 116 798

Email: contact@westernmines.com.au



# QUARTERLY ACTIVITY REPORTS BY MINING EXPLORATION ENTITIES ASX LISTING RULE 5.3

# **ASX LISTING RULE 5.3.1 - EXPLORATION ACTIVITIES**

Exploration and Evaluation during the quarter was \$774,154, an increase from the previous quarter as the Phase 2 diamond drilling program at Mulga Tank continued for the full period. Major items of expenditure were the Mulga Tank diamond drilling, core cutting and geochemical assay costs.

# ASX LISTING RULE 5.3.2 - MINING PRODUCTION AND DEVELOPMENT ACTIVITIES

No mining production of development activities during the quarter.

# **ASX LISTING RULE 5.3.3 - TENEMENT TABLE**

Tenement	Holder	Status	Grant (Application)	Expiry	Area	Interest
E31/1222	Western Mines Group Ltd	Granted	09/09/20	08/09/25	1BL	100%
P38/4203	Western Mines Group Ltd	Granted	12/01/21	28/12/24	9.71Ha	100%
E39/2073	Thomas Williams Neelesh Bhasin	Granted	07/06/19	06/06/24	14BL	100%
E39/2079	Bruce Legendre	Granted	28/07/21	27/07/26	11BL	100%
E39/2132	Western Mines Group Ltd	Granted	22/07/20	21/07/25	27BL	100%
E39/2223	Western Mines Group Ltd	Granted	8/3/23	7/3/28	11BL	100%
E39/2299	Western Mines Group Ltd	Application	(05/11/21)	-	95BL	100%
P39/6267	Western Mines Group Ltd	Application	(28/07/21)	-	119Ha	100%
E40/379	Western Mines Group Ltd	Granted	03/04/19	02/04/24	35BL	100%
E57/1119	Western Mines Group Ltd	Granted	04/12/19	03/12/24	4BL	100%
P57/1450	Western Mines Group Ltd	Granted	15/07/19	14/07/23	188Ha	100%
E59/2486	Bruce Legendre	Granted	18/03/22	17/03/27	15BL	100%
E77/2478	Western Mines Group Ltd	Granted	24/01/19	23/01/24	5BL	100%
E77/2746	Bruce Legendre	Application	(03/12/20)	-	1BL	100%

Tenement Table: Tenements held at quarter end, all tenements located in Western Australia.

Tenements relinquished during the quarter: None Tenements interests acquired during the quarter: None

Farm-in or farm-out agreements entered into during the quarter: None

Beneficial interests held in farm-in or farm-out agreements at end of quarter: N/A



# **ASX LISTING RULE 5.3.4 - QUARTERLY USE OF FUNDS**

Reconciliation of Use of Funds against IPO Prospectus is shown below:

Expenditure	Prospectus	Q1FY22	Q2FY22	Q3FY22	Q4FY22	Q1FY23	Q2FY23	Q3FY23	Q4FY23	Actual
Exploration	\$3,608,000	\$157,573	\$299,777	\$207,501	\$574,143	\$1,155,974	\$240,996	\$775,467		\$3,411,431
Regional Exploration/Project Generation	\$200,000	-	\$65,530	\$9,500	-	-	-	-		\$75,030
Working Capital	\$1,079,828	\$153,016	\$114,647	\$121,954	\$145,996	\$164,370	\$107,072	\$133,521		\$940,576
Costs of the Offer	\$612,172	\$620,000	-	-	-	-	-	-		\$620,000
Total	\$5,500,000	\$930,589	\$479,954	\$338,955	\$720,139	\$1,320,344	\$348,068	\$908,988		\$5,047,037

# **ASX LISTING RULE 5.3.5 - PAYMENTS TO RELATED PARTIES**

Payments to related parties of the entity and their associates are shown below:

Related Party	Amount	Description
Directors	\$84,625	Director fees and salaries
Associate of Director	\$2,805	Occupancy expenses
Director	\$22,581	Exploration field services paid to a Director related entity



# **Western Mines Group Ltd**

ACN 640 738 834 Level 3, 33 Ord Street West Perth WA 6005

## **Board**

**Rex Turkington** Non-Executive Chairman

**Dr Caedmon Marriott** Managing Director

Francesco Cannavo Non-Executive Director

Dr Benjamin Grquric Technical Director

# **Capital Structure**

Shares: 57.82m Options: 21.1m Share Price: \$0.78 Market Cap: \$45.10m Cash (28/04/23): \$4.03m

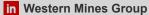
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# **ABOUT WMG**

Western Mines Group Ltd (ASX:WMG) is a mineral exploration company driven by the goal to create significant investment returns for our shareholders through exploration and discovery of high-value gold and nickel sulphide deposits across a portfolio of highlyprospective projects located on major mineral belts of Western Australia.

Our flagship project and current primary focus is the Mulga Tank Ni-Cu-PGE Project, a major ultramafic complex found on the under-explored Minigwal Greenstone Belt. Exploration results show significant evidence for an extensive working nickel sulphide mineral system and is considered highly prospective for Ni-Cu-PGE mineralisation.

The Company's primary gold project is Jasper Hill, where WMG has strategically consolidated a 3km mineralised gold trend with walk-up drill targets. WMG has a diversified portfolio of other projects including Melita (Au, Cu-Pb-Zn), midway between Kookynie and Leonora in the heart of the WA Goldfields; Youanmi (Au), Pavarotti (Ni-Cu-PGE), Rock of Ages (Au), Broken Hill Bore (Au) and Pinyalling (Au, Cu, Li).

# **COMPETENT PERSONS STATEMENT**

The information in this announcement that relates to Exploration Results and other technical information complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and has been compiled and assessed under the supervision of Dr Caedmon Marriott, Managing Director of Western Mines Group Ltd. Caedmon is a Member of the Australian Institute of Geoscientists, a Member of the Society of Economic Geologists and a Member of the Australasian Institute of Mining and Metallurgy. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Caedmon consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

# **DISCLAIMER**

Some of the statements appearing in this announcement may be in the nature of forward looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which WMG operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward looking statement. No forward looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside WMG's control.

WMG does not undertake any obligation to update publicly or release any revisions to these forward looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this announcement. To the maximum extent permitted by law, none of WMG, its Directors, employees, advisors or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this announcement. You are cautioned not to place undue reliance on any forward looking statement. The forward looking statements in this announcement reflect views held only as at the date of this announcement.

# **Appendix 5B**

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity					
Western Mines Group Ltd					
ABN Quarter ended ("current quarter")					
59 640 738 834	31 March 2023				

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation		
	(b) development		
	(c) production		
	(d) staff costs	(49)	(139)
	(e) administration and corporate costs	(99)	(281)
1.3	Dividends received (see note 3)		
1.4	Interest received	15	26
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Government grants and tax incentives		
1.8	Other (provide details if material)		
1.9	Net cash from / (used in) operating activities	(134)	(395)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) exploration & evaluation	(775)	(2,172)
	(e) investments		
	(f) other non-current assets		

ASX Listing Rules Appendix 5B (17/07/20)

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
2.6	Net cash from / (used in) investing activities	(775)	(2,172)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		550
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities		(4)
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	Net cash from / (used in) financing activities	-	546

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,570	3,682
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(134)	(395)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(775)	(2,172)
4.4	Net cash from / (used in) financing activities (item 3.10 above)		546

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held		
4.6	Cash and cash equivalents at end of period	1,661	1,661

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	861	1,062
5.2	Call deposits	800	1,508
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,661	2,570

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	87
6.2	Aggregate amount of payments to related parties and their associates included in item 2	23
Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.		

- 6.1 Includes payment of directors fees, salaries and superannuation.
- 6.2 Includes payment of exploration expenditure.

7.	Financing facilities  Note: the term "facility' includes all forms of financing arrangements available to the entity.  Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at qu	arter end	-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		itional financing

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(135)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(774)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(909)
8.4	Cash and cash equivalents at quarter end (item 4.6)	1,661
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	1,661
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	1.83

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: Yes, whilst the Mulga Tank diamond drilling program remains ongoing

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: Yes, the Company successfully raised \$2.73m (before costs) after the quarter end

8.8.3	3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Answei	r: Yes, recent capital raise will be used to fund ongoing Mulga Tank drilling	
Note: wh	ere item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.	

# **Compliance statement**

- This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

	28 April 2023
Date:	
	The Board of Western Mines Group Ltd
Authorised by:	(Name of body or officer authorising release – see note 4)

### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.