

19 August 2020

MACARTHUR MINERALS SECOND QUARTER UPDATE

Macarthur Minerals Limited (ASX: MIO) (TSX-V: MMS) (the “Company” or “Macarthur”) is pleased to update shareholders on a very active second quarter 2020. The Company has continued its primary focus on the delivery of key infrastructure and resource outcomes with the ongoing development of the Company’s flagship, Lake Giles Iron Project (“Project”).

KEY HIGHLIGHTS

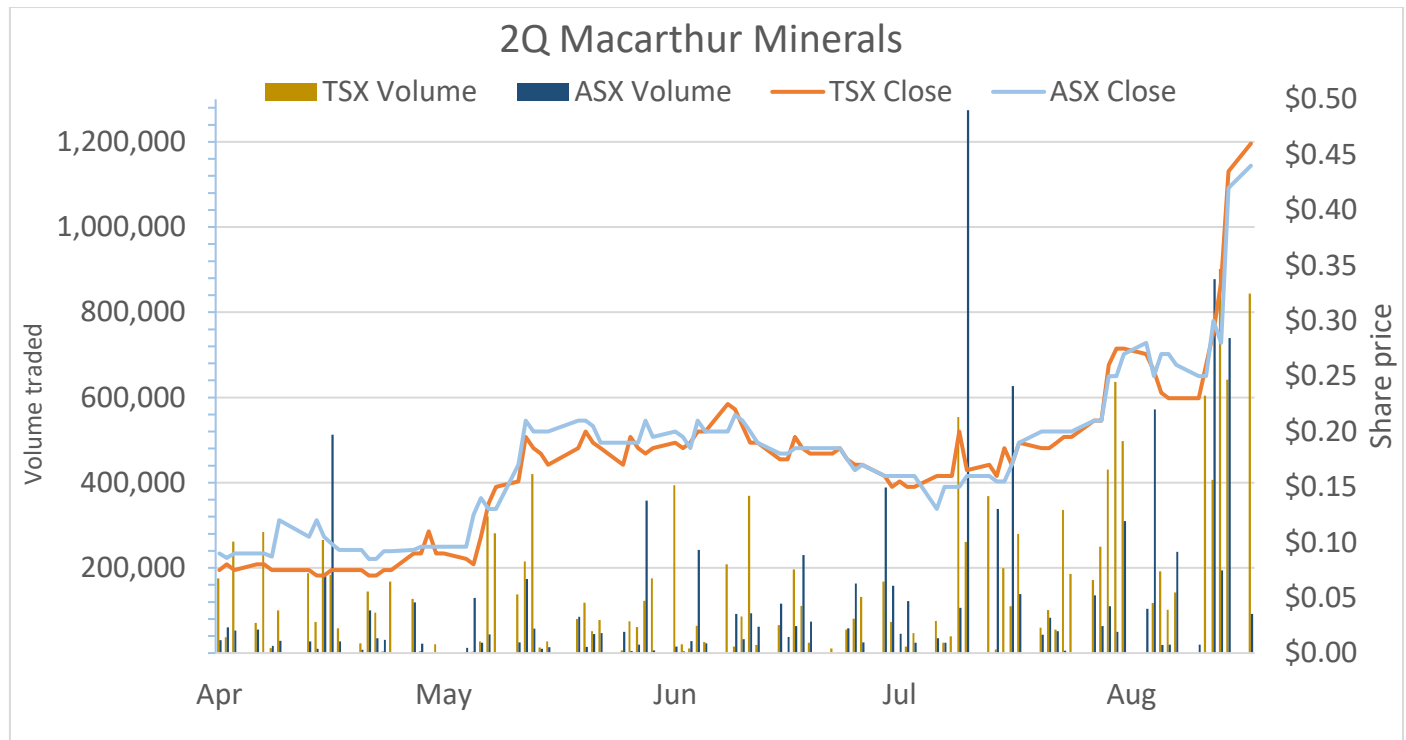
- 12 August - Announced Moonshine Magnetite Mineral Resource upgrade
- 7 August - Announced the submission and completion of assessment by FINRA of Form 211, the final regulatory hurdle needed to complete the Company’s re-listing on OTCQB
- 4 August - Announced appointment of International Sales & Marketing General Manager
- 28 July - Announced RCR Mining Technologies (subsidiary of NRW Holdings ASX: NRH) appointment to examine rail unloading infrastructure solution at Esperance Port
- 15 July - Announced proposal for development of a Commercial Track Access Agreement received from Arc Infrastructure
- 25 June - Announced lodgment of applications for land access to develop a 93km haul road from its Lake Giles Iron Project to a proposed rail siding adjacent to the Perth to Kalgoorlie rail line
- 25 June - Announced finalisation of land tenure agreement for the development of its proposed Magnetite processing plant at Lake Giles

The market has responded well to the significant progress the Company has made over the past quarter and this has been reflected in the increase in both the share price and trading volumes over recent weeks. The Company’s securities traded on the TSX-V in Canada over the past 3 months have ranged between C\$0.15 to \$0.46 and on the ASX in Australia over the same period, A\$0.13 to \$0.44, breaking through 50 and 200 moving day averages recording a new 52 week high.

Premium Australian iron ore



Recent trading volumes and share price growth is reflecting the steps forward taken by Macarthur in advancing its Lake Giles Iron Project.



SUMMARY OF PROGRESS ON IRON ASSETS

MOONSHINE MAGNETITE MINERAL RESOURCE UPGRADE

Macarthur Minerals recently announced the updated Mineral Resource estimate for the magnetite deposits at its Lake Giles Iron Project in Western Australia in a news release dated 12 August 2020 (see full release [here](#)).

The updated Mineral Resource estimates incorporated the recent infill drilling at the Moonshine magnetite deposits that culminated in an increase in the size of the Mineral Resources including resource category upgrades to now include Measured and Indicated resources. Approximately 30% of the Moonshine resource is now classified as Indicated with approximately 7.5% classified in the Measured category. A supporting NI43-101 Technical Report will be filed with Canadian regulators on SEDAR at www.sedar.com within 45 days of the upgrade announcement.

Highlights of Mineral Resource estimates:

- Measured resources of **53.9 Mt at 30.8% Fe head grade and 66.0% Fe DTR concentrate grade**
- Indicated resources of **218.7 Mt at 27.5% Fe head grade and 66.1% Fe DTR concentrate grade**
- Inferred resources of **997.0 Mt at 28.4% Fe head grade and 64.6% Fe DTR concentrate grade**

ROUTE TO MARKET

Appointment of International Sales & Marketing General Manager

The Company recently appointed Jonghyun (Richard) Moon as the Company's new General Manager, International Sales & Marketing. Richard brings over 20 years of experience to the role and previously held roles at Hyundai Steel Company of Australia, Glencore International, and POSCO in international iron ore and commodities sales, as well as marketing and mining investment.



Richard's primary focus will be on identifying and developing opportunities for strategic partners to invest in the Company's Lake Giles Iron Project.

Appointment of RCR Mining Technologies

Macarthur has appointed RCR Mining Technologies ("RCR MT" or "RCR") to provide an engineering solution for rail wagon and unloading infrastructure for the Lake Giles Iron Project. RCR will examine the potential of rail transport and unloading infrastructure that has been successfully used in Scandinavian magnetite operations for years. The engineering concept will employ a 'Helix Dumper' unloading system and Helix Dumper wagons that are owned and developed by Kiruna Wagon in Sweden. RCR MT hold an exclusive licence to develop the Helix system in Australia and, in combination with Kiruna Wagon, it has the ability to produce the specialised Helix Dumper wagons in Western Australia.

Development of a Commercial Track Access Agreement with Arc Infrastructure

During the quarter Macarthur received a proposal from Arc Infrastructure for indicative track access pricing ("Proposal"). The Proposal also provides a clear pathway for the development of a Commercial Track Agreement which will provide sufficient below rail network paths between the planned rail siding and the Port of Esperance. The Company considers that the receipt of the Proposal from Arc Infrastructure is the most substantial step forward for the Project in a decade towards securing fully contracted rail paths on the Kalgoorlie to Esperance rail line. The Proposal also delivers the level of certainty on the below rail component that Macarthur requires to underpin its Feasibility Study ("FS").

Haul road and rail-siding applications lodged

Macarthur has lodged applications with the WA Department of Mines, Industry, Regulation and Safety ("DMIRS") to develop a 93-kilometre haul road to a proposed rail siding adjacent to the Perth to Kalgoorlie rail line. The proposed haul road and rail siding will enable the transport of magnetite iron ore from the Lake Giles Iron Project to the proposed new unloading infrastructure at Esperance Port. The proposed rail siding will also have the potential to support early revenue direct shipping ore ("DSO") mining operations via Kwinana Port, subject to port capacity.

IRON ORE MARKET

Iron ore prices have continued to remain robust during the quarter, despite the global COVID-19 pandemic.

IRON ORE EDGES CLOSER TO 2019 PEAK





ANCILLARY IRON PROJECTS

Macarthur also holds three additional iron ore projects in the Yilgarn region of Western Australia through its wholly owned subsidiary Esperance Iron Ore Export Company Pty Ltd. These projects are proximate to Macarthur's Lake Giles Iron Projects and are adjacent to active and past iron ore mining operations linked to established rail infrastructure to the Port of Experience.

Treppo Iron Project

The Treppo Iron Project comprises one application for an Exploration Licence that is located approximately 30 kilometres West of the Lake Giles Iron Project. Upon grant of this tenement the Company plans to commence exploration including drilling of hematite targets that have been mapped to date. This project is ideally situated in close proximity to the Company's Lake Giles Iron Project and Mineral Resources' Koolyanobbing project and infrastructure. This provides optionality in utilising regional infrastructure and allows for fast-tracking of development.

Mt Jackson Iron Projects

The Mt Jackson Iron Project comprises two granted Exploration Licences (E77/2542 and E77/2543) that are located approximately 35 kilometres West-northwest and 38 kilometres Southwest of the Treppo Iron Project. Tenement E77/2542 is located adjacent to the Deception iron ore deposit that is actively mined by Mineral Resources Ltd ("MRL"). Tenement E77/2543 is located adjacent to the J3 iron ore deposit owned by MRL and previously mined by Cliffs Asia Pacific. The Company is currently developing a program of field mapping and rock chip sampling to understand the prospectivity for iron ore across these projects.

EARLY REVENUE IRON ORE OPPORTUNITES

Macarthur continues to monitor and assess the potential for opportunities to transition to early revenue-generating DSO iron ore operations. With the current strength and stability of the global iron ore market, Macarthur is examining project opportunities that have potential to generate early revenue flows including a possible acceleration of development of the Company's Ularring Hematite Project at Lake Giles.

FINANCING

The Company, through its appointed corporate advisors EAS Advisors LLC, continues to progress financing and / or strategic partnering discussions in parallel to the confirmatory work being completed on the FS. As noted on the 12 August 2020 Moonshine Magnetite Mineral Resource upgrade announcement, Macarthur now has sufficient resources in the appropriate categories to progress its FS, which is a vital component in the ongoing financing discussions. The Company looks forward to updating its shareholders on these developments in due course.

OTCQB LISTING

Macarthur's reinstatement to trade on the OTCQB is imminent, with the Company's acting OTCQB Sponsor and Advisor, Northland Securities, Inc. ("Northland"), confirming that Financial Industry Regulatory Authority ("FINRA") Form 211 which was submitted pursuant to FINRA Rule 6432 and Rule 15c2-11 under the Securities Exchange Act of 1934 ("SEA") in connection with its application to reinstate trading on the OTCQB, has been considered by FINRA. This is the final regulatory hurdle that needs to be cleared to enable Northland to initiate a price quotation on OTCQB under the ticker code "MMSDF".

COVID-19 IMPACTS

The Company has continued its highly productive "business as usual" focus over the last quarter. COVID-19 travel restrictions remain in place within Australia. These travel restrictions may impact upon timing for completion of certain components of the Feasibility Study; however, at this stage, the Company does not anticipate these impacts will materially extend the target date for commencement of commercial mining operations.



SUMMARY OF NON-IRON ASSETS

As previously reported, Macarthur ventured out the majority of its gold and lithium tenements in the Pilbara region of Western Australia to ASX listed Australian explorer, Fe Limited (“FEL”). FEL has the ability to earn up to 75% of these Projects through exploration and staged cash payments to Macarthur.

Hillside tenements

During the quarter, FEL conducted further exploration activities on the Hillside tenements following the drilling program completed in 2019. A Fixed Loop Electromagnetic (FLEM) survey was conducted in July 2020 across several high priority targets generated from the SkyTEM electromagnetic survey in 2018 and drilling in late 2019. The survey data is currently being processed and interpreted.

Strelley Gorge & Tambourah tenements

Macarthur holds the Strelley Gorge and Tambourah tenements in the Pilbara region of Western Australia. The Strelley Gorge tenement (E45/4735) is prospective for DSO iron ore and is located immediately adjacent to the Abydos iron ore project that has been mined by Atlas Iron. The Tambourah tenement (E45/5324) is also prospective for iron ore having intersected iron ore in historical drilling by Atlas Iron. The drilling focussed an outcropping BIF prospect in the north of the tenement. Macarthur considers both tenements prospective for iron ore and is seeking interested parties to further explore these assets.

REYNOLDS SPRINGS PROJECT - NEVADA, USA

Macarthur holds 210 unpatented mining claims at its Reynolds Springs Lithium Brine Project in the Railroad Valley, Nevada, USA. Analysis of geochemical soil sampling found up to 405ppm Li.

The Company is seeking interested parties in further exploring this asset portfolio.

NEXT STEPS

Macarthur will actively advance, with its key partners, its core iron ore assets in Western Australia. This includes advancing negotiations with key stakeholders to finalise the route to market through to Esperance Port and continuing to advance the current Feasibility Study.

In conjunction, the Company will continue to work closely with its Joint Venture Partner, Fe Limited (ASX:FEL) to advance exploration of its high-quality lithium, gold and base metal tenements in the Pilbara region.

Mr Cameron McCall, Executive Chairman of Macarthur Minerals commented:

“The iron ore price has remained strong during the second quarter, despite the COVID-19 pandemic, trading between US\$82.05 and US\$127.05 for 62% iron and this price stability is creating momentum in the global iron ore industry. The Company’s core focus will remain on delivering a high-grade, low-impurity magnetite fines product at its Lake Giles Iron Project which will target Asian steel mills that are focused on producing high quality steel products, enhanced furnace efficiencies, reduced consumption of coking coal and improved environment emissions standard.

Macarthur continues to be singularly focused on bringing its flagship Lake Giles Iron Project into production. As an emerging producer of high-grade iron ore, Macarthur has a unique opportunity to implement a different approach with the development of one of the first new-generation magnetite mines in Western Australia. By developing a project that leverages the natural advantages that our high-grade, low impurity product can provide, we are confident we can achieve this target.



Macarthur's Lake Giles Iron Project will aim to be very much at the fore of a new global iron ore future that values more sustainable steel products that are derived from responsible mining practices, with the highest focus on safety and with a commitment to respecting the environment and indigenous interests. The Board and Management are committed to driving those outcomes and delivering real value to our shareholders."

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

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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.