

15 April 2021

## **LAKE GILES FEASIBILITY STUDY UPDATE: Macarthur moves ahead with mine design for Lake Giles Iron Project**

**Macarthur Minerals Limited (TSX-V: MMS) (ASX: MIO) (OTCQB: MMSDF)** (the “Company” or “Macarthur”) is pleased to provide an update on the progress made on the mining and haulage components of the Feasibility Study for the Lake Giles Iron Project.

Macarthur has been working with Orelogy Mining Consultants (“Orelogy”) and Pells Sullivan Meynink (“PSM”) on the mine design and road haulage aspects of the Project.

### **Highlights**

- Macarthur engagement of Orelogy and PSM on mine design, geotechnical design and road haulage pricing.
- Request for Budget Pricing (“RFBP”) submitted to contract mining and road haulage operators to establish contractor pricing for operations.
- Geotechnical drilling program defined for the Moonshine and Moonshine North pits to establish geotechnical parameters for final pit designs.

Macarthur has been working with mining consultants Orelogy and geotechnical engineers from PSM on the mine design for the Lake Giles Iron Project. Orelogy has completed preliminary pit optimisations, designs, scheduling and project layouts (Figure 1) to support an operation targeting production of 3 Mtpa (dry) magnetite concentrate. Additionally, PSM has been supporting the mine design through a geotechnical review of drill core and project geology.

A request for budget pricing (RFBP) has been submitted to several local mining contractors for contract mining and road haulage services including:

- Site establishment
- Site preparation
- Drill and Blast
- Excavate, load and haul
- Road haulage to the railhead
- Road maintenance
- Loading of rail wagons

PSM has designed a diamond drill program to obtain detailed geotechnical parameters for final pit designs. Macarthur is currently engaging with drilling contractors to undertake this drill program as soon as possible.

the green iron ore company

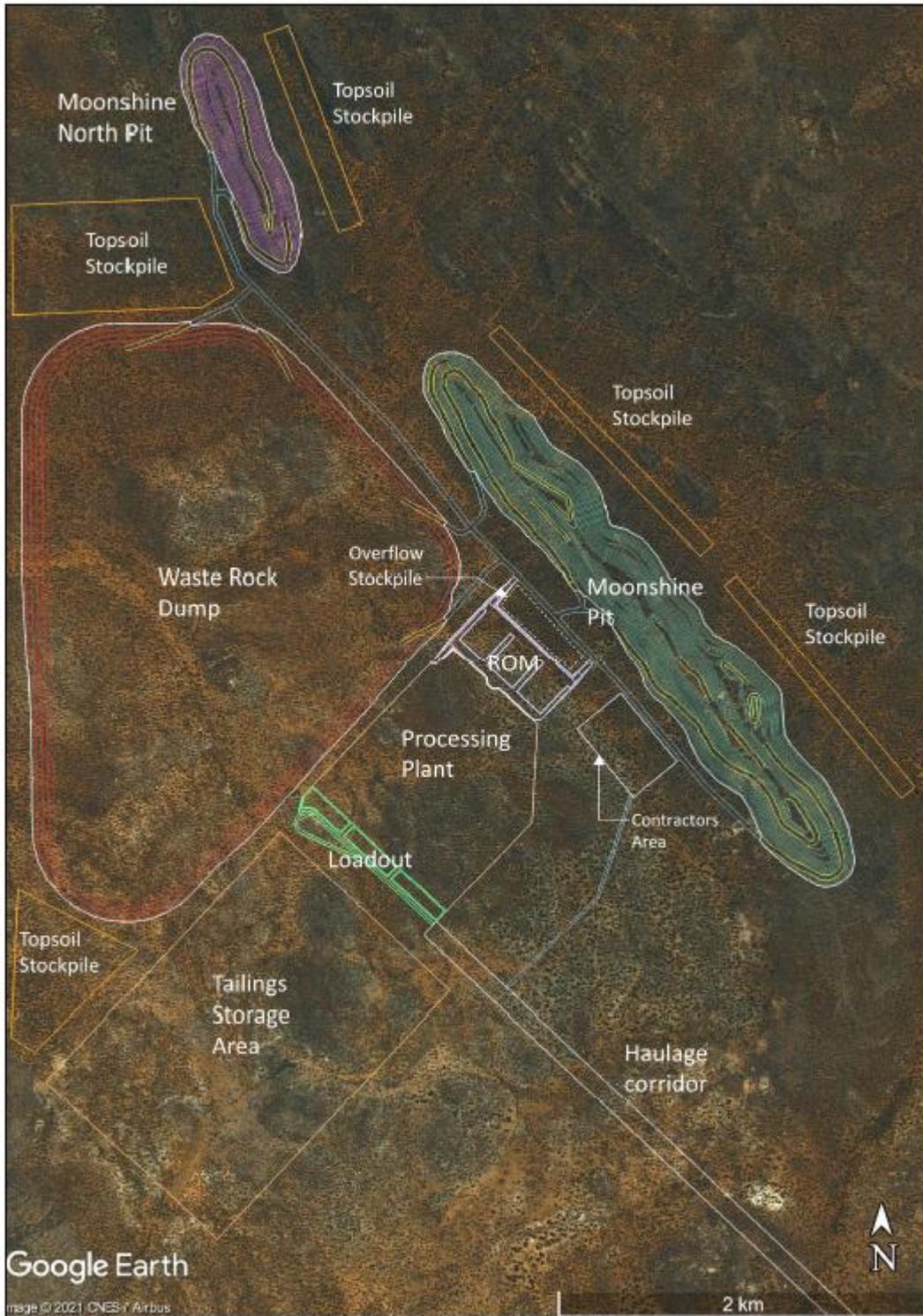


Figure 1. Preliminary pit designs and project layout.

**Andrew Bruton, Chief Executive Officer of Macarthur Minerals commented:**

*“Macarthur is pleased to be working with Orelogy and PSM on this important component of the Feasibility Study for the magnetite mining operations at Lake Giles. An extensive body of work is being undertaken on the mine design and geotechnical design and securing contractor pricing for mining and road haulage costs is important to ensure that mining operations can be optimised. This budget pricing information will help inform the next phase of work that Orelogy and PSM will be undertaking.”*



*The Macarthur feasibility study team continues to make significant progress and is critically examining options for mine design that will maximise the value of the project for the benefit of shareholders.*

*You can see from the preliminary design diagram that the mine pits and scale of the operation is huge. The area of the pits stretch over 6 kilometres and we are only currently focused on the first 20 plus years of mine and plant life. The scale of a billion-tonne magnetite resource in such close proximity to existing rail and port infrastructure is very unique globally.*

*I am ensuring that the project steps are incremental so that Macarthur has the capacity and internal resources to bring the first stage into production.*

*We look forward to updating the market as the Feasibility Study continues to progress.”*

**On behalf of the Board of Directors, Mr Cameron McCall, 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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