



ASX - EMG

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A photograph of a mining site in a dry, hilly landscape. In the foreground, there are large, dark, jagged rock formations. Two workers in hard hats and safety gear are visible on the left, working on a slope. The background shows a vast, open landscape with sparse vegetation and distant hills under a clear sky.

## Investor Presentation November 2009

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- JORC-Exploration Targets; this presentation comments on and discusses EMG's exploration in terms of target size and type. The information relating to EMG's exploration targets should not be misunderstood or misconstrued as an estimate of Mineral Resources or Ore Reserves. Hence the terms Resources and Reserves have not been used in this context. The potential quantity and grade is conceptual in nature, since there has been insufficient work completed to define them beyond exploration targets and that it is uncertain if further exploration will result in the determination of a mineral resource.

## EMG CAPITAL STRUCTURE

- Fully Paid Shares

Directors and Managers	6,100,001	12 %
Vendor Exploration Properties	7,500,000	15%
Public	<u>35,746,500</u>	<u>73%</u>
	50,087,401	100%
  
- Total Option Issue – 22,951,001  
exercisable at 20 cents per option before 30 Sept 2010
  
- Directors and Managers; option holding 5,900,000 listed options
- Unlisted options 3,700,000
  
- Market Capitalisation \$40m (\$60m fully diluted)
- Trade 85 cents
- Top 20 60% of issued capital

## EMG trading history



# **Directors - EMERGENT RESOURCES LIMITED**

## **George McMaster, Chairman**

**40+ years experience** in Australian and international corporate governance, commercial feasibility, finance, mining and hospitality related industries, including several listed public company directorships; Condor Minerals and Energy Ltd, Terrex Resources NL, Takoradi Gold NL, Great Eastern Mines Ltd.

## **Garry Hemming, Managing Director**

**Executive Director of listed ASX and AIM companies for over 20 years**

**Exploration Geologist and Manager** for over 30 years.

**Discovered new deposits;** Copper in South Australia, Gold in Western Australia (Yilgarn Star, Orion/Sapphire at Kookynie, Geko at Bullabulling), Gold in Queensland at Rishton-Hadleigh Castle, Diamond, heavy minerals, and tantalite in Namibia, Platinum and sulphide nickel at Acoje in the Philippines.

## **Kevin Judge, Non Executive Director**

Former President of the West Australian division of CPA Australia, former Chairman of the Disciplinary Committee of the West Australian division of CPA Australia, former Member of Regional Liaison Sub Committee (Insolvency) conducted by Australian Securities & Investments Commission (ASIC), former Chairman of the West Australian division of Chartered Secretaries Australia and former Member of the Australian Board of Chartered Secretaries Australia. Former Chairman and Director of companies listed on the Australian Stock Exchange.

## **Denis O'Meara Project Vendor**

JP, AsMAusIMM, Mining Registrar Marble Bar, and Mines and Crown Law Department.

Board Member, AGIC (Australian Gold Industry Council) for over 10 years

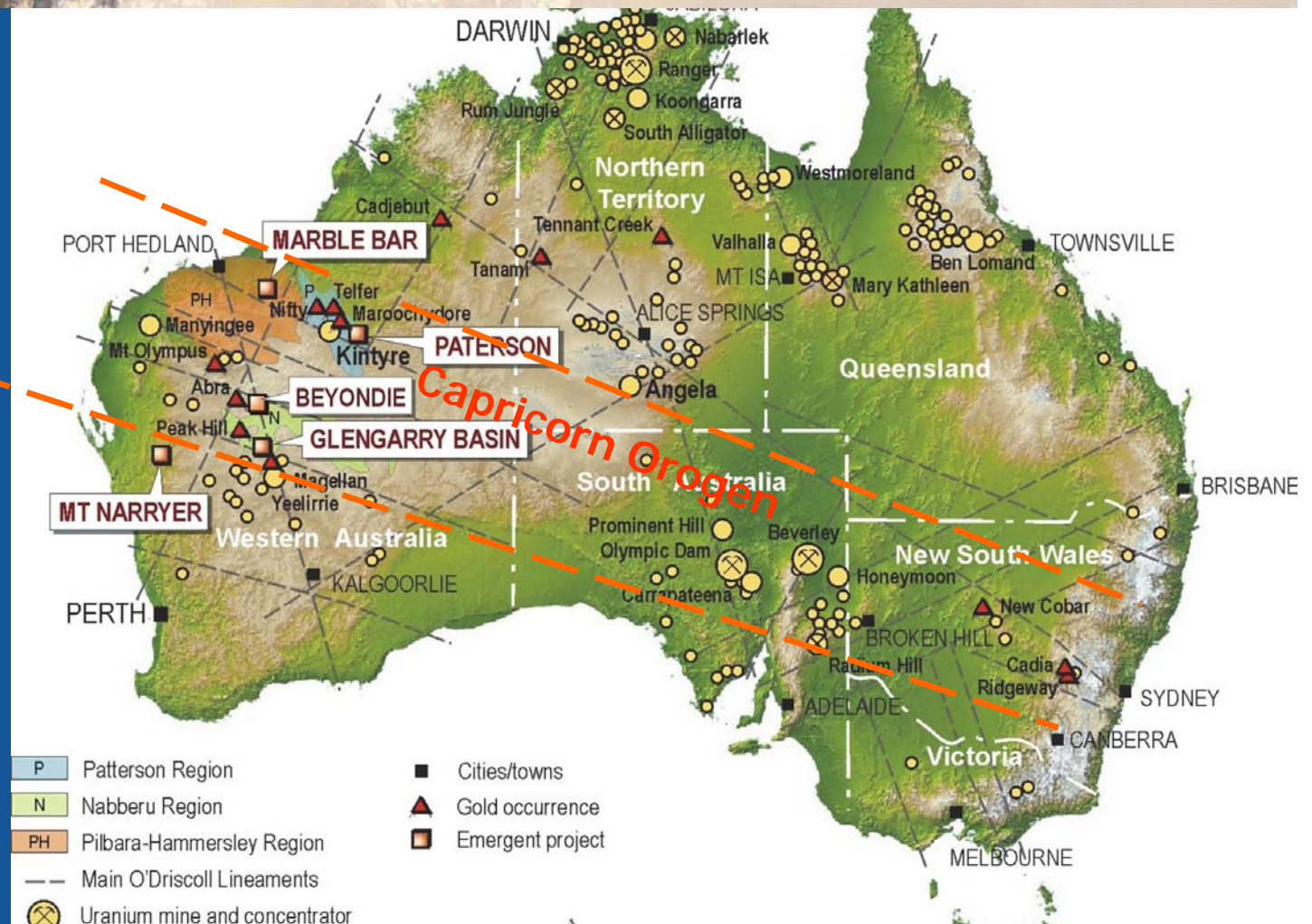
Port Hedland Port Authority 1973-1985 (Aust Largest Tonnage Port Iron Ore)

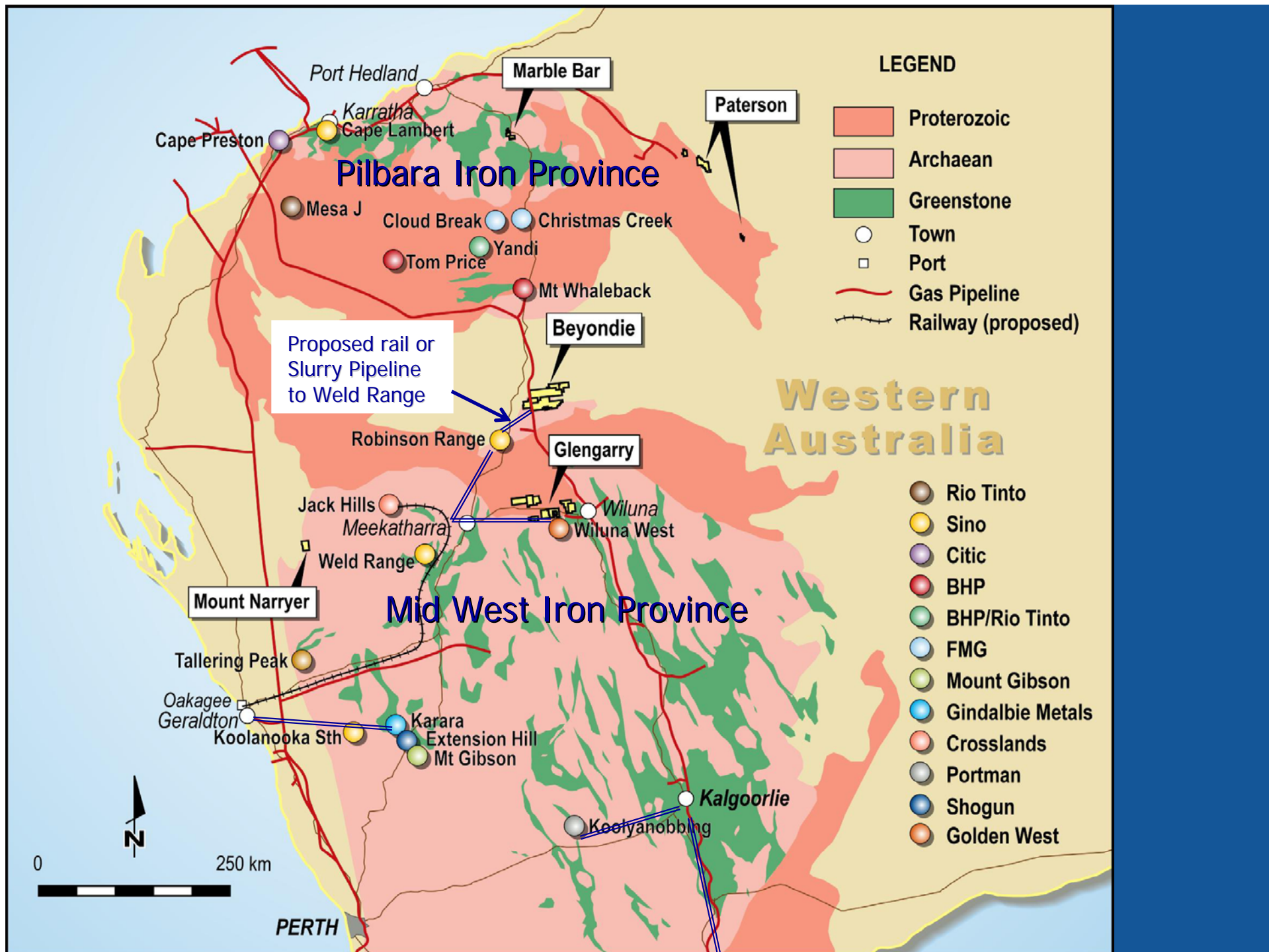
Kings Park Botanical Gardens 1994- 1996, AMEC Prospector of the Year 2004, Australia Day Medal.

Eight other ASX listings have been supported by D O'Meara.

## Western Australia Project Location

## Beyondie Magnetite Project and Base Metal Projects





## EMG Company Assets

- **1. Iron (magnetite) Project at Beyondie**
  - Large licences; 1700 square kilometres
  - Wide multiple magnetite bearing banded-iron-formation +100 m wide
  - Important infrastructure in Mid-West & Pilbara Iron Province
  - a large world class resource of high grade magnetite.
- **2. Base Metal Projects - 2000 sq km (see Part 2)**
  - 2. Mt Bartle Base Metal/gold (Glengarry), drill targets defined
  - 3. North Pool Base Metal/gold (Glengarry), undrilled base metal gossans
  - 4. Gold/copper/uranium Mt Narryer, (Radiometric anomalies and gold prospectivity)
  - 5. Diamond Well lead/zinc (1% Pb and 1% Zn at surface)
- **3. Other Base Metal Projects - 500 sq km (see Part 2)**
  - Rainbow Bore, Clarrie Well, Fenceline
  - Uranium potential of Kintyre style mineralisation,
  - Rudall River uranium-copper-gold targets
  - Marble Bar Archaean gold copper shear targets

## China Metallurgical Investment Co Ltd (CMIC)

- CMIC/EMG to enter into a A\$200m 50/50 Development JV for the Beyondie Project (Subject to FIRB Approval)
- Subscribed for 15% of EMG (\$5M) subject to S/H Approval
- Completed Due Diligence
- Use reasonable endeavours to complete JV documentation and loan documentation prior to 15 December 2009
- Agreed to provide a loan of \$100m to EMG
- CMIC to invest \$100m equity into the JV
- Above is subject to regulatory, shareholder and PRC National Development & Reform Commission

# Infrastructure

- 'Oakajee Port' proposed deep water port to be built in the Mid West (Western Australia), about 25 km north of Geraldton, to service the region's growing iron ore industry. Approval for the construction and operation of the port and rail facility was announced on 29 July 2008 with the contract being awarded to Oakajee Port & Rail Pty Ltd, a joint venture between Murchison Metals and Mitsubishi Corporation
- Port, Rail Cost A\$3.5 Billion. Govt extra \$700m.
- Construction is expected to commence in late 2010 with completion by 2012. The port will have the capacity to ship 35 million metric tons of iron ore annually increasing rapidly to 100mtpa.
- Lobbying in favour of the project has been from a partnership known as Geraldton Iron Ore Alliance which includes miners Mount Gibson Iron, Midwest Corporation (ASX:MIS), Murchison Metals Ltd (ASX:MMX), Gindalbie Metals (ASX:GBG), Golden West Resources, Royal Resources Ltd, Asia Iron Holdings Ltd and Atlas Iron Ltd.
- Possibility of Beyondie-Mt Weld Slurry Pipeline to fast track production escalation.
- Then rail to 'Oakajee deep water port.
- Possible trading water to Mid West mines to reduce CapEx and OpEx
- Potential saving of a 30% on both CapEx and OpEx.

## EMG Highlights

- **Magnetite project developments**
  - In E52/1806
- Current JORC Resources 560,000,000 tonnes Inferred Resource
- Plus Exploration Result of 480 to 510,000,000 tonnes
  - In E52/2215 etc
- 3.7 to 4.2 billion tonnes Exploration target
  - 3<sup>rd</sup> phase drilling of Beyondie Magnetite Deposit completed.
  - Established +60 kilometres length of tenements.
  - Multiple magnetite zones with widths of up to 200 metres.
  - Grade averages +27%Fe (+40% magnetite)
  - Grain size characteristics indicate favourable metallurgy and recovery
  - Very low impurities
  - Progressing engineering studies.

## **EMG Highlights**

- **Magnetite project developments**
  - Mining and processing is standard for Western Australia.
  - Very low strip ratio expected.
  - Adjacent Gold Fields Gas Pipeline for local access to power.
  - Great Northern Highway traverse EMG's ground, for transport.
  - Marymia Borefield for water supply, located 5km to south
  - Mid-West Region to the south; Robinson Range, Murchison/Jack Hills, Weld Range, Gindalbie, Mid-West Corp, Mt Gibson
  - Proceeding to co-operation alliance with OPR/Oakajee.

## Beyondie Iron Project - Development Program

- 1. Drilling to establish initial 1bt resource over 14km alone
  - Engineering studies progressing
    - ❖ including scoping study, grade determinations, metallurgy, and transport options
- 2. Develop production to 2-3mt per annum
- By beneficiation and trucking to nearby rail systems
- 3. Develop to 8mtpa then up to 32mt per annum as market allows
- By beneficiation and rail to port
  - Note; Step 2 above may be by passed



**emergent resources limited**

exploring for iron, base and precious metals

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Ship 1.7 tonne  
30 -60%Fe  
Hematite ore

1 tonne  
contained  
Fe

Pelletising

+

Smelting

0.6 tonnes  
Coking coal  
\$100-300/t

=

1 tonne  
Iron/steel

3.3 tonne  
Magnetite  
ore

1 tonne  
contained  
Fe

Crush, grind, mag separate

Exothermic  
magnetite

Ship 1.4 tonnes  
+68% Magnetite  
Concentrate

1 tonne  
contained  
Fe

Pelletising

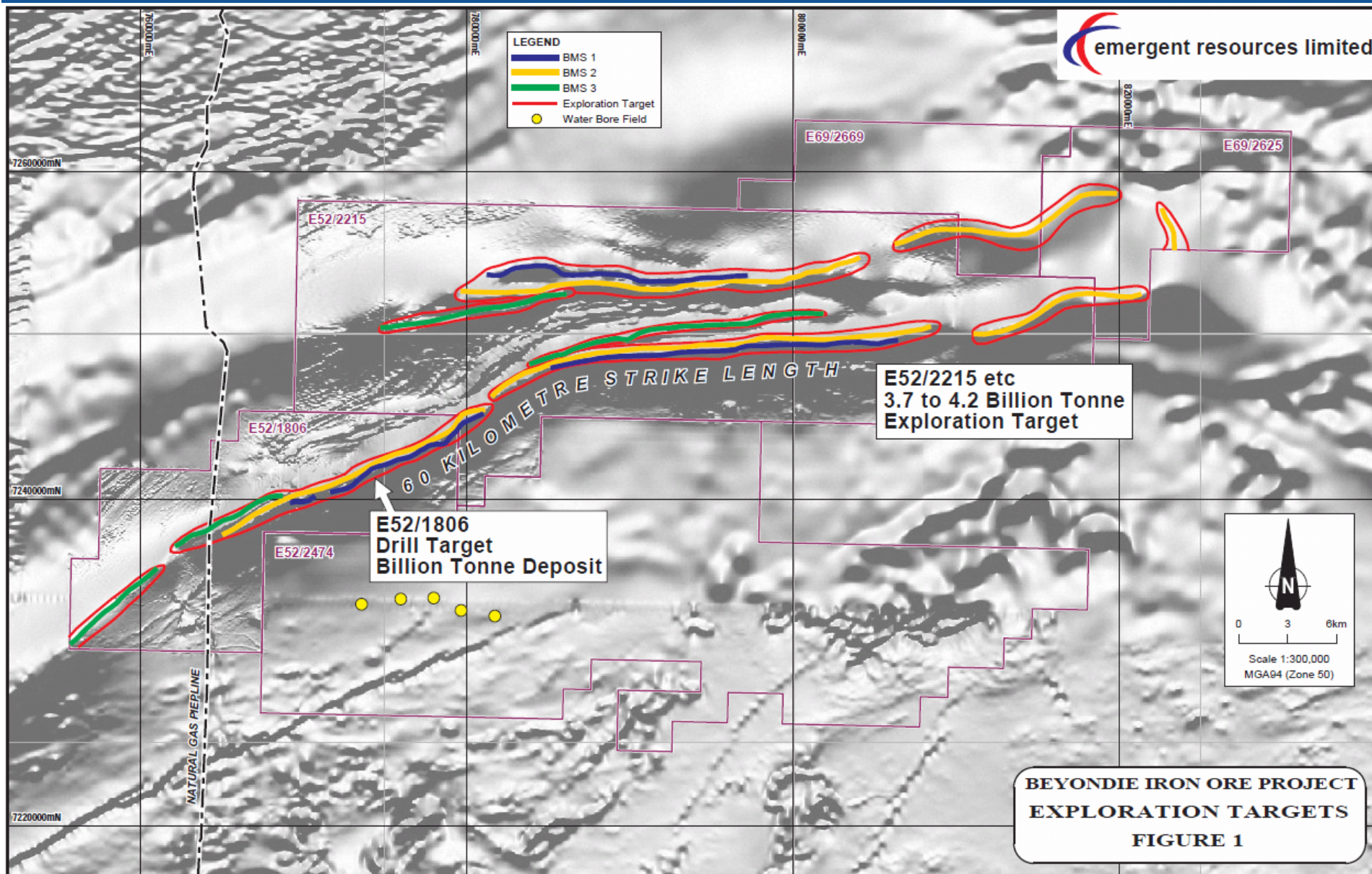
+

Smelting

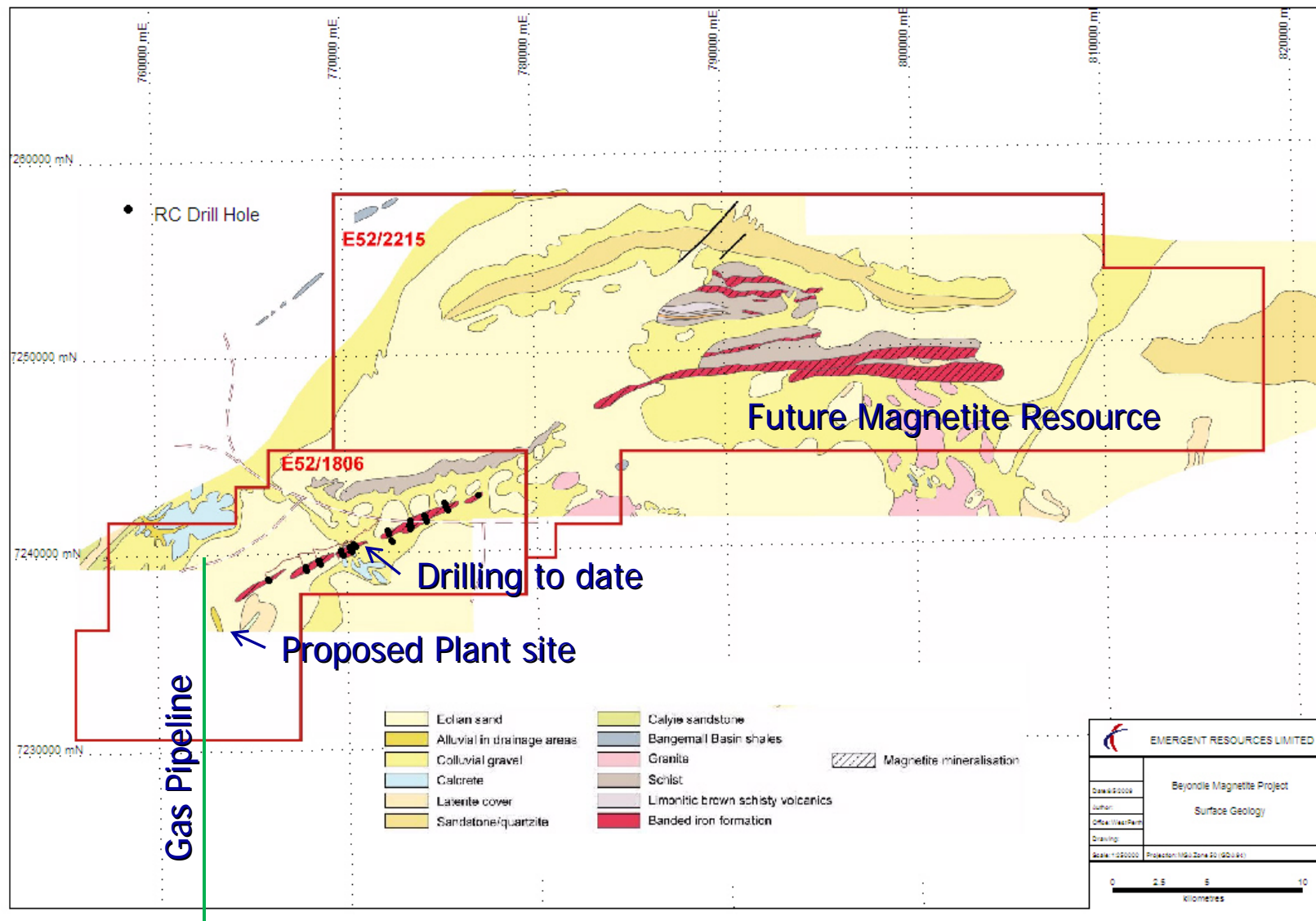
0.6 tonnes  
Steaming coal  
A\$50-60/t

=

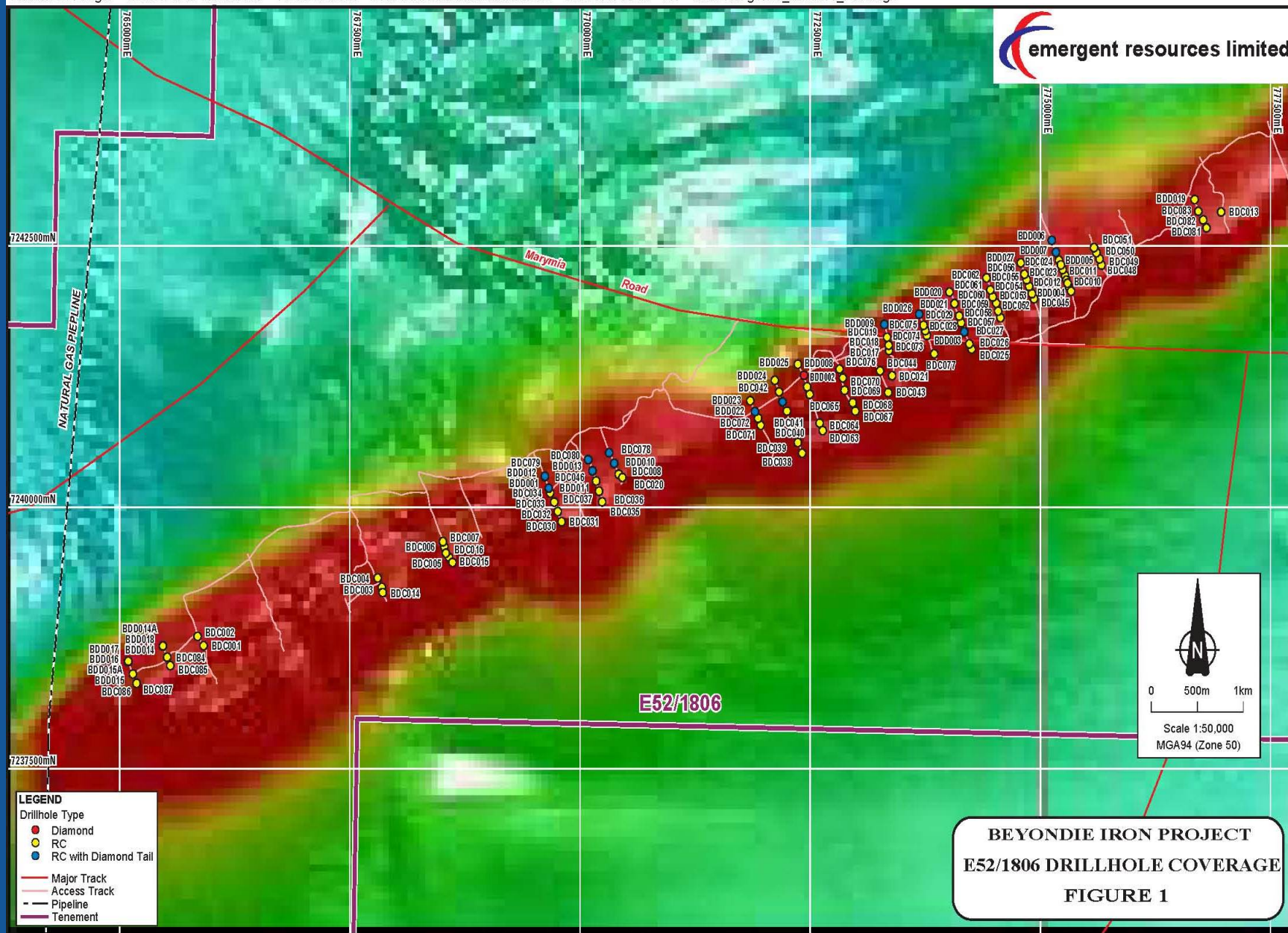
1 tonne  
Iron/steel



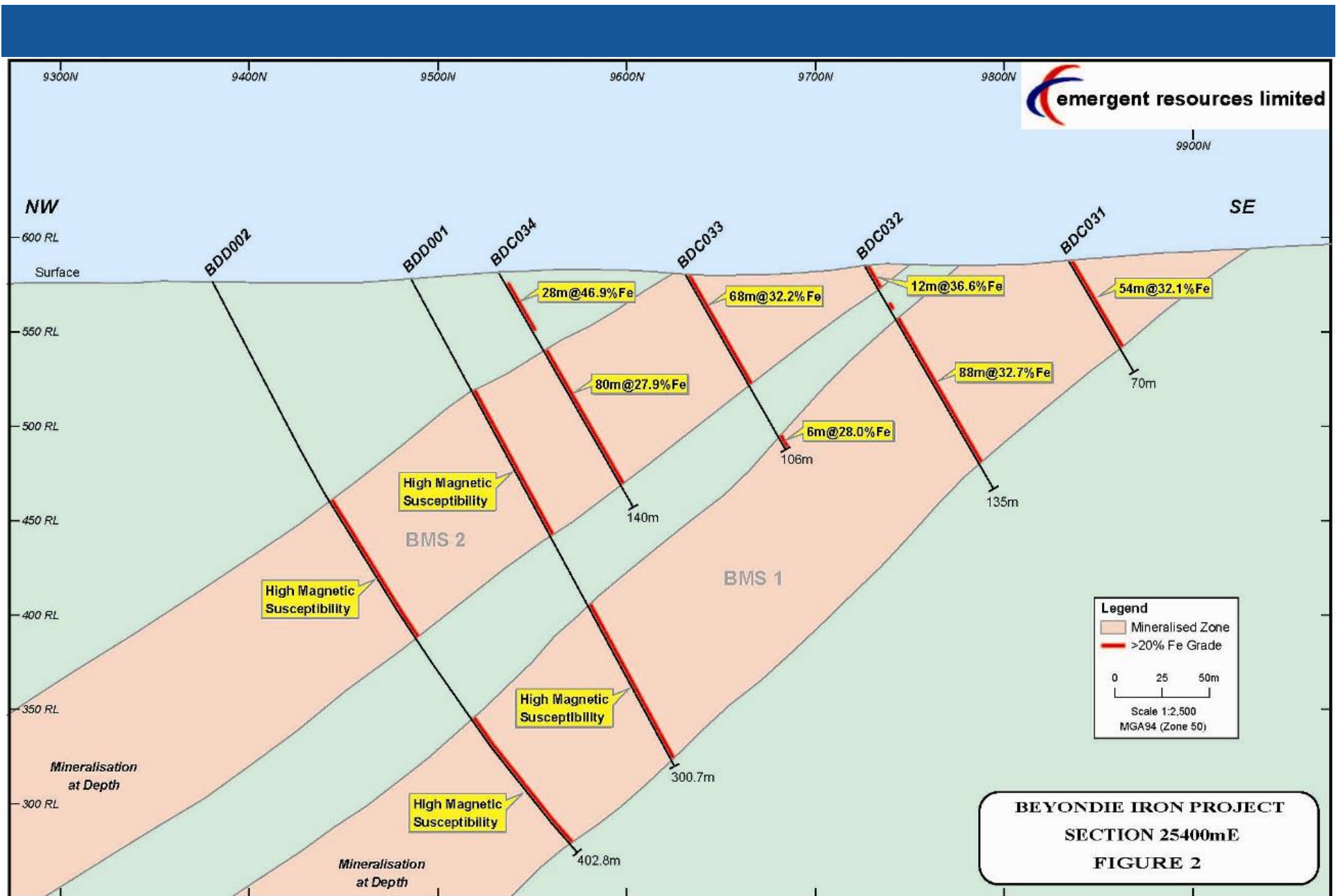
Extensive (60km strike) Beyondie Magnetite Schist shown in yellow



Western 1806 segment drilling area and future resources to the east



## E52/1806 drilled area and detailed magnetics



Deepest drill hole on section 25400mE

## Beyondie Drilling Results

Hole No	From m	To m	Width m	Fe%	P%	S%	Al <sub>2</sub> O <sub>3</sub> %
BDC066	60	199	<b>139</b>	<b>27.65</b>	0.07	0.01	4.01
BDC065	0	135	<b>135</b>	<b>27.63</b>	0.04	0.01	4.5
BDC072	38	151	<b>113</b>	<b>27.55</b>	0.02	0.01	4.21
BDC070	0	109	<b>109</b>	<b>26.9</b>	0.01	0.01	5.41
BDC075	40	149	<b>109</b>	<b>27.81</b>	0.03	0.01	4.15
BDC074	20	109	<b>89</b>	<b>26.99</b>	0.03	0.02	4.86
BDC061	72	159	<b>87</b>	<b>27.85</b>	0.07	0.01	4.09

Important; Concentrate grade;  
68% Fe, <4%SiO<sub>2</sub>, <0.6%AlO<sub>3</sub>, <0.1%TiO<sub>2</sub>, 0.005%P, 0.002%S

# Beyondie Iron Project



Flat featureless plain with magnite bearing BIF's outcrop



# History of Emergent Resources

- June 2007 George McMaster, Brian Smith, Garry Hemming founders,
- August 2007 Denis O'Meara vendor of base metal/ uranium projects,
- February 2008 Beyondie Joint Venture with De Grey Mining,
- August 4 2008 Listing on ASX, \$4m @20cents
- December 2008 OP&R rail and Oakajee port feasibility advancement,
- February 2009 1st Phase drilling and definition of wide magnetite schist,
- March 2009 McSweeney Partners and ProMet desktop studies,
- April 2009 China trips to locate suitable 'one stop shop" partner philosophy,
- May 2009 Locate important China agent to assess through potential partners,
- May 2009 2<sup>nd</sup> Phase drilling
- June 2009 CMIC negotiations
- July 3 2009 Agreement with CMIC,
- July 3 Share placement for \$2.52m
- July 14 2009 Maiden JORC Resource, 127mt plus 500-600 target
- August 18 2009 Dan Podger (ex Gindalbie) joins,,
- August /September 2009 3<sup>rd</sup> Phase drilling
- September 17 New tenements at Beyondie
- October 6 De Grey agreement purchase 20%,
- October 15 CMIC due diligence and field inspection complete
- October 28 2009 Binding Agreement with CMIC,
- November 19 2009 Exploration Target outside drill area of E52/1806
- November Resource upgrade for E52/1806 imminent

## ❖The Iron Ore Industry

### ❖World annual iron production- one billion tons of ore

❖The primary ore is banded iron formation (BIF)

❖Hematite is the main ore type

❖-Brazil and Pilbara (WA), hematite also known as “DSO -direct shipping”.

Contains magnetite ( $\text{Fe}_3\text{O}_4$ ), hematite ( $\text{Fe}_2\text{O}_3$ ), goethite, limonite or siderite.  
Impurities increase with lowering grade.

❖Magnetite is “exothermic” that is it gives off heat during smelting and does not require coking coal to smelt.

❖Magnetite mines are located in BIF in;

North America; Michigan/Minnesota, Labrador, Ontario iron provinces,

Western Australia; Pilbara, Murchison/Mid-West iron provinces,

Brazil; Quadrilátero Ferrífero iron province.

## Impurities:

- Phosphorus, sulphur silica alumina, sodium, and potassium reduce the value of product shipped to the customer;

- Impurities disrupt production.

- With magnetic separation, magnetite concentrate has lowest level of impurities.

# The Iron Ore Industry

- Main Iron Bearing Minerals:
- 1. Magnetite (Direct Reduction (DR))
  - Very high grade (up to 72.4% Fe, typical grade shipped is +68% Fe)
    - $72.4\% \text{ Fe to } \text{Fe}_2\text{O}_3 \times 1.43 = 100\% \text{ Fe as magnetite.}$
  - Processing magnetite concentrate - grinding and magnetic separation,
  - simple and highly effective method for removal of all unwanted impurities.
  - The fact that magnetite does not require coking coal will mean an increasing proportion of steel will be made by DR due to shortages of coking coal.
- 2. Hematite (Direct shipping ore)
  - lump or fines product 57 to 63% Fe,
  - Hematite (lump and fines) main type exported by Brazil and Australia.
  - Hematite lump and fines simple and cheap as ore excavated only requires crushing and classification by sieving.
  - Hematite lump can be fed into a blast furnace without any further processing at the steel mill. However requires 0.6 tonnes of coking coal for each tonne of steel.
- 3. Limonite
  - Typically found in Channel Iron Deposits
  - grade of limonite pisolite product shipped 55- 59% Fe.

# EMERGENT RESOURCES LIMITED

- *The information in this presentation that relates to Mineral Resources and Exploration Results is based on information compiled by Sharron Sylvester who is a full-time employee of AMC Consultants Pty Ltd and a Member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the JORC Code (2004). Sharron Sylvester consents to the inclusion of this information in the form and context in which it appears.*
- *Other technical information in this Presentation has been prepared under the supervision of Mr Jonathon King, a director of Weston Consultancy Group Pty Ltd, and a member of the Australian Institute of Geoscientists (AIG). Mr King has sufficient experience which is relevant to the style of mineralisation under consideration and to the activity which he 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 JORC Code). Mr King consents to the inclusion in this report of the Information, in the form and context in which it appears.*
- *References to Target Mineralisation is based on geological modelling from drilling completed at the Beyondie Project to date and was determined as part of the Independent Mineral Resource Estimate at Beyondie. The target mineralisation tonnage and grade is conceptual in nature in that there has been insufficient exploration at this stage to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a mineral resource*