

HAWSONS IRON PROJECT UPDATE

KEY POINTS

- **Seven national and international potential Strategic Investors including miners, trading houses and steel mills have been selected to undertake detailed due diligence appraisal for BFS funding**
- **Completed Phase 2A Stantec testwork program has confirmed and defined the base Phase 1 comminution flowsheet and selection of major equipment**
- **Magnetite concentrate to be railed to the Port of Adelaide using existing transport infrastructure, significantly reducing upfront capital costs and project risk**

Hawsons Iron Ltd (**Hawsons, HIO or the Company**) is pleased to provide this update on the Hawsons Iron Project following a comprehensive review of results to date from work undertaken in response to the action plan recommended by the Strategic Review in February 2023.

A detailed circa 350-page Information Memorandum (IM) incorporating these results has been provided confidentially to seven potential Strategic Investors as part of the process to fund the project's Bankable Feasibility Study (BFS).

This IM provides thorough estimates of capital costs, operating costs, mine plan, processing design, infrastructure, transport and the BFS plan, together with all reports from the consulting work carried out over the past two or more years.

Managing Director Mr Bryan Granzien said the group of potential Strategic Investors, including national and international miners, trading houses and steel mills, had been selected based on expressions of interest after receiving summary information about the project and the cost and timing of the BFS.

"We've completed the first stage of our strategic investor process and provided a copy of the IM, financial model and other associated documents to these parties who have qualified following initial presentations and discussions," Mr Granzien said.

"We aim to complete this strategic investor process within the next few months and commence work on the BFS immediately if successful."

Hawsons Chair Mr Jeremy Kirkwood said he was pleased the Company was now engaging with a selection of high quality potential strategic parties from Australia and overseas to fund a revised BFS which may then lead to partnership in the project.

"This follows extensive work done by the Company that has set a solid foundation for such engagement after halting the previous BFS in October 2022," he said.

Hawsons, together with others in the Braemar region, is an emerging Australian producer of one of the world's highest-grade iron ore concentrate products, crucial for reducing the carbon footprint of steel manufacturing.

While low grade in-situ, magnetite from the Company's deposit will produce a very high-grade Hawsons Supergrade® product with low impurities, critical for making Green Steel.

UPDATE SUMMARY

Strategic Investor Process

Hawsons is currently undertaking a process to agree on arrangements with potential Strategic Investors to assist in funding engineering, further Resource definition drilling and other activities to deliver a BFS.

A significant number of major national and international steel makers, mining companies and trading houses have executed appropriate confidentiality agreements to facilitate the process and have indicated a potential willingness to fund the BFS to progress the project, subject to further due diligence.

Hawsons has selected seven parties to proceed to this stage of the process and distributed to these potential Strategic Investors a comprehensive Information Memorandum, financial model, market study by consultant AME Mineral Economics Pty Ltd (AME) and other associated documents.

The Company is now assisting these parties with their due diligence review of this material before engaging in discussions on investment terms which are expected to conclude in the June Quarter of 2024.

The number of Strategic Investors will then be reduced prior to entering the final stage when confirmatory due diligence will be completed, and definitive investment terms agreed upon.

This final stage is expected to conclude in the September Quarter of this year and Hawsons intends to then proceed immediately into the BFS.

Further updates on the strategic investor process will be announced as soon as the Company is able to do so.

Process Plant

Global engineering firm Stantec has completed the Phase 2A testwork and updated its engineering and cost analysis for the process plant. This testwork resulted in some expected material savings in estimated capital items.

Stantec had a number of assumptions in the proposed flowsheet from their May 2023 review. The Phase 1 and 2A testworks have now provided confirmation that 10 of 12 assumptions have been met. The two not confirmed and requiring further analysis were:

- The ability to discard ~15 mm barren pebble stream material – the pebble stream is not barren and is required to be further processed to liberate the iron content.
- Ore variability – there is insufficient data on ore variability at present to assess further downstream flowsheet impacts. Hence, it is proposed to do further 8" core drilling and sampling for further pilot plant test work. This is planned to be included in the BFS.

Transport to Port

Concentrate transport has reverted to the base case of building a 42 km rail loop to the Australian Rail Track Corporation's (ARTC) main line at Cockburn with concentrate railed to the Port of Adelaide to reduce upfront capital costs.

Although the rail operating costs will be higher than the alternative slurry pipeline to a potential new port facility at Myponie Point on South Australia's eastern Spencer Gulf, this transport scenario optimises the project's economics.

This decision also reduces exposure to the potential development risks associated with construction of the slurry pipeline and a new port by leveraging existing infrastructure with modifications.

Power and Water

The project's electricity supply will be sourced from an overhead power line connected to the 220 kV Transgrid transmission line supplying Broken Hill. The connection application process will be based on the conceptual electrical load requirements for the site.

Renewable power sources are already well established near Broken Hill, with a 200 MW Wind Farm at Silverton and a 53 MW Solar Farm supplying the grid to which the project will be connecting. Other proposed renewable power projects are expected to further increase the available supply of renewable energy to the market.

The primary water demand for the project will be the process plant. This water is to be supplied from a new borefield in the Lower Renmark Aquifer near Coombah, approximately 90 km south of the project site.

Environmental, Social, Governance (ESG)

Sustainability at Hawsons is guided by our vision: to be a positive change in our industry, using our unique iron ore resource to create a more sustainable future.

An initial assessment on ESG materiality across the ESG framework was conducted with internal stakeholders to develop a high-level strategy and objectives for the BFS.

The sustainability of the Hawsons Iron Project heavily relies on the careful management of the natural environment including water and material usage, waste management, energy consumption and preservation and rehabilitation of local biodiversity.

We acknowledge and strive to minimise potential adverse impacts that may result from our proposed activities while demonstrating a deep understanding of, and respect for, the rights, cultural heritage and traditional lands of indigenous people.

Hawsons Supergrade® Price Premium

Price forecasts provided by AME Mineral Economics in a report commissioned by Hawsons, include an average 62% Fe iron ore reference price of US\$120/t and a price premium range of US\$25 - US\$75/t between 2030 and 2050.

The price premium range represents AME's forecast for Hawsons' product above the 62% Fe CFR North China Spot Price (2030-2050), based on a 65% Fe pricing model.

Project Description and Location

The Company proposes to develop the Hawsons Iron Project, which is located in the Braemar region of New South Wales on the border with South Australia and has a recognised presence of significant magnetite ore deposits.

The ore body has a total JORC Resource of approximately 3.9 billion tonnes.

In addition, the project has an Exploration Target for with a range of 5 to 18 billion tonnes at a DTR grade range of 7.5% to 34% and a concentrate Fe grade range of 65.3% to 70.6%. The approximated quantity and grade of this Exploration Target is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. All material assumptions and technical parameters underpinning the Exploration Target in the 26 July 2022 announcement continue to apply and have not materially changed.

The proposed project is an open-cut magnetite mine located 60 km south of Broken Hill producing magnetite concentrate from siltstone iron oxide ore. High-grade magnetite concentrate is increasingly being sought after by the global iron and steel industry as a key ingredient to aid the sector's transition to manufacture low-carbon emission Green Steel.

Hawsons undertook a Strategic Review of the project in late 2022 and early 2023. This resulted in the current scale of the project, from a mining perspective, to achieve an optimum balance between project size and economics. (See ASX Announcement dated 1 February 2023: [Hawsons Strategic Review action plan](#))

In accordance with the action plan recommendations, further exploration drilling was undertaken in the Fold Zone to the south and east of the existing Mineral Resource.

This drilling campaign and a subsequent confirmation and definition drilling program successfully targeted additional magnetite from surface to a depth of 150 metres, with a grade greater than 9 per cent Davis Tube Recovery (DTR), to further improve early project cash flow. (See ASX Announcement dated 29 February 2024: [Confirmation and definition drilling program update](#)).

The open-cut pit is expected to be mined using conventional truck and shovel methods that would include drill and blast with options for alternative methods to be investigated in future opportunities. The ore would be beneficiated by onsite crushing, grinding and magnetic separation to produce the high-grade magnetite concentrate.

The magnetite concentrate would be sold as feed to national and international customers for use in direct reduction iron (DRI) and blast furnace (BF) smelters. Export is proposed from the Port of Adelaide in South Australia.

The project, as shown in **Figure 1** below, comprises:

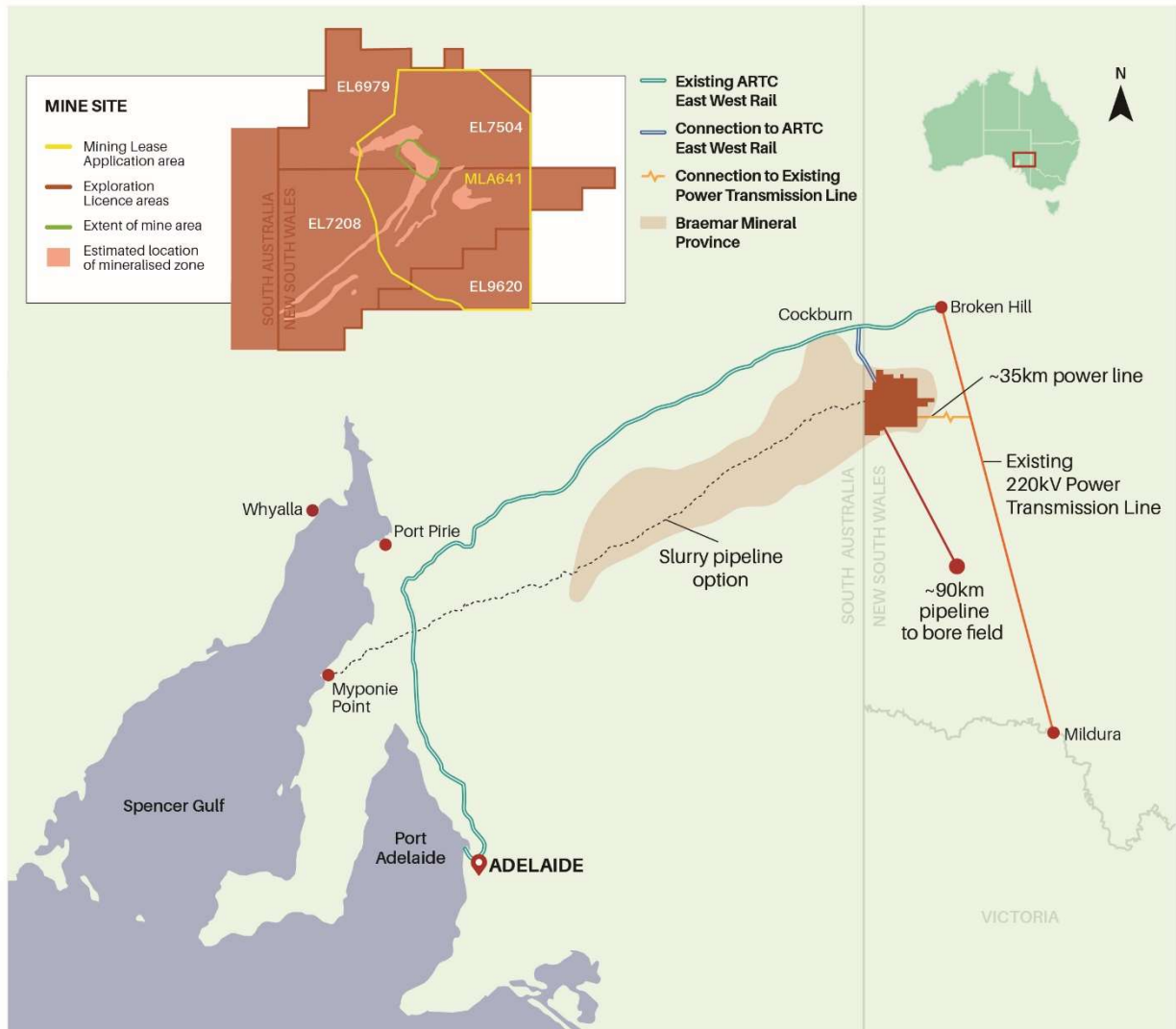
- Open cut mine pit and associated access and haul roads, ROM ore stockpiles and processing plant, which would include crushing, grinding, magnetic separators, thickening, dewatering, associated plant and equipment
- Reverse osmosis (RO) plant for product wash
- Waste rock storage facility
- Tailings storage facility (TSF)
- Dry stack sand area and topsoil stockpiles
- Rail loop and train load-out (TLO) at site, and
- Mine infrastructure with offices, maintenance workshops, stores, internal roads, water dams, evaporation ponds, electrical reticulation for the site, and explosive magazine.

The project will also require a range of associated offsite infrastructure, including:

- Rail spur line (~42 km) between the rail loop (at the site) and the existing Australian Rail Track Corporation (ARTC) network at Cockburn
- Rail transport to Port Adelaide for export
- Power supply connection to Transgrid for the mine site
- Remote electrical supply for the raw water borefields
- Water supply infrastructure including a borefield and pipeline, 90 km from the mine site
- Accommodation camp
- Communications infrastructure, and
- Road access.

The project will rely on upgrade work to the existing port facility at Port Adelaide in South Australia, which is to be undertaken by Flinders Port Holdings (FPH).

Figure 1: Location of the Project



Geology Model and Resources

H&S Consultants Pty Ltd (H&SC) have completed geology modelling and mineral Resource estimates for the Hawsons Iron Project in western New South Wales since 2010.

The Resource estimates were based on data from the original Carpentaria Exploration (CAP) 2009, 2010 and 2016 drilling and Hawsons’ 2021 and 2022 drilling, in conjunction with improved geological understanding.

The latter drilling comprised 67 Reverse Circulation (RC), diamond core and RC holes with diamond tails for 24,261 m, as infill drilling over the Core and Fold deposits and, in particular, as detailed infill for the Core West structural zone.

The estimates were reported using the 2012 JORC Code and Guidelines. H&SC had completed three previous Resource estimates for the deposit in 2011, 2014 and 2017, and an update to the 2017 Mineral Resource estimate in 2021.

The most recent Mineral Resource estimates are reported in **Table 1** for a cut-off grade of 6 per cent DTR.

Table 1: Mineral Resources for the Hawsons Iron Project (September 2022)*

Category	Volume m ³	Mt	DTR %	DTR Mt	Density t/m		
Measured	127,550,000	394	13.7	54	3.09		
Indicated	560,825,000	1,576	12.0	190	3.05		
Inferred	572,775,000	1,954	12.1	237	3.16		
Total	1,261,150,000	3,924	12.3	481	3.11		
In Situ Grades							
Category	Fe %	SiO ₂	Al ₂ O ₃ %	P %	S %	TiO ₂ %	LOI %
Measured	69.4	3.0	0.23	0.006	0.002	0.05	-3.0
Indicated	68.4	3.6	0.32	0.009	0.004	0.06	-2.7
Inferred	68.0	4.1	0.34	0.009	0.004	0.06	-2.8
Averages	68.3	3.8	0.32	0.008	0.004	0.06	-2.8

*See ASX Announcement dated 30 September 2022: [Mineral Resource estimate update completed](#). All material assumptions and technical parameters underpinning the estimates in the 30 September 2022 announcement continue to apply and have not materially changed.

Processing

The mined product would be converted into a magnetite concentrate using a process that involves the key beneficiation stages as shown in the following process flowsheets (see **Figure 2**).

Once the ROM ore is mined, it is stockpiled on the ROM pad to provide feed to the primary crushers. The ROM pad would have sufficient capacity to ensure the process plant can continue to operate for a minimum of one day in the event of mining operational delays.

After the ROM ore has been processed through the primary crushers, it is screened to produce coarse pebble material (>70-100 mm) with remaining ore fed to a high-pressure grinding roll (HPGR) crusher.

The three main elements of note in this circuit are:

- The use of a primary crushed oversize material as autogenous media for the primary pebble mill
- The use of HPGRs in a secondary crushing / primary milling duty, and
- The use of HPGR in closed circuit pebble crushing.

The primary crusher receives conventional ROM ore. The ROM ore is crushed then screened at 70-100 mm with oversize being stockpiled as feed / grinding media for the primary pebble mill.

This early removal of oversize material provides three main advantages:

- Reduces HPGR feed rate
- Removes oversize material from the HPGR feed, and
- Eliminates the need for grinding media in the primary pebble mill.

This results in reduced capital costs for the comminution circuit and reduced power requirements and operating costs.

The use of HPGR equipment itself is not unusual in highly competent ore applications such as Hawsons'. It is a robust and widely used size reduction technology and has appeared previously in flowsheet designs.

The 2023 testwork program included HPGR testing which confirmed the suitability of this technology for treating Hawsons' ore.

The Phase 2 separation process is a more traditional circuit using a combination of fine grinding and magnetic separation to progressively liberate and separate magnetite from the host matrix before a final flotation stage to produce a saleable grade of magnetite concentrate.

It is expected that the final concentrate grade will be approximately 70 per cent Fe.

At this stage, the flowsheet as shown below in **Figure 3** remains unchanged from the previous study work.

The final throughput and sizing of this circuit will depend on the outcomes of the future testwork program. The magnetics stream would then be sent to flotation for final upgrade. The non-magnetic material and flotation tailings streams would be thickened and pumped to the TSF.

The water recovered from the thickener and tailings facility would be returned to the circuit as process water. The flotation product would be thickened and filtered at the process plant and stockpiled for periodic train load out. Water from the thickener and filter would be returned to the process water circuit.

Onsite Infrastructure

The mine site layout is based on a conceptual mine plan requirements, especially for those larger areas required for the waste dump, the dry stacked sand and the TSF.

The areas shown would be progressively built up over the mine life and the dry stacked sand and tailings storage facilities staged to minimise upfront capital. The mine site infrastructure (non-process infrastructure) layout is shown in **Figure 4**.

The facilities have been located away from potential mineral deposits and additional sites will need to be drilled to sterilise them in future. The mine site infrastructure is summarised in **Table 2**.

Figure 2: Updated Phase 1 concept flowsheet – comminution circuit

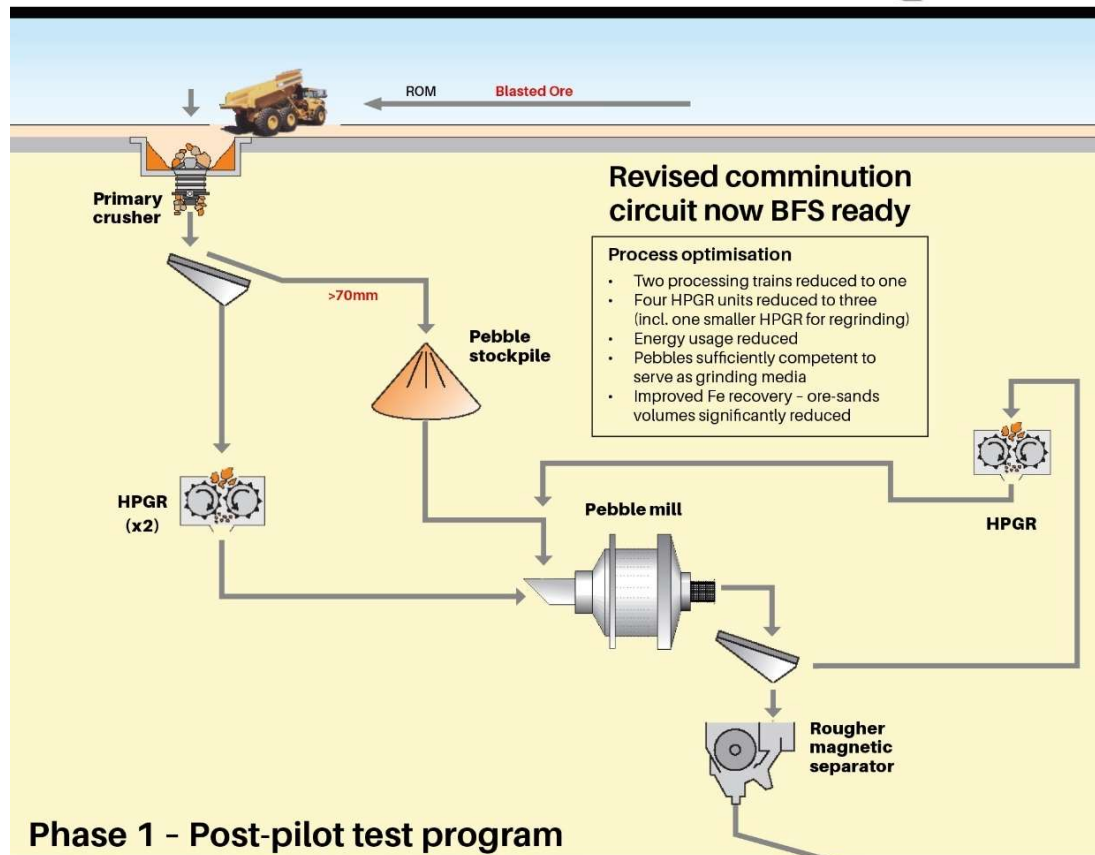
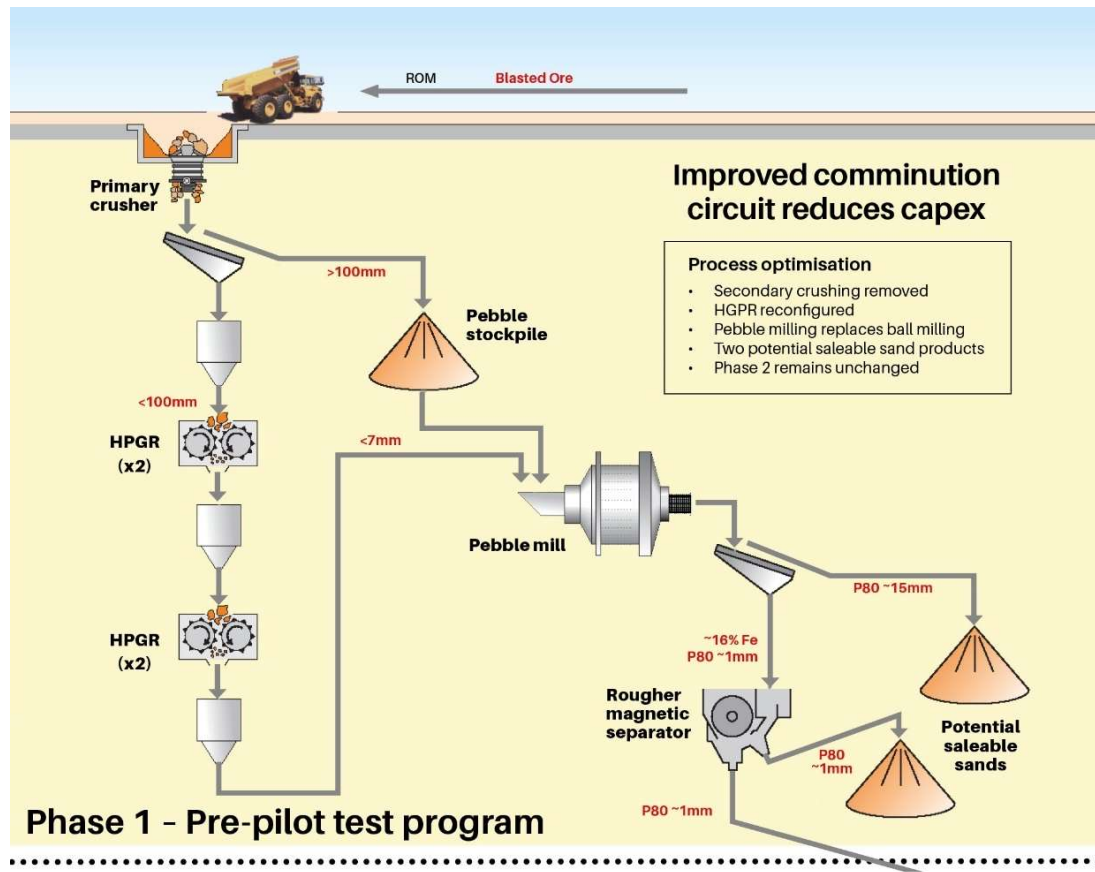


Figure 3: Phase 2 concept flowsheet – fine grinding and recovery

Phase 2 unchanged

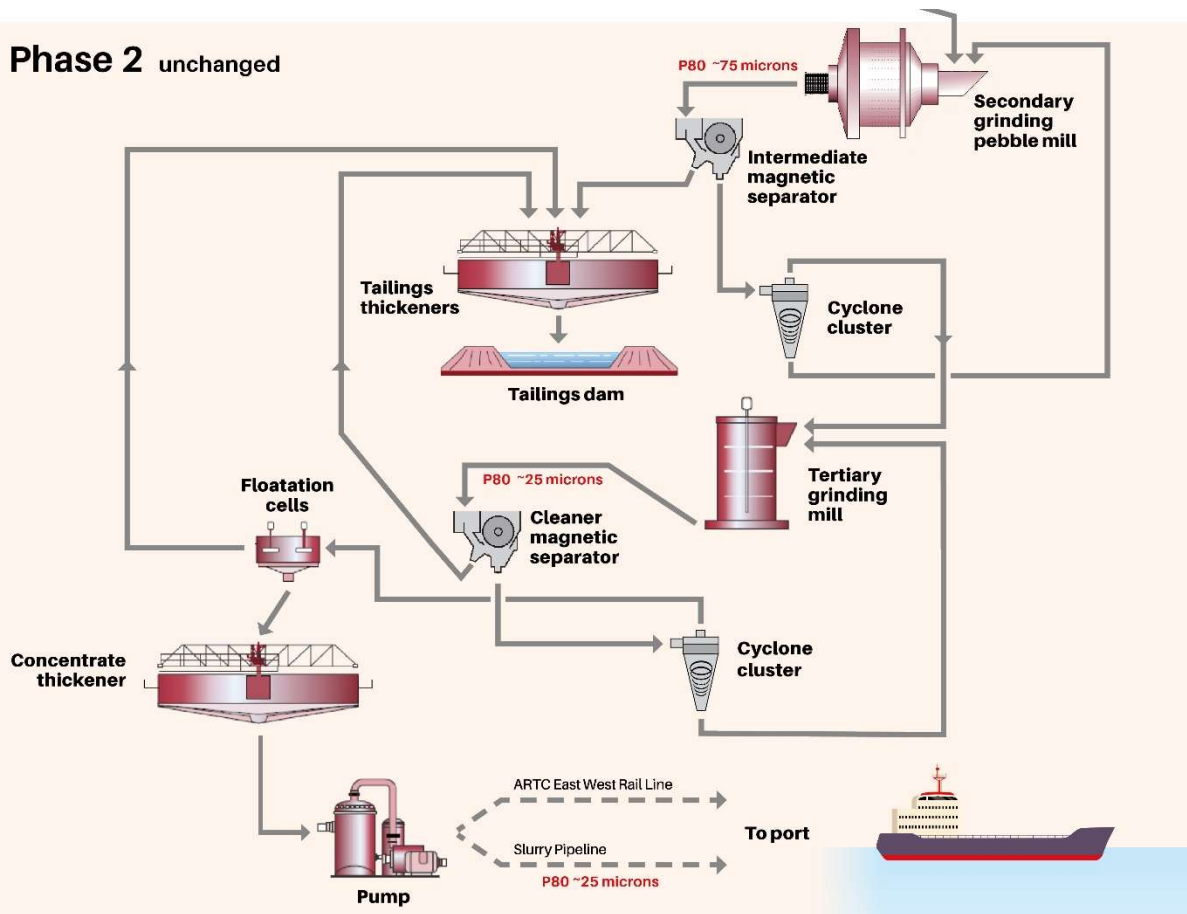
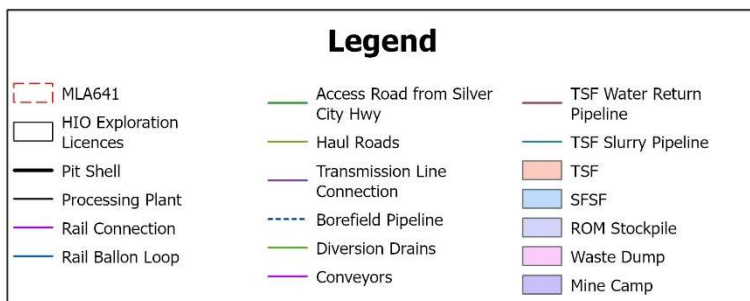
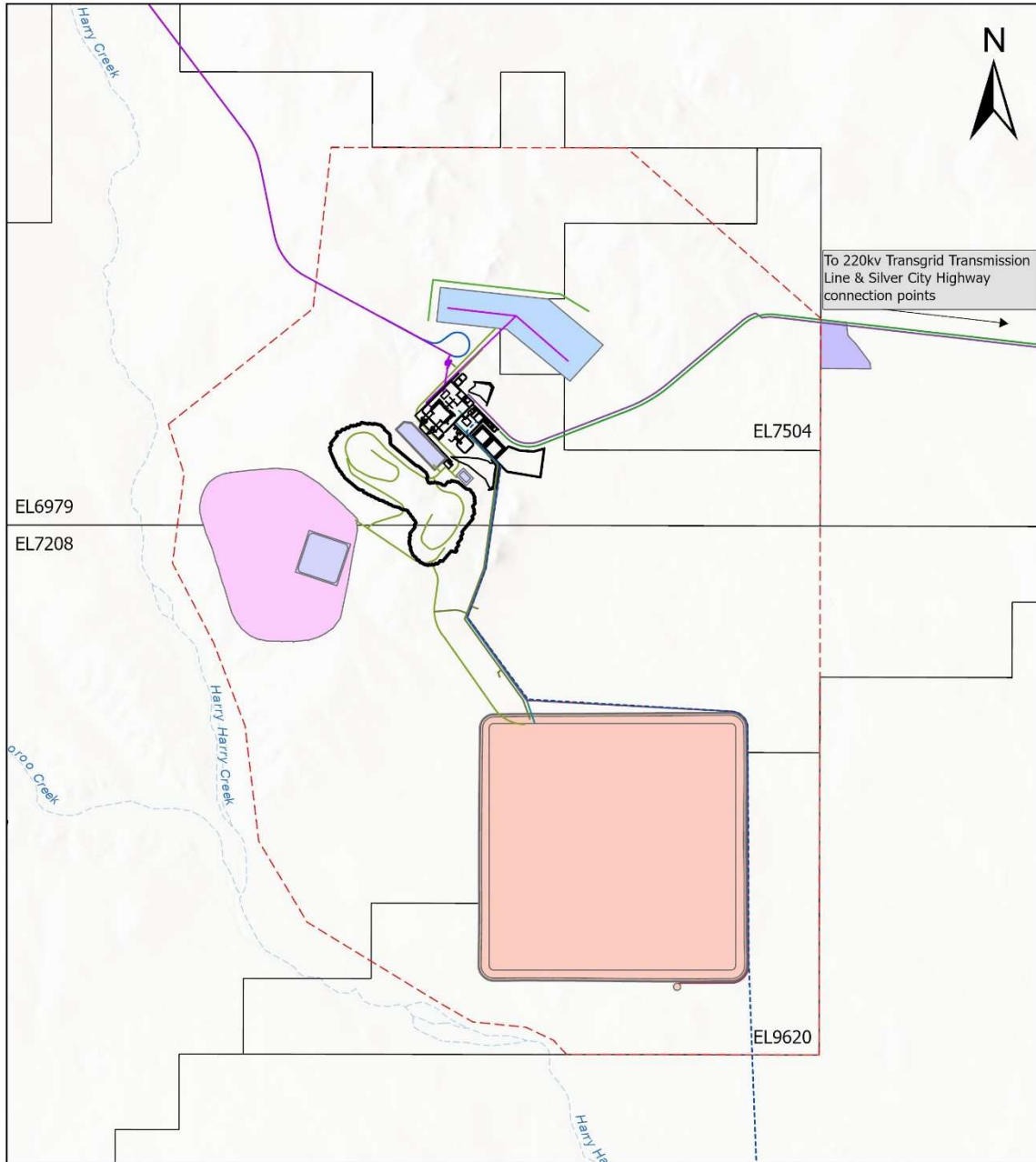


Table 2 – Mine Site Infrastructure Scope

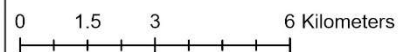
Item	Description
Site roads, laydown and access control	<p>Internal access roads will be constructed for heavy and light vehicle access to the various operational areas.</p> <p>Hardstand areas will be developed for laydown areas, the administration building, maintenance workshop, diesel storage, explosive magazines, temporary diesel power, permanent power infrastructure and processing plant.</p> <p>Security fencing will be constructed at and around the boom gates to deter unauthorised site entry. Security fencing will also be installed at the magazines.</p>
Mobile equipment maintenance workshop and warehouse	<p>A dedicated workshop and warehouse will be provided for maintenance of mining vehicles. The workshop and warehouse will have an area of approximately 6,500 m².</p>
Hydrocarbon storage	<p>Self-bunded diesel tanks with combined 880,000 L capacity will be provided for refuelling of mining vehicles. No additional bunding of the tanks is required; the tanks will be a dual-lined system though protective bollards will be constructed around the tanks for protection.</p>
Wash-down facilities	<p>The heavy and light vehicle wash-down will be a drive-through facility for cleaning mine haul trucks, graders, dozers, other mining vehicles, road trucks, buses and light vehicles.</p>
Administration building	<p>The mining administration building will have an area of approximately 3,000 m². The building will accommodate 90 to 110 people.</p>
Change house and laundry	<p>A change house building(s) will be required for showers and changing facilities for all personnel working in the workshop and open cut. The change house and laundry will have an area of approximately 400 m².</p>
Topsoil stockpiles	<p>Multiple topsoil stockpile locations are located around the project site. Topsoil will be stored onsite until it is required for use in rehabilitation.</p>
Explosives magazine	<p>The magazine will store ammonium nitrate fuel oil (ANFO) for use in blasting during operations and is located on the site plan with a 1,000 m blast radius exclusion zone. They will be fenced with only authorised access permitted.</p>
Waste dump	<p>The overburden waste dump is located to the south of the open pit and is sized for the mine life.</p>
Tailings storage facility (TSF)	<p>The TSF located to the southern edge of the mine lease area is to be staged with the first 2-year capacity constructed by cut from the dam area to provide fill for the conventional wall construction. The TSF will then be progressively constructed by modified centre raise techniques from waste rock and other materials available onsite to store the mine life tailings.</p>
Dry stacked sand	<p>The process plant will produce a dry stackable sand screened from the grinding circuit. There will be a relocatable conveyor system that will progressively stack the sand. An initial retaining wall constructed from waste rock will provide an optimised footprint for the stockpile area – these will be progressively built as cells over the mine life.</p>
Supporting dams and ponds	<p>Dams are provided for raw water storage from the borefield, for process water, fire water, pit dirty water and evaporation ponds.</p>
Process plant infrastructure	<p>The process plant will be supported by non-process infrastructure in the form of maintenance workshops and stores.</p>
Substation	<p>A substation is located at the termination of the services corridor, which will reduce the incoming voltage for use at mine site.</p>

Figure 4: Mine site area interface plan



Hawsons Iron Project Infrastructure Mine Site Area Interface Plan

Spatial Reference
PCS: GDA2020 MGA Zone 54



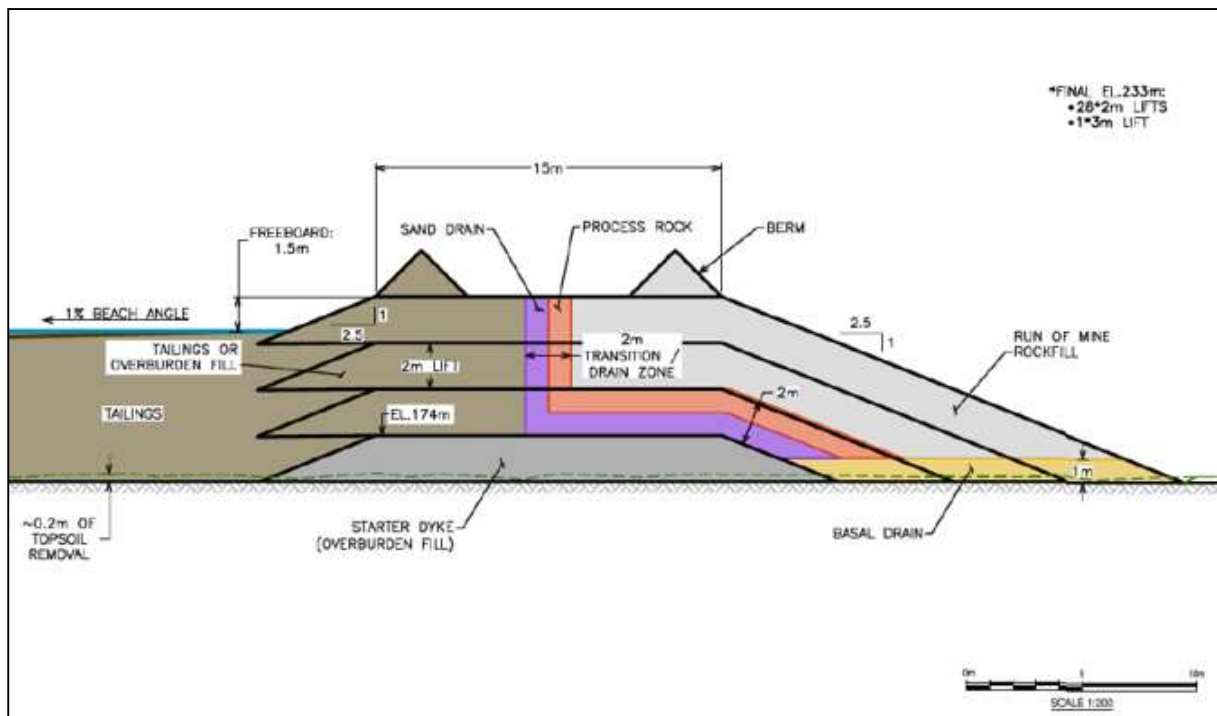
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Tailings

A tailings storage facility (TSF) is required to store, drain, settle and stabilise the very fine waste tailings stream produced by the process plant. The concept design work has been performed by Stantec based on the process flow sheet produced in the latter half of 2023 following the second round of process testwork.

The tailings storage concept shown in **Figure 5** below progresses the development of the overall TSF in smaller starting cells to minimise the early capital expenditure.

Figure 5: Typical tailings dam cross-section from Stantec Report



Off Site Infrastructure

Power

The project's electricity supply will be sourced from an overhead powerline connected to the 220 kV Transgrid powerline supplying Broken Hill.

The connection application process will be based on the conceptual electrical load requirements for the site, but this has not yet commenced.

Water Supply

The primary water demand for the project will be the process plant.

A Reverse Osmosis plant will provide clean water for concentrate washing and filtration prior to train loadout.

As part of the project development, a new borefield will be established for the supply of water from production bores.

The current identified water source for the project is a borefield located in the Lower Renmark Aquifer near Coombah, approximately 90 km south of the project site.

The Lower Renmark Aquifer contains saline groundwater with total dissolved solids concentrations of around 15,000 mg/L.

Concentrate Export and Port Facility

Concentrate slurry from the processing plant is thickened in the concentrate thickener and the concentrate thickener underflow is fed to the concentrate washing and filter (dewatering) plant on site.

The dried magnetite concentrate will be conveyed to a product stockpile with sufficient capacity to cater for the train loading schedule. The product will be reclaimed from the stockpile via a reclaim tunnel and conveyed to the TLO.

The magnetite concentrate will be loaded onto trains on site and railed to the Port of Adelaide for export shipping, reducing upfront capital costs and risk compared to the proposed alternative of constructing an underground slurry pipeline to a new port at Myponie Point.

As shown in **Figure 6**, a new rail spur and train load out balloon loop will go from the mine site to connect with the ARTC network at Cockburn.

Flinders Port Holdings Pty Ltd (FPH) owns and operates the Port of Port Adelaide. Hawsons is in discussion with FPH to develop a design concept that will require an upgrade of the facilities to handle the bulk unloading of trains from Hawsons Iron, with stockpile and reclaim facilities sized to store sufficient magnetite concentrate to meet the shipping requirements for export.

FPH are proposing conceptually to transship the concentrate with self-propelled 30,000-tonne barges able to load ships up to Capesize (170,000 tonnes).

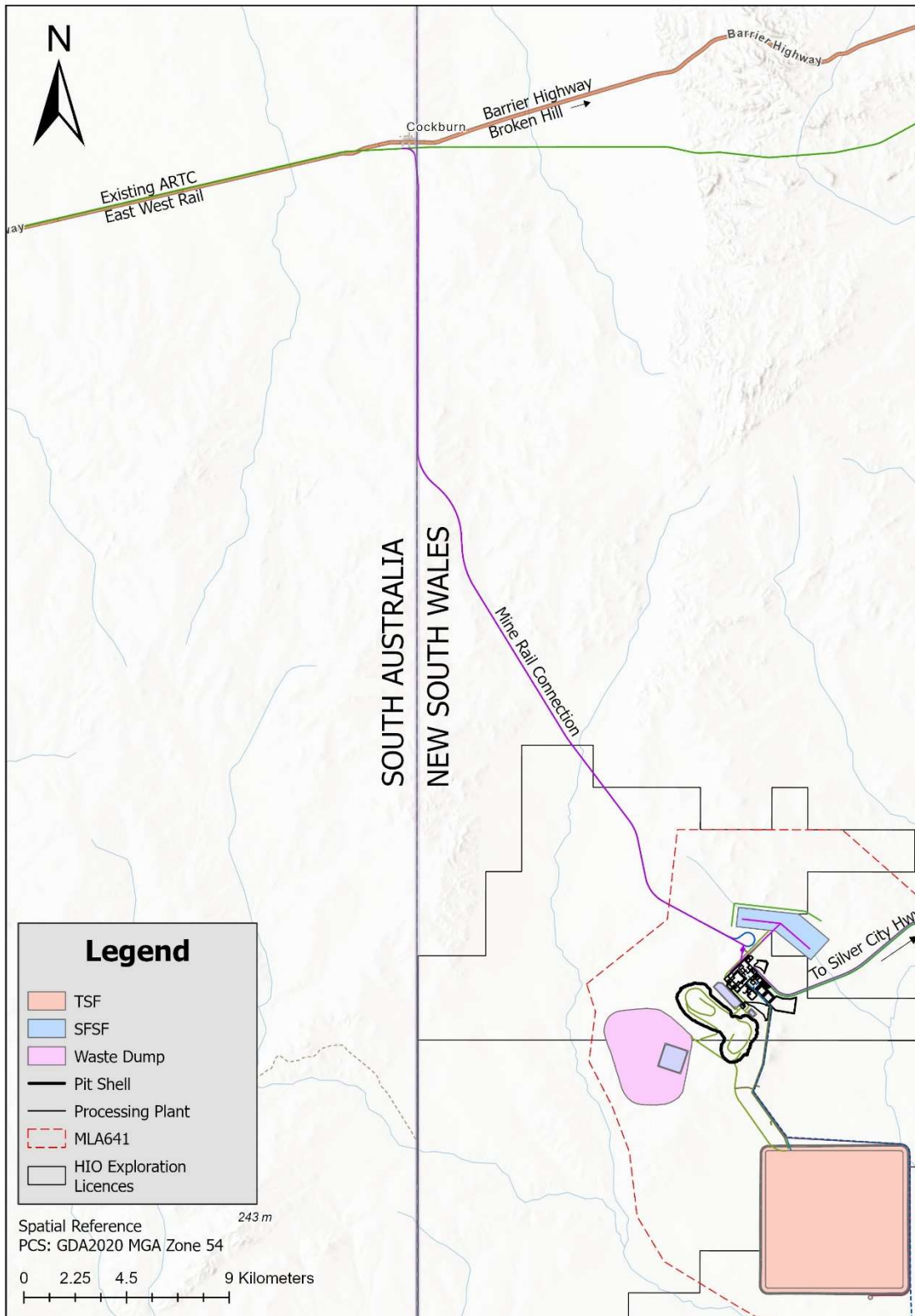
The advantage of being able to load Capesize ships is they provide the optimum shipping costs in dollars per tonne, balanced against the increased costs of transshipping versus a berth loading facility. Further work is planned to engage with FPH on the concept design for the Port of Adelaide.

The rail operating costs will be higher than the proposed alternative slurry pipeline to a potential new port facility at Myponie Point.

Hawsons recently extended an option agreement with Landholders at Myponie Point by a further 12 months to purchase 1,000 acres required to build a deep-water port. This allows Hawsons to provide both base-case Port Adelaide and future Myponie Point Port options for discussions with Strategic Investors.

This option extension expires in June 2025 and allows for future development. (See ASX Announcement dated 20 June 2022: [Hawsons signs option agreement to secure Myponie Point port land sites](#))

Figure 6: Conceptual route of rail loop and spur connecting to ARTC network



Released by authority of the Board

Hawsons Iron Limited

16 April 2024

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Disclaimer

This announcement contains “forward-looking information” that is based on the Company’s expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to this project update, the Company’s business strategy, plan, development, objectives, performance, outlook, projections, targets and expectations. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as, 'anticipate', 'project', 'target', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are predictions, and that the Company’s actual future results or performance may be materially different.

The Company considers the forward-looking information in this announcement is based on reasonable grounds. The Company does not make or give any representation, assurance or guarantee that expected outcomes in this announcement will ultimately be achieved.

The forward-looking information in this announcement is subject to known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information. Such risks include, but are not limited to, future prices and demand for iron and other metals; foreign exchange rates; availability of funding; results of further activities (including further studies, exploration and metallurgical work); changes in project parameters as plans continue to be optimised; failure of plant; equipment or processes to operate as anticipated; possible variations of ore grade or recovery rates; accident, labour disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing or in the completion of development or construction activities and general business, economic, competitive, political and social uncertainties.

This announcement contains forward-looking statements including statements regarding AME’s intent, belief or current expectations. Members of the public are cautioned not to place undue reliance on these forward-looking statements. AME does not undertake any obligation to publicly release the result of any revisions to these forward-looking statements to reflect events or circumstances after the date hereof. While due care has been used in the preparation of forecast information, actual results may vary in a materially positive or negative manner. Forecasts and hypothetical examples are subject to uncertainty and contingencies outside AME’s control. Past performance is not a reliable indication of future performance.

These risks are not exhaustive of the factors that may affect or impact future results. These and other factors should be considered carefully, and readers should not place undue reliance on such forward-looking information.

About Hawsons Iron Ltd

Hawsons Iron Ltd (ASX: HIO) is an iron ore developer and producer listed on the Australian Securities Exchange. The company is focused on developing its flagship Hawsons Iron Project near Broken Hill into a premium provider of high-quality iron ore products for the global steel industry.

The Hawsons Iron Project is situated 60 km southwest of Broken Hill, New South Wales, Australia in the emerging Braemar Iron Province. It is potentially capable of producing the world's highest-grade iron product (70% Fe), making it among the world's leading undeveloped high-quality iron ore concentrate and pellet feed projects.

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