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Stock Commentary

Subject: Magnetite Mines Limited

Positive, Pre-Feasibility Study Outcome For the Production of Superpremium Concentrate from Razorback Iron Project, South Australia

Event & Background

Magnetite Mines Limited (ASX:MGT) announced on 5th July 2021 the results of a new Pre-Feasibility Study ("PFS") looking into the potential production of a *superpremium* high grade (67.5% to 68.5% Fe) magnetite concentrate from its wholly owned Razorback Iron Project, located 240km east of Adelaide in South Australia.

After a review of the information provided in the market release and discussion with MGT management, we have formed the view that this is an excellent result for the Company and project.

Selected key highlights of the new study are as follows:

- Study based on a robust 473Mt ore reserve, within a much larger resource of 3Bt (announced 1st July 2021)
- Study focussed on utilising existing road, rail, port and utilities (grid power) infrastructure in the region and immediate vicinity of project, to ensure capex requirements were kept to a minimum
- Base (Referred to in the study as "Reference") case of 12.8Mtpa plant throughput to produce 1.9Mtpa of superpremium (67.5-68.5% Fe) concentrate
- Elevated optimised cases demonstrate increased 15.5Mtpa throughput to produce up to 3.1Mtpa
- First Capesize shipment of superpremium concentrate ex Whyalla slated for end CY 2024
- Capex, considered as moderate to low, estimated at between USD429-$506m (AUD572-AUD675) (= circa 1/2 to 1/3 of Capex of most peers) in the sector
- Long project life optimised case NPV AUD669million and 20% IRR over a simulated 25 year mine life (NB; 100 year mine life potential based on reserves alone with an additional 100 years potential likely in additional resources)
- Study parameters and inputs used by MGT's Tier 1 consultants considered conservative in nature based on 62%Fe iron ore prices of USD100 and USD150/tonne. We note that the average price for the last 6 months to end of June for 62% Fe concentrate has been USD185/tonne and current prices for 68%Fe concentrate is around USD280/tonne

Table 1. Key Metrics - 2021 PFS at 62% iron ore reference prices of $110 and $150

Key Financial and Production Metrics	Unit	Reference Case		Plant Optimisation Case		Head Grade Improvement Case	
Iron ore price (62% Fe)	US$/t	110	150	110	150	110	150
LOM Ore mined (100% reserves)	Mt	472.7	472.7	461.4	461.4	472.7	472.7
LOM Concentrate produced	Mt	68.6	68.6	67.6	67.6	63.2	63.2
Strip ratio	t:t	0.16	0.16	0.10	0.10	0.16	0.16
Mining rate	Mtpa	20	20	18	18	25	25
Operation life	Years	37	37	30	30	23	23
Plant feed	Mtpa	12.8	12.8	15.5	15.5	15.5	15.5
LOM yield	%	14.5%	14.5%	14.7%	14.7%	18.2%	18.2%
Average product	Mtpa	1.9	1.9	2.2	2.2	2.7	2.7
Class of plant estimate	AACE	4	4	5	5	5	5
Capital estimate	A$m	572	572	665	665	675	675
Post tax NPV	**A$m**	**296**	**1,005**	**520**	**1,233**	**669**	**1,544**
Post tax IRR	**%**	**14%**	**26%**	**17%**	**27%**	**20%**	**33%**
All in breakeven 62% Fe price	US$/t	66	66	58	58	54	54
Payback	Years	5.9	3.1	4.9	2.8	5.0	2.3
Average net cashflow (post tax)	A$m	73	138	105	184	141	237

Note: NPVs in real terms as at 30 June 2022 using 8% post tax real discount rate, ungeared basis.

The Definitive Feasibility Study (DFS) is now underway.

Key Takeaway Points From This Announcement

1. **DEMONSTRATION OF A LONG LIFE ECONOMICALLY ROBUST PROJECT**
The PFS has firmly delivered compelling evidence of a strong commercial opportunity to develop a high return, long life, superpremium product magnetite concentrate project, leveraging off a large reserve and resource base, low stripping ratios, available infrastructure and low cost sustainable power.

2. **DEVELOPMENT FLEXIBILITY UNDER A RANGE OF OPTIONS AND SCENARIOS**
The PFS has taken into consideration a range of options and scenarios and has demonstrated the project, even at iron ore prices considered low by today standards, is capable of delivering returns in all parts of the iron ore price cycle. This was a firm parameter MGT set to its consultants i.e. basically, *"Aspire to design and cost out a long life project that makes money or at least "washes its face" even in the times of low iron ore prices".* Furthermore, the study also aimed to demonstrate that considerable upside in both mine life and production capacity can be achieved.

3. **INPUT PARAMETERS AND ASSUMPTIONS CONSIDERED CONSERVATIVE**
After studying the PFS in more detail, we consider the cost assumptions, parameters and inputs the company's experienced Tier 1 consultants have used to be significantly conservative in nature. We understand this has been deliberate with the aim to demonstrate to the market, the project's economic robustness.

4. **KEY FOCUS ON MINIMISING CAPEX BY UTILISING EXISTING INFRASTRUCTURE TO THE FULL HAS RESULTED IN THE DELIVERY OF A PFS WITH CAPITAL COSTS MUCH LESS THAN THAT OF MOST PEERS**
In 2013, MGT, under different management, released a PFS looking into the development of the Razorback deposit at that time. Delivered as iron ore prices were in considerable decline, that PFS looked at the development of the project very differently and proposed larger production, the use of a slurry pipeline to the port, new port infrastructure as well as the building of a owner operator power station on site. The resultant capex estimates of that study ended up being estimated at circa $1.5Billion, which, like a number of BIF hosted deposits in WA demonstrating similar capital requirements, the market considered the projects development commercially inhibitive.

   Now under new management and new consultants, the new PFS has focussed on minimising project capital requirements by simply looking to utilise current existing surrounding infrastructure, increasing product quality, optimising plant size and initial production expectations, trucking concentrate 50km to existing rail and railing it to the port of Whyalla which has existing magnetite handling export facilities capable of loading Capesize vessels. We note from discussion with MGT that the largest capital reducing factor in this study is the now proposed use of the existing power grid to access low cost, reliable power. In addition we note 65% of grid power in that region is currently sourced from renewables with an expectation that that will shortly increase to nearly 90%.

5. **GEOLOGICAL ADVANTAGE OVER BIF HOSTED DEPOSITS** The Razorback Iron deposit is a sediment hosted, bedded magnetite deposit. We consider it important to highlight the deposit is not a Banded Iron Formation (BIF) hosted deposit and has considerable mining and processing advantages over a BIF hosted deposit being, the host rock is substantially softer requiring substantially lower amounts of energy (power) to crush and grind the ore to liberate the magnetite grains. In addition, selective mining of identified higher grade zones can be undertaken at Razorback.

Concluding Remark

The New PFS when compared to the old, serves as a very good example of how different approaches by different management can result in very different outcomes. We consider the positive outcome of this new PFS is a real credit to the hard work MGT's current high calibre management has endured over the last several months to deliver this commercially positive outcome for shareholders.

NB: This Stock Commentary is considered general in nature and simply reflects our summary observations views and conclusions based on information provided in MGT's Pre-Feasibility announcement dated 5th July 2021 and after discussions with the company. The reader is strongly encouraged to read the MGT PFS announcement for additional detail.

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