Carpentaria EXPLORATION LIMITED

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ABN : 63 095 117 981 ASX : CAP

28 July 2017

CARPENTARIA EXPLORATION LIMITED

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Hawsons a global leader after successful prefeasibility study

Hawsons Iron Project prefeasibility study (PFS) for a 10 million tonne per annum (Mtpa) operation confirms:

- **Broken Hill project's potential as the leading undeveloped high quality iron ore concentrate and pellet feed project**
- **Robust project economics and excellent development potential at long-term iron ore price forecast**
- **Costs in the 1st quartile of CRU's global iron ore supply cost curve (adjusted to 62% Fe)**
- **High strategic value to steel makers as priorities increasingly shift globally toward higher quality inputs**
- **Positive equity returns (post tax, geared) with net present value (NPV) of US$1.1 billion (A$1.46 billion) and 30% internal rate of return (IRR), project returns (post tax, ungeared) 18% IRR**
- **Maiden Probable Reserve Statement of 755MT at 14.7%DTR for 111 million tonnes of high quality concentrate (see page 6).**

Emerging iron producer Carpentaria Exploration (ASX:CAP) announced today a new prefeasibility study for its flagship Hawsons Iron Project joint venture near Broken Hill (ASX:CAP 64%, Pure Metals P/L 36%) which has elevated Hawsons to the front of the development queue for high-quality iron ore projects.

The Hawsons project prefeasibility study (PFS) was completed by independent consultants GHD and the results show robust project economics for production of 10 Mtpa of the world-leading Hawsons Supergrade® product for steel makers based on assumptions below.

Carpentaria's Managing Director, Quentin Hill, said the results established the project's position as the world's leading undeveloped high quality concentrate and pellet feed project.

"This is a major step forward for what could become a decades-long operation for Broken Hill. Blue-chip steel makers from Asia and the Middle East have already oversubscribed for our initial planned production, and Hawsons is now extremely well positioned to attract the necessary investment to advance towards mining," he said.

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A summary of the PFS results, is as follows:

Hawsons PFS key economic results	Base case	at July 26, 2017 prices 65%Fe fines US$85.40/t
Equity IRR (post tax, geared)	29.9%	37.9%
Equity NPV (10%) (post tax, geared)	US$1,091m	US$1,626m
Project IRR (post tax, ungeared)	17.8%	22.6%
Project NPV (10%) (post tax, ungeared)	US$867m	US$1,432m
Life of mine ave. annual revenue	US$881m	US$983m
Life of mine ave. annual all in costs	US$480m	US$486m
Life of mine annual margin (EBITDA)	US$401m	US$497m

Hawsons PFS preproduction costs (yr 1-2)	USD (m)
Preproduction mining costs including pre-strip	194
Mining	242
Processing	398
Infrastructure and administration	359
Rail and port	208
Total[1,2,3]	**1401**
[1] incl EPCM 12.5% / contract management 3% of US$127m	
[2] incl. contingency and design growth (av. 16.5%)	
[3] excludes finance costs	
[4] excludes new in-pit conveyor in yr 5 of US$120m	
[5] net of salvage	

Hawsons operating and sustaining costs (after prestrip, ~YR 3-22)	USD/dmt product
Mining	12.14
Processing	8.23
Infrastructure and admin.	1.48
rail and port	11.23
Total C1 FOB	**33.08**
sustaining capital[4,5]	3.48
royalties	3.18
Total all in FOB	**39.74**
sea freight	8.29
Total CFR China	**48.03**
less Supergrade premium	25.00
62%Fe equivalent total CFR	**23.03**

Key Hawsons PFS assumptions					
total ore mined	1423mt	62% Fe fines benchmark*	US$63/t	AUD:USD	0.75
total waste mine	717mt	65%Fe fines benchmark*	US$75/t	debt:equity	65:35
total product	201mt	plus 5 x Fe 1% US$1.10	US$5.50/t	corporate tax	30%
product specification	70%Fe	plus magnetite premium	US$7.50/t	loan term	10.5 years
annual production	10mt	product revenue (dmt)	US$88.00/t	delivered rebated diesel price	A$0.89/L
moisture	8%	*ave. (mean) price forecast for 2020-2030 (real 2016)		delivered power price	A$95/MWhr

Commentary

Carpentaria's Mr Hill said the delivery of a PFS indicating financially robust results and a Maiden Probable Reserve Statement is the biggest step towards the project's development thus far, laying the foundations to attract funding for a bankable feasibility study.

"This successful prefeasibility study delivers an attractive development case for Hawsons under long-term iron ore price forecasts, and importantly a cost structure in the first quartile of the global iron ore cost curve (see page 4) that means cash flow is likely sustainable through the commodity cycle. These results substantially lift the investment grade and the strategic value of the project," Mr Hill said.

"We are delighted to have met the lower end of our cost targets and the project is now well positioned for ongoing development. These results are for a base case exporting through Port Pirie and we will seek to improve on the base case and optimise the project configuration, lowering costs and development risk where possible.

"Hawsons benefits from world-leading all in business costs (see page 4) and a highly competitive capital intensity and we are expecting strong interest in these results from the global iron ore and steel industry. Steel mill profits are improving and the industry is now once again seeking solutions to maintain productivity over the long term as the quality of iron ore globally continues to decline. We have positioned the project as a valuable, real and attractive high quality option to meet those needs. Hawsons is the right project at the right time".

GHD's study was completed to a +/- 30% accuracy with inputs from Carpentaria, other consultants and infrastructure and equipment suppliers. The project configuration and design maximise the advantages of Hawsons' soft ore and its location close to existing infrastructure. The engineering study also utilised advances in design and manufacturing technology where appropriate, while allowing for appropriate contingency, design growth and engineering procurement and management (EPCM).

Carpentaria now plans to present the results of the report to, and seek support for the next stage of project development from, its seven blue-chip customers that have signed non-binding letters of intent (LOIs) for purchase of the Hawsons Supergrade® product, as well as other steel makers, buyers and financial institutions who have shown ongoing interest in the project. Initial discussions have been encouraging and a data room will soon be open.

Current LOI customers comprise Bahrain Steel, Emirates Steel and Kuwait Steel from the Middle East; China's Shagang International; Japan's Mitsubishi Corporation RtM; Taiwan's Formosa Plastics; and Gunvor Group. Collectively, they have signed LOIs for a total of 12 Mtpa of Hawsons Supergrade® product, accounting for 120% of the PFS' target production.

"We are focused on ensuring this project delivers maximum benefits to all stakeholders, including new jobs and investment for Broken Hill and increased wealth for our shareholders," Mr Hill added.

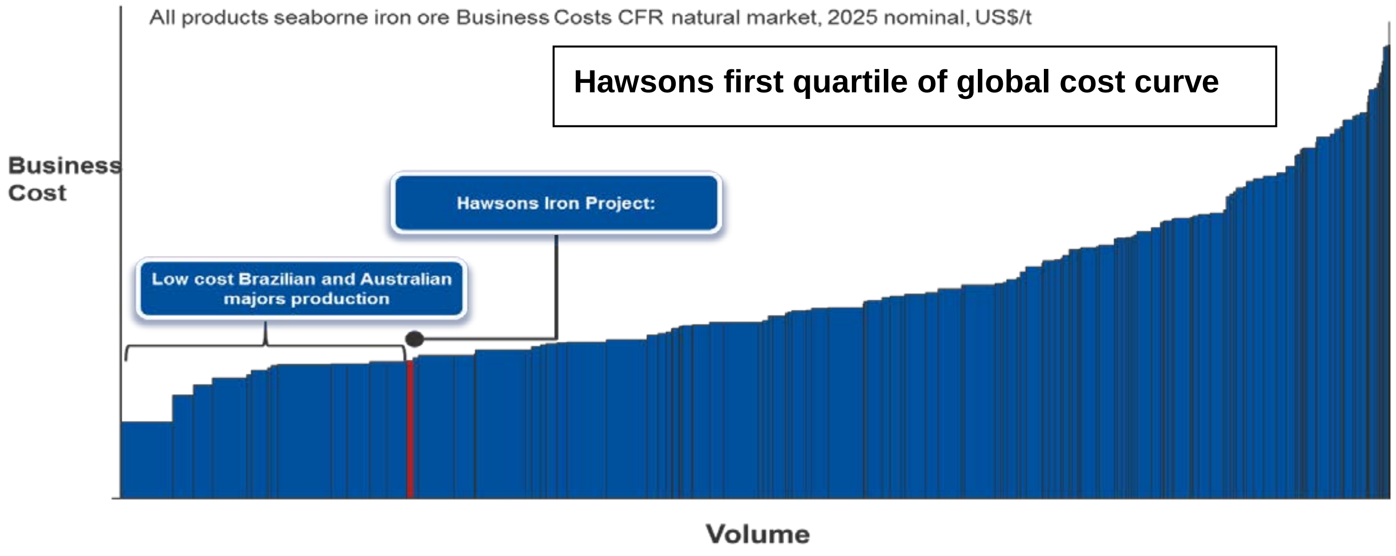
Hawsons Iron Project – World leading concentrate and pellet feed project

Independent market analysts CRU have made an assessment of the Hawsons project, concluding that:

1. Business costs are in the first quartile of the global iron ore supply cost curve
2. Business costs show Hawsons to be the leading concentrate/pellet feed project globally
3. Capital intensity is near the lowest of CRU's basket of concentrate/pellet feed projects globally, and
4. Hawsons' product iron grade is the highest of all concentrate products worldwide.

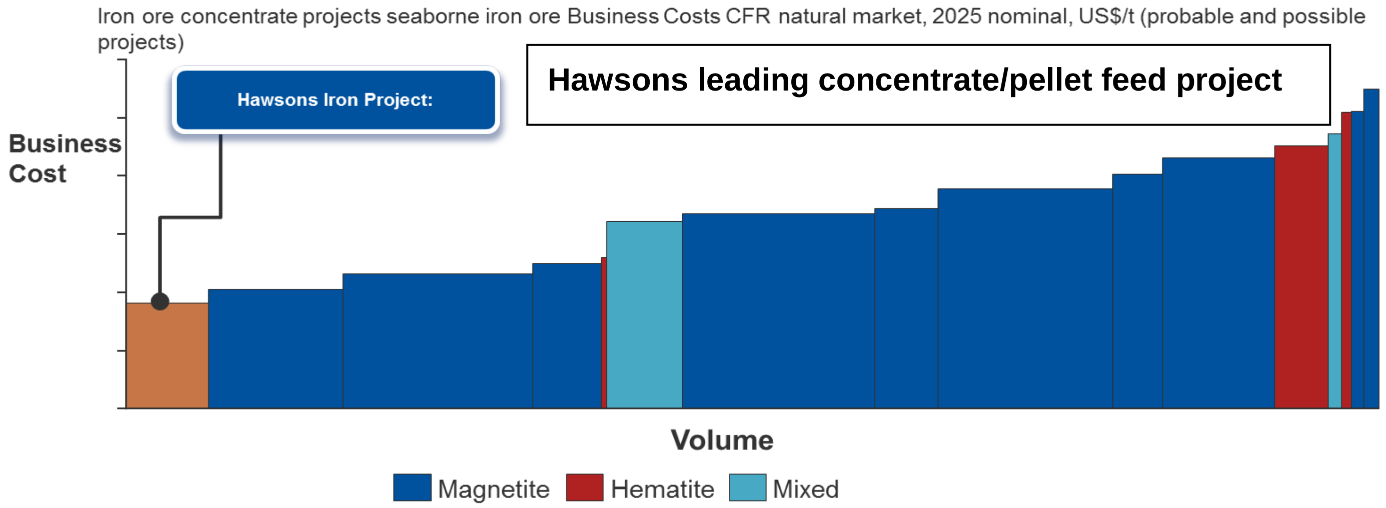
CRU has forecast sustained modest long-term growth in steel demand, and identified that iron ore pellet feed/pellets are likely to be the highest growth segment of the iron ore market at a compound average growth rate to 2030 of 3.4% globally. This is primarily driven by growth in Chinese pellet demand fuelled by consolidation and increasing efficiency of the Chinese steel industry, but also by significant expansion in the Middle East and Latin America.

These factors all underscore that Hawsons is well positioned for development and has increasing strategic value that is yet to be realised.

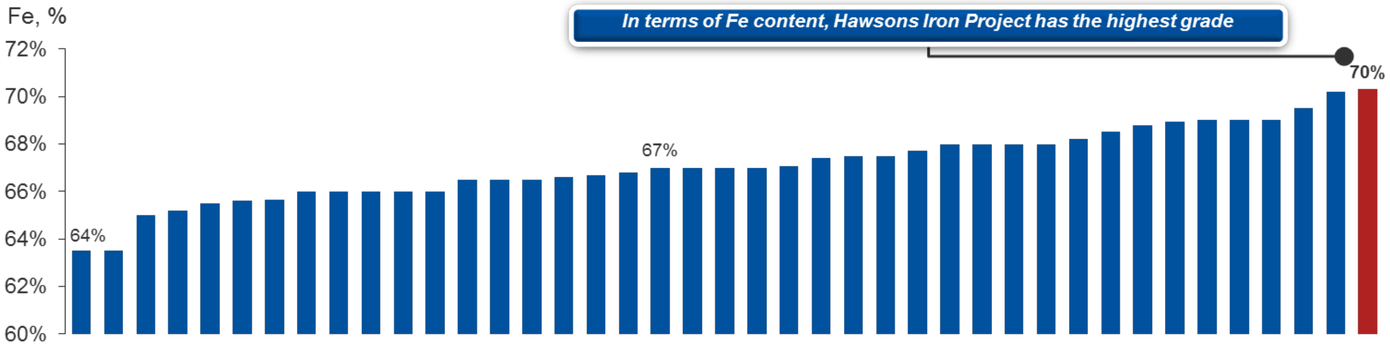


Source CRU, July 2017, Global iron ore business cost curve

CRU's Business Cost includes all cost of operations up to delivery at the buyers ports and also includes a value in use adjustment that normalises all operations to the benchmark 62% iron ore price delivered to China, to allow for direct comparison. Cost curve includes projects.



Source CRU, July 2017, iron concentrate business cost curve for possible and probable projects. CRU's Business Cost is all operations up to delivery at the buyers' ports and also includes a value in use adjustment that normalises all operations to the benchmark 62% iron ore price delivered to China, to allow for direct comparison.



Iron content of concentrate projects, source CRU.

Customers

Hawsons offtake customers cover the Asian steel making market and the Middle East direct reduction market:

Company	Volume	Market
Formosa Plastics	2.6 Mtpa	concentrate/pellet feed
Bahrain Steel	3.0 Mtpa	direct reduction (DR) pellet feed
Shagang	2.5 Mtpa	pellet feed
Mitsubishi Corporation RtM	1.0 Mtpa	pellet feed
Gunvor	1.0 Mtpa	concentrate
Kuwait Steel	1.0 Mtpa	DR pellet feed
Emirates Steel	0.9 Mtpa	DR pellets
Total	**12.0 Mtpa**	

Additional information for the purposes of ASX Listing Rules 5.9.1 and 5.16 and 5.17:

The material assumptions and outcomes of the PFS study, the production target of 10 Mtpa and forecast financial information:

The study investigated production of 10mtpa of Hawsons Supergrade® concentrate production for a mine of 20 years production for 201Mtpa. The ore is to be mined and processed on site, with the final mineral concentrate being transported via slurry pipeline to a rail head site near Broken Hill.

Concentrate will then be dewatered and transported on the existing rail to Port Pirie, where a port upgrade including storage sheds, pipe conveyor and new ship loaders is proposed. Ore would then be transported via barge to capesize ocean going vessels for delivery to export markets to customers in the Middle East and East Asia.

Assumptions such as pricing for iron ore products and exchange rates are as set out in this announcement.

The criteria used for classification, including the classification of the mineral resources on which the ore reserves are based and the confidence in the modifying factors applied/the basis of the cut-off grade or quality parameters applied/ estimation methodology:

The classification of the resource estimates is based on the data distribution, which is a function of the drillhole spacing, the style of mineralisation, the geological model, the QAQC programme and results and comparison with previous resource estimates. Drill hole spacing was nominally 200m x 200m or 200m x 100m for Indicated Resources and up to 400m x 200m for Inferred Resources. The mining method will be a bulk mining method via an open pit operation and the resources have been classified according to this assumption.

As a result of the above classification, a new updated Mineral Resource for the Hawsons Magnetite Project has been estimated and was reported (ASX Announcement 21 June 2017). The estimates are reported for a 9.5% Davis tube recovery (DTR) cut off, as advised by the Company, from within the fresh rock zone vertically above the -240mRL.

The 9.5%DTR cut-off is considered by the Company to be conservative and reasonable, as GHD reported that the optimisation process indicates the economic cut-off grade could be lower than 9.5%DTR. Key assumptions in the optimisation were revenue based on 62%Fe price of US$60/t (converting to a 65%Fe price of US$70/t), with mining and processing costs being derived from previous mine planning and processing test work.

The Company has a high level of confidence in the modifying factors applied in the estimation of reserves. The estimates have been based on GHD's conceptual General Arrangement Drawings, Process Flow Diagrams and other information obtained by the Company from independent consultants and suppliers. The accuracy of the cost estimates (±30 %) is in line with the level of detail available at the time of producing this study. The estimates for applied contingency and design growth, were on a line by line basis and averaged 16.5%.

- The process cost estimate relates to all equipment required for the production process. It includes comminution and concentration, along with all pumps, pipe work, motors and electrical components and transport equipment for slurry pipeline and dewatering near Broken Hill.
- The infrastructure cost estimate relates to all supporting elements of the mining and processing operation.
- Sustaining capital cost estimate is related to the necessary cost to refurbish or replace major pieces of equipment. It does not include the in pit conveyor and is less salvage value.
- The operating cost estimate relates to equipment and infrastructure maintenance, including process consumables and power consumption, separated into mining, processing and infrastructure operational costs.
- Transport cost estimates, including port, rail, and sea freight costs were provided by external operators or derived from first principles.

The relevant proportions of probable ore reserves and proved ore reserves, inferred, indicated and measured ore resources and exploration target:

Indicated Mineral Resources comprise 87% of the ore mined and processed in the early mine plan, defined as the first seven of twenty years and covering the payback period. Under the mine plan, the economic viability of the project is not reliant on Inferred Resources.

(Cautionary statement: There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Resources or that the production of target itself will be realised.)

The combined total resource mineral estimate of 348mt of concentrate will allow for an extended mine life beyond that studied should additional drilling confirm conversion from Inferred to Indicated resources. During the September 2016 drilling programme the conversion rate was 96%.

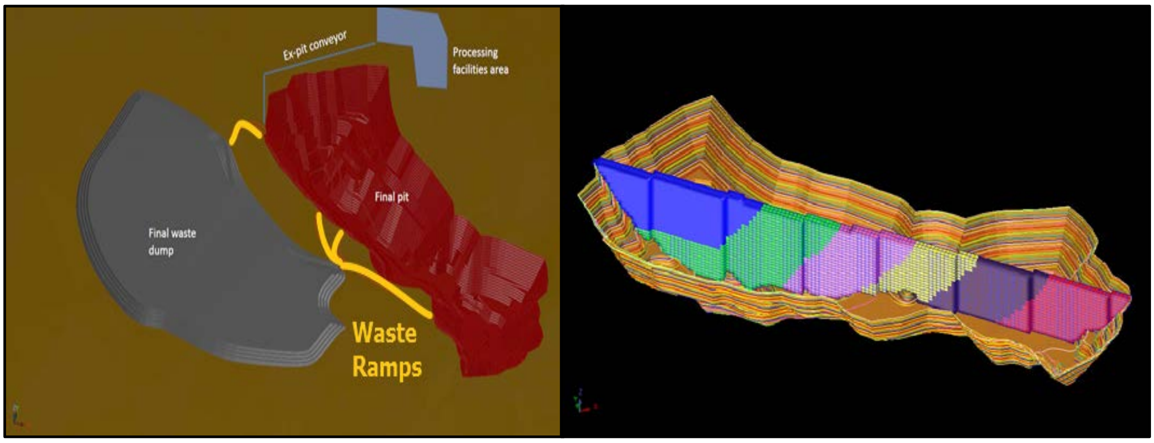
The PFS has allowed the application of modifying factors to convert Indicated Mineral Resources into Probable Reserves as described in this announcement. The total Hawsons Resource base now stands at:

					Concentrate Grades						
	Mt	DTR %	DTR Mt	Fe Head %	Fe %	Al2O3 %	P %	S %	SiO2 %	TiO2 %	LOI %
Probable Reserves	**755**	**14.7**	**111**	**17.5**	**69.9**	**0.19**	**0.003**	**0.002**	**2.60**	**0.03**	**-3.03**
Indicated (incl. Reserves)	840	14.5	121	17.4	69.9	0.19	0.004	0.002	2.61	0.03	-3.04
Inferred	1,660	13.6	227	16.8	69.7	0.20	0.004	0.003	2.91	0.03	-3.04
Category	**2,500**	**13.9**	**348**	**17.0**	**69.7**	**0.20**	**0.004**	**0.002**	**2.81**	**0.03**	**-3.04**

The mining method selected and the other mining assumptions, including mining recovery factors and mining dilution factors:

The mining method utilises truck and shovel for the pre-stripping and the early mine plan, while in pit conveying (IPC) is utilised in year five once meaningful depths have been reached. The plan is to use the conveyor for the vertical lift and the trucks for horizontal movement, maximising the use of comparatively cheap electrical power, reducing truck hours and improving safety. Following a prestrip of ~150mt, the life of mine (LOM) waste:ore ratio is 0.40, dropping to near zero by year 11.

A total of 1406mt of ore and 568mt of waste are mined post pre-stripping. A maximum mining rate of 152mtpa is achieved in year 7.



Mine layout and pit cross section

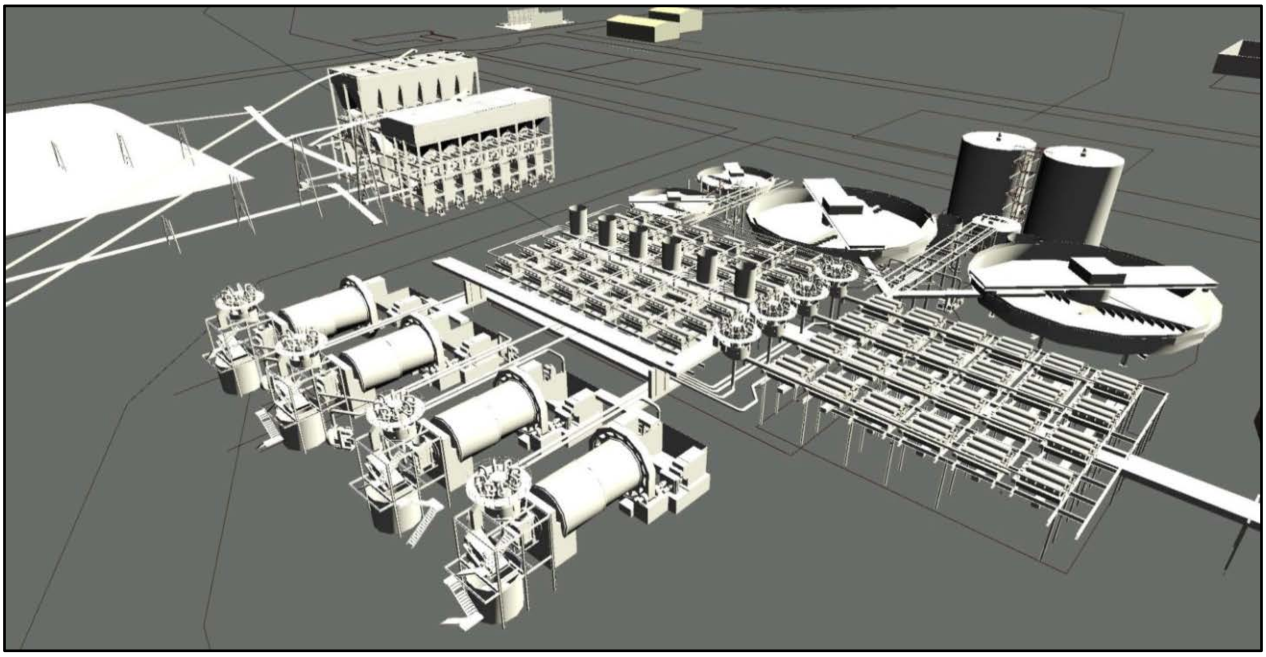
The processing method selected and other processing assumptions, including the recovery factors applied:

The processing plant design criteria are based on:

- The results of ore characterisation tests such as crushing and milling indices and material flow properties
- Results of an 8 tonne pilot plant run on a representative bulk sample.
- Nameplate plant design capacity of 10 Mtpa.

All major processing will occur in the magnetite concentrator at the mine site before transporting the concentrate in slurry form to the railhead for de-watering. The process plant consists of the following major elements:

- Primary crushing - Impact crushers
- Crushed ore stockpiling/reclaiming
- Secondary crushing – Impact crushers
- Primary Concentration - Rougher magnetic separators
- Grinding – Ball mills
- Cleaner magnetic separators
- Hydro-separators (Thickener)
- Concentrates transport via slurry pipeline to railhead
- Concentrates dewatering and handling at the railhead



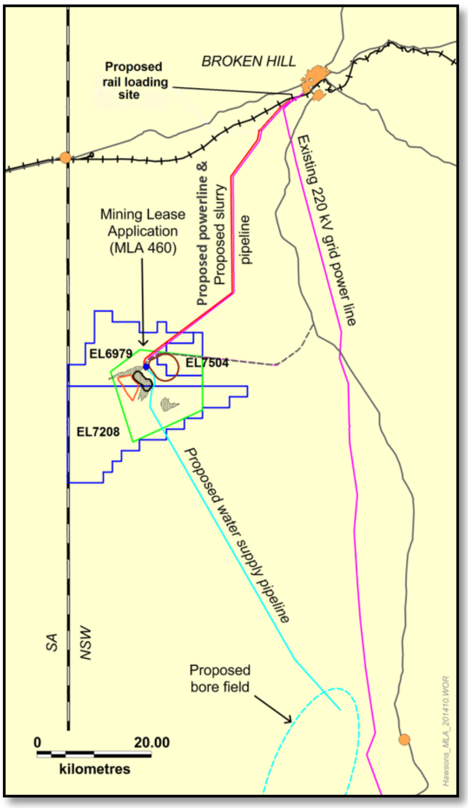
Process plant layout

The flow sheet has been developed largely based on an 8 tonne pilot scale test done at ALS iron ore technical centre in Perth. Under the mine plan, material is delivered to the plant at a LOM average of an estimated 14.2% Davis tube mass recovery (DTR) and concentrate grade of 69.8% Fe. Plant recovery on average is 14.1% DTR mass recovery at 70% Fe.

The near 100% recovery reflects results achieved through the pilot plant test work. Typically, mineral concentrate recoveries are based on processing test work recoveries reported against pure elemental assays of the ore. However, the DTR test is a metallurgical recovery test and therefore high recoveries are expected. Test work included a representative sample from three mineralogical domains which all returned very similar results, establishing a relatively high degree of homogeneity across the ore deposit.

Tailings will be thickened and pumped to a circular tailing storage facility and single cell and perimeter discharge will be utilised.

Material modifying factors, including the status of environmental approvals, mining tenements and approvals, other governmental factors and infrastructure requirements for selected mining methods and for transportation to market:



Site location plan

Power

Total power demand for the site has been determined by summing the total of all the electrical motors and applying the relevant usage factors. The total installed power for the project is 138MW, with an average power usage of 87.4MW over three load centres.

The transmission line is a 220 kV single circuit line running from the Buronga to Broken Hill substations and is connected to the NSW transmission system via a single circuit 220kV line. This line has sufficient spare capacity to meet project requirements.

Power will be sourced from this line via a connection in Broken Hill and then distributed to the rail head, the mine site and the borefield (see figure above).

Transgrid, the infrastructure owner, has advised that there is sufficient spare capacity available in the grid.

Water

Water will be sourced from a deep saline aquifer located 90km to the south of the site. Extensive sampling, pumping test work and hydrogeological modelling has identified sufficient project water. The water is available for allocation under existing regulations. Water will be pumped to site and a reverse osmosis plant will enable a fresh water stream for concentrate washing and product transport.

Product transport

Rail pricing and rail capacity information was obtained from below and above rail operators. Carpentaria was informed that sufficient rail capacity is available with small upgrades to the network in the form of extension of sidings.

Port infrastructure was detailed in the earlier Port Pirie study in conjunction with Flinders Ports (refer ASX announcement dated 23 February 2015). Infrastructure required includes storage sheds, a pipe conveyor and a ship loader to allow product delivery to the existing port berths for transhipment in 17,000t payload barges to capesize vessels.

Pricing

Independent consulting group Shanghai Metals Market, following interviews with a large sample of the coastal Chinese steel industry, provided the pricing formula for the concentrate product. The formula was applied to long-term iron ore index rates that were supplied by an independent international consulting group. The base index for the revenue calculation was the average long term 65% Fe fines price. This resulted in a premium to the benchmark 62% Fe fines price of ~US$25/t.

Market

Carpentaria has current non-binding letters of intent to purchase up to 12mtpa of Hawsons Supergrade® product, and therefore a ready market has been established. The consensus outlook is for sustained modest long-term growth in steel demand, and CRU have identified that iron ore pellet feed/pellets are likely to be the highest growth segment of the iron ore market over the first ten years of mine life.

This, it is argued, will primarily be driven by growth in Chinese pellet demand fuelled by consolidation and drive to increase productivity of the Chinese steel industry, but also significant expansion in the Middle East and Latin America.

Approvals

Carpentaria has lodged a mining lease application and is working to complete the secretary's environmental assessment requirements (SEARs) to allow lodgment of the Environmental Impact Statement. No significant issues have been identified to date.

Carpentaria's Mr Hill concluded: "Hawsons is positioned to become the basis of a long-term, low cost premium iron business for our Company. With Asia and the Middle East needing new, independent and reliable suppliers of high quality product, we are perfectly placed to deliver the right product at the right time."

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We find it. We prove it. We make it possible.

The information in this report that relates to Exploration Results, Exploration Targets and Resources is based on information evaluated by Mr Q.S. Hill who is a member of the Australian Institute of Geoscientists (MAIG) and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 (the "JORC Code"). Mr Hill is a Director of Carpentaria Exploration Ltd and he consents to the inclusion in the report of the Exploration Results in the form and context in which they appear.

The data in this report that relates to Mineral Resource Estimates for the Hawsons Magnetite Project is based on information evaluated by Mr Simon Tear who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 (the "JORC Code"). Mr Tear is a director of H & S Consultants Pty Ltd and he consents to the inclusion in the report of the Mineral Resource in the form and context in which they appear.

The data in this report that relates to Mineral Reserve Estimates for the Hawsons Magnetite Project is based on information evaluated by Mr Hugh Thompson who is a Fellow of The Australasian Institute of Mining and Metallurgy (FAusIMM) and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 (the "JORC Code"). Mr Thompson is a consultant to GHD and he consents to the inclusion in the report of the Mineral Reserve in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1 Hawsons Iron Project

Section 1 Sampling Techniques and Data – 2010 Campaign

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• A total of 52 drillholes were drilled by CAP. Drillholes were a mixture of reverse circulation (RC) from surface, diamond tails to RC precollars (PD) and diamond from surface (DD). • All sampling was to industry standard • RC drillholes were drilled to obtain 1m samples with sample compositing applied to obtain a 2m to 10m 3kg sample which was pulverized to produce 150g aliquot for X-Ray Fluorescence (XRF) and Davis Tube Recovery (DTR) analysis. Hand held magnetic susceptibility measurements and geological logging was completed for every metre of every drillhole. • Diamond drillhole core sampling process involved; orientation, metre marking, magnetic susceptibility measurements (every 0.5m), core recoveries, rock quality designation (RQD) and geological logging (every metre). The core was then photographed and cut into halves to produce an 8m composite sample (predominantly NQ core) which was pulverized to produce a 150g aliquot for XRF and DTR analysis. • Geoscience Associates carried out gyroscope surveying on all drillholes. Surveys were conducted on open hole. The geophysical logging was completed for a majority of holes and consisted of natural gamma, magnetic susceptibility, density and calliper readings • CAP has a suite of documented procedures for drilling related activities • Consistency of sampling method maintained. • Sampling technique is considered appropriate for deposit type
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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 is a combination of RC, PD and DD • Industry standard drilling rigs suitable for the required task were used. • RC drilling was carried out using a truck mounted Schramm and truck mounted KWL 1600H. Both used 4.5 inch rods and 5.5inch face bits. • PD and DD drilling was carried out using a truck mounted UDR650 using NQ2 and standard HQ diameters. When orientated the ACE Core orientation tool was used

Criteria	JORC Code explanation	Commentary
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.*	• RC sampling done on 1m intervals into green plastic bags. Sample recoveries for RC were visually estimated by the geologist at the time of drilling and recorded, • Because no numerical RC chip recovery data exists it is not possible to conclude if there is a relationship between sample recovery and mineral grade • Core recoveries were recorded by measuring the length of core recovered in each run divided by the drilled length of the individual core runs; average recovery >97%. • A hand held XRF orientation study concluded that there was no sample bias with loss or gain of fine/coarse material. • Negligible wet samples in the RC drilling
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.*	• Every RC, PD and DD drillhole was logged by a geologist & entered into Excel spread sheets recording; Recovery, Moisture content, Magnetic susceptibility, Oxidation state, Colour, % of Magnetite, Gangue Min, Sulphide Min, Veins and Structure. Data was uploaded to a customised Access database. • Logging used a mixture of qualitative and quantitative codes • All RC sample metres were sub-sampled, sieved, washed and stored in a labelled plastic chip tray. All remaining drill core after sampling was stored in labelled plastic core trays on site. • All drill core was photographed wet and dry after logging and before cutting. • All relevant intersections were logged • Geological logging was of sufficient detail to allow the creation of a geological model.
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 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.*	• All RC samples were composited using the spear sampling method. The spear method was concluded to be adequate based on the results of a hand held XRF orientation exercise. The green plastic bags were speared from each angle to the bottom of the bag to ensure a representative sample. • DD core was cut into half core using a brick saw and diamond blade. The core was cut using the orientation line or perpendicular to bedding. Half core was sent to ALS for analysis, whilst remaining half core was retained for reference. • Field duplicates, blanks (river sand) and certified standards were used for quality control measures • All sampling methods and samples sizes are deemed

Criteria	JORC Code explanation	Commentary
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	appropriate

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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*
		• Sample Prep
		  • Crush the sample to 100% below 3.35 mm.
		  • A 150 g sub-sample for pulverizing in a C125 ring pulveriser (record weight) – DTR SAMPLE.
		  • Initially pulverize the 150 g sample for nominal 30 seconds – the sample is unusually soft for a ferro-silicate rock!
		  • Wet screen the DTR sample at 38 micron pressure filter and dry, screen at 1 mm to de-clump and re-homogenize.
		  • Record the oversize weights – if less than approximately 20 g is oversize, stop the procedure – failure.
		  • If failure - select another 150 g DTR Sample and reduce the initial pulverization time by 5 secs, repeat until initial grind pass returns greater than approximately 20 g oversize. Once achieved retain the – 38 micron undersize.
		  • Regrind only the oversize for 4 seconds of every 5 g weight of oversize.
		  • Repeat the wet screening, drying, de-clumping & weighing stages until less than 5g above 38micron remains.
		  • Ensure the remaining < 5 g oversize is returned back into the previously retained -38 micron product.
		  • Report the times and weights for each grind pass phase.
		  • Combine and homogenize all retained -38 micron aliquots and <5 g oversize –final pulverized product. Sub-sample the final pulverized product to give a 20 g feed sample for DTR work and a ~10 g sample for HEAD analysis via XRF fusion.
		  • The objective of the pulverizing procedure is to achieve a nominal P80 of approximately 25 micron for the sample.
		• Davis Tube Recovery (DTR) Analysis
		  • Pulveriser bowl 150 ml
		  • Stroke Frequency - 60/minute
		  • Stroke length – 38mm
		  • Magnetic field strength – 3000 gauss
		  • Tube Angle – 45 degrees
		  • Tube Diameter – 40mm
		  • Water flow rate – 540-590 ml/min
		  • Washing time 20 minutes

Criteria	JORC Code explanation	Commentary
		• Collect the concentrate in small collector (magnetic fraction) and discard tails. • X-Ray Fluorescence (XRF) Assaying • Using the Head Sample, analyse by XRF fusion method for the following elements: Al2O3 %, As % , Ba % , CaO % , Cl % , Co % , Cr % , Cu % , Fe % , K2O % , MgO % , Mn % , Na2O % , Ni % , P % , Pb % , S % , SiO2 % , Sn % , Sr % , TiO2 % , V % , Zn % , Zr % & LOI. • Dry the DTR concentrate and report the weight of the concentrate as a percentage of measured feed and report – DTR Mass Recovery. • Using the DTR concentrate sample analyse by XRF fusion method for the following elements: Al2O3 %, As % , Ba % , CaO % , Cl % , Co % , Cr % , Cu % , Fe % , K2O % , MgO % , Mn % , Na2O % , Ni % , P % , Pb % , S % , SiO2 % , Sn % , Sr % , TiO2 % , V % , Zn % , Zr % & LOI. • JH8 and KT5 magnetic susceptibility meters were used to record magnetic susceptibility. • A laboratory standard was used each day to calibrate each metre. A Niton XL3T Gold hand held XRF machine was used. A laboratory analysed sample was used to calibrate for Fe. • QAQC procedures consisted of using field duplicates, triplicates, blanks and certified standards at a frequency of 5 per 100 samples. • Internal QAQC measures were also undertaken by ALS. • Satisfaction of precision, accuracy and any lack of bias was made by Keith Hannan of Geochem Pacific Pty Ltd, an independent Geochemist/consultant. • All sampling and assay methods and samples sizes are deemed appropriate.
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.*	• Data was stored in a customised Access database • Twin DD holes were used to verify the results for RC holes and the DTR performance. • No Adjustments were made to raw assay data. • Density data from the downhole geophysics was adjusted upwards by 5.2% based on check density measurements using core with the immersion in water (Archimedes) method
Location of	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations*	• Drill holes collars were located by a local surveyor using a Differential GPS with accuracy to less than one metre.

Criteria	JORC Code explanation	Commentary
data points	*used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Coordinates were supplied in GDA 94 – MGA Zone 54. • Down hole surveys were recorded using a gyroscope due to the highly magnetic nature of the deposit. • Topographic control was collected using a high resolution Differential GPS by a local surveyor • Location methods used to determine accuracy of drillhole collars are considered appropriate
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.*	• The deposit is drilled at a nominal spacing of 150m to 400m in section and plan. • The drill spacing was deemed adequate for the interpretation of geological and grade continuity noting the homogeneity of the style of mineralisation. • Drill samples were composited under geological control with an interval range of 2 to 10m with an average length of 8m,
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 was completed at -60^{o}, generally sub-perpendicular to the bedding, which is the primary control to the magnetite mineralisation. • Different azimuths were used to reflect the changing strike of the beds associated with folding of the sediments and were designed to maintain the steep angle to the bedding • Locally holes suffered significant deviation to the right (east) with depth. This affected the lower Unit 2 more than the upper Unit 3 • Drilling orientations are considered appropriate with no bias.
Sample security	• *The measures taken to ensure sample security.*	• All samples were stored on site under CAP personnel supervision until transporting to the CAP Broken Hill office • Intensity of magnetite mineralisation is difficult to see visually but detectable using a magnet.

Criteria	JORC Code explanation	Commentary

Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sample procedures and results were systematically reviewed by CAP personnel.
		• The QAQC data was reviewed by CAP staff
		• The QAQC data was also reviewed by Keith Hannan of Geochem Pacific Pty Ltd, an independent Geochemist/consultant who concluded:
		  o 1. The duplication procedure for composite RC samples, by careful spearing, is demonstrably effective;
		  o 2. An absence of mismatches between duplicates and the consistency of analytical results for CAP blanks and the CAP certified standards indicate that sample handling procedures in the field for this program are well executed.
		• 3. Based on the laboratory chemical analyses and derived parameters such as magnetite content, the CAP monitor standard is chemically and mineralogically uniform and therefore 'fit-for-purpose'.
		  o 4. The high degree of correlation between the averaged field portable (FP) XRF readings for Fe on primary bags of RC spoil and the laboratory analyses of Fe on the much smaller composite samples derived thereof, indicates that downhole Fe distributions are successfully mapped by FP XRF and that the compositing procedure is effective.

Section 1 Sampling Techniques and Data – 2016 Campaign

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.*	• A total of 20 drillholes were drilled by CAP. All results have been received. Drillholes were reverse circulation (RC) from surface. • All sampling was to industry standard • RC drillholes were drilled to obtain 1m samples with sample compositing applied to obtain a 5m 6kg sample which was crushed to produce 150g aliquot for X-Ray Fluorescence (XRF) and Davis Tube Recovery (DTR) analysis. Magnetic susceptibility measurements and geological logging was completed for every metre of every drillhole. • Endeavour Geophysics carried out down hole geophysical logging and gyroscope surveying on all drillholes. Surveys were conducted on open hole. The geophysical logging consisted of natural gamma, magnetic susceptibility, density and caliper readings. • CAP has a suite of documented procedures for drilling related activities • Consistency of sampling method maintained. • Sampling technique is considered appropriate for deposit type
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 was RC. • RC drilling was carried out using truck mounted Sandvik DE 840 (UDR1200), UDR1000 and Metzke rigs. All used 4.5 inch rods and 5 ½ inch face bits.
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.*	• RC sampling done on 1m intervals into green plastic bags. Sample recoveries for RC were visually estimated by the geologist at the time of drilling and recorded for every metre, calculation of actual and theoretical mass concluded that wet samples averaged 40% to 50% recovery where dry samples were 80% - 90% recovery. No bias of mineral grade linked to recovery was found. • Twin RC and diamond holes have shown no bias in sampling based on drill type.

Criteria	JORC Code explanation	Commentary
		• A hand held XRF orientation study concluded that there was no sample bias with loss or gain of fine/coarse material. • <5% wet samples in the RC drilling
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.*	• Every RC drillhole was logged by a geologist & entered into Excel spread sheets recording; Recovery, Moisture content, Magnetic susceptibility, Oxidation state, Colour, % of Magnetite, Gangue Min, Sulphide Min, Veins and Structure. Data was uploaded to a customised Access database. • Logging used a mixture of qualitative and quantitative codes • All RC sample metres were sub-sampled, sieved, washed and stored in a labelled plastic chip tray. All remaining drill core after sampling was stored in labelled plastic core trays on site. • All relevant intersections were logged • Geological logging was of sufficient detail to allow the creation of a geological model.
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 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.*	• RC samples were composited using the riffle split method. A 1/16 split was taken from the rig every metre then composited by splitting again using a 50/50 riffle splitter. • Field pairs, blanks (washed sand) and certified standards we used for quality control measures • All sampling methods and samples sizes are deemed appropriate

Quality of assay data and	• *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*
		• Pulverizing
		  • Crush the sample to 100% below 3.35 mm.
		  • Separate a sample of 150 g for pulverizing in a C125 ring pulverizer (record weight) – DTR SAMPLE.
		  • Initially pulverize the 150 g sample for nominal 30 seconds – the sample is unusually soft for a ferro-silicate rock!

Criteria	JORC Code explanatio	Commentary
laboratory tests	*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.*	• Wet screen the DTR sample at 38 micron pressure filter and dry, screen at 1 mm to de-clump and re-homogenize. • Record the oversize weights – if less than approximately 20 g is oversize, stop the procedure – failure. • If failure - select another 150 g DTR Sample and reduce the initial pulverization time by 5 secs, repeat until initial grind pass returns greater than approximately 20 g oversize. Once achieved retain the – 38 micron undersize. • Regrind only the oversize for 4 seconds of every 5 g weight of oversize. • Repeat the wet screening, drying, de-clumping & weighing stages until less than 5g above 38micron remains. • Ensure the remaining < 5 g oversize is returned back into the previously retained -38 micron product. • Report the times and weights for each grind pass phase. • Combine and homogenize all retained -38 micron aliquots and <5 g oversize –final pulverized product. Sub-sample the final pulverized product to give a 20 g feed sample for DTR work and a ~10 g sample for HEAD analysis via XRF fusion. • The objective of the pulverizing procedure is to achieve a nominal P80 of approximately 25 micron for the sample. • Davis Tube Recovery (DTR) Analysis • Pulverizer bowl 150 ml • Stroke Frequency 60/minute • Stroke length – 38mm • Magnetic field strength – 3000 gauss • Tube Angle – 45 degrees • Tube Diameter – 40mm • Water flow rate – 540-590 ml/min • Washing time 20 minutes - • Collect the concentrate in small collector (magnetic fraction) and discard tails. • X-Ray Fluorescence (XRF) Assaying • Head Sample • Using the Head Sample, analyse by XRF fusion method for the following elements: Al_2O_3 %, As % , Ba % , CaO % , Cl % , Co % , Cr % , Cu % , Fe % , K_2O % , MgO % , Mn % ,

Criteria	JORC Code explanation	Commentary

		Na2O % , Ni % , P % , Pb % , S % , SiO2 % , Sn % , Sr % , TiO2 % , V % , Zn % , Zr % & LOI.
		• DTR Concentrate Sample
		  • Dry the DTR concentrate and report the weight of the concentrate as a percentage of measured feed and report – DTR Mass Recovery.
		  • Analyse the concentrate by XRF fusion method for the following elements: Al2O3 %, As % , Ba % , CaO % , Cl % , Co % , Cr % , Cu % , Fe % , K2O % , MgO % , Mn % , Na2O % , Ni % , P % , Pb % , S % , SiO2 % , Sn % , Sr % , TiO2 % , V % , Zn % , Zr % & LOI.
		• Head Satmagan analysis was conducted on every sample.
		• JH8 and KT5 magnetic susceptibility metres were using to record magnetic susceptibility. A laboratory standard was used each day to calibrate each metre. A Niton XL3T Gold hand help XRF machine was used. A laboratory analysed sample was used to calibrate for Fe.
		• QAQC procedures consisted of using field pairs, field duplicates, blanks, certified standards and umpire lab samples (Intertek) at a frequency of 10 per 100 samples.
		• Internal QAQC measures were also undertaken by ALS in the form of lab repeats, lab duplicates and the use of internal standards.
		• An independent review of the QAQC procedures and data was completed by Keith Hannan of Geochem Pacific Pty Ltd, an independent Geochemist/consultant. It was concluded that the data was fit for purpose for the resource modelling with lack of bias and acceptable levels of precision and accuracy.
		• All sampling and assay methods and samples sizes are deemed appropriate.

Criteria	JORC Code explanation	Commentary
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.*	• Data was stored in an Access database • Twin RC of DD holes were used to verify the results for RC holes and the DTR performance. • A rigorous QAQC program was completed by Keith Hannan of Geochem Pacific, checking all aspects of sample preparation and analysis. • No adjustments were made to raw assay data and lab certificates were presented to verify the data.
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.*	• Drill holes collars were located using a Differential GPS accuracy to less than one metre by a local surveyor. • Coordinates were supplied in GDA 94 – MGA Zone 54. • Down hole surveys were recorded using a gyroscope due to the highly magnetic nature of the deposit. • Topographic control was collected using a high resolution Differential GPS by a local surveyor • Location methods used to determine accuracy of drillhole collars is considered appropriate

Criteria	JORC Code explanation	Commentary
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.*	• The deposit is drill at a nominal spacing of 150m to 200m in section and plan. • The drill spacing was deemed adequate for the interpretation of geological and grade continuity noting the homogeneity of the deposit and style of mineralisation. • Drill samples were composited at a nominal 5m
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 was completed at -60o, generally sub-perpendicular to the bedding, which is the primary control to the magnetite mineralisation. • Different azimuths were used to reflect the changing strike of the beds associated with folding of the sediments and were designed to maintain the steep angle to the bedding • Locally holes deviated to the right (east) with depth. • Drilling orientations are considered appropriate with no bias.
Sample security	• *The measures taken to ensure sample security.*	• All samples were stored on site under company personnel supervision until transporting to the companies Broken Hill office • Intensity of magnetite mineralisation is difficult to see visually but detectable using a magnet.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	o Sample procedures and results were reviewed by company personnel systematically. The QAQC data is being reviewed by Carpentaria staff and an external consultant.

Section 2 Reporting of Exploration Results – 2010 Campaign

(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.*	• The Hawsons Magnetite project is located in Western NSW, 60 km southwest of Broken Hill. The deposit is 30km from the Adelaide-Sydney railway line, a main highway and a power supply. • The project is under a Joint Venture between Carpentaria Exploration Ltd (CAP) and Pure Metals Pty Ltd where CAP holds 64% and Pure Metals 36% equity in the project. Pure Metals currently manage the project. • The project area is wholly within Exploration Licences (ELs) 6979, 7208 & 7504 which are 100% owned by CAP. • Licence conditions for all ELs have been met and are in good standing. • An application for a Mining Lease (ML) was lodged with the NSW Trade & Investment Department in October 2013 and Carpentaria is not aware of any impediments to obtaining a mining lease.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• In 1960 Enterprise Exploration Company (the exploration arm of Consolidated Zinc) outlined a number of track-like exposures of Neoproterozoic magnetite ironstone (+/- hematite) which returned a maximum result of 6m at 49.1% Fe from a cross-strike channel sample. No drilling was undertaken by Enterprise. • CRAE completed five holes within EL 6979 seeking gold mineralisation in a second-order linear magnetic low interpreted to be a concealed faulted iron formation within the hinge of the curvilinear Hawsons' aeromagnetic anomaly. CRAE's program failed to locate significant gold or base metal mineralisation but the drilling intersected concealed broad magnetite ironstone units interbedded with diamictite adjacent to the then untested peak of the highest amplitude segment of the Hawsons aeromagnetic anomaly.

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Hawsons Magnetite Project is situated within folded, upper greenschist facies Neoproterozoic rocks of the Adelaide Fold Belt. The Braemar Facies magnetite ironstone is the host stratigraphy and comprises a series of strike extensive magnetite-bearing siltstones generally with a moderate dip (circa -55^{o}). The airborne magnetic data clearly indicates the magnetite siltstones as a series of parallel, high amplitude magnetic anomalies. Large areas of the Hawsons prospective stratigraphy are concealed by transported ferricrete and other younger cover. The base of oxidation due to weathering over the prospective horizons is estimated to average 80m from surface. • The Hawsons project comprises a number of prospects including the Core, Fold, T-Limb, South Limb and Wonga deposits. Resource Estimates have been generated for the Core and Fold areas which are contiguous. • The depositional environment for the Braemar Iron Formation is believed to be a subsiding basin, with initial rapid subsidence related to rifting possibly in a graben setting as indicated by the occurrence of diamictites in the lower part of the sequence (Unit 2). A possible sag phase of cyclical subsidence followed with deposition of finer grained sediments with more consistent, as compared to the diamictite units, bed thicknesses, style and clast composition (Unit 3). The top of the Interbed Unit marks the transition from high (Unit 2) to lower (Unit 3) energy sediment deposition • The distribution of disseminated, inclusion-free magnetite in the Braemar Iron Formation at Hawsons is related to the composition and nature of the sedimentary beds. The idioblastic nature of the of the magnetite is believed due to one or more of a range of possible processes including in situ recrystallisation of

Criteria	JORC Code explanation	Commentary
		primary detrital grains, chemical precipitation from seawater, permeation of iron-rich metamorphic fluids associated with regional greenschist metamorphism. Grain size generally ranges from 10microns to 0.2mm but tends to average around the 40microns. The sediment composition and grain size appear to provide the main control on the mineralisation. There is no evidence for structural control in the form of veins or veinlets coupled with the lack of a strong structural fabric. • In the majority of the Core and Fold deposits the units strike south east and dip between 45 and 65˚ to the south west. The eastern part of the Fold deposit comprises a relatively tight, synclinal fold structure resulting in a 90° strike rotation.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• Exploration results not being reported
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• Exploration results not being reported
Relationship between mineralisation widths and	• *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.*	• Drilling has tended to be at a steep angle to the dip angle of the sedimentary beds.

Criteria	JORC Code explanation	Commentary
intercept lengths	• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	
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 plan view of drill hole collar locations and appropriate sectional views.*	• Exploration results not being reported
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.*	• Exploration results not being reported
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.*	• A substantial amount of polished and thin section work has been completed on both RC chips and diamond core. This work has confirmed the nature and style of both the original sediment and the iron minerals including magnetite, hematite, chlorite and ferroan dolomite. • Downhole geophysics comprises magnetic susceptibility, gamma and density and has been completed for a majority of the holes. This has resulted in the definition of a magnetic (and density-related) stratigraphy that is coincident with a chronostratigraphic interpretation.
Further work	• *The nature and scale of planned further work (e.g. 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.*	• Exploration results not being reported

Section 2 Reporting of Exploration Results – 2016 Campaign

(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.*	• The Hawsons Magnetite project is located in Western NSW, 60 km southwest of Broken Hill. The deposit is 30km from the Adelaide-Sydney railway line, a main highway and a power supply. • The project is under a Joint Venture between Carpentaria Exploration Ltd (CAP) and Pure Metals Pty Ltd where CAP holds 64% and Pure Metals 36% equity in the project. Pure Metals currently manage the project. • The project area is wholly within Exploration Licences (ELs) 6979, 7208 & 7504 which are 100% owned by CAP. • Licence conditions for all ELs have been met and are in good standing. • An application for a Mining Lease (ML) was lodged with the NSW Trade & Investment Department in October 2013 and Carpentaria is not aware of any impediments to obtaining a mining lease.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• In 1960 Enterprise Exploration Company (the exploration arm of Consolidated Zinc) outlined a number of track-like exposures of Neoproterozoic magnetite ironstone (+/- hematite) which returned a maximum result of 6 m at 49.1% Fe from a cross-strike channel sample. No drilling was undertaken by Enterprise. • CRAE completed five holes within EL 6979 seeking gold mineralisation in a second-order linear magnetic low interpreted to be a concealed faulted iron formation within the hinge of the curvilinear Hawsons' aeromagnetic anomaly. CRAE's program failed to locate significant gold or base metal mineralisation but the drilling intersected concealed broad magnetite ironstone units interbedded with diamictite adjacent to the then untested peak of the highest amplitude segment of the Hawsons aeromagnetic anomaly.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Hawsons Magnetite Project is situated within folded, upper greenschist facies Neoproterozoic rocks of the Adelaide Fold Belt. The Braemar Facies magnetite ironstone is the host stratigraphy and comprises a series of narrow, strike extensive magnetite-

Criteria	JORC Code explanation	Commentary
		bearing siltstones generally with a moderate dip (circa 45º). The airborne magnetic data clearly indicates the magnetite siltstones as a series of parallel, narrow, high amplitude magnetic anomalies. Large areas of the Hawsons prospective stratigraphy are concealed by transported ferricrete and other younger cover. The base of oxidation due to weathering over the prospective horizons is estimated to average 80m in depth. • The Hawsons project comprises a number of prospects including the Core, Fold, T-Limb, South Limb and Wonga deposits. Resource Estimates have been generated for the Core and Fold areas which are contiguous. • The depositional environment for the Braemar Iron Formation is believed to be a subsiding basin, with initial rapid subsidence related to rifting possibly in a graben setting eg the diamictites in the lower part of the sequence. A possible sag phase of cyclical subsidence followed with deposition of finer grained sediments with more consistent, as compared to the diamictite units, bed thicknesses, style and clast composition. The top of the Interbed Unit marks the transition from high to lower energy sediment deposition • The distribution of disseminated, inclusion-free magnetite in the Braemar Iron Formation at Hawsons is related to the composition and nature of the sedimentary beds. The idioblastic nature of the of the magnetite is believed due to one or more of a range of possible processes including in situ recrystallisation of primary detrital grains, chemical precipitation from seawater, permeation of iron-rich metamorphic fluids associated with regional greenschist metamorphism . Grain size generally ranges from 10microns to 0.2mm but tends to average around the 40micron mark. The sediment composition and grain size appear to provide a control on the mineralisation. There is no evidence for structural control in the form of veins or veinlets coupled with the lack of a strong structural fabric. • In the majority of the Core and Fold deposit the units strike south east and dip between 45 and 65˚ to the south west. The eastern Fold deposit comprises a relatively tight synclinal fold structure resulting in a 90º strike rotation.

Criteria	JORC Code explanation	Commentary
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• Exploration results not being reported
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.*	• Exploration results not being reported
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').*	• Drilling was planned to intersect the geology as close to perpendicular as possible to bedding to achieve true widths.
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 plan view of drill hole collar locations and appropriate sectional views.*	• Exploration results not being reported

Criteria	JORC Code explanation	Commentary
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.*	• Exploration results not being reported
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.*	• Downhole geophysics comprises magnetic susceptibility conductivity, gamma and density has been completed for all holes. This has resulted in the definition of a magnetic (and density-related) stratigraphy that is coincident with a chronostratigraphic interpretation. Two tools were used to collect the data, a FDS50 (Formation Density) tool using a 3500CO radioactive source and a MIG08 (Magnetic susceptibility/Induction conductivity/Gamma) tool. Gamma was also collected using the FDS tool.
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.*	• Further environmental and engineering studies are planned which will form part of the current PFS completion.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Independently customised Access database by GR-FX Pty Ltd • Validation of database undertaken by Keith Hannan of Geochem Pacific Pty Ltd, an independent consultant. • Limited validation was conducted by H&S Consultants (H&SC) to ensure the drill hole database is internally consistent. Validation included checking that no assays, density measurements or geological logs occur beyond the end of hole and that all drilled intervals have been geologically logged. The minimum and maximum values of assays and density measurements were checked to ensure values are within expected ranges. Further checks include testing for duplicate samples and overlapping sampling or logging intervals • H&SC has not performed detailed database validation and CAP personnel take responsibility for the accuracy and reliability of the data used to estimate the Mineral Resources. • H&SC created a local E-W orthogonal grid for all interpretation and modelling work
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Regular site visits have been carried out by Quentin Hill, Managing Director for CAP, who acts as the Competent Person with responsibility for reporting the exploration results and the integrity and validity of the database on which resource estimates were conducted. • A site visit has been undertaken in 2012 by Simon Tear of H&SC, Competent Person for the reporting of the resource estimates.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource*	• The broad geological interpretation of the Hawsons deposit is relatively simple and reasonably well constrained by drilling and the high amplitude magnetic anomalies.

Criteria	JORC Code explanation	Commentary
	estimation. • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The mineralisation is stratabound as disseminated grains of magnetite with no obvious structural remobilisation or overprint. • The downhole geophysical data, gamma and magnetic susceptibility, has been used in conjunction with DTR recovered magnetic fraction grades to produce a detailed geological interpretation and to the generation of a set of 3D wireframes representing variously mineralised units and provide a stratigraphic framework. • The consistency of the geophysical patterns for the sediments provides for a high level of confidence in the stratigraphic interpretation. • Two main cross faults, possibly a conjugate pair, have been delineated and have caused small offsets in the mineral-bearing stratigraphy. • H&SC used the geological logs of the drill holes to create a wireframe surface representing the base of colluvium. • H&SC also used the geological logs of the drill holes to create wireframe surfaces representing the base of complete oxidation (BOCO) and the top of fresh rock (TOFR). Contact plot analysis of the estimated elements were conducted in order to investigate how these surfaces should be treated in the resource estimation. The top of fresh rock surface was found to coincide with a marked difference in density and DTR and was therefore used as a hard boundary. The density and DTR values in the volume above the top of fresh rock surface were estimated using a flattened search ellipse. All other parameters did not take account of the top of fresh rock surface and the orientation of the search ellipse and variogram axes are controlled by the orientation of the lithological unit surfaces. • Any additional faulting in the deposit is assumed to be insignificant relative to the resource estimation. • H&SC is aware that alternative interpretations of the mineralised zones and faults are possible but consider the wireframes to adequately approximate the locations of the mineralised zones

Criteria	JORC Code explanation	Commentary
		for the purposes of resource estimation. Alternative interpretations may have a limited impact the resource estimate.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The resources have a strike length of around 3.3km in a south easterly direction. The plan width of the resource varies from 700m to 1.9km with an average of around 1.1km (noting the relatively modest dip angle of the beds. The upper limit of the mineralisation occurs between 25 and 80m below surface (average 65m) and the lower limit of the resource extends to a depth of 440m below surface. The lower limit to the resource is a direct function of the depth limitations to the drilling.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• Ordinary Kriging was used to complete the estimation in the Micromine software. H&SC considers Ordinary Kriging to be an appropriate estimation technique for the type of mineralisation and extent of data available from the Core and Fold deposits. All data has low coefficients of variation. • A total of 3,924 unconstrained 5m composites were generated from the drillhole database and modelled for Davis Tube recovered magnetic fraction (“DTR”), iron head grade and the concentrate elements of Al_2O_3, P, S, SiO_2, TiO_2 and LOI, • 2,862 composites were in fresh rock and 1,161 in the transition zone of which 209 were from direct DTR measurement. 74 of the fresh rock composites were generated from the downhole mag_sus data with 55 from the hand-held mag_sus data via regression equations, particularly peripheral to the main mineralisation and the transition zone. • A regression based on downhole magnetic susceptibility was used to calculate likely DTR values for untested intervals. A regression based on the hand held magnetic susceptibility data was used to estimate the DTR values where downhole magnetic susceptibility was not available. Missing Fe concentrate grades were calculated using a regression based on the DTR grades and the remaining concentrate elements were calculated using a regression based on the iron concentrate grade. Most of the missing DTR grades were on the periphery of the mineralisation (often unsampled areas) and the missing concentrate grades the result of insufficient sample being available for XRF analysis

Criteria	JORC Code explanation	Commentary
		mainly from the Interbed Unit. • The base of colluvium was used to control the upper limit of the resource estimation. Drill hole data from above the colluvium surface were not used in the resource estimate. • Two main cross faults have been delineated and have caused small offsets in the mineral-bearing stratigraphy. These faults were treated as hard boundaries during estimation so that data from within a particular fault block were only used to estimate blocks in that fault block. • H&SC created nine surfaces representing the edges of eight conformable lithological units based on drill hole data. These surfaces were combined to produce eight wireframe solids, the outer boundary of which was used to constrain the Mineral Resource Estimate. In order to reflect local variations of dip and strike, the orientation of the triangles that make up the nine surfaces were used to locally control the orientation of the search ellipse and variogram axes – the dynamic interpolation method. • The top of fresh rock surface was found to coincide with a marked difference in density and DTR and was therefore used as a hard boundary. The density and DTR values in the volume above the top of fresh rock surface were estimated using a flattened search ellipse. All other parameters did not take account of the top of fresh rock surface and the orientation of the search ellipse and variogram axes are controlled by the orientation of the lithological unit surfaces. • No recovery of any by-products has been considered in the resource estimates as no products beyond iron are considered to exist in economic concentrations. • No top-cutting was applied as extreme values were not present and top-cutting was considered by H&SC to be unnecessary • No check estimate was carried out though the estimates were in line with previous estimates. Hellman & Schofield, the predecessor to H&SC, estimated the resources of Hawsons in

Criteria	JORC Code explanation	Commentary
		2010 and updated in 2011. The resource estimates were further updated in 2013 by H&SC following an in-depth analysis and interpretation of downhole geophysical data resulting in the delineation of Indicated Resources. The new resource estimates for 2017 have only a modest increase in size at the same grade. but contain considerably more Indicated Resource which was the aim of the infill drilling. The extra resource is primarily from peripheral areas in the Core and the Fold areas. • Block dimensions are 100m x 50m x 20m (Local E, N, RL respectively). The east and north dimensions were chosen as they are around half the nominal drillhole distances. The vertical dimension was chosen to reflect the sample spacing and possible mining bench heights. • Each element was estimated separately. Four search passes were employed with progressively larger radii or decreasing search criteria. The first pass used radii of 250x150x40m, the second pass used 300x150x50m, the third and fourth used 450x225x75m (along strike, down dip and across mineralisation respectively). All passes used a four sector search with a maximum number of data points per sector of 8 (total 32). The first pass required a minimum of 20 data points from at least three different drill holes whereas the second and third passes required a minimum of 16 data points from at least two different drill holes. The fourth pass required a minimum of eight data points and had no restriction on the number of drill holes required. • The new block model was reviewed visually by H&SC and CAP geologists and it was concluded that the block model fairly represents the grades observed in the drill holes. H&SC also validated the block model using a variety of summary statistics and simple plots.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages of the Mineral Resource are estimated on a dry weight basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The resources are reported at a cut-off of 9.5% DTR as advised by CAP to H&S. The 9.5%DTR cut-off is considered by the Company to be conservative and reasonable, as GHD reported

Criteria	JORC Code explanation	Commentary
		that the optimisation process indicates the economic cut-off grade could be lower than 9%DTR. Key assumptions in the optimisation were a revenue based on 62%Fe price of US$60/t (converting to a 65%Fe price of US$70/t (currently 65%Fe is ~US$79), with mining and processing costs being derived from previous mine planning and processing test work • Other constraints in reporting the resource estimates include below the top of the fresh rock surface and a vertical depth of -250mRL. • The cut-off grade at which the resource is quoted reflects the intended bulk-mining approach
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• The Hawsons resources were estimated on the assumption that the material is to be mined by open pit using a bulk mining method. • Minimum mining dimensions are envisioned to be around 25m x 10m x 10m (strike, across strike, vertical respectively). The block size is significantly larger than the likely minimum mining dimensions. • The resource estimation includes internal mining dilution. • A study was recently completed by GHD which developed a mine plan to produce 10Mtpa of magnetite concentrates via on site processing • The proposed mining method would use a combination of In Pit Crushing and Conveying as well as truck and shovel.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• The idioblastic nature of the magnetite lends itself to relatively easy liberation • The ROM material is relatively soft for a magnetite deposit with a bond work index much lower than typical Banded Iron Formation deposits. • Initial laboratory testwork by the CSIRO in Brisbane identified that the ROM material could readily be reduced to a particle size

Criteria	JORC Code explanation	Commentary
		less than 1mm in an impact crusher. • hrlTesting completed metallurgical testwork that showed better than 50% rejection can be achieved in the rougher stages. The ball mill operational power is lower than expected and at a P_{100} of 38µm a concentrate of ~69% Fe can be achieved.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• The deposits lie in flat open country typical of Western NSW. • Predominantly scrub vegetation that allows for sheep grazing. • There are large flat areas for waste and tailings disposal • Small number of creeks with only seasonal flows • Baseline data collection of a variety of environmental parameters is in progress e.g. dust monitoring, surface water, weather records • Preliminary Ecology Assessments with have led to field ecology studies under the guidance of the Office of Environment and Heritage in NSW • A Water Optimisation Study identified ways to reduce water consumption in the plant and has led to a new process design considering paste thickening in the metallurgical plant instead of the original conventional thickeners.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• The short spaced density (SSD) data from the downhole geophysics was used for the density. The SSD data was collected using a FDS50 down hole tool containing a 3500CO radioactive source. This data had a correction factor of +5.2% applied based on testwork completed on 194 NQ core samples using the immersion-in-water (Archimedes) method. • The data was composited to 5m prior to modelling. • The density at Hawsons was estimated using Ordinary Kriging for search passes one to three and the remaining blocks were populated from values estimated from the Fe head grade of each block using a regression created from blocks where both

Criteria	JORC Code explanation	Commentary
		variables had been estimated.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The classification of the resource estimates is based on the data distribution which is a function of the drillhole spacing, the style of mineralisation, the geological model, coherency of the downhole geophysics including density, the QAQC programme and results and comparison with previous resource estimates. • The resources were initially classified on the search criteria with blocks populated by Passes 1 and 2 being Indicated and passes 3 and 4 being classed as Inferred. • Upon review of the Indicated resources a defined shape was delineated which reverted individual or small numbers of isolated blocks from indicated to Inferred. • A detailed sedimentological review using gamma and magnetic susceptibility downhole data demonstrated strong stratigraphic continuity of the DTR grades with the sediment packages. • H&SC believes the confidence in tonnage and grade estimates, the continuity of geology and grade, and the distribution of the data reflect Indicated and Inferred categorisation. The estimates appropriately reflect the Competent Person's view of the deposit. H&SC has not assessed the reliability of input data and CAP personnel take responsibility for the accuracy and reliability of the data used to estimate the Mineral Resources.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The estimation procedure was reviewed as part of an internal H&S Consultants peer review and the block model was reviewed visually by CAP geologists. • Mining Associates Limited ("MA') completed a technical review in 2016 on the inferred and indicated resources (2014). MA concluded that the model is a good global representation of the magnetite resource and considers Ordinary Kriging to be an appropriate estimating technique the type of mineralisation with very low coefficients of variation. • Behre Dolbear Australia ("BDA") completed a technical review for CAP in 2011 based on a GHD study. BDA considers that the

Criteria	JORC Code explanation	Commentary
		broad geology and geological controls on mineralisation and the geological database are: o Generally adequately defined at this stage for estimation of Inferred [2010] resources. BDA recommends the use of hard boundaries for modelling of the mineralisation. o BDA considers that the analytical process adopted by Carpentaria is suitable for evaluation of recoverable magnetite concentrate proportions and quality. Overall the Hawsons database appears adequate for use in estimating Inferred resources under the [2012] JORC code o The proposed processing route is consistent with modern practice and flowsheets of other recently established operations.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• No statistical or geostatistical procedures were used to quantify the relative accuracy of the resource. The global Mineral Resource estimates of the Hawsons deposit is moderately sensitive to higher cut-off grades but does not vary significantly at lower cut-offs. • The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person's experience with similar deposits and geology • The Mineral Resource estimates are considered to be accurate globally, but there is some uncertainty in the local estimates due to the current drillhole spacing and a lack of geological definition in places. • No mining of the deposit has taken place so no production data is available for comparison.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The Hawsons Mineral Resource as described in Section 3 is the basis for the estimate conversion to Ore Reserves. The Mineral Resource was compiled by Mr Simon Tear, who is a full time employee of H&S Consultants. Mr Tear has sufficient experience relevant style of mineralisation and the type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". • The Mineral Resources are inclusive of the Ore Reserves.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Competent Person for the Ore Reserves, Mr Hugh Thompson of Teneriffe Services, has not visited the site. • No site visit was deemed necessary as the site is a 'greenfields' site with no existing mine workings and / or site specific mine infrastructure being present. Furthermore Mr. Thompson is well familiar with the general and regional setting from prior visits not related to the HIP project.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• A Pre-Feasibility Study (PFS) to +/- 30% was completed by GHD in July 2017. GHD are a global engineering company that have wide experience in prefeasibility studies for mining projects. CAP believes that GHD has carried out the study to the standard required by the JORC code 2012 edition. Furthermore where relevant the study has referenced the AusIMM Monograph 27, 2012, on cost estimation, in particular chapters 1 and 2 regards study formation. • This study builds on prior works completed in recent years, as referenced in the PFS report. Their findings have been summarised for use in this work. The competent persons for this

Criteria	JORC Code explanation	Commentary
		2017 PFS work have been involved in the prior works. • The study includes Indicated and Inferred mineral resources and investigates the relevant modifying factors in sufficient detail. The early mine plan, upon which this PFS is based, is dominated by Indicated resources. 87% of the total concentrate through to the end of year 7 as coming from Indicated resources. Over the whole Life-Of-Mine, a total of 57% of the ROM ore, and concentrate production is derived from Indicated resource and the remaining 43% coming from Inferred. • Historically the company has had a 96% conversion rate from Indicated to Inferred resources with minor changes in grade and size of resource. That is; when drilling to upgrade the resource category, that which had been predicted by the initial geological model was confirmed, at a very high proportion, by subsequent drilling, assaying and assessment. This demonstrates a significant level of geological predictability. In turn this gives the company a reasonable basis to believe future category conversion is likely to be able to be repeated. It is interpreted that the deposit formed in shallow sea where iron was deposited evenly in thick broad units and have not had significant disruption providing a degree of geological continuity not seen in mineral deposits of different styles. The general responsibility by area are as set out in this table

Area	**Responsibility**
Mining operating and capital cost	Teneriffe Services, Mining Sense, for GHD
Metallurgical and processing	GHD, based on test work from Metso, Delkor, ALS, HRL testing, China Iron and Steel Research institute, CSIRO, Tunra
Mine planning	Teneriffe Services, Mining Sense

Criteria	JORC Code explanation	Commentary
		<table><tr><td>Processing operating and capital costs</td><td>GHD</td></tr><tr><td>General site operating costs</td><td>GHD</td></tr><tr><td>General site infrastructure</td><td>GHD</td></tr><tr><td>Port</td><td>GHD</td></tr><tr><td>Power</td><td>GHD</td></tr><tr><td>Rail</td><td>GHD, rail haulage costs provided by external rail operators who employed an analytical process based on logistics modelling and experience</td></tr><tr><td>Geotechnical investigation</td><td>GHD</td></tr><tr><td>Hydro(geo)logical investigation</td><td>Geo-Eng for GHD</td></tr><tr><td>Tailings storage facility</td><td>GHD</td></tr><tr><td>Mining dilution and recovery</td><td>GHD</td></tr><tr><td>Social and Environmental</td><td>GHD, Carpentaria</td></tr><tr><td>Legal tenure</td><td>Carpentaria, Mining Title Services</td></tr><tr><td>Government</td><td>Carpentaria</td></tr><tr><td>Market research and commodity price</td><td>Carpentaria, CRU, SMM</td></tr><tr><td>Economic modelling</td><td>Carpentaria</td></tr><tr><td>PDP, Risk and Report</td><td>GHD</td></tr></table>
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	• A 9.5% Fe cut-off was adopted for Ore Reserve determination. In broad terms the geology at Hawsons is uncomplicated and at a 9.5% Fe cut-off the magnetite mineralisation exhibits contiguous zones suitable for mining by bulk mining methods. The cut off grade was determined by Mining Sense and Teneriffe Services for GHD. The historical cut-off at Hawsons used in prior studies was 10% DTR. • The 9.5%DTR cut-off is considered by the Company to be

Criteria	JORC Code explanation	Commentary
		conservative and reasonable, as GHD reported that the optimisation process indicates the economic cut-off grade may well be lower than 9.5%DTR. Key assumptions in the optimisation were a revenue based on 62%Fe price of US$60/t (converting to a 65%Fe price of US$70/t (currently 65%Fe is ~US$83), with mining and processing costs being derived from previous mine planning and processing test work. The cost inputs into the cut-off assessment being those used for pit optimisation.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	• The basis of design for the HIP is predicated on producing 10 Mtpa of concentrate on a dry metric tonne basis. This equates to 70.4 Mtpa of crusher feed being required, using the average metallurgical mass recovery recovered grade of 14.2%, as derived from the geological model. The average waste to ore strip ratio, post pre-strip, is approximately 0.40 :1. The mine plan indicates an average annual total material movement of 98 Mtpa will be required. The 18 month pre-strip coincides completely with the project plant and infrastructure construction phase. • Mining is to be by conventional open pit methods of drill and blast followed by load and haul then finally In pit crushing and conveying has been adopted as the basis of the PFS, utilising large mining equipment comprising 800t diesel hydraulic shovels and 220t rigid dump trucks. All waste is to be trucked to the surface waste disposal site. Ore in the initial 3 years is trucked to the surface, where after it is trucked from the face to the in-pit load-out position for the IPCC. This method is seen as feasible, rather than optimised. • Detailed pit design work was completed based on pit optimisations using Whittle Four-X optimisation software. Indicated and Inferred Resources were both used in the pit design for Hawsons. Initial studies using Indicated only have been completed, as documented, to understand the role and impact of the decision to include inferred material in the plant feed.

Criteria	JORC Code explanation	Commentary
		The optimisation inputs were based on a 2017 revision of prior cost estimates. A post-study correlation was completed to check that optimisation inputs are within reasonable range of final estimated costs. This is so. • A total of 20 diamond drillholes from both the geotechnical and resource drilling programmes were drilled and were logged for geological, rock quality and structural data. Overall pit wall slopes ranged from 45° to 55°, depending on wall orientation and lithology. Geotechnical analysis of slope stability was carried on the available data. • Grade control will consist of selected blast hole sampling on ore / waste boundaries and the routine testing with a hand held magnetic susceptibility meter. • Ore recovery is assumed to be 100% and 0% waste dilution. This is not necessarily correct however it is expect that further work can investigate ore dilution and the impact on the ore body delineation, cut-off theory and stock pile philosophy. In any case it is not thought to be material in this ore body, where the ore being mined is massive and near homogeneous in nature. • A minimum mining width of 100m was adopted, with 15m bench heights for optimisiation, design and mine planning. • The mine plan is based on feeding both Indicated and Inferred Resources. The economic analysis was based on a mine production schedule that included 87% of Indicated resources in the early plan, in this instance 7 yrs of 21 years and 57% of Indicated resources over the life of mine. Inferred Resources comprise approximately 43% of the total mill feed over the life of the project , as discussed previously. • Indicated Resources provide the overwhelming majority (+87%) of the plant feed until the project payback period has been reached. The inclusion of Inferred resources extend the life of the mine and improves the overall outcome. However as the

Criteria	JORC Code explanation	Commentary
		Indicated Resources support the payback period therefore project economic viability is not reliant on the Inferred Resources. • The primary infrastructure required for the development of the Project are listed below: o Site and local area road construction and upgrades o General administration and services infrastructure. o General mining facilities. o Power supply o Process plant o Water supply o Rail o Port stockyards and materials handling
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• The proposed metallurgical process is conventional staged impact crushing, followed by coarse rougher magnetic separation, ball milling of the rougher concentrate, cleaner magnetic separation of the ball mill circuit product, elutriation of the cleaner concentrate to produce a high grade magnetite concentrate. The proposed metallurgical process is well tested for this ore and uses established, proven technologies. • Davis Tube Recovery (DTR) tests have been conducted on all drill hole intervals in the resource, both diamond drill core and RC chip. The DTR is a metallurgical test that provides a mass recovery of mineral concentrate from a sample based on a staged grind and magnetic separation process. This test is standard and common use and is designed to approximate plant recoveries. Analysis is done of the mineral concentrate to determine grade of iron and deleterious elements. Typically in other non-magnetite deposits a recovery factor is applied to the bulk assays the subject of resource modelling.

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		Magnetite deposits benefit such that the bulk DTR analysis that is included in the resource estimate is very similar to the final plant recoveries in both mass and grade. For Hawsons, metallurgical test work has been undertaken on both small and large composites at both laboratory and pilot scales. The composites were selected to form a representative sample of the entire deposit and the subsequent ~8tonne Pilot plant test work program achieved the same magnetite recovery at similar grind sizes and concentrates grades as the DTR grade of the sample, within Lab error margins. Further the tailings from this pilot plant run were analysed for magnetic material and only traces were recovered. A 99% recovery of the corresponding DTR mass recovery grade as estimated for each block of the Resource Estimate has therefore been assumed. The final processing stage of elutriation upgrades the concentrate to 69.9%Fe by removing additional waste and recovering 99% of the magnetite. This step may cause a loss of mass, when compared to that derived from the mineral resource estimate, and in these cases the volume of concentrate recovered has been adjusted so that revenue function reflects both the increased grade and lower total tonnes of concentrate produced. There are only minor differences in the metallurgical characteristics across the deposit and three domains were identified and put through the pilot plant separately. Results returned were very similar. o No allowance has been made for deleterious elements as levels of these are either very low in the ore or significantly below levels of concern in the final concentrate. o Two bulk samples from the HIP orebody have been tested and both samples are seen to adequately represent the entire ore deposit.

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		o The magnetite concentrate has been confirmed as meeting specification for revenue purposes. This has been confirmed via market engagement as described below.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	CAP has commenced a range of tasks undertaken to address the NSW Secretary's Environmental Assessment Requirements to obtain baseline information for the EIS. These investigations include: • Preliminary geochemical assays that indicate there is a low risk for the waste rock and tailings to generate acid. The relatively inert chemistry of the waste rock and tailings would be confirmed by undertaking a mineral waste geochemical assessment during the EIS. • Ecology, Aboriginal and historic heritage surveys within the proposed mine site and along the majority of the infrastructure corridors. These studies have assisted to identify potential constraints that will be used to refine the project, where feasible, to minimize environmental impacts. • Groundwater monitoring and pump tests. This has provided information on the capacity of the aquifer to provide a sustainable water source for the project • Ambient air quality monitoring • Site selection studies for the rail siding, the associated dewatering facility • Engineering investigations to optimise the layout of the processing plant and fine-tune options for the infrastructure corridors • Consultation with landholders that have the potential to be affected by infrastructure Corridors This work has been reviewed by the competent person for the Ore Reserve, who concludes that sufficient work has been done in this area such that the scope and work required to obtain the requisite permits and licenses are well known and no material impediments exist to their eventual achievement.

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Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	• The Project's supporting infrastructure has been developed through studies by engineering service providers as listed under the Study Status section of tis table. • Land use throughout the region is predominately agricultural and is dominated by sheep grazing. NSW, Land and Soil Capability mapping identify the region to be limited to this type of land use; low intensity grazing being categorised as LSC Class 6. Class 6 land has very severe limitations: it is incapable of sustaining many land use practices such as cultivation, moderate to high intensity grazing and horticulture. Highly specialised practices can overcome some limitations for some high value products. Appropriate consultation and development legislation has meant there is available land for all the project infrastructure needs. • The project is located 60km south west from Broken Hill, NSW. This is a well-established mining community capable of providing the required work force and services to support the proposed mine. Appropriate easements and access options for power and product transport via slurry pipeline have been identified. Appropriate easements and access options for transport of raw water has been identified. Appropriate site options for rail connection have been identified. Furthermore; • Power studies have identified that sufficient power for all project requirements is readily available from the existing network. • Raw water requirements, source and access requirements have been identified with yield, water quality and environmental impact assessed. • Rail transport is available on an existing rail line and pathing, payload, network capacity and potential providers have assisted the study. • An upgrade to the port at Port Pirie has been investigated and sufficient capacity has been identified with the cost of upgrades included in cost estimates. • Accommodation studies have been included in the PFS

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		The Ore Reserve competent person has reviewed the infrastructure basis of design, design effort to date and cost estimates and is satisfied that these are as required for a PFS study of this type and nature.

Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.*
	• *The methodology used to estimate operating costs.*
	• *Allowances made for the content of deleterious elements.*
	• *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.*
	• *The source of exchange rates used in the study.*
	• *Derivation of transportation charges.*
	• *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*
	• *The allowances made for royalties payable, both Government and private.*
		• The capital cost and operating costs estimates are commensurate with a PFS level study (WBS Level 3) and were estimated by the PFS contributors as listed under the Study Status section discussed above. The capital cost estimate has been developed through the collation of a number of first principle estimates completed by GHD and other PFS contributors on completion of sufficient design works, quotations from equipment providers and contracting companies.
		• Design growth and contingency at a combined ~16% on average has been applied to the estimates. These have been applied on a specific level 3 item basis, reflecting the individual estimate.
		• The operating cost estimate was developed on a 'first principle basis' by GHD, derived from base data provided by CAP and the PFS contributors such as:
		  • Forecast operational manning levels
		  • Fuel utilisation estimates
		  • Material physical characteristics
		  • Calculated power consumptions
		  • Estimated mining costs
		  • Equipment list and costs
		  • Rail and port costs
		
		• No allowance has been made for deleterious elements, as a penalty on revenue, as levels of these are either very low in the ore or significantly below levels of concern in the final concentrate.
		• Commodity pricing for the project was established by CRU and Shanghai Metals Markets (SMM) in confidential independent market reports. The study also considered physical characteristics and quality premiums/penalties under a pricing formula provided by SMM. The base index was the arithmetic mean of the long term 65% Fe fines price

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		between 2020 and 2030 provided by CRU at US$75/t (real 2016). This resulted in a premium to the benchmark 62%Fe fines price of ~US$25/t. these confidential studies have been sighted by the Ore Reserve competent person. • Current exchange rates adopted were USD : AUD foreign exchange rate of 0.75 • Transport charges were provided by rail providers, port charges were built from first principles and ocean freight was estimated using current shipping rates. The estimated LOM capital costs for the Project are A$2,945M. • There are no treatment and refining charges or penalties associated with iron concentrates. Failure to meet specification is considered low risk. • Government royalties have been estimated based on the provisions of the Mining Act New South Wales) 1992. Perilya have a NSR of 1.5% over EL6979
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• The derivation of, or assumptions made regarding revenue factors including, commodity price, exchange rates, transportation and treatment charges have all be derived from the CRU and SMM reports – see above. Head grade assumptions have been drawn from the Resource Estimate with appropriate metallurgical recovery factors applied – see above • The derivation assumptions made of commodity price, for the principle mineral magnetite has been derived from the CRU report – see above.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• Independent marketing consultants SMM and CRU have completed a detailed analysis on behalf of Carpentaria Exploration Limited covering the forward supply and demand outlook and longer term pricing forecasts. • 12mtpa of Hawsons product has been signed up by customers under non-binding letters of intent from established market participants showing suitable interest for the sale of the mines production.

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Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• The financial evaluation undertaken as part of the PFS indicated a post-tax net present value (NPV) at a 10% discount rate of A$1156M and an internal rate of return (IRR) of 17.8%. • The key financial parameters were:-

Discount rate	10%
Tax rate	30%
Royalties	Included based on NSW legislation and Perilya agreement ~US3.00-$3.50
Start of construction	Year 0, Nominally Q1 2020
Construction period	18 months
Life of mine	20 years + 18 months pre-strip
Initial capital expenditure (incl. pre-strip)	$AUD M 1,868
Sustaining capital (LOM net, including in-pit conveyor)	$AUD M 1,014
Mine closure	$AUD M 63
Operating cost FOB (ex. Sustaining capital)	A$48.34 $ / Concentrate tonne
Product price (LOM average)	$117.51 AUD $ / dmt ($ 88.13 US $ / dmt)

▪ Sensitivity analysis indicated that a 10% change in product price, operating cost and capital cost resulted in the following impact on the post-tax NPV:

Product price	+/- A$520
Operating expenditure	+/- A$268
Capital expenditure	+/- A$168

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Social	• *The status of agreements with key stakeholders and matters leading*	• CAP has undertaken a range of consultation activities during

Criteria	JORC Code explanation	Commentary
	to social licence to operate.	different phases of the project. • This includes briefing relevant NSW and South Australian government agencies and liaising with several parties that hold Western Lands Leases upon which the proposed mine site and infrastructure corridors are located. ▪ During the period between 2010 and 2017, CAP has briefed the following government agencies : • NSW Department of Planning & Environment (DP&E) • NSW Department of Primary Industries - – Division of Resources & Energy (T&I-RE) –formerly the NSW Department of Industry and Investment – Division of Mineral Resources • NSW Department of Primary Industries – Water • NSW Environment Protection Authority (EPA) • NSW Office of Environment and Heritage (OEH) • TransGrid • Broken Hill City Council • Port Pirie Council • The South Australian Government • Australian Rail Track Corporation (ARTC). • NSW government • South Australian government • Flinders Ports
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	It is anticipated that the following approvals will be required under NSW legislation for the project: • Minister for Planning. Approval is required from the Minister for Planning under Part 4, division 4.1 of the *Environmental Planning and Assessment Act 1979* • Mining Lease – I&I-MR. A mining lease under the *Mining Act 1992* would be required to allow for extraction of magnetite • Process water: Water extraction would require approval from the Department of Primary Industries – Water under

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		the NSW *Water Management Act 2000* • Environment protection licence – The site would become scheduled premises as defined by the *Protection of Environment Operations Act 1999* and would require an environment protection licence that would be issued by the Environment Protection Authority • A permit under Section 138 of the *Roads Act 1993* would be required from Roads and Maritime Services to construct a new intersection onto the Silver City Highway • Approval from Australian Rail Track Corporation would be required to for the railway spur • A railway spur easement or pipeline licence to facilitate transport of product to port. In addition, should approval be granted under the NSW EP&A Act, subsequent approvals would be required in accordance with the mining lease conditions such as Mining, Rehabilitation and Environmental Management Plan (MREMP) requirements of the *Mining Act 1992*. The need for approvals under other environmental legislation would be determined as the project is refined during the prefeasibility and feasibility studies and infrastructure corridors are defined. Elements of the project are likely to be located within South Australia and would require approval under the South Australian *Development Act 1993* which is administered by the Department of Planning and Local Government, as well as the South Australian *Mining Act 1971* which is administered by Primary Industry and Resources South Australia. Preliminary consultation has commenced with these agencies. The project would be referred to the Commonwealth to determine

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		whether an approval under the EPBC Act is likely to be required. If approval under the EPBC Act is required, the bilateral agreement between the Commonwealth and state of NSW would be implemented to streamline the approval process. • CAP have defined a process for obtaining the Mining Lease, this is outlined in a document in Appendix F. In October 2013 CAP submitted a Mining Lease Application to Trade and Investment NSW - Resources and Energy Division
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• Probable Ore Reserves were declared based on the Indicated Mineral Resources contained within the pit design. The financial analysis showed that the economics of the Project were positive and the risk analysis did not identify any insurmountable risks.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• No external audits or reviews of the Ore Reserve estimates have been undertaken, however prior mining studies were subject to the reviews by Mining Associates and Behre Dolbear Australia, as outlined in Table 3.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*	• The relative accuracy and confidence of the Ore Reserve estimate is inherent in the Ore Reserve Classification. • No mine production data is available at this stage for reconciliation and/or comparative purposes. • Factors that may affect the global tonnages and the associated grades include:- o Mining dilution o Mining recovery • Process plant performance

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	• *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	