



# ASX

## ANNOUNCEMENT

26 September 2014

The Manager  
ASX Announcements Office  
ASX Limited  
Exchange Centre  
Level 4, 20 Bridge Street  
SYDNEY, NSW 2000

### **CAP – China Steel & Raw Material Conference, Dalian China Presentation 26 September 2014**

Carpentaria Exploration Limited (**CAP**) advises that it has revised the above presentation lodged today.

Changes made:

- Page 18 – there was a typographical error made in the Competent Person Statement with reference to 2004 JORC which should have been 2012
- Page 19 – an additional statement in the pre-scribed format was required at the foot of the page in relation to the previously announced information.

A copy of the amended presentation follows.

For any information please contact:

**Chris J Powell**  
Company Secretary / CFO  
Carpentaria Exploration Limited  
+61 7 3220 2022  
[chris.powell@capex.net.au](mailto:chris.powell@capex.net.au)

Level 6, 345 Ann St Brisbane Queensland 4000  
PO Box 10919, Adelaide Street, Brisbane Queensland 4000  
Phone: + 61 7 3220 2022 Fax: + 61 7 3220 1291  
[info@capex.net.au](mailto:info@capex.net.au) [www.capex.net.au](http://www.capex.net.au)

CONNECT



**We find it, We prove it, We make it possible**





# Carpentaria Exploration Ltd

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

**New magnetite - high purity with rail and port**

**14<sup>th</sup> China International Steel and Raw Materials Conference**

**Dalian, China 26<sup>th</sup> September 2014**

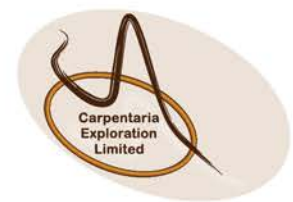


# Disclaimer



*This presentation has been prepared by the management of Carpentaria Exploration Limited (CAP) for the benefit of analysts, brokers and investors and not as specific advice to any particular party or persons. The information is based on publicly available information, internally developed data and other sources. Where an opinion is expressed in this presentation, it is based on the assumptions and limitations mentioned herein and is an expression of present opinion only. No warranties or representations can be made as to origin, validity, accuracy, completeness, currency or reliability of the information. CAP disclaims and excludes all liability (to the extent permitted by law) for losses, claims, damages, demands, costs and expenses of whatever nature arising in any way out of or in connection with the information, its accuracy, completeness or by reason of reliance by any person on any of it. Where CAP expresses or implies an expectation or belief as to the success of future exploration and the economic viability of future project evaluations, such expectation or belief is expressed in good faith and is believed to have a reasonable basis. However, such expected outcomes are subject to risks, uncertainties and other factors which could cause actual results to differ materially from expected future results. Such risks include, but are not limited to, exploration success, metal price volatility, changes to current mineral resource estimates or targets, changes to assumptions for capital and operating costs as well as political and operational risks and governmental regulation outcomes. CAP does not have any obligation to advise any person if it becomes aware of any inaccuracy in or omission from any forecast or to update such forecast.*

# Hawsons Iron Project – New Magnetite



- Different and better than other magnetite
- Very soft siltstone – simple and low cost processing
- Aim to deliver 10-20 Mtpa of best pellet feed for 50 years

| Fe %  | SiO <sub>2</sub> % | Al <sub>2</sub> O <sub>3</sub> % | P%    | S%    |
|-------|--------------------|----------------------------------|-------|-------|
| >68.5 | 3.1-3.3            | 0.22-0.39                        | 0.004 | 0.005 |

*Targeted grades based on test work and Davis Tubes*

- Technical and permitting pathway clear and achievable
  - Existing spare rail and port
  - Target production in 3.5yrs
  - Well advanced known approval process
- Potential returns very attractive at long term price forecasts



**Carpentaria Exploration**

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

# Company Snapshot



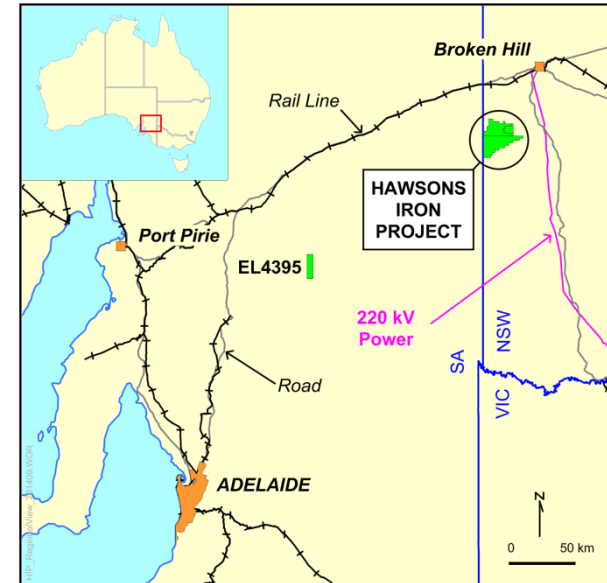
- ASX Listed : CAP
- Major Asset : Hawsons Magnetite Iron Project NSW, Australia.
  - Discovered in 2009
  - Ownership (60% CAP, 40% Pure Metals)

**CASH:** AUD 4.5 million

**QUOTED SECURITIES:** 124 m shares

## Top Shareholders:

|                         |       |
|-------------------------|-------|
| Silvergate Capital:     | 18.2% |
| Conglin Group:          | 11.4% |
| NEFCO:                  | 3.2%  |
| Directors & Management: | 5.3%  |



**Carpentaria Exploration**

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

# Balanced and Experienced Board and Management



## ***Dr Neil Williams – Chairman***

- 40 years experience
- Australia's Chief Government Geologist 1995 - 2010
- One of Australia's eminent geoscientists



## ***Mr Bob Hair***

- 30yrs experience as a lawyer
- Former General Manager Commercial MIM holdings
- Former CEO of AIM listed Ferrum Crescent



## ***Mr Paul Cholakos***

- 25 yrs experience in resources
- Mining Engineer
- Current Executive General Manager Project Development – Oil Search



## ***Mr Quentin Hill – Managing Director***

- 18 yrs experience in exploration, development and management
- Part of Hawsons discovery team
- Geologist



## ***Ray Koenig - Hawsons Technical Director***

- 45 years experience
- Chief Metallurgist Savage River Magnetite Mines
- Business Group Leader Mining and Metals for GHD
- Magnetite due diligence as a consultant



## ***Mr Bin Cai***

- Conglin Australia representative
- 18 years experience investing in emerging resource companies

**Carpentaria Exploration**

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

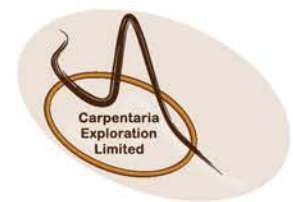
# Hawsons Iron Project Concept



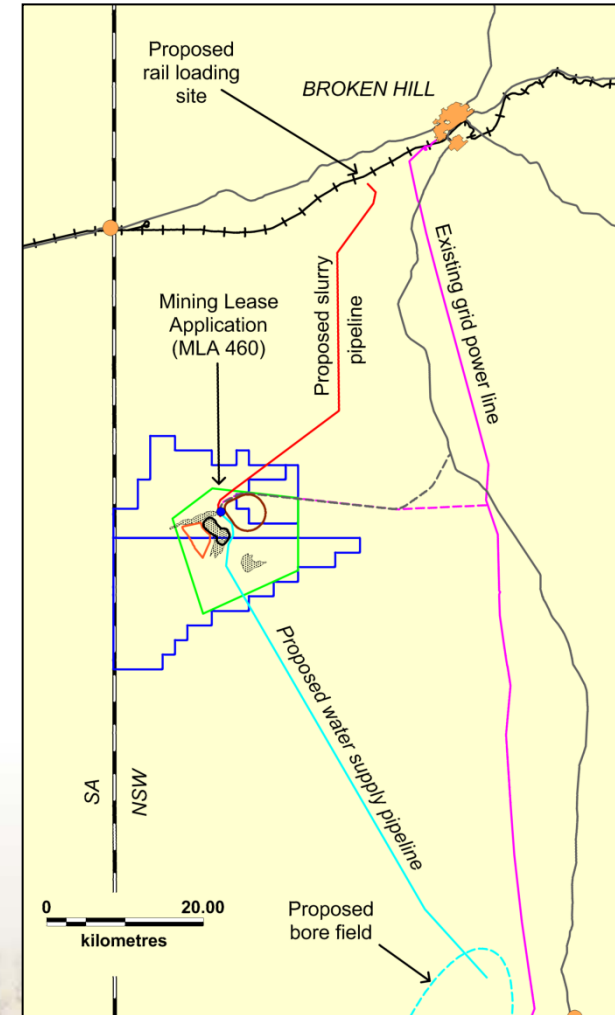
- Deliver 10 million tonnes per year of “best quality” pellet feed magnetite concentrate to end users needing high purity feed
- Exploit very large resource with favourable mining and processing attributes and achieve very low cost production
- Use the existing, high capacity, power, water, rail, and workforce all less than 90km from site and existing port to achieve very competitive low capital and operating costs
- Gain requisite approvals on a timely and favourable basis as the local environment is well understood and Native Title does not apply



# Project Concept –Transport logistics



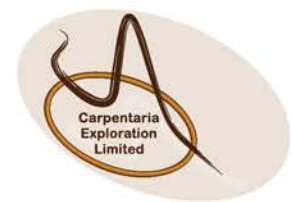
- Mine to rail head via new slurry – 50km
- Existing open access rail to new stockpile at Port Pirie – 360km
- New stockpile to existing port berths via new conveyor
- Barge transport to 180,000t vessels – 15-30km



**Carpentaria Exploration**

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

# Targeted CFR China Costs

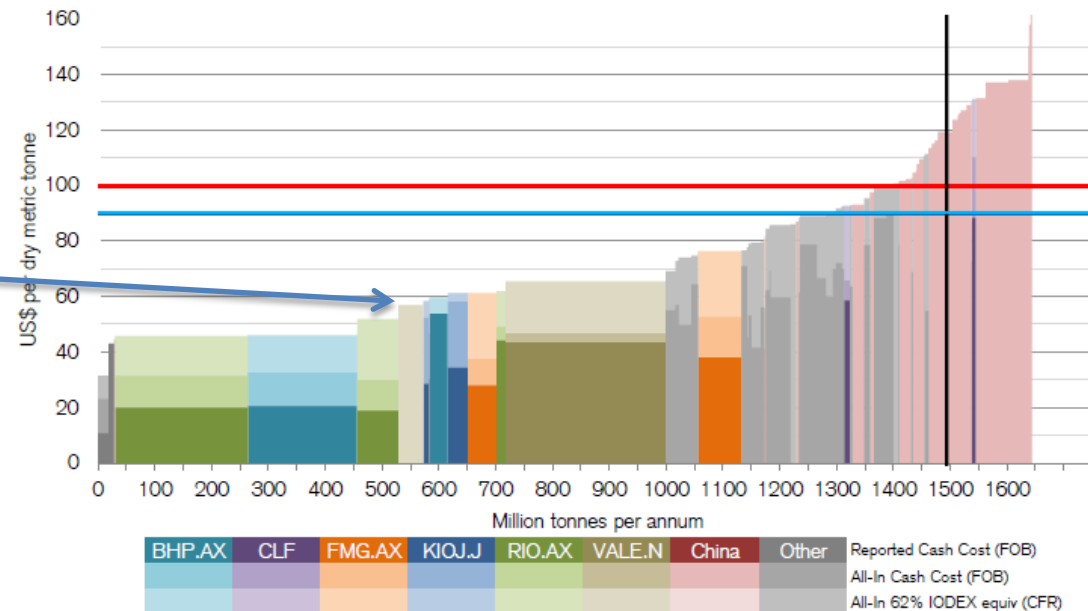


## Position on the cost curve

- Carpentaria is targeting the second quartile of the all in CFR China cost curve indexed to 62% Fe
  - Approx. US\$56
  - Approx. US\$64 (69% basis)
- Withstand price fluctuations

## Exhibit 2: 2016 curve (China: 250mtpa, excl domestic freight)

Blue = CS price fcst, Red = consensus price, Black = demand



Source: Company data, Credit Suisse Securities Research & Analytics and Commodities Research estimates.

Source - After Credit Suisse 21 August 2013

- 1 Reported cash costs are C1 costs
- 2 all-in cash costs include royalties, sustaining capital, corporates costs but not finance costs
- 3 includes a freight adjustment to CFR China and indexed to a 62% product
- 4 exchange rate 0.85USD = 1.00AUD

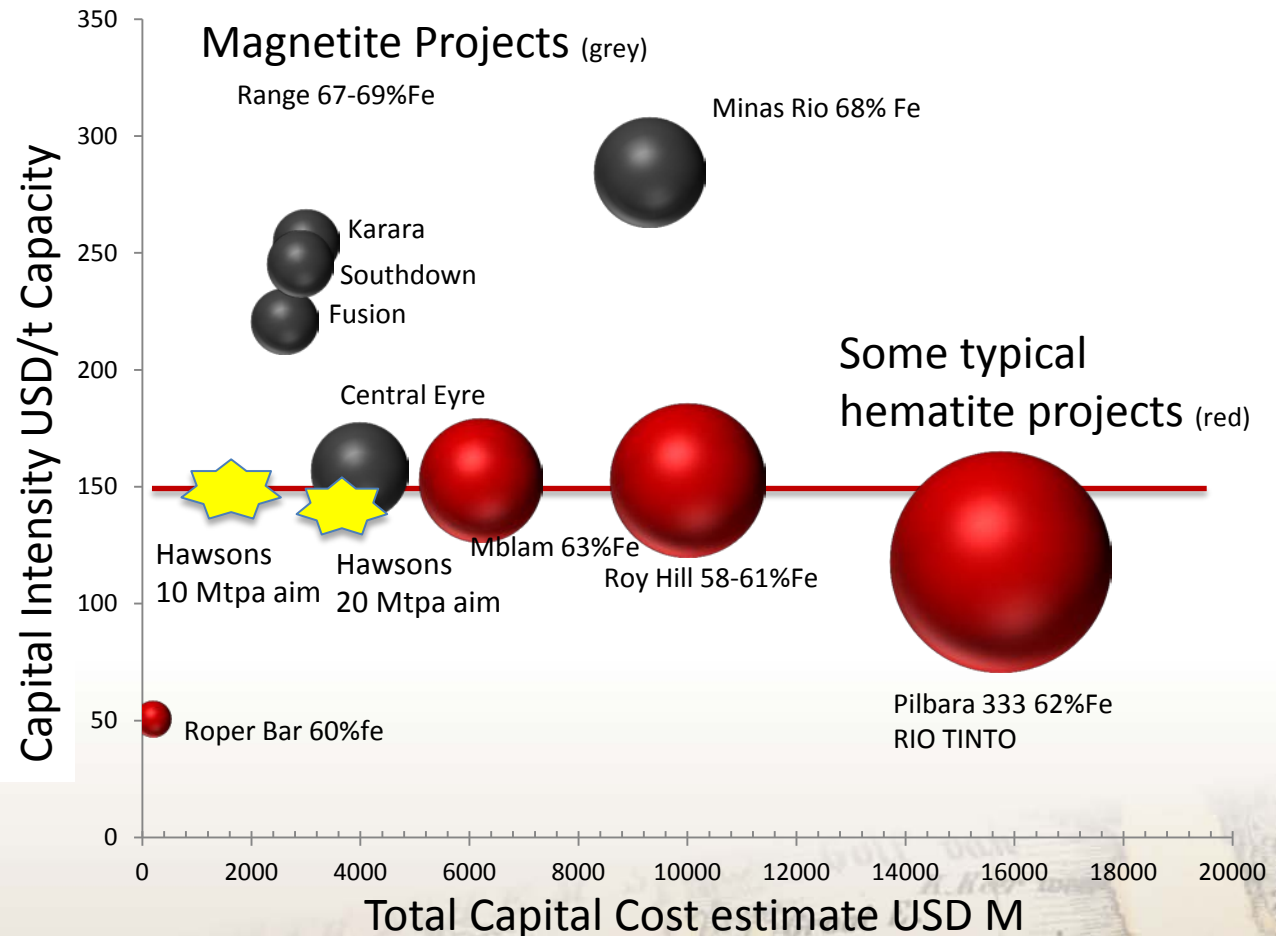
# Capital Intensity – benefits of existing infrastructure



## Low capital intensity

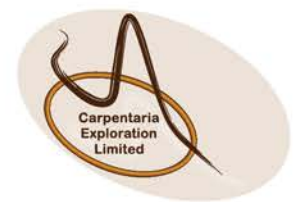
10Mtpa start up case  
utilising existing  
infrastructure targets:

- Low capital cost per tonne of capacity (capital intensity ~\$140-150USD)
- Capital intensity similar to hematite projects
- Lower than comparable magnetite projects
- Low capital service costs



Source - refer Appendix 4

# Its about low costs and high quality !



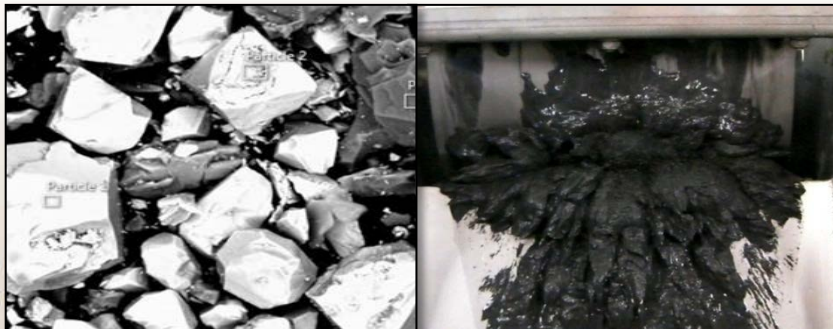
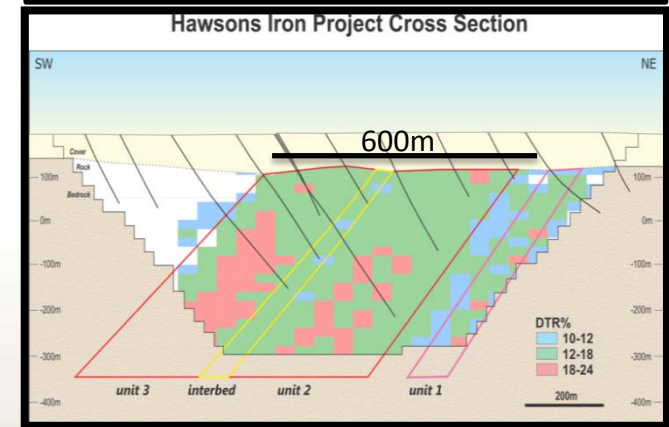
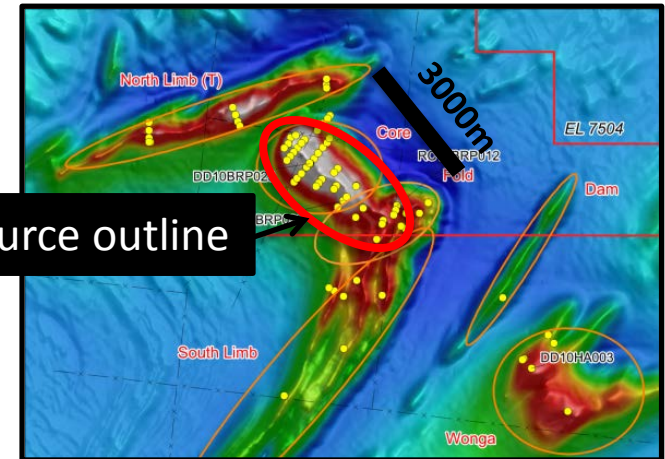
## Resource

- JORC\* resource 1.8 Billion tonnes at 15% mass recovery for 263Mt of 69.7% Fe, 2.9% SiO<sub>2</sub> concentrate (mine 100t to produce 15t concentrate)

## Mining

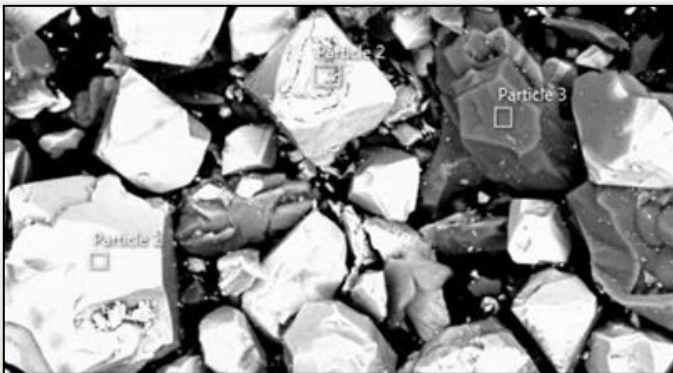
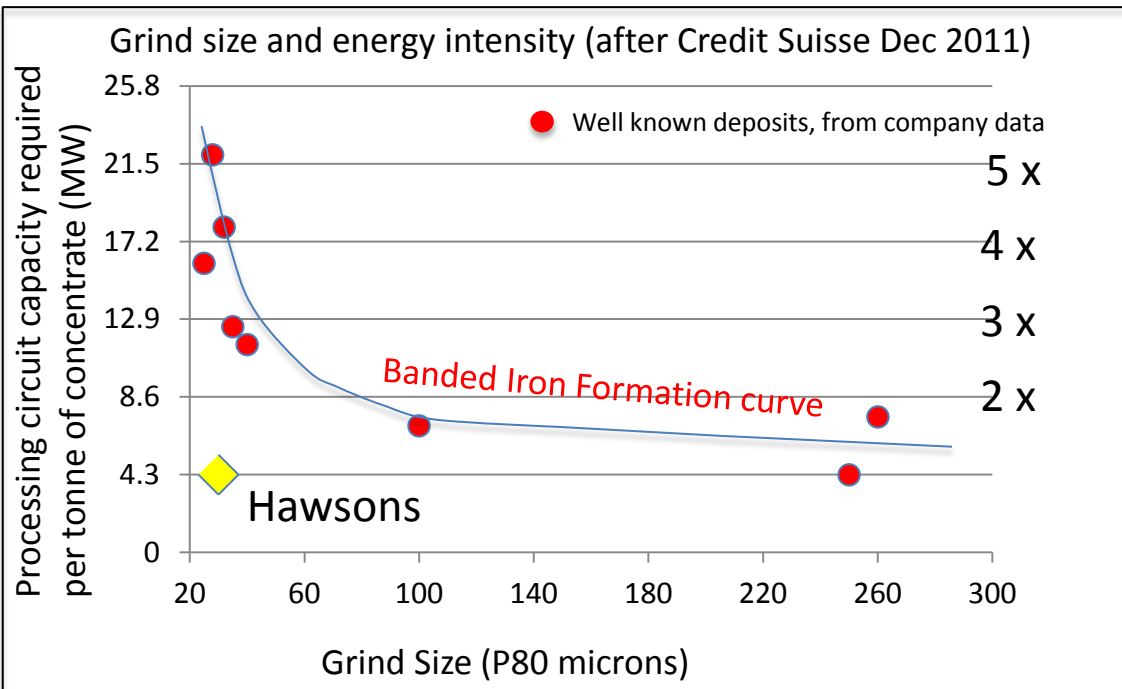
- 3000m x 600m ore body – low mining cost
  - bulk mining methods
  - waste : ore 0.3 : 1
  - material movement and mining costs comparable to higher grade projects
- Potential for large resource extensions and long life
- Siltstone rock very soft - easy on mining equipment

Resource outline



\* Refer Appendix 1

# Siltstone ore is different to typical iron formations



- very different ore - soft
- natural grain size 10-50 microns, don't break the crystals
- ~ one quarter energy use of typical magnetite ores per tonne of concentrate (BWI 6-7)
- produces high purity concentrate
- large processing cost savings up to \$5-15/t concentrate
- Comparatively low technical risk
- Its about costs and quality not head grade

**Carpentaria Exploration**

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

# Concentrate product - high purity



## Concentrate product likely specifications\*

|                                |                         |
|--------------------------------|-------------------------|
| Fe                             | >68.5%                  |
| SiO <sub>2</sub>               | 3.1-3.3%                |
| Al <sub>2</sub> O <sub>3</sub> | 0.22-0.39%              |
| P                              | 0.004%                  |
| S                              | 0.005%                  |
| Size                           | 100% passing 38 microns |

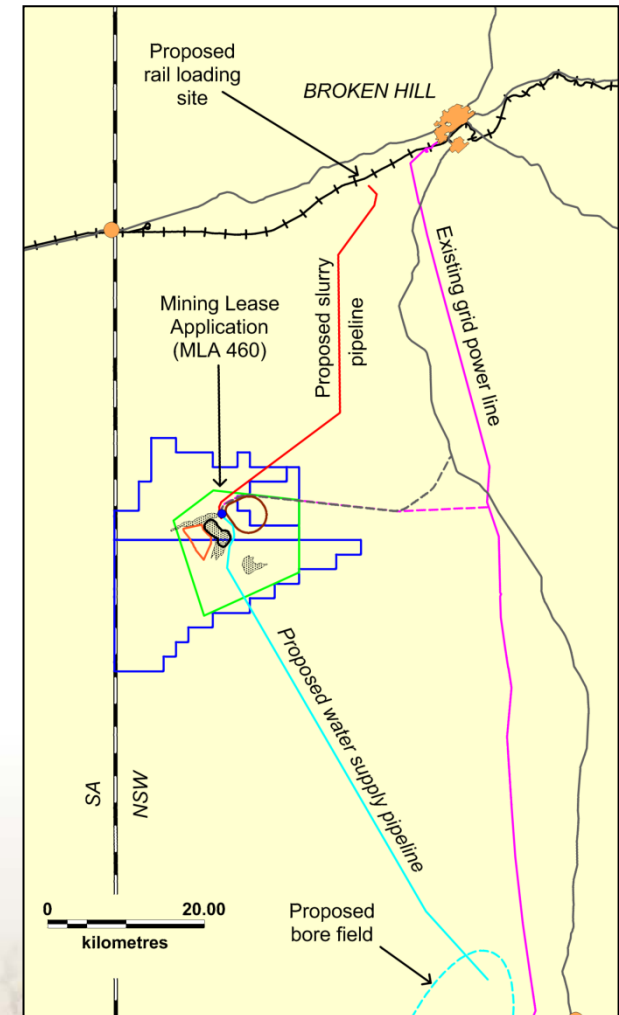


- High purity concentrate – very low impurities
- Good pelletising properties
- Good blending product to reduce impurities
- Increase blast furnace feed grade
  - 10Mt of Hawsons 69% to upgrade 35Mt of 58%Fe to 45Mt of 62%Fe
  - Increase efficiency,
  - Control pollutent emissions,
  - Better quality steel
- Alternative long term, high grade supply source, diversify high grade supply

# Project pathway clear and achievable



- Grid power with spare capacity (220Kv line)
- High yield water source with allocation available
- Existing rail 360km to existing port
  - 13Mtpa spare capacity on rail
  - 3 spare berths for 10-20Mtpa capacity
  - Require conveyors, stockpiles and ship loaders
- Port access secured under a right of first refusal
- Permitting
  - no Native Title
  - Mining lease application lodged
  - Seasonal environmental surveys at mine site completed



# How does Hawsons compare others?



|            |                                                  | Hawsons | Others |
|------------|--------------------------------------------------|---------|--------|
| resource   | >250Mt concentrate                               | ✓       | most   |
| mining     | standard and in pit crush and convey             | ✓       | most   |
| water      | does not use sea water                           | ✓       | few    |
| processing | one stage of grinding, no regrinding             | ✓       | few    |
|            | two stages magnetic separation                   | ✓       | few    |
|            | No floatation                                    | ✓       | few    |
| power      | low cost grid power available                    | ✓       | few    |
| transport  | existing open access rail line                   | ✓       | few    |
|            | existing port access secured                     | ✓       | few    |
| permitting | No Native Title                                  | ✓       | few    |
|            | EIS seasonal surveys complete on mine site       | ✓       | few    |
|            | Mining Lease Application lodged                  | ✓       | some   |
|            | Government support-State Significant Development | ✓       | most   |
|            | Stable low risk country                          | ✓       | some   |

# Current and future work



Current program designed to align all project elements

Complete in 2-3 months

Build a platform for further investment

- Additional process test work
- Port - rail - marine prefeasibility study to  $\pm 30$
- Power network capability study  $\pm 15\%$
- Environmental work progressing

Future test work subject to additional funding

- Resource drilling
- Pilot plant test work
- Geotechnical test work
- Significant infrastructure negotiation

Targeted production and approval time frames

- Approval less than two years
- Completion of bankable feasibility study
- Production targeted in 3.5-4yrs



**Carpentaria Exploration**

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

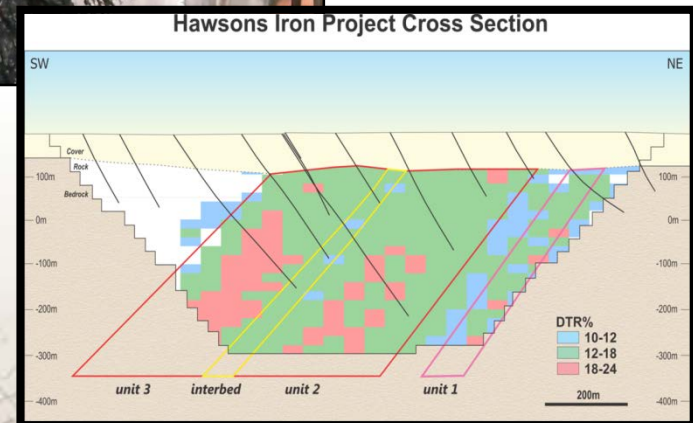
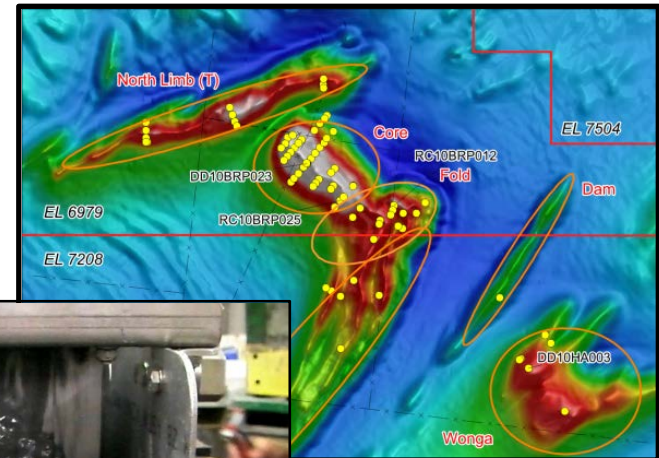
# Summary



Long life and scaleable

High grade product  
consistently delivered

Targeted low operating  
and capital costs



**Carpentaria Exploration**

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

# Summary



**Key is low costs and product quality**

- High purity concentrate , blending
- Good pelletising
- Competitive costs, potential good returns

**Technical and permitting pathway clear and achievable**

- Favourable ore attributes
- Favourable environmental attributes
- Existing rail, port, power and water infrastructure



**Carpentaria Exploration**

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

# Carpentaria Exploration

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

Phone: +61 7 3220 2022

To find out more, visit us at  
[www.capex.net.au](http://www.capex.net.au)



@CARPEXPLORE

*The information in this presentation that relates to Exploration Results, Exploration Targets and Resources is based on information compiled by Q.S. Hill, who is a member of the Australian Institute of Geoscientists and has had sufficient experience which is relevant to the style of mineralization 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'. Q.S.Hill is an employee of Carpentaria and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

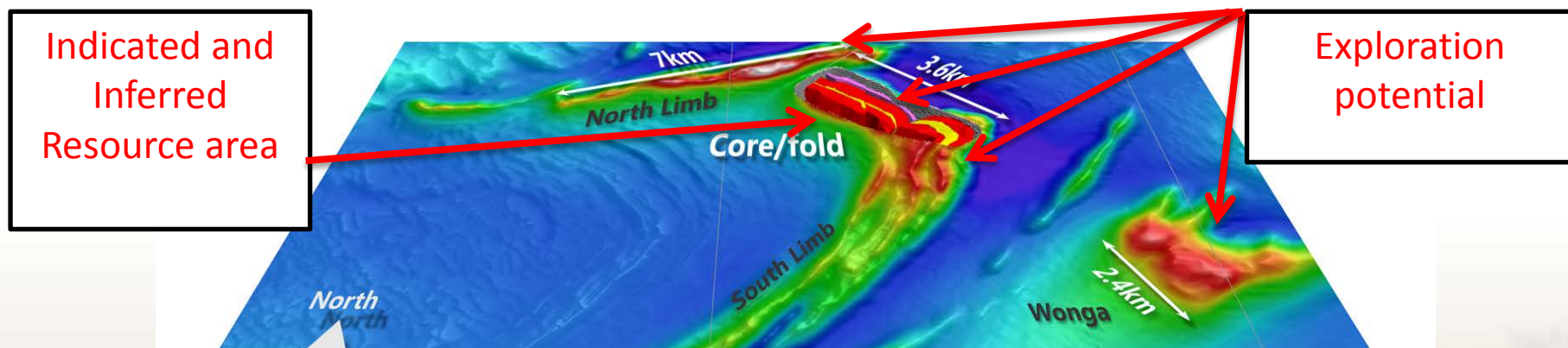


# CARPENTARIA

## APPENDIX 1 – Resources



|              |                |                | Concentrate Grades |                                  |                 |                    |             |                                      |
|--------------|----------------|----------------|--------------------|----------------------------------|-----------------|--------------------|-------------|--------------------------------------|
| Category     | Billion Tonnes | Magnetite DTR% | Fe%                | Al <sub>2</sub> O <sub>3</sub> % | P% <sup>1</sup> | SiO <sub>2</sub> % | LOI%        | Contained Concentrate Million Tonnes |
| Inferred     | 1.554          | 14.7           | 69.6               | 0.20                             | 0.004           | 2.9                | -3.0        | 228                                  |
| Indicated    | 0.215          | 16.2           | 69.8               | 0.20                             | 0.005           | 2.8                | -3.0        | 35                                   |
| <b>Total</b> | <b>1.769</b>   | <b>14.9</b>    | <b>69.7</b>        | <b>0.20</b>                      | <b>0.004</b>    | <b>2.9</b>         | <b>-3.0</b> | <b>263</b>                           |



Reported under JORC 2012 – no material change since first published ASX announcement 26 March 2014

The Company is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of estimates of +mineral resources or +ore reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

**Carpentaria Exploration**

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

# CARPENTARIA

## APPENDIX 2

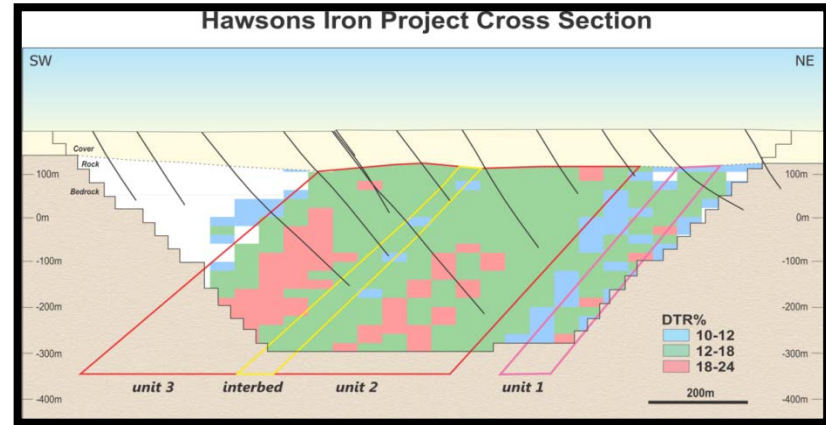


### Mining

- low strip ratio 0.3:1 waste to ore falling to 0.1:1 by year 4
- Low cost bulk mining methods- in pit crush and convey
- 600m mining widths
- UCS 50-90Mpa cf 350Mpa

### Processing

- simple flow sheet
- very low energy
- Don't break the magnetite
- very high grade product
- Bond Work Index 6-7Kwhr/t (cf 18-40)



magnetite

quartz



Photomicrograph of rock

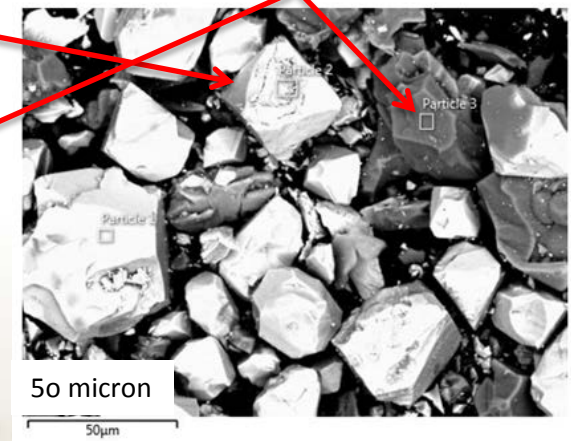
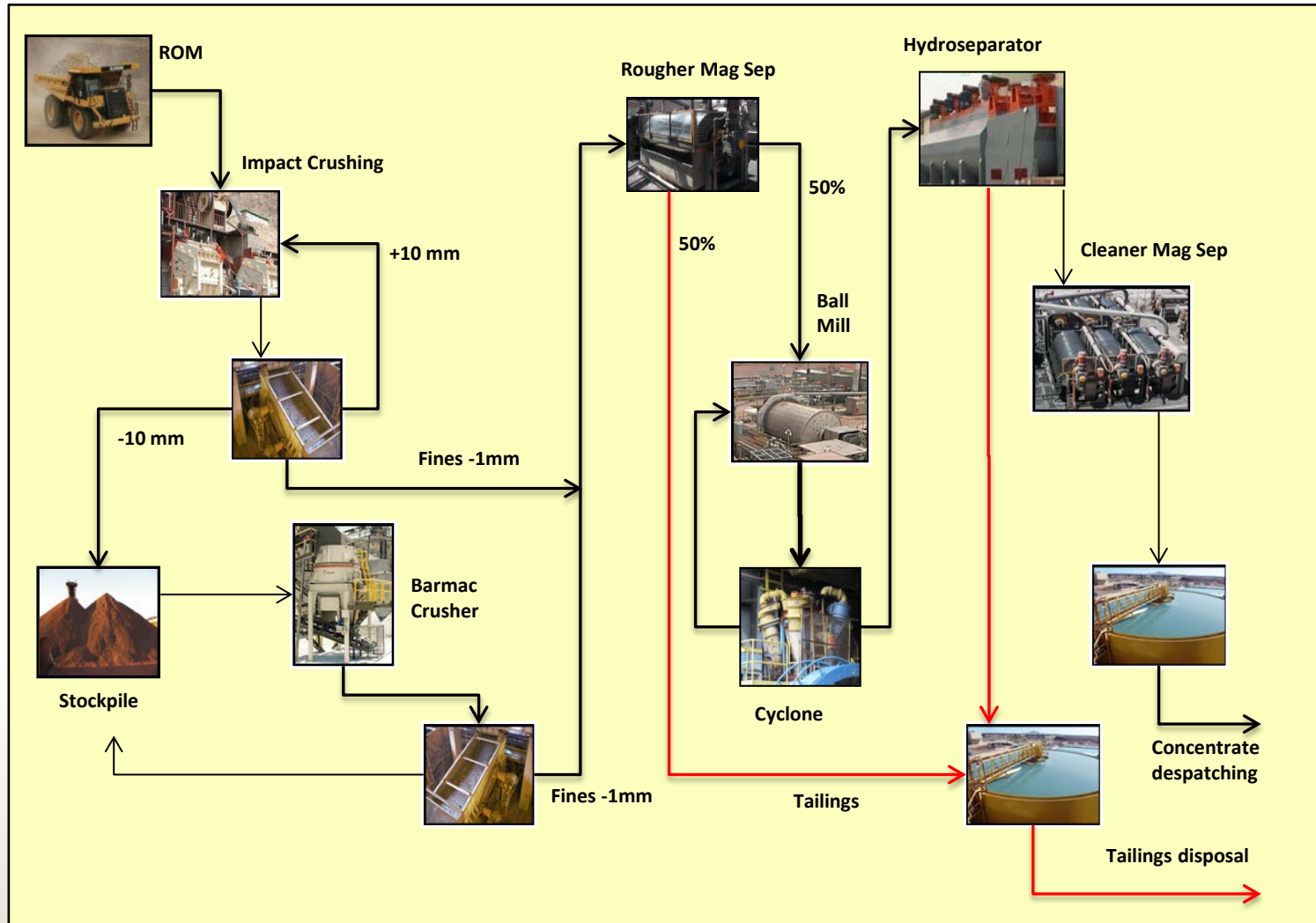


Image of concentrate

# CARPENTARIA EXPLORATION

## APPENDIX 3 – Processing Flow Sheet



# CARPENTARIA EXPLORATION

## APPENDIX 4 – Capital Intensity Chart



| Project                   | Operator    | Capex A\$M | Annual M Tonnes | Capex/Tonne A\$M | Product %Fe |
|---------------------------|-------------|------------|-----------------|------------------|-------------|
| Roy Hill <sub>1</sub>     | Hancock     | [10,000]   | 55              | [180]            | [55]        |
| Karara <sub>2</sub>       | Karara JV   | 3000       | 10              | 300              | 68          |
| Central Eyre <sub>3</sub> | Iron Road   | 2590       | 12.4            | 210              | 67          |
| Fusion <sub>4</sub>       | Eyre Iron   | 2600       | 10              | 260              | 67          |
| Mbalam <sub>5</sub>       | Sundance    | 4700-7830  | 35              | 134-224          | 63          |
| Southdown <sub>6</sub>    | Grange      | 2885       | 10              | 289              | 69          |
| Minas Rio <sub>8</sub>    | Anglo       | 9300       | 26.5-30         | 350-310          | 68          |
| Pilbara 333 <sub>9</sub>  | Rio         | 15740      | 113             | 139              | 62          |
| Roper Bar <sub>11</sub>   | West Desert | 180        | 3               | 60               | 60          |

<sup>1</sup> <http://www.royhill.com.au/sites/default/files/Tim%20Treadgold%27s%20article.pdf>

<sup>2</sup> <http://gindpublic.powercreations.com.au/images/gind---iebohvaiti.pdf>

<sup>3</sup> <http://www.ironroadlimited.com.au/images/files/projects/20110614%20Iron%20Road%20-%20CEIP%20Prefeasibility%20.pdf>

<sup>4</sup> <http://centrexmetals.com.au/wp-content/sharelink/20120503-mine-and-port-scoping-study-completed-and-dfs-commenced-87554443598698511.pdf>

<sup>5</sup> <http://www.sundanceresources.com.au/IRM/Company/ShowPage.aspx/PDFs/2675-51552764/PresentationResourcesRisingStars>

<sup>6</sup> [http://www.grangeresources.com.au/clients/grange/downloads/item150/southdown\\_dfs\\_presentation\\_-\\_albany\\_16\\_may\\_2012.pdf](http://www.grangeresources.com.au/clients/grange/downloads/item150/southdown_dfs_presentation_-_albany_16_may_2012.pdf)

<sup>8</sup> <http://www.angloamerican.com/business/ironore/projects.aspx>, <http://www.mining-technology.com/projects/minas-rio-iron-ore-brazil/>

<sup>9</sup> [http://www.riotinto.com/documents/110324\\_New\\_opportunities\\_for\\_industry\\_growth\\_Sam\\_Walsh.pdf](http://www.riotinto.com/documents/110324_New_opportunities_for_industry_growth_Sam_Walsh.pdf)

<sup>11</sup> [ASX550 : Investor Notice of Presentation 20 Sep 2013.pdf](#)

USD/AUD conversion at 0.94