MAGNETITE MINES

ASX ANNOUNCEMENT

21 JULY 2022

RAZORBACK IRON ORE PROJECT: POSITIVE INTERIM METALLURGICAL TEST RESULTS

- **Metallurgical testwork at lab/pilot scale generates high-grade concentrates from selected stage 1 flowsheet**
- **Potential to produce Direct Reduction (DR) grade concentrates with flow sheet optimisation**
- **Comminution testwork shows ore body requires low-to-medium crushing and grinding energy**
- **Vertical Roller Mill (VRM) testwork indicates potential for an alternative method for low energy, fine grinding of ores. Potential for VRMs to feature as a low OPEX alternative in early stage grinding**
- **Magnetite Mines to proceed immediately with comprehensive metallurgical test program to assess suitability of Razorback ores for premium Direct Reduced Iron concentrates and further VRM bulk testing and analysis**

Magnetite Mines Limited ("MGT" or **"**the **Company")** is pleased to announce positive interim metallurgical results confirming the Company's ability to produce high-grade concentrates with low gangue mineralogy (silica and alumina). The testwork to date has also identified the opportunity for premium Direct Reduced Iron (DR) concentrates from the Razorback Project ("the **Project**") ores. To date, analysis incorporating the full flow sheet has produced concentrates exceeding the design specification of 67.5% iron and 4.5% Silica + Alumina, with one bulk sample producing 69.7% iron with 2.6% Silica + Alumina. This represents a very high-quality concentrate product with a low waste component which attracts premium pricing and significant demand from steelmakers for use in decarbonising steel mills.

The testwork program designed and managed by global magnetite experts Hatch, is currently in progress and has been designed to verify and establish metallurgical performance of the process flow sheet and plant design. Subject to further analytical updates, the work program is a significant addition to the existing metallurgical knowledge base and incorporates leading edge analytical techniques to fully characterise and technically derisk the ore deposit for every stage of the process flow sheet.

Definitive Feasibility Results

Processing Flow Sheet

The Definitive Feasibility Study (DFS) metallurgical testwork program aims to test, in detail, all steps of the Hatch designed processing flow sheet. This is being undertaken through the validation and analysis of bulk samples retrieved from all relevant geological domains, for laboratory testwork at bench to pilot plant scale. The general layout and configuration of the flow sheet follows that of the 2021 Pre-Feasibility Study[1] and consists of crushing followed by dry HPGR and air classification processing for primary grinding. There is a rougher magnetic separation stage followed by ball milling and a rougher flotation circuit for a cleaning stage. A final silica rich flotation concentrate is subject to fine grinding before cleaner magnetic separation, the magnetics reporting to final concentrate. The flow sheet is conventional by modern standards and makes use of proven technologies currently installed in iron ore processing plants.

The basis of design for the processing plant is to receive 15.5Mtpa ore feed to produce 2.5 to 3Mtpa high grade concentrates. This 15.5Mtpa processing line (or train) represents a single stage of the mining production and has been designed as a replicable processing line, to be duplicated with mining expansion opportunities[2]. The flow sheet aims to produce high grade concentrates at mass recoveries estimated at 16%, in line with the Mineral Resource estimate[3] and with mine optimisation and scheduling completed to date[1]. Flexibility of run-of-mine (ROM) ore feed grade is considered in the design allowing the plant to maintain consistent concentrate output within operational limits.

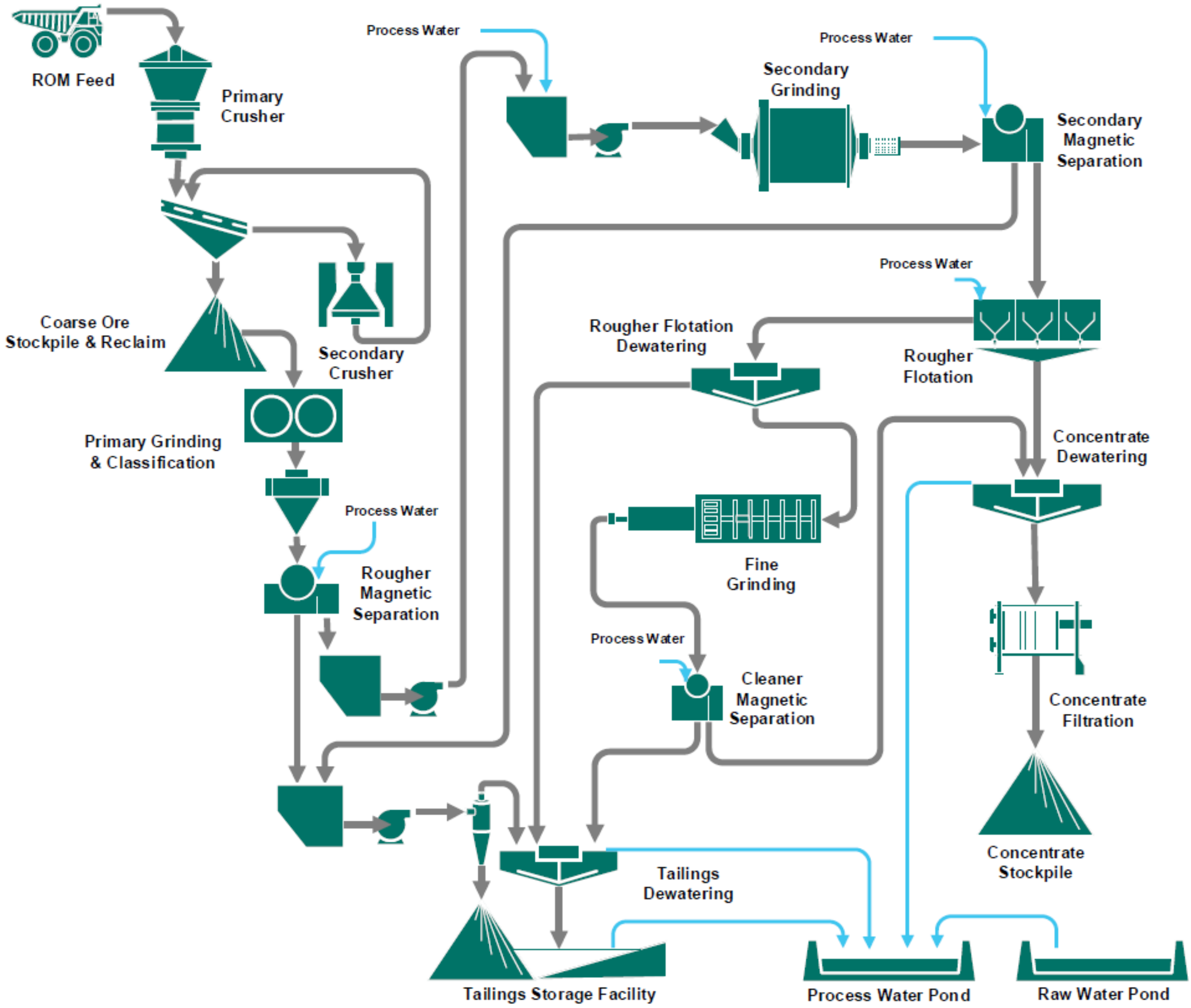


Figure 1. Schematic Razorback Iron Ore Project flow sheet

DFS Testwork and Results

The objective of the metallurgical and processing flow sheet testwork is to achieve the cleanest concentrate possible at the coarsest grind size to reduce both capital and operating costs. Designed and managed by Hatch, the testwork has predominantly occurred at Bureau Veritas Laboratories in Adelaide with significant portions of the work undertaken in the Netherlands using vendor equipment.

The DFS metallurgical testwork program represents a significant increase in the scale of metallurgical testwork completed to date. It has included pilot plant scale testwork, focused on high-pressure grinding rolls (HPGR) and air classification equipment.

Sample selection and ore body representivity has been at the core of the testwork program with a dramatic increase in the number of spatially distributed samples targeting early year ore mineralisation typically associated with greater degrees of weathering and ore body complexity.

Testwork has consisted of the following work programs:

- **HPGR and Air Classification testwork** – HPGRs follow primary and secondary crushing circuits and grind ores to an intermediate grind for rougher magnetic separation. The testwork program has been designed by Hatch and Weir Minerals to assist in the sizing and design of HPGR and air separator circuit to a P80 of 140 microns. Three +1000kg samples were submitted from the Razorback and Iron Peak deposits. Samples were subject to feed preparation, moisture, particle size distribution (PSD), wear rates (abrasion) and Bond mill work index (BBWi) testwork.

  HPGR testwork included varied pressure/energy inputs, moisture content, PSD, closed circuit testing with screens and flake testing. Closed circuit, locked cycle testing with air classification was undertaken at Weir in the Netherlands, the products of which will be used for bulk flow sheet simulation testwork, pending delivery.

  Results: The results of the HPGR testwork are ongoing with early results suggesting grinding targets will be achieved and within the operating capacity of the equipment.

Stage 1 Closed Circuit results			
	Specific pressure (N/mm^2)	Specific throughput $(t/h)/(m^3/s)$	Net specific power (kWh/t)
Razorback	3.7	293.3	1.8
	3.5	285.0	1.7
	3.5	273.3	1.8
Average	3.6	283.9	1.8
Iron Peak	3.7	309.0	1.8
	3.7	309.1	1.7
	3.7	301.9	1.7
Average	3.7	306.7	1.7

Figure 2. Stage1 HPGR results summary

- **Comminution Testwork** - To ensure the comminution (crushing and grinding) circuits are sized correctly the comminution program was designed to understand the variability of the ore. A total of 33 (30-40kg) samples were selected from Razorback (23) and Iron peak (10). Testwork consisted of Bond Abrasion index (ABi), Bond Ball Mill work Index (BBWi), Unconfined Compressive Strength (UCS) and Sag Mill Comminution (SMC) testwork.

  Results: Comminution results to date indicating that the magnetite ores require low power usage for crushing and grinding with Bond Ball Work Indices (BBWi of closing size 75μm) 4.1 to 11.3kWh/t for an average of 7.7 kWh/t, requiring low to medium crushing and grinding energy demand. It is noted that samples from the Iron Peak Deposit performed slightly better with an average BBWi of 6.8kWh/t to Razorback's 8.7kWh/t.

Abrasion index testwork indicated that the Project ores have low to medium abrasivity with an average of 0.105, with Iron Peak samples (0.05) appearing less abrasive than the Razorback Deposit (0.12).

Unconfined compressive strength (UCS) testwork for 32 analyses indicates a range of 6-80MPa for an average UCS of ~27Mpa which is considered low and well within the design specifications of the crusher circuit. Overall, the Razorback and Iron peak material presents relatively low UCS values and should not cause any problems with power requirements in the crusher circuit.

A total of 32 samples were also subject to SMC testwork. The results indicate single digit drop weight index for the majority of samples ranging from 2.6 to 10.1 kWh/m^3. The derived crusher work index results (Mic) shows a similar single digit index ranging from 2.9 to 9.3 kWh/t, indicating low power requirements for primary crushing.

- **Magnetic Separation Testwork -** Owing to the magnetic nature of magnetite ores, magnetic separation is commonly used to separate magnetite rich particles from gangue. Low intensity magnetic separation or LIMS consists of large magnetised rotating drums on which liberated magnetite adheres and is separated from gangue minerals. Several stages of magnetic separation exist within the flowsheet. Early-stage rougher magnetic separation follows primary grinding in the flowsheet and preliminary magnetic separation testwork was undertaken to refine the operating parameters for this equipment.

  Results: Testwork was conducted on a large 50kg sample at the rougher stage (140 microns) and showed a 30-40% mass recovery to magnetics. This is a favourable rejection of siliceous gangue. Results support the selection of the primary grind size, and importantly reduce the downstream plant capacity requirement. Secondary magnetic separation testwork was undertaken on samples rod milled to a target P80 of 52 microns for 3-stage LIMS.

- **Flotation Testwork** – Flotation circuits were added to the PFS[1] flowsheet to separate out complex composite particles (not fully liberated). The testwork was completed at Bureau Veritas laboratories in Adelaide in two stages and included reverse silica flotation testwork to investigate feed density, reagent recipe, pH, agitation and flotation duration. Vendor testwork was undertaken as part of the program. Flotation represents the penultimate concentration stage in the flowsheet, to be followed by a fine grind and magnetic separation stage to produce the final concentrate. An iterative testwork suite, the program was designed to determine the optimal reagent recipe for use in variable flotation testwork.

  Results: Flotation was investigated and the secondary magnetics concentrate would be the feed to the flotation program. Initial sighter testwork was completed on a typical reagent recipe derived from previous magnetite flotation programs and the three samples from the magnetic separation program was used as a starting point. Following several iterations of reagent recipe together with vendor testwork resulted in an optimal flotation recipe to maximise iron recovery. The results indicate that at this stage, using an optimised reagent recipe, a very high grade concentrate is produced. An average grade of 67.9% Fe with 4.4% Silica + Alumina was produced from three samples for this stage of processing.

- **Variable Flotation Testwork** - To fully understand the deposit's response to the ideal reagent regime identified in the flotation investigation, a total of 34 samples were collected across the Razorback and Iron Peak deposits. This testwork primarily focussed on rougher flotation optimisation testwork and reverse silica flotation, completed under optimised conditions for samples spatially located throughout the deposit. This testwork is ongoing with results not fully received for the analysis to date.

Summary and Next Steps

The results to date represent a preliminary confirmation of the processing flow sheet. The testwork program continues and is subject to updates as results follow. A number of logistical difficulties in completing the work program have been encountered largely due to COVID and staffing related issues at laboratories. The Company has made efforts to mitigate testwork delays by expediting transport and long-term planning of sample preparation and communication with all stakeholders. Testwork continues as follows, with results to follow in the coming months.

- Variable flotation to test spatial variations in ore body variability and optimisation of reagent recipe.
- Filtration, thickening and tailings product characterisation, to characterise tailings products for use in tailings dam wall construction.
- Bulk flowsheet simulation, pending the delivery of bulk HPGR and air classification products from the Netherlands, bulk flowsheet analysis will take place to simulate and confirm the entirety of the processing flow sheet for 3 bulk (+1000kg) samples.

Vertical Roller Mills (VRMs)

VRMs are a grinding technology used to grind materials into a fine powder. An emerging technology within the mining industry, VRMs are commonly installed in the cement and other industries requiring fine grinding. Renowned for their low operational and power costs, low wear rates and smaller footprints, VRMs are being tested for their suitability in mining applications with some success in coal processing.

The Company is testing the amenability of VRMs with respect to Razorback ores as an optimisation study running in tandem with the current DFS as a likely future alternative to HPGRs and Air classification systems. The testwork results as given below suggest significant operational expenditure upside with low power utilisation and low wear rates.

Results: VRM testwork has been completed with equipment manufacturer Loesche GmbH and Bureau Veritas laboratories using a Loesche VRM pilot unit which is currently located in Adelaide. A 1700kg sample from the Razorback deposit was submitted and crushed to an initial -10mm feed before being processed through the VRM pilot mill to generate three samples of differing sizes to allow for equipment sizing data. A total of 450kg of the ground material was blended to produce a particle size distribution P80 52μm. This sample was then passed through 3 stage rougher LIMS to produce a magnetics product for indicative flotation testwork.

The preliminary (sighter) sample submitted for this analysis, which is being overseen by Loesche GmbH and Bureau Veritas (BV), has indicated that a fine primary grind size target was achieved at very favourable throughput and energy requirements and well within equipment specifications. Results from Loesche GmbH indicate that from the 1.7t sample submitted, product particle sizes of 36, 59 and 77 microns were targeted and achieved with no issues encountered. Throughputs were very high with specific grinding energy consumption very low ranging from 4.6kWh/t to 5.7 kWh/t. Wear rates were described as very low with grinding elements at industrial scale estimated to have a very long life.

Further testwork to test the lateral continuity of the Project deposits is planned for July/August with an additional 4.6 tonnes of fresh core material recently delivered to the laboratory for further testing.

Potential for Direct Reduction Grade Concentrates

A key outcome of the testwork to date is the confirmation of the ore body's potential to produce Direct Reduced (DR) grade concentrates. DR concentrates contain high grades of iron (Fe %) and low contents of gangue minerals and deleterious elements such as phosphorus and sulphur. As such, DR grade concentrates receive a significant premium in pricing per tonne, with increasing demand as the steel industry works towards decarbonisation.

Typically, DR grade concentrates consist of +68% Fe and <2% silica plus alumina (SiO_2 + Al_2O_3) but specifications can vary depending on the requirements of the steel mill. The low waste and deleterious composition of the concentrates are sought after by established and emerging steelmakers looking to transition to more environmentally friendly green steel or DR grade pellet feed alternatives. The subject of considerable structural and environmental reform in the steel making industry, DR grade dependant steelmaking processes (e.g. EAF, MIDREX and HYL) use high-grade concentrates to produce metallic iron and steel. This contrasts with traditional blast furnace ironmaking process which rely heavily on metallurgical coking coal resulting in significant CO_2 emissions. As the steel industry strives to decarbonise to meet net zero objectives, the importance of DR grade concentrates is amplified with significant focus on reducing greenhouse gas emissions.

Hatch have highlighted that the Project concentrates produced during recent testwork indicated that DR grade concentrates were potentially achievable with additional flotation/hydroseparation and/or grinding to produce a separate DR product stream. As a result of high-grade processing, it is expected that the remainder of the iron rich concentrates that do not reach DR grade specification will be retained as a separate saleable product.

Sample	Flotation Product	Fe (%)	SiO_2 (%)	Al_2O_3 (%)	SiO_2+Al_2O_3
Razorback flotation Test 1	Fe Rich Rougher Tail	68.0	3.79	0.47	4.26
Razorback flotation Test 2	Fe Rich Rougher Tail	68.5	3.31	0.42	3.73
Razorback flotation Test 3	Fe Rich Rougher Tail	67.1	4.63	0.57	5.20
Iron Peak Flotation Test 1	Fe Rich Rougher Tail	69.7	2.34	0.29	2.63
Average	Fe Rich Rougher Tail	68.3	3.52	0.44	3.96

Figure 3. Flotation testwork results at P80 44microns, summary of near DR-grades results to-date

The variability in grades presented above are likely due to differences in the liberation profile of the separate samples. As is common for processed ores, subtle variation between samples in magnetite grain size, crystal morphology and gangue mineralogy can lead to variations in the final grades of the products. It is noted that the standout high grade sample was sourced from the Iron Peak deposit. The improved performance of Iron Peak is noted in head grades, comminution and concentrate grades.

As a study optimisation, the Company intends to further explore the potential for Razorback Ores to produce DR grade concentrates through a suite of testwork designed by Hatch process engineers.

Magnetite Mines' Chief Executive Officer Stephen Weir commented:

"We are very pleased with the results of the metallurgical testwork so far as the detailed work completed thus far validates the Razorback process flow sheet.

Confirmation of the orebody's potential to produce DR grade concentrates is a particularly exciting development for Magnetite Mines as we look to match Razorback's very long life with our customers' future requirements as they decarbonise their steel production inputs.

Coupled with the premium paid for DR grade concentrates and the low carbon ESG benefits of high grade concentrates, Magnetite Mines looks forward to exploring the potential to produce DR grade concentrates."

Competent Persons Statement:

The information in this report that relates to Exploration Results is based on information originally compiled by Mr. Trevor Thomas, who is a Member of the Australian Institute of Mining and Metallurgy (AUSIMM) and Member of the Australian Institute of Geoscientists (AIG). Mr. Thomas is a full-time employee of Magnetite Mines Limited as General Manager – Geology. Mr. Thomas 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code 2012"). Mr. Thomas consents to the disclosure of this information in this report in the form and context in which it appears.

This announcement has been authorised for release to the market by the Board.

For further information contact:

Gemma Brosnan

General Manager - External Affairs

gemma.brosnan@magnetitemines.com

+61 8 8427 0516

References:

1. 05/06/21 - Positive PFS Results for Razorback Iron Ore Project
2. 21/03/22 - Magnetite Mines Confirms Benefits of Expansion at Razorback
3. 24/05/21 - Razorback Iron Ore Project Mineral Resource Upgrade

Razorback and Iron Peak Metallurgical Testwork results

JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Drilling method: Drilling programs related to this announcement of metallurgical results were completed by Diamond Core Drilling of PQ and HQ diameter drill core. • Diamond Core Sampling: Diamond drill core samples of varying diameter (HQ and PQ) were submitted for laboratory analysis. Core was cut using an automatic core saw in-house and at external geological consultancy. Minimum sample ¼ core samples of HQ to full core PQ dependent on the nature of the testwork. • Metallurgical sampling: The metallurgical testwork program has been compiled by global magnetite experts Hatch. Metallurgical bulk samples typically require high mass and spatial sample representivity, therefore full core and half core samples were submitted for bulk sampling testwork to a given net mass e.g. HPGR and Air classification testwork samples consisted of 1 tonne samples of PQ and HQ cores, as drilled through multiple subdomains including weathering and fresh zones with spatial distribution across the Razorback, Razorback west and Iron Peak deposits/prospects. As related to metallurgical testwork, the following analyses have been undertaken for various characterization studies in order to characterize flow sheet performance. Separate head grade analysis (XRF multi element) on a per sample basis, QXRD, QEMSCAN, SMC, Magnetic separation - LIMS, Flotation (bulk and variable) Bond Ball work index, Uniaxial Compressive Strength, Satmagan, Bond Abrasion index, Fourier Transform Infrared analysis. • Head grade (XRF multi element analysis) and DTR analysis of all samples at 1m increments is underway for recently drilled Iron Peak core samples. This analysis is ongoing and is being completed in aid of resource development. Results are pending.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Drilling method: Drilling programs related to this announcement of metallurgical results were completed by Diamond Core Drilling of PQ and HQ diameter drill core. • Drilling Contractor – Foraco contract drilling services. • PQ standard tube – vertical drilling to intersect greatest mass/volume of given domain. PQ diamond vertical drill holes underwent RQD by trained field staff and geologists, geological lithology logging by qualified geologists. • HQ triple tube – inclined drilling to 60 deg, azimuth oriented perpendicular to strike. Gyroscopic surveys undertaken where possible

Criteria	JORC Code explanation	Commentary
		(open holes). HQ diamond inclined drill holes underwent core orientation by trained geologists and field staff, RQD by trained geologists and field staff, geological lithology logging by trained geologists. • Hole locations surveyed by handheld GPS (+-3m) • For metallurgical drilling laboratory QAQC was relied upon. Core logging including core recovery,
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Recording of sample recoveries undertaken via core-loss logging comparing measured intervals to drill run length and determining location and amount of core loss. • Sample recovery maximized by proper drilling procedures, sample handing and preparation. • Drilling condition typically very good with excellent core recovery due to competent ground conditions. Core loss typically associated with near surface, unconsolidated ground conditions and some infrequent geological faulted/brecciated zones. No correlation of core loss with mineralization.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Geological logging for all core samples completed to 0.2m resolution appropriate for bulk commodity resolution. Additional down-hole geophysical logging as well as handheld magnetic susceptibility logging undertaken to validate mineralization zones for sampling purposes. • Geological logging attempts to describe hand samples in sufficient accuracy to determine the lithology, colour, veining, alteration, stratigraphy and mineralogy where possible. The fine grained nature of the lithologies results in qualitative estimation of rock descriptions. Downhole geophysical logging measured Long spaced density (LSD), short spaced density (SSD), gamma, hole diameter (Caliper), magnetic susceptibility (magsus), hole inclination and azimuth (gyroscope) measurements. These parameters are quantitative measurements and are used in tandem with geological logging to deduce lithology and degree of mineralization outside of laboratory measurements. • All drilling samples have been reviewed and logged. A total of 1912m of 1912m have been logged
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample*	• For the purposes of metallurgical sampling PQ core was utilized. Dependent on the nature of the analysis full (bulk samples) to half core samples (30-40kg samples for comminution consisting of Bond Abrasion index (ABi), Bond Ball Mill work Index (BBWi), Unconfined Compressive Strength (UCS) and Sag Mill Comminution (SMC) testwork) were submitted for analysis.

Criteria	JORC Code explanation	Commentary
	preparation technique. • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No non-core samples were utilized for the testwork. • For all samples, sufficient representivity of mineralization lithology and mass were achieved for the metallurgical testwork program. This was validated by laboratory analysis whereby samples of insufficient mass did not qualify for the analysis. • Quality control included spatial distribution of samples per geological domains as selected by metallurgical consultants and in-house geologists. • To ensure ore body representivity, samples were selected based on representative geological domains related to the ore body, degree of mineralization, weathering and depth constraints as related to early year mining pit shell optimization. • Samples selected are bulk samples – insitu samples encompassing the full range of grain sizes expected in a processing scenario and therefore appropriate to the nature of testwork
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• A broad range of testwork and analyses were undertaken for this metallurgical testwork program. Each testwork suite was selected to measure a given set of parameters towards sample characterization for a particular stage of the processing flow sheet. Analyses were undertaken primarily by certified laboratories (Bureau Veritas) but also vendor equipment manufacturers to test the amenability of Razorback Project Ores to specific equipment and conditions. • Analyses included, XRF (multi element) qXRD (quantitative mineralogy determination), QEMScan, SATMAG (magnetite %), LOI (loss on ignition), UCS (Unconfined compression strength), Bai (Bond Abrasion index), BBWi (Bond Ball Mill Work index), SMC (Sag Mill Comminution, Magnetic separation (Low intensity magnetic separation), Specific Gravity (density), FTIR (Fourier Transform Infrared spectrometry), Rod Mill (sample preparation), DTR (David Tube Recovery – magnetics), PSD (Particle size distribution wet sieve and laser), Flotation, Filtration and thickening, LFCU (Lyons Feed Control Unit – Vendor testwork), HPRG (high pressure grinding rolls testwork – Vendor testwork), Air classification (Vendor testwork) • Geophysical Tools were used for qualitative purposes only, no results presented herein relied on handheld tools or analyses. • Laboratory checks and observations were undertaken as part of the testwork program. Given the bulk nature of samples repeat/duplicate analysis was not possible (i.e. not possible to re-rerun 1000kg sample given sample availability and costs). Laboratory duplicated were inserted where relevant to ensure repeatability and accuracy in limited

Criteria	JORC Code explanation	Commentary
		cases.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Verification of testwork results occurred via managing consultants Hatch, independent reviewers and the MGT owners team for all results. • Twinned holes were drilled for one pair of PQ diamond drill holes to produce sufficient mass for bulk sampling. • All data was entered into a customized excel spreadsheet, prior to database verification and upload into industry standard database software 'Datashed' by external and independent consultants. • No adjustments to assay data was made nor considered necessary.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The coordinates of each drill hole collar were surveyed using GPS with an accuracy of 3-5 meters sufficient for spatial location in a bulk commodity. • MGA2020 Zone 54 – Dataum used • Topography is determined from high resolution LIDAR surveys completed over the project area to an accuracy of 10cm.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Data spacing variable, determined by targeting of specific geological domains for metallurgical testwork, not resource drilling controls. This is considered appropriate for the nature of testwork.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Drilling for metallurgical purposes targeted maximum mass for a given interval or geological sub domain. For this reason, the greatest practical mineralization intersections occurred via vertical drilling, required to achieve mass constrains for samples.
Sample security	• *The measures taken to ensure sample security.*	• The chain of custody was controlled by Magnetite Mines. Samples were transported to and from laboratories by MGT staff and consultants.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No independent audits or reviews of sampling have been carried out. Hatch consultants have attended MGT storage and sampling processing facilities for inspection.

Section 2 Reporting of Exploration Results

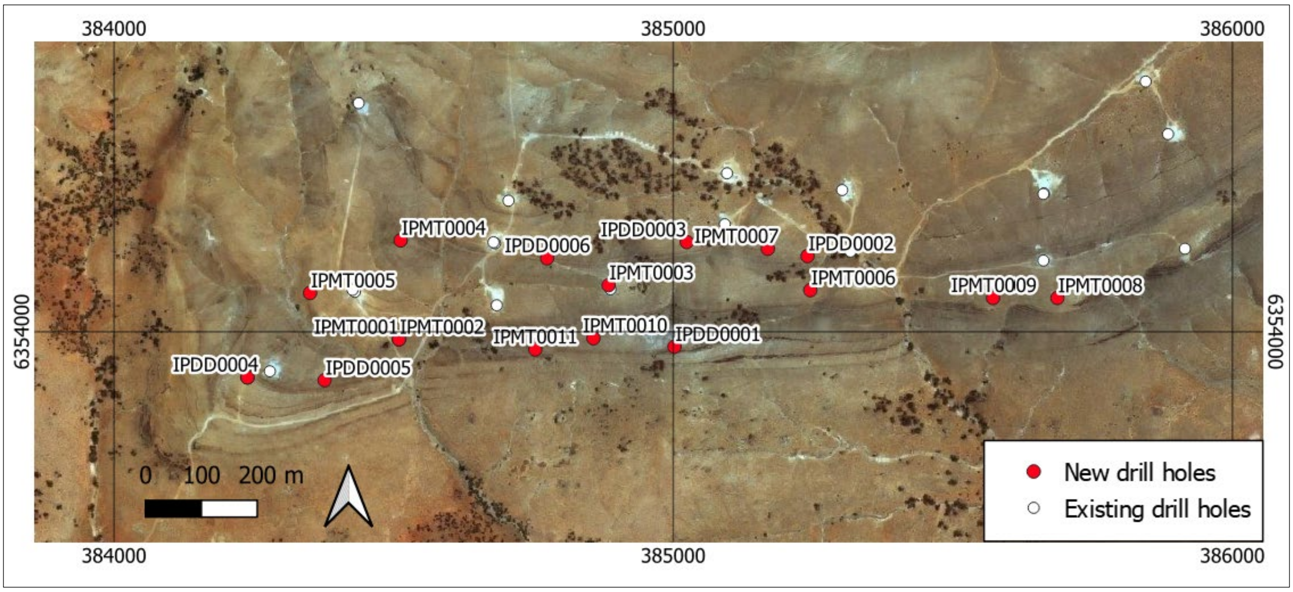
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Magnetite Mines Limited, through its 100% owned subsidiary Razorback Iron Pty Ltd, has secured the EL6353 and EL6126 leases over the Razorback Ridge and Iron Peak iron deposits. • Resource payments calculated at $0.01 per DTR tonne of measured resources (resource payment = tonne of measured resource x $0.01 x DTR%). • A 1% royalty on the value of the product produced from the tenement measured at the 'mine gate'. • All tenements are in good standing and no known impediments exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Whitten, on behalf of the Geological Survey of South Australia, carried out a detailed study at the Razorback Ridge area during the 1950's and 60's • This work was structured to assess the iron content, possible metallurgical processing and costs of mining the iron at the prospect. Detailed geological mapping, 3 diamond drill holes and an adit reaching 134.1 metres were carried out on the ridge itself.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The magnetite host rock at Razorback and Iron Peak occurs as either tillitic or bedded siltstone. The bedded or laminated ore is dense dark blue and can show sedimentary features such as cross bedding and slumping. The Geology of the Iron Peak Prospect is an extension of the geology at Razorback as following the consistent lateral continuity of the Braemar Iron Formation. For this reason there are no deviations to the methodologies/procedures utilised towards drilling and sampling between the two prospects. • The magnetite occurs as 10 to 150 micron euhedra in layers up to 500 micron thick, and can form up to 80% of the rock. Haematite can occur associated with crosscutting right angle cleavage, related to later deformation. • The tillitic ore is medium to dark grey, massive and contains erratics from 10mm to 1m in diameter. The fragments are typically metasediments, metavolcanics and granites. • The magnetite is similar to that seen in the bedded ore type. Haematite occurs, but is irregularly distributed through the rock.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following*	(see table below)

Hole ID	Easting	Northing	Total Depth	Inclination (°)
IPMT0001	384510	6353987	133.70	-90

Criteria	JORC Code explanation	Commentary
	information for all Material drill holes: ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	IPMT0002 384510 6353987 133.60 -90 IPMT0003 384885 6354084 169.70 -90 IPMT0004 384513 6354164 112.60 -90 IPMT0005 384351 6354070 172.60 -90 IPMT0006 385246 6354075 132.00 -90 IPMT0007 385170 6354149 115.65 -90 IPMT0008 385686 6354061 103.65 -90 IPMT0009 385573 6354061 100.60 -90 IPMT0010 384858 6353989 109.60 -90 IPMT0011 384754 6353969 109.60 -90 IPDD0001 385003 6353974 81.00 -60 IPDD0002 385241 6354136 45.10 -60 IPDD0003 385025 6354161 51.10 -60 IPDD0004 384239 6353919 48.10 -60 IPDD0005 384377 6353914 146.90 -60 • IPDD0006 384239 6353919 147.10 -60
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Metallurgical results are reported herein, data aggregation methods are not applicable to this testwork.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Exploration intercepts are not being reported due to the metallurgical testwork nature of the data herein.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a*	• Significant discoveries are not reported. The results describe metallurgical performance of the Project ores. Plan map appended at end of JORC Table 1 document.

Criteria	JORC Code explanation	Commentary
	plan view of drill hole collar locations and appropriate sectional views.	
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Reporting of results in this report is considered balanced.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Exploration results are not being reported. Metallurgical results are reported in the above ASX release section.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• As described above in ASX release section further includes: Variable flotation to test spatial variations in ore body variability and optimisation of reagent recipe. Filtration, thickening and tailings product characterisation, to characterise tailings products for use in tailings dam wall construction. Bulk flowsheet simulation, pending the delivery of bulk HPGR and air classification products from the Netherlands, bulk flowsheet analysis will take place to simulate and confirm the entirety of the processing flow sheet for 3 bulk (+1000kg) samples.


384000
385000
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New drill holes
Existing drill holes