

21 September 2020

Macarthur's retention of Pilbara tenements provides opportunity to explore for new Partners

Macarthur Minerals Limited (ASX: MIO) (TSX-V: MMS) (OTCQB: MMSDF) (the "Company" or "Macarthur") announced last week that it is retaining 100% of its tenements in the Pilbara region of Western Australia following the end of the Option Agreement ("Agreement") entered into with Fe Limited ("FEL") in 2019. The tenements, held by the Company's wholly owned subsidiary Macarthur Lithium Pty Limited ("MLi"), include the Hillside, Panorama, Strelley's Gorge and Tambourah projects. These projects are considered prospective for gold, copper, lithium and iron.

Following last weeks' announcement (see release [here](#)) the Company has already received a number of new enquiries regarding future joint venture opportunities. This early interest augurs well for the future of the Pilbara projects and the value potential for Macarthur's shareholders. Macarthur continues to primarily focus its resources on bringing its flagship Lake Giles Iron Project into production and is seeking options to advance the Pilbara tenements to realise shareholder value without incurring material expenditure or significant management time.

The terminated Agreement with FEL has delivered value to Macarthur. Macarthur retains 26,666,667 FEL shares, which were issued following FEL's election to exercise the option for an earn in. FEL has also contributed to exploration expenditure over the last 12 months including an initial drilling program at the Hillside project with encouraging results from this first phase drilling program as reported on 10 February 2020 (see FEL release dated 10 February 2020 [here](#)).

Over the last 12 months, the program of exploration that has been undertaken across the Pilbara tenement portfolio has provided very positive early results for a range of base and precious metals. A summary of the previously reported prospectivity of the tenement portfolio is outlined below:

Hillside Gold and Copper Project

The Hillside Gold and Copper Project ("Hillside") includes four tenements covering 400 km² located approximately 185 km south east of Port Hedland and 50 km south west of Marble Bar. The project is situated in an area of highly prospective greenstone terrane that includes the Apex and Euro Basalts and other units of the Warrawoona group. Numerous surface gold and copper rock chip occurrences suggests this area is highly prospective for gold and copper mineralisation.

The Hillside tenements surround the mining lease of the historic Edelwiess gold mine. A limited drilling program consisting of six rotary percussion ("RC") holes conducted by Metana Minerals N.L in 1980 intersected gold mineralisation associated with quartz veins. Gold was recorded in three holes with an average grade of approximately 12 g/t Au and a maximum of 25.83 Au g/t. In addition, sampling along a discontinuous outcropping gossan over a strike of 18 km, showed high potential for copper mineralisation. A total of 20 results yielded above 1,000 ppm Cu to a maximum of 7.8% Cu.

Whilst the Hillside area has previously been explored by various companies for gold, copper, zinc and lead, limited drilling has been conducted on the Hillside tenements. As previously reported by FEL on 9 October 2019 (see FEL release dated 9 October 2020 [here](#)), numerous surface gold and copper rock chip occurrences suggests a potential for this area to be highly prospective for gold and copper mineralisation.



The gossan line was traced over a 14km strike length with remnant outcrop identified at regular intervals along strike. A total of 36 rock chip samples were collected including 15 from outcropping gossan with several samples containing visible copper minerals such as malachite. Remaining samples were collected from quartz outcrops, many of which returned strongly anomalous gold grades.

The assay results are highly encouraging with eight samples returning copper values over 1% with a peak of 18.8% Cu and often accompanied with elevated gold, silver and zinc values (+/- cobalt).

Exploration at the Hillside Project also discovered high grade manganese mineralisation in sub parallel outcrops to the gossan line sampled above. Rock chips samples returned a maximum of 59.4% MnO (>46% Mn).

In November 2019, a drilling program was completed at Hillside which focused on a gossan line and outcropping quartz reefs. Assay results, returned from the laboratory demonstrate support for a mineralised gossan model with down dip extension of mineralised gossan at surface intercepted in three holes with the following results as announced by FEL on 10 February 2020, (see FEL release [here](#)).

- HRC001: 1m @ 0.19% Cu, 230ppm Co, 0.14% Zn, 0.07ppm Au from 28m
- HRC022: 1m @ 0.74% Cu, 349ppm Co, 0.41% Zn, 0.14ppm Au from 83m
- HRC036: 1m @ 0.18% Cu, 0.12% Zn from 25m and 1m @0.27% Cu from 40m

Further exploration activities on the Hillside tenements including a fixed loop electromagnetic survey (FLEM) were undertaken in the second quarter of 2020. The survey data is currently being processed and interpreted by Macarthur.

Panorama Gold Project

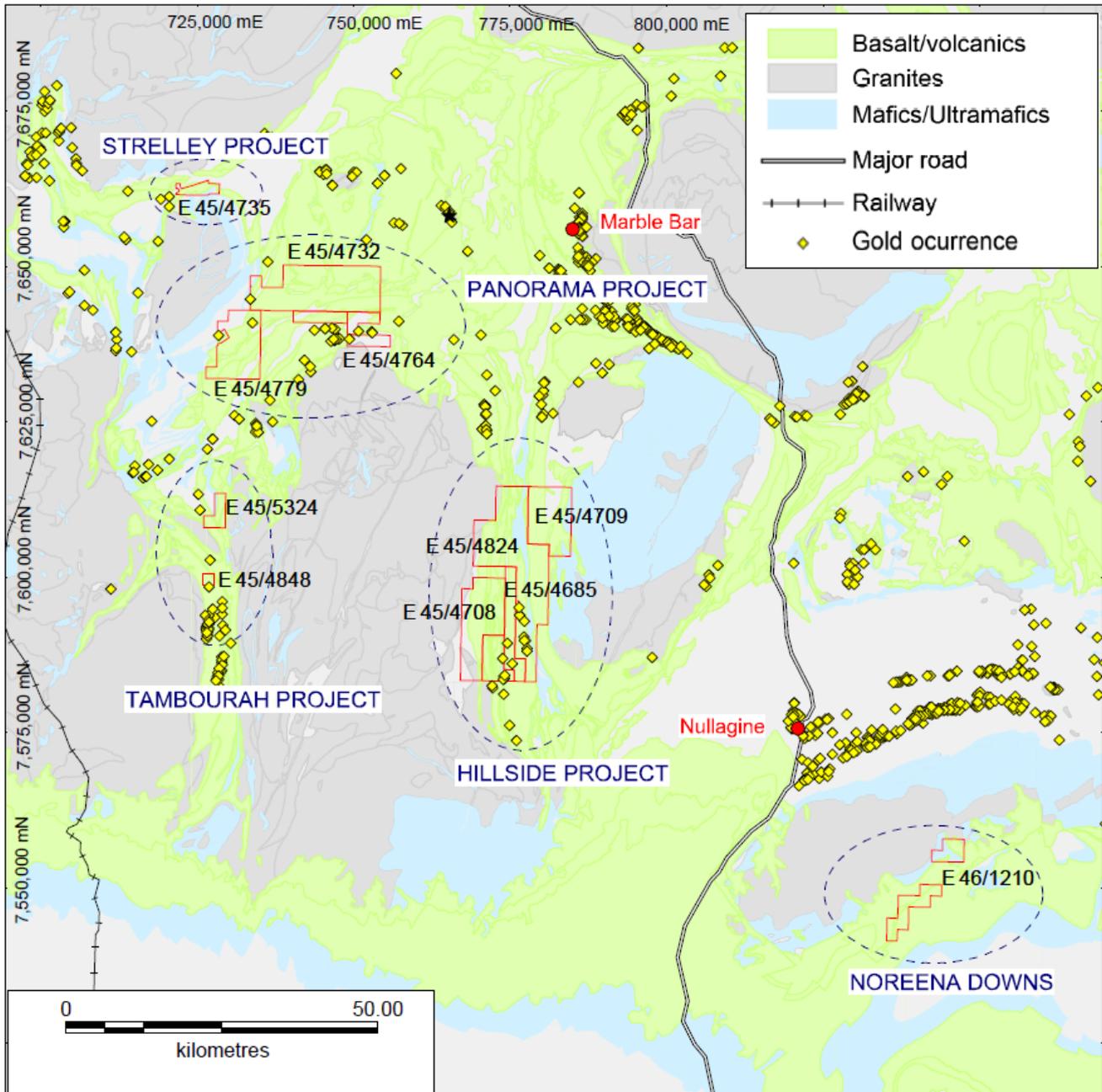
- The Panorama Gold Project (“Panorama”) includes three tenements covering 250 km², located 265 km south-south-east of Karratha and is prospective for lithium and gold hosted within conglomerate. The tenement group contains an extensive area of the Mt Roe Basalt which is the geological member of the Fortescue Group that overlies the conglomerate gold horizon at Artemis Resources’ Purdy’s Reward Project near Karratha, Western Australia.
- In 2018 the Company conducted stream sediment sampling programs across the Panorama tenements confirming several anomalous sediment values ranging from 13 ppb to 113 ppb Gold.

Strelleys Gorge and Tambourah Iron Ore Projects

- Macarthur considers the Strelley’s Gorge and Tambourah tenements prospective for iron ore.
- In 2019, Macarthur’s then joint venture partner FEL, conducted a reconnaissance trip to the Strelley Project with two samples taken from the outcropping Banded Iron Formation (“BIF”) continuing along strike from the previously mined Abydos iron ore project owned by Atlas Iron. The results, referred to in the FEL release dated 5 September 2019 (see full release [here](#)) returned assays of 61.3% Fe and 58.11% Fe.

Tambourah Lithium Project

- The Tambourah Lithium Project is located approximately 200km south east of Port Hedland and 80km south west of Marble Bar. Assays received from rock chip sampling returned very promising results of up to 1.47% lithium (Li₂O), confirming the presence of lithium bearing pegmatites.
- The Company also holds Exploration License E45/5324, which is near its Tambourah Lithium Project in the Pilbara Region of Western Australia. A review of historical data indicates that this area is prospective for nickel-copper-cobalt and platinum group element mineralization.



Cameron McCall, Executive Chairman of Macarthur Minerals commented:

“Macarthur is enthusiastic about the prospectivity of its Pilbara tenement portfolio and is excited to have retained its 100% interest these Projects. This is a positive outcome for the Company.

The results of previous exploration and drilling programmes underpin the confidence of the Board and Management in the potential of this ground.

The Company is already receiving new enquiries about the potential to venture out the ground. We will seize the opportunity to advance exploration work in the area and identify and work together with the most suited partner to fulfil the potential of these tenements and maximise value for our shareholders.”



On behalf of the Board of Directors, Mr Cameron McCall, Executive Chairman

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A different version of the current report was submitted to the ASX and formatted according to the JORC requirements. The technical data presented in both reports are identical and only the format and legal statements may differ.

Qualified persons

Mr Andrew Hawker, a member of the Australian Institute of Geoscientists, is a full-time employee of Hawker Geological Services Pty Ltd and is a Qualified Person as defined in National Instrument 43-101. Mr Hawker has reviewed and approved the technical information contained in this news release.

Company profile

Macarthur is an iron ore development, gold and lithium exploration company that is focused on bringing to production its Western Australia iron ore projects. The Lake Giles Iron Project mineral resources include the Ularring hematite resource (approved for development) comprising Indicated resources of 54.5 million tonnes at 47.2% Fe and Inferred resources of 26 million tonnes at 45.4% Fe; and the Lake Giles magnetite resource of 53.9 million tonnes (Measured), 218.7 million tonnes (Indicated) and 997 million tonnes (Inferred). Macarthur has prominent (~721 square kilometer tenement area) gold, lithium and copper exploration interests in Pilbara region of Western Australia. In addition, Macarthur has lithium brine Claims in the emerging Railroad Valley region in Nevada, USA.

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Caution Regarding Forward Looking Statements

Certain of the statements made and information contained in this press release may constitute forward-looking information and forward-looking statements (collectively, “forward-looking statements”) within the meaning of applicable securities laws. All statements herein, other than statements of historical fact, that address activities, events or developments that the Company believes, expects or anticipates will or may occur in the future, including but not limited to statements regarding expected completion of the Feasibility Study; conversion of Mineral Resources to Mineral Reserves or the eventual mining of the Project, are forward-looking statements. The forward-looking statements in this press release reflect the current expectations, assumptions or beliefs of the Company based upon information currently available to the Company. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and no assurance can be given that these expectations will prove to be correct as actual results or developments may differ materially from those projected in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include but are not limited to: unforeseen technology changes that results in a reduction in iron or magnetite demand or substitution by other metals or materials; the discovery of new large low cost deposits of iron magnetite; the general level of global economic activity; failure to complete the FS; inability to demonstrate economic viability of Mineral Resources; and failure to obtain mining approvals. Readers are cautioned not to place undue reliance on forward-looking statements due to the inherent uncertainty thereof. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. The forward-looking statements contained in this press release are made as of the date of this press release and except as may otherwise be required pursuant to applicable laws, the Company does not assume any obligation to update or revise these forward-looking statements, whether as a result of new information, future events or otherwise.